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PROBLEMS OF INTEGRATING THE SCIENTIFIC, PEDAGOGICAL AND CREATIVE COMPETENCIES OF FUTURE FINE ARTS TEACHERS

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Abstract:

This article addresses the challenges of balancing scientific research with creative practice within fine arts higher education. Given the shifting demands of the modern labor market, future art educators must develop not only technical artistic proficiency but also analytical thinking and methodological competence. The paper analyzes existing curricula, course structures, and prevailing attitudes toward academic research in higher education institutions. Drawing on local and international studies, it highlights the importance of interdisciplinary integration, mentor-student (ustoz-shogird) traditions, faculty-student research collaborations, and innovative educational models. Ultimately, the study offers practical recommendations for establishing a robust academic environment that effectively bridges theory and practice in fine arts education.

Keywords: fine arts education, research activity, creative activity, integrative education, interdisciplinary integration, mentor-student tradition, methodological competence, educator-researcher, innovative approach, STEAM education.

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Introduction

In today's professional landscape, holding a university degree is no longer a guaranteed passport to employment. To foster healthy competition, educational authorities and industries look for career-ready professionals equipped with analytical minds and innovative approaches.

According to a recent study by Goldman Sachs, the employment rate gap between university graduates and non-degree holders narrowed to a mere 0.9% by 2025. This structural shift serves as a wake-up call for graduates in creative fields. It demands a thorough reassessment of instructional quality in higher education. Modern industrial and service sectors require more than just technical, hands-on craft; they require adaptive thinking and a capacity for structured inquiry. In the context of fine arts, this means producing specialists who can marry technical mastery with empirical, analytical methodology to understand the deeper context of their work.

In practice, however, university curricula and departmental frameworks have lagged behind these fast-evolving market realities. For instance, the current three-year bachelor's degree cycle for fine arts is increasingly viewed as insufficient to cover the complex demands of the field. The limited contact hours allocated to core specialty courses make it difficult for students to gain a deep, comprehensive mastery of their discipline. At the same time, the inclusion of mandatory general education courses inflates student timetables, leaving little room for dedicated creative focus or deep academic exploration. Consequently, students naturally prioritize their studio work, pushing structured research and methodology to the back burner.

Extensive research indicates that achieving meaningful outcomes in arts education requires a deliberate balance between creative expression and scientific inquiry. Researchers Sh.M. Yuan, G. Karabalaeva, and G. Baygajanova emphasize that the teaching profession inherently demands a creative outlook alongside diverse pedagogical methodologies. This dual approach plays a vital

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role in helping students develop and refine new ideas. Their work also notes that cultivating creative skills reinforces critical thinking. This global consensus underscores the need to integrate creative, analytical, and experimental methods during teacher training.

Exploring modern arts education, Chinese researcher Junpeng Zhao notes that breaking down disciplinary silos requires cross-departmental collaboration and an open, transparent learning environment. Similarly, a study by J. Chacón-López and co-authors found that fine arts students who participated in research presentations expanded their understanding of traditional paradigms and improved their communication skills.

Furthermore, studies examining tech-driven classrooms show that multimedia environments stimulate student inquiry, independent creative production, and original ideation. Innovative educational methodologies clearly allow students to develop their creative thinking alongside their research capabilities.

Research tailored to the socio-educational context of Uzbekistan also highlights the value of engaging students in formal research early on. In her monograph, S.N. Allayarova demonstrates that when faculty members actively draw students into research initiatives, student engagement with academic inquiry rises significantly. Allayarova emphasizes that educators who actively conduct their own research are uniquely positioned to inspire and guide students.¹ Conversely, instructors who do not engage in academic research rarely manage to spark an interest in research among their students. This reality highlights the urgent need to prioritize structured mentorship and a vibrant campus research culture.

Our analysis shows that successfully blending research with creative production requires a series of targeted structural interventions.

First, universities must strengthen interdisciplinary links within the curriculum. Integrating fine arts courses with fields like history or psychology broadens a

¹ Allayarova, S. N. (2022). *Scientific Potential in Higher Education: Methods of Attracting Students to Research Projects*. Tashkent: Fan va Texnologiya.

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student's conceptual outlook and inspiration. Using research methodologies to analyze historical masterpieces or contemporary works allows students to merge practical execution with theoretical frameworks.

For instance, Professor Kh.E. Sultanov demonstrates the clear benefits of integrating fine arts and music education.² This approach refines aesthetic taste, enriches expressive tools, and helps students perceive art across different creative modalities. Sultanov's research indicates that blending music and fine arts boosts creative cognition, emotional responsiveness, and overall enthusiasm for creative work.

Classrooms built around the integrated elements of STEAM (Science, Technology, Engineering, Arts, and Mathematics) expand student horizons while driving interest in scientific inquiry. Linking fine arts with scientific disciplines encourages students to approach complex problems with fresh perspectives, innovative thinking, and practical adaptability. Integrative learning serves as the foundation of modern education. It brings faculty and students together in an active, collaborative environment. Rather than treating each discipline as an isolated subject, this approach uses them as connected tools to shape the creative and analytical minds of future art teachers³.

Faculty-Student Collaboration & Research Culture

Second, universities need to boost faculty research output and change how students are guided. Faculty members should be paired with small cohorts of students to collaborate directly on joint research and creative projects. This cooperative approach creates a genuine research culture on campus.

A student's final thesis or capstone project should serve as the natural culmination of this process, blending theoretical knowledge with creative execution.

² Zhao, J. (2023). Interdisciplinary approaches and open learning environments in modern arts education. *Journal of Visual Arts Education*, 14(2), 112–125.

³ Berdiyev, D. A. (2025). Integrative frameworks in contemporary Uzbek art pedagogy. *Uzbekistan Academy of Educational Sciences Review*, 8(4), 89–97.

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Unfortunately, the current domestic shift toward standardized state testing instead of traditional thesis defenses undermines these efforts. This practice often leaves highly talented, creative students academically underprepared as they enter the professional workforce.

Core Principle: A student who creates an original piece of art must also possess the academic skills to defend its theoretical, historical, and methodological foundations.

To achieve this, students must be guided toward structured research from the very start of their studies. A vibrant research culture does not emerge automatically; it requires inspiration, deliberate incentives, a supportive environment, and active faculty mentorship.

Intervention	Operational Mechanism	Intended Student Outcome
Cohort Mentorship	Allocate 10 students per faculty member to share methodological research and composition analysis.	Mastery of both studio techniques and theoretical research frameworks.
Interactive Seminars	Faculty-led workshops focused on identifying research gaps and analyzing art history.	Enhanced ability to define academic problems and structure art critiques.
The Master-Apprentice (Ustoz-Shogird) Model	Step-by-step guidance through writing abstracts, journal articles, and methodological guides.	Development of core academic writing skills ahead of the final capstone defense.

Conclusion and recommendations.

Bridging the gap between theory and practice remains a top priority for fine arts education. To train well-rounded, critical-thinking educators rather than pure studio artists, universities should implement the following targeted measures:

- **Cultivate an academic research environment.** Strengthen interdisciplinary links within higher education. Universities should integrate research topics directly tied to creative execution into core curricula—such as the geometry

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of composition, the psychology of color, and advanced art history. This gives students the opportunity to test and apply theoretical principles in their studio work.

- **Institutionalize the Ustoz-Shogird (Mentor-student) model.** Pair every professor with a small group of 8 to 10 students. Faculty should guide these cohorts through both studio techniques and their own active research projects. This remains the most effective way to involve students in academic initiatives and inspire independent inquiry.
- **Align creative output with academic inquiry.** Establish a clear progression from early term papers to final capstone projects. Students should not be allowed to graduate by simply submitting an artwork; they must comprehensively defend its historical, technical, and methodological value through a written thesis.
- **Integrate modern educational technology.** Incorporate digital tools and computer graphics into the fine arts curriculum. Embracing these resources boosts student independence, drives innovative design, and opens new paths for contemporary digital research.

A robust methodological and academic foundation gives young educators the confidence and professional maturity they need to succeed. By balancing theory and practice throughout the curriculum, universities will graduate professionals who are both skilled studio artists and deeply knowledgeable educator-researchers.

References:

1. Tomljenović, Z. (2015). An interactive approach to learning and teaching in visual arts education. *Croatian Journal of Education*, 17(1), 55–73. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1128840.pdf>
2. Leung, S. K. Y., Lee, A. Y. P., & Lam, B. H. (2024). Early childhood visual arts education: Teachers' content knowledge, pedagogical content knowledge,

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- and challenges. Research in Education.
<https://doi.org/10.1177/00345237241240241>
3. Zhang, Y., Li, J., & Chen, H. (2022). Impact of fine arts education on psychological wellbeing of higher education students. *Frontiers in Psychology*, 13, 9397485.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC9397485>
 4. Kolko, J. (2022). Developing guidelines for the future of visual art education: A multidisciplinary approach. *Frontiers in Education*, 7, 204.
<https://doi.org/10.1002/ffo2.204>
 5. European Journal of Arts. (2024). Current issues of studying the creativity of masters of fine arts. *European Journal of Arts*, 1(24), 72–76.
https://ppublishing.org/media/uploads/journals/article/Arts-1-24_p72-76.pdf
 6. Kim, Y., & Lee, J. (2021). Visual art education and social-emotional learning of students in secondary schools. *Teaching and Teacher Education*, 102, 103345. <https://doi.org/10.1016/j.tate.2021.103345>
 7. Sultanov, X. E., Baynazarova, N. X., & Giyasova, N. B. (2025). Integratsiya asosida tasviriy san'at va musiqa darslarini tashkil etish. *Luchshie intellectual'nye issledovaniya*, 40(2), 25–32.
 8. Sultanov, X. E. (2024). Klaster usuli orqali tasviriy san'at ta'limini integratsiyalash imkoniyatlari. *Zamonaviy ta'lim / Sovremennoe obrazovanie*, 137(4), 31–41.
 9. Berdiyev, D. A. (2023). STEAM ta'limini tatbiq etish orqali tasviriy san'at fanini o'qitish metodikasi mazmunini takomillashtirish usullari. *O'zbekistonda fanlararo innovatsiyalar va ilmiy tadqiqotlar jurnali*, 2(18), 187–193.
 10. Berdiyev, D. A. (2024). The role of integrative education in student activation. *Web of Teachers: Inderscience Research*, 2(11), 151–155.
 11. Abduvoitovich, B. D. (2023). Tasviriy san'atda innovatsion pedagogik texnologiyalardan foydalanishning ahamiyati. *So'ngi ilmiy tadqiqotlar nazariyasi*, 6(4), 54–58.