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LEARNING THROUGH THE ARTS IN UNIVERSITY CLASSROOMS: DIDACTIC PRINCIPLES AND A DESIGN MODEL FOR ARTS-INTEGRATED INTERDISCIPLINARY CLASSES

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Abstract:

Purpose: Arts-based teaching is widely used in professional higher education, yet it often depends on the enthusiasm of individual teachers rather than on deliberate didactic design. This article identifies the didactic foundations of arts-integrated classes in higher education and proposes a model for designing them within ordinary, non-arts disciplines.

Design/methodology/approach: The study is a model-building conceptual article based on an integrative review of 30 purposively selected sources: systematic reviews and meta-analyses of arts-based and drama-based learning, conceptual studies from management, nursing, social work and medical education, curriculum-integration theory, international policy frameworks and Uzbek publications on art pedagogy.

Findings: The review shows that the arts support learning in higher education through four recurrent mechanisms: making the familiar strange, connecting cognitive and affective processing, externalizing tacit understanding in a shared artefact, and creating occasions for reflective dialogue. Six didactic principles are derived: alignment, disciplinary anchoring, aesthetic experience, reflective transformation, graduated integration and authentic assessment. On this basis the Arts-Integrated Didactic Design (AIDD) model is proposed as a six-stage cycle, supplemented by three levels of integration, an illustrative 80-minute class for economics students and an assessment framework with observable indicators.

Originality/value: The model moves arts-based teaching from isolated creative episodes to designed, assessable classes in which the art form serves a disciplinary learning outcome, and it adapts international evidence to the credit-module system of Uzbek universities.

Research limitations: The model has not yet been tested empirically; the review is selective rather than systematic.

Keywords: art pedagogy, arts-based learning, arts integration, interdisciplinary teaching, didactic design, higher education, reflective learning, Uzbekistan

Highlights

- Arts-based teaching in universities is reframed as a question of didactic design rather than teacher enthusiasm.
- Four mechanisms explain how the arts support disciplinary learning in higher education.
- Six didactic principles underpin the Arts-Integrated Didactic Design (AIDD) model.
- The model specifies three levels of integration and observable assessment indicators.

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- An 80-minute class for economics students shows how the model works in a non-arts discipline.

1. Introduction

University teachers increasingly look beyond the lecture for ways to engage students who will work in complex, uncertain and people-centered environments. Among these alternatives, the arts occupy a particular place. A role-play in an economics seminar, a collage built by student nurses, a short theatrical scene in a management course or a piece of music analyzed in a language class all ask students to perceive, feel and interpret, not only to remember. Professional education in medicine, nursing, social work and management has accumulated a rich body of such practices (Haidet et al., 2016; Leonard et al., 2018; Rieger & Chernomas, 2013; Taylor & Ladkin, 2009).

Yet the same literature points to a weakness. Haidet et al. (2016), after reviewing 49 articles on arts-based teaching in professional education, observed that it "tends to be idiosyncratic, depending on the interests and enthusiasm of individual teachers, rather than on strategic design decisions" (p. 320). A creative activity may enliven a class and still leave its link to the course outcomes unclear. When this happens, arts-based teaching is easy to dismiss as entertainment and hard to defend before curriculum committees, quality assurance bodies or skeptical colleagues.

The question of design is also a question of evidence. A meta-analysis of 47 quasi-experimental studies of drama-based pedagogy found a positive and significant effect on achievement, with the strongest effects when the intervention was led by a classroom teacher or researcher rather than a visiting artist, included more than five lessons and was integrated into the curriculum of a specific subject (Lee et al., 2015). An OECD review reached a more cautious conclusion about the transfer of arts learning to non-arts outcomes, arguing that the main justification for arts education lies in the skills it develops in its own right and that claims of broad transfer require careful evidence (Winner et al., 2013). Read together, these findings suggest that the arts do not improve disciplinary learning automatically; they do so when they are planned as part of the disciplinary course, sustained over time and conducted by the teacher responsible for the course.

In Uzbekistan the topic has both a policy and a practical dimension. The Concept for the Development of the Higher Education System until 2030 calls for modern teaching methods and the gradual transition of universities to the credit-module system (Decree No. UP-5847, 2019), in which a substantial share of student workload consists of independent and project-based work. Higher education has expanded rapidly: the number of students reached 1,535 thousand in 2025/26, almost double the 808.4 thousand recorded in 2021/22 (Anhor.uz, 2026). Larger and more diverse cohorts, many of them in economics, engineering and other non-arts programs, increase the demand for teaching methods that sustain attention and engagement. National studies have described art pedagogy as an interdisciplinary field that uses the means of art to educate and develop the person and that is not limited to teaching drawing or singing (Khaidarov, 2025), and have proposed models for developing students' artistic thinking through cultural events (Ergashev, n.d.). What these works do not yet provide is a didactic design model for integrating the arts into ordinary subject classes in non-arts disciplines.

This article addresses that gap. Its research question is: what didactic principles should guide the design of arts-integrated classes in higher education, and how can these principles be organized into a model that a university teacher of a non-arts discipline can apply and evaluate? The objectives are (1) to synthesize the mechanisms through which the arts support learning in higher education; (2) to derive didactic principles from this synthesis; and (3) to propose a design model with levels of integration, an illustrative class scenario and assessment indicators suitable for later empirical testing.

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2. Literature review and theoretical background

2.1. Art pedagogy and arts-based learning

Two traditions meet in the topic of this article. The first, art pedagogy, developed largely in Russian-language and Central Asian scholarship from special education and art therapy, where the arts serve the development, education and correction of personality (Medvedeva et al., 2001; Kopytin, 2002). In this tradition art pedagogy is a synthesis of pedagogy and art, and its means include visual art, music, drama, literature and movement. Uzbek authors extend this view to the education of all learners, not only those with special educational needs (Khaidarov, 2025).

The second tradition, arts-based learning, has grown mainly in English-language professional education. Rieger and Chernomas (2013), in a concept analysis for nursing education, describe arts-based learning as a creative strategy that engages learners, fosters understanding of multiple perspectives and connects the cognitive and affective domains of learning. In management education, Taylor and Ladkin (2009) distinguish four processes through which arts-based methods contribute to development: skills transfer, projective technique, illustration of essence and making. Sutherland (2013) adds that arts-based methods create "aesthetic workspaces" in which participants can reflect on their practice and form memories that continue to influence action after the workshop.

The philosophical roots of both traditions lie in the view that aesthetic experience is a form of knowing. Dewey (1934) treated art as a heightened form of ordinary experience in which perception, emotion and meaning are integrated. Eisner (2002) argued that the arts teach students to attend to relationships, to tolerate ambiguity, to see that problems can have more than one solution and to recognize that form and content cannot be separated. These capacities are not specific to the arts; they are valued in economics, engineering, medicine and law, which is one reason the arts have found a place in professional education.

2.2. Curriculum integration

Integration of the arts into a non-arts course is a special case of curriculum integration. Drake and Burns (2004) distinguish multidisciplinary integration, in which disciplines remain separate but are organized around a common theme; interdisciplinary integration, in which shared concepts and skills cut across disciplines; and transdisciplinary integration, in which the curriculum is organized around real-world problems and student questions rather than disciplines. Fogarty (1991) described ten models of integration, from fragmented to networked, which show that integration is a matter of degree. Beane (1997) emphasized that genuine integration is organized around significant problems and personal and social concerns rather than around subject boundaries.

For arts integration, Marshall (2014) argues that art-based learning across the curriculum works best when the arts are not used merely as illustrations of content but as ways of thinking, through processes such as metaphor, mapping, juxtaposition and reformatting, that produce new understanding of the content itself. This distinction between the arts as decoration and the arts as a mode of inquiry is central to the didactic principles proposed below.

2.3. Learning theory

Three bodies of learning theory explain why aesthetic activity can support disciplinary learning. Experiential learning theory describes learning as a cycle of concrete experience, reflective observation, abstract conceptualization and active experimentation (Kolb, 1984). An arts activity typically supplies the concrete experience; whether learning follows depends on the reflection and conceptualization that the teacher organizes afterwards. Transformative learning theory adds that adult learners change their frames of reference when they critically reflect on assumptions, often prompted

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by a disorienting experience (Mezirow, 1997). A role-play in which a student takes the part of a stakeholder whose interests differ from his or her own can create exactly such an experience. The theory of multiple intelligences (Gardner, 1983), whatever its contested status as a psychological theory, has encouraged teachers to offer more than one route of access to the same content, which is a practical rationale for combining verbal, visual, musical and bodily modes of representation.

Constructive alignment provides the didactic counterweight. Biggs and Tang (2011) argue that teaching and learning activities and assessment tasks should be aligned with the intended learning outcomes, so that students are required to carry out the activities that the outcomes describe. Applied to the arts, alignment means that the art activity must be chosen because it enacts the intended outcome, and that assessment must capture what the activity was meant to develop.

2.4. Evidence from higher and professional education

Systematic reviews in professional education describe consistent benefits and consistent gaps. In medical education, Haidet et al. (2016) identified four themes in the literature: the qualities of the arts that promote learning, the learning processes involved, the outcomes reported and the contextual factors of implementation, and proposed a framework to guide design, evaluation and research. In social work education, Leonard et al. (2018) found three themes: linking micro and macro thinking about practice, cultivating leadership beyond verbal reasoning, and art as pedagogy. In both fields the reviews note that outcomes are often reported through students' perceptions rather than through measures of disciplinary learning.

Evidence from wider educational settings helps to specify the conditions under which effects appear. Lee et al. (2015) found that drama-based pedagogy had a positive and significant impact on achievement and positive effects on psychological and social outcomes, but also that the designs of many studies were weak for causal inference. The conditions associated with stronger effects (teacher-led delivery, more than five lessons, integration into a particular subject) are directly relevant to university teaching. Research on STEAM, the integration of arts with science, technology, engineering and mathematics, shows a similar picture: the term covers a wide range of practices, and integration varies from superficial to deep (Perignat & Katz-Buonincontro, 2019). Henriksen (2014) found that creativity in excellent STEM teaching often draws on cross-disciplinary thinking skills shared with the arts.

2.5. Policy context and research gap

International policy supports a stronger role for the arts in education. The UNESCO Framework for Culture and Arts Education, adopted at the World Conference on Culture and Arts Education in Abu Dhabi in February 2024, calls for culture and the arts to be placed at the heart of education policies, curricula and programs and stresses lifelong learning in culture and the arts across all types of educational settings (UNESCO, 2024). OECD work on creativity and critical thinking has shown how such skills can be made visible and assessable in ordinary subject teaching (Vincent-Lancrin et al., 2019).

Taken together, the literature offers strong arguments for using the arts in higher education, a growing description of practices and processes, and moderate evidence of effects under certain conditions. It offers less guidance on how a teacher of a non-arts discipline should design an arts-integrated class step by step, how deeply the arts should be integrated in a particular course, and how the results should be assessed in a way that satisfies the requirements of a credit-module curriculum. This is the gap the present article addresses.

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3. Materials and methods

3.1. Research design

The study is a conceptual article of the model type (Jaakkola, 2020): it synthesizes existing knowledge into a model that specifies relationships between design elements and can be tested empirically. It is based on an integrative review, a method suited to combining empirical studies, conceptual works and policy documents (Torraco, 2005; Whittemore & Knafl, 2005). It is not a systematic review or meta-analysis and does not claim an exhaustive search, a PRISMA screening procedure or a statistically representative sample of publications.

3.2. Source selection

Sources were selected purposively from Scopus- and Web of Science-indexed journals, ERIC, Google Scholar, the repositories of UNESCO and the OECD, the national legislation database of Uzbekistan and Uzbek scholarly journals. Inclusion criteria were: (a) the source addresses arts-based, arts-integrated or drama-based teaching, art pedagogy or curriculum integration; (b) it offers empirical evidence, a conceptual framework or a policy position relevant to higher or professional education; (c) it is a peer-reviewed publication, a recognized monograph or an official document. Classic works were admitted when they supplied foundational theory. The final corpus comprises 30 sources: 14 peer-reviewed journal articles, including systematic reviews, meta-analyses and methodological papers; 7 monographs and foundational works; 3 international reports and policy documents; 4 Uzbek and Russian-language publications on art pedagogy and art therapy; and 2 national legal and statistical sources.

3.3. Analytical procedure

The analysis had three stages. First, each source was read for the mechanisms through which the arts are claimed or shown to support learning, the conditions of effective use and the outcomes reported. Second, these elements were coded inductively and grouped into mechanisms (Section 4.1). Third, didactic principles were derived from the mechanisms and from curriculum-integration and alignment theory, and the principles were organized into a design model with levels of integration, an illustrative class scenario and assessment indicators. The coding was carried out by a single author and is interpretive, which is acknowledged as a limitation in Section 5.4.

4. Results

4.1. Mechanisms of learning through the arts

The synthesis identified four mechanisms that recur across fields. They are summarized in Table 1 with the sources in which each is most clearly described.

Table 1. Mechanisms through which the arts support learning in higher education

Mechanism	What happens in the class	Didactic value	Key sources
Making the familiar strange	Students meet disciplinary content in an unexpected form (image, scene, sound, metaphor)	Disrupts routine perception; prompts questions and re-examination of assumptions	Eisner (2002); Marshall (2014); Mezirow (1997)
Connecting	The activity engages	Deepens engagement	Rieger and

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Mechanism	What happens in the class	Didactic value	Key sources
cognition and affect	emotion, empathy and bodily experience alongside reasoning	and memory; develops understanding of multiple perspectives	Chernomas (2013); Sutherland (2013); Lee et al. (2015)
Externalizing tacit understanding	Students make an artefact (collage, map, scene, short text) that shows how they understand a concept	Makes thinking visible for discussion and assessment	Taylor and Ladkin (2009); Marshall (2014); Vincent-Lancrin et al. (2019)
Creating occasions for reflective dialogue	The artefact or performance becomes the object of collective interpretation	Turns experience into conceptual learning; supports transfer to practice	Haidet et al. (2016); Leonard et al. (2018); Kolb (1984)

Source: compiled by the author on the basis of the cited works.

The four mechanisms are complementary rather than alternative. The first two explain why an arts activity can capture attention and create a strong experience; the last two explain how that experience becomes learning that can be discussed, assessed and transferred. A class that activates only the first two mechanisms risks remaining an enjoyable episode; a class that moves to the last two turns the episode into disciplinary learning.

4.2. Didactic principles of arts-integrated classes

Six didactic principles follow from the mechanisms and from the theoretical background.

Principle 1: Alignment. The art activity is chosen because it enacts an intended learning outcome of the course, and assessment captures what the activity was meant to develop (Biggs & Tang, 2011). The teacher should be able to complete the sentence "Students do this activity so that they can..." with a disciplinary outcome.

Principle 2: Disciplinary anchoring. The content of the course remains the object of learning. The arts serve as a mode of inquiry into that content, not as decoration or reward (Marshall, 2014). In practice this means that the key concepts of the topic are named before the activity and revisited after it.

Principle 3: Aesthetic experience. Students actively perceive or create an artwork rather than only hear about it (Dewey, 1934; Eisner, 2002). Even a short making task, such as a five-minute tableau or a quick sketch, produces a different kind of engagement from discussing a picture on a slide.

Principle 4: Reflective transformation. Every aesthetic experience is followed by structured reflection that connects it with concepts and with the students' own assumptions (Kolb, 1984; Mezirow, 1997). Reflection is planned in time, guided by questions and recorded.

Principle 5: Graduated integration. The depth of integration is chosen deliberately, from multidisciplinary episodes to transdisciplinary projects, according to the course aims, the students' experience and the teacher's preparation (Drake & Burns, 2004). Integration is also sustained over a series of sessions rather than limited to a single class, in line with the evidence that effects are stronger in interventions of more than five lessons (Lee et al., 2015).

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Principle 6: Authentic assessment. Assessment evaluates disciplinary understanding demonstrated through the artefact and the reflection, not artistic talent (Vincent-Lancrin et al., 2019). Criteria are shared with students in advance, so that students without artistic training are not disadvantaged.

4.3. The Arts-Integrated Didactic Design (AIDD) model

The principles are organized into the Arts-Integrated Didactic Design (AIDD) model, shown in Figure 1. The model describes the design of an arts-integrated class, or a series of classes, as a six-stage cycle.

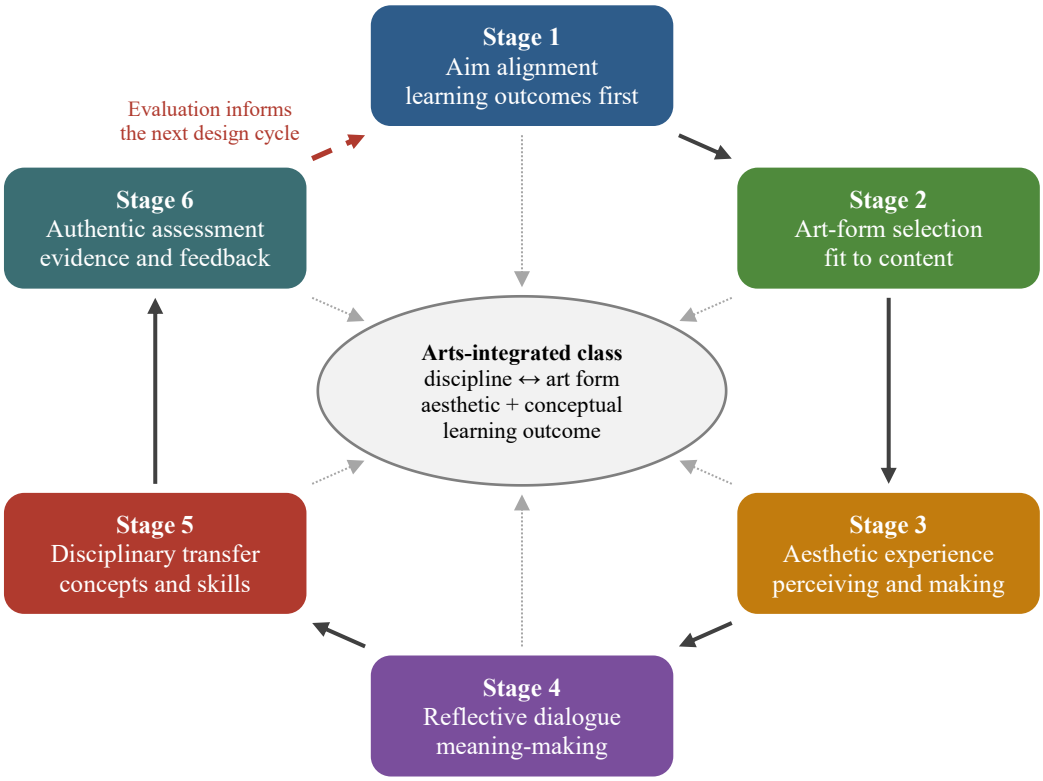


Figure 1. The Arts-Integrated Didactic Design (AIDD) model
Source: developed by the author.

Stage 1: Aim alignment. The teacher formulates the intended learning outcomes of the class in disciplinary terms and decides which of them can be supported by an arts activity. Not every outcome needs the arts; the model asks the teacher to choose those where perception, empathy, multiple perspectives or the visualization of complex relationships matter.

Stage 2: Art-form selection. The teacher chooses an art form that fits the content and the outcome: drama and role-play for conflicting interests and decision-making; visual mapping and collage for complex systems and relationships; narrative and poetry for values and ethical dilemmas; music and rhythm for patterns, cycles and sequences. Practical constraints, such as group size, room and time, are considered at this stage.

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Stage 3: Aesthetic experience. Students perceive or create the artwork. The teacher's role is to set clear boundaries (time, product, roles) and to keep the disciplinary question visible during the activity.

Stage 4: Reflective dialogue. Students interpret their own and other groups' artefacts or performances, guided by questions that move from description ("What did we see or do?") through interpretation ("What does it show about the concept?") to critique ("What does it leave out?").

Stage 5: Disciplinary transfer. The teacher connects the outcomes of reflection with the formal concepts, models and terminology of the discipline and asks students to apply them to a new case or problem.

Stage 6: Authentic assessment. The teacher collects evidence of learning from the artefact, the reflection and the transfer task, gives feedback and uses the results to adjust the next design cycle.

Three propositions follow from the model. ***Proposition 1:*** arts-integrated classes contribute more to disciplinary learning when the art activity is explicitly aligned with an intended learning outcome than when it is used as a general motivational device. ***Proposition 2:*** the contribution of the aesthetic experience to disciplinary learning depends on the presence of structured reflective dialogue and disciplinary transfer. ***Proposition 3:*** the effects of arts integration are stronger when it is sustained over a series of classes conducted by the course teacher than when it is limited to single episodes. These propositions are theoretically grounded hypotheses and require empirical testing.

4.4. Levels of integration

Principle 5 requires the teacher to choose the depth of integration. Table 2 adapts the typology of Drake and Burns (2004) to arts-integrated classes in higher education.

Table 2. Levels of arts integration in university courses

Level	Role of the arts	Typical format	Time and preparation	Example in an economics course
Multidisciplinary	The arts illustrate a theme that the discipline studies; disciplines remain separate	Episode of 15–25 minutes within a class	Low; the course teacher alone	Analysis of a painting or film fragment showing a market or a labor situation
Interdisciplinary	Shared concepts and skills connect the arts and the discipline	Whole class built around an arts activity	Medium; series of classes, prepared materials	Role-play of negotiation between buyers and sellers to explore price formation
Transdisciplinary	A real problem is explored through artistic and disciplinary inquiry together	Project over several weeks, often within independent work	High; may involve a partner (museum, theatre, community)	Student documentary or exhibition on the local bazaar economy

Source: developed by the author on the basis of Drake and Burns (2004) and Fogarty (1991).

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The levels are not a hierarchy of quality. A well-designed multidisciplinary episode can be more effective than a poorly managed transdisciplinary project. For teachers new to the approach, the model recommends starting with multidisciplinary episodes and moving to interdisciplinary classes as experience grows. In the credit-module system, transdisciplinary projects fit naturally into the independent study component of a module.

4.5. Illustrative class scenario

To show how the model works in a non-arts discipline, Table 3 outlines an 80-minute class (one double period in Uzbek universities) on market equilibrium for first-year economics students. The scenario is illustrative and is offered as a template for adaptation, not as a tested intervention.

Table 3. Illustrative 80-minute arts-integrated class on market equilibrium

Stage of the model	Time	Teacher activity	Student activity
1. Aim alignment	Before class	Formulates the outcome: students explain how price adjusts to excess demand and excess supply	–
2. Art-form selection	Before class	Chooses role-play (drama) and a group drawing of the market	–
3. Aesthetic experience	0–30 min	Distributes role cards (buyers with maximum prices, sellers with minimum prices); runs three rounds of trading	Trade in role; record prices of each deal; after each round draw how the "market" looked
4. Reflective dialogue	30–50 min	Asks: "What happened to prices between rounds? Who left without a deal and why?"	Interpret drawings and price records; compare groups
5. Disciplinary transfer	50–70 min	Introduces demand and supply curves; asks students to plot their own data	Plot deals on a graph; identify equilibrium; apply to a new case (a price ceiling)
6. Authentic assessment	70–80 min and after class	Collects graphs and short reflections; gives feedback in the next class	Write a 150-word reflection connecting the experience with the concept

Source: developed by the author.

The scenario shows how the art form serves the disciplinary outcome. The role-play produces data that students later plot, so the concept of equilibrium emerges from their own experience before it is formalized. The drawing externalizes how each group perceived the market, which gives the reflective dialogue a concrete object.

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4.6. Assessment framework

Principle 6 requires criteria that capture disciplinary learning rather than artistic skill. Table 4 proposes an initial framework of criteria and observable indicators.

Table 4. Assessment criteria and indicators for arts-integrated classes

Criterion	Observable indicator	Evidence	Instrument
Conceptual understanding	Student uses disciplinary concepts correctly when interpreting the artefact or performance	Reflection, oral explanation	Analytic rubric (4 levels)
Transfer	Student applies the concept to a new case or problem	Transfer task	Task with criteria
Multiple perspectives	Student describes the situation from at least two stakeholder positions	Reflection, discussion	Rubric; observation sheet
Reflective depth	Student moves from description to interpretation and critique	Written reflection	Reflection rubric (descriptive, interpretive, critical)
Collaboration	Group members contribute to the product and to the discussion	Group product, peer assessment	Peer-assessment form
Engagement	Student participates actively in all stages of the class	Observation	Observation sheet; short student survey

Source: developed by the author.

The first two criteria assess the disciplinary outcome directly and should carry the greatest weight. The others capture the processes through which the arts are expected to contribute and can be used for formative feedback and for evaluating the class design itself.

5. Discussion

5.1. From enthusiasm to design

The main contribution of this article is to shift the discussion of arts-based teaching in higher education from what the arts can do to how a teacher should design for it. The literature reviewed agrees that the arts can engage students, connect thought and feeling, and open new perspectives (Rieger & Chernomas, 2013; Taylor & Ladkin, 2009; Leonard et al., 2018). The AIDD model adds the didactic conditions under which these qualities are likely to become disciplinary learning: alignment with outcomes, anchoring in disciplinary content, structured reflection, explicit transfer and assessment of understanding. In this sense the model responds directly to the observation that arts-based teaching often depends on individual enthusiasm rather than strategic design (Haidet et al., 2016).

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5.2. The question of transfer

The model also takes a position on the contested question of transfer. Winner et al. (2013) warn against assuming that arts activities improve non-arts outcomes in general. The AIDD model does not rely on general transfer. It places the disciplinary content inside the arts activity, so that the activity is a way of studying the content rather than a separate experience whose benefits are expected to spill over. This is consistent with the finding that drama-based interventions integrated into the curriculum of a particular subject had stronger effects (Lee et al., 2015), and with Marshall's (2014) view of the arts as a mode of inquiry rather than an illustration. Whether this design actually produces stronger disciplinary learning than conventional active-learning methods is an empirical question that the model makes testable.

5.3. Implications for Uzbek universities

Several practical implications follow for universities in Uzbekistan. First, the credit-module system, introduced under the 2030 Concept (Decree No. UP-5847, 2019), gives a natural place to transdisciplinary arts projects within independent study, provided that the projects have clear outcomes and assessment criteria. Second, because the evidence favors sustained, teacher-led integration, faculty development programs should prepare the course teachers themselves rather than rely on occasional guest artists. Third, the rich national tradition of applied arts, music and theatre offers culturally familiar material for classes in non-arts disciplines; using it also responds to the UNESCO (2024) call to strengthen links between education and local cultural heritage. Fourth, in large and diverse cohorts, the assessment framework in Table 4 helps to ensure that students without artistic training are judged on their disciplinary understanding rather than their talent. National work on art pedagogy (Khaidarov, 2025; Ergashev, n.d.) provides a conceptual basis; the AIDD model offers a design tool for applying it in ordinary subject teaching.

5.4. Limitations and future research

The study has several limitations. The model is conceptual and has not been tested empirically. The integrative review is selective rather than systematic, and the coding of mechanisms was performed by a single author. The class scenario is illustrative, and the assessment indicators have not been validated. Much of the evidence base comes from professional education in medicine, nursing, social work and management, and from school settings, so its applicability to other university disciplines requires confirmation. Future research should test the model in quasi-experimental designs comparing arts-integrated classes with other active-learning classes in the same course, use validated measures of disciplinary learning alongside measures of engagement and reflection, and examine how the level of integration and the number of sessions affect outcomes. Studies with teachers could also examine which forms of faculty development best prepare non-arts teachers to use the model.

6. Conclusion

This article has examined the didactic foundations of arts-integrated classes in higher education and proposed the Arts-Integrated Didactic Design (AIDD) model for teachers of non-arts disciplines.

Three conclusions follow. First, the arts support learning in higher education through four mechanisms: making the familiar strange, connecting cognition and affect, externalizing tacit understanding and creating occasions for reflective dialogue; the last two are decisive for turning an aesthetic experience into disciplinary learning. Second, six didactic principles (alignment, disciplinary anchoring, aesthetic experience, reflective transformation, graduated integration and authentic assessment) provide a basis for designing such classes deliberately rather than relying on individual

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enthusiasm. Third, the AIDD model organizes these principles into a six-stage design cycle with three levels of integration, an illustrative class scenario and an assessment framework, which makes arts-integrated teaching both plannable and assessable within the credit-module system.

The model's effectiveness has not yet been established empirically. Its value lies in making the design decisions of arts-integrated teaching explicit and testable, so that future studies can establish under which conditions learning through the arts improves disciplinary learning at university.

Declarations

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Conflict of interest: The author declares no conflict of interest.
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