



## THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF INTEGRATIVE TEACHING OF DISCIPLINES IN INCLUSIVE EDUCATION CONDITIONS

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*Scientific supervisor: p.f.d (DSc), professor Qodirova Feruza Usmanovna*  
*Researcher: Master student of CSPU, Kurbanova Nazira Burxonjonovna*

**Abstract:** *This article examines the theoretical and methodological foundations of integrative teaching of disciplines in inclusive education conditions. Two significant trends in contemporary education — the movement toward inclusive education for all learners regardless of ability and the recognition that disciplinary fragmentation limits meaningful learning — have developed largely in parallel, with insufficient attention to their intersection. The study addresses the gap between inclusive pedagogy, which focuses on creating accessible and supportive learning environments for diverse learners, and integrative didactics, which focuses on connecting knowledge across disciplinary boundaries to produce deeper, more transferable understanding. The purpose of the article is to develop a theoretical and methodological framework that unifies these two approaches, demonstrating that integrative teaching is not merely compatible with inclusive education but is in fact a particularly effective pedagogical strategy for diverse classrooms. The research draws on international scholarly literature on inclusive education, universal design for learning, interdisciplinary curriculum, and differentiated instruction, as well as the works of Uzbek scholars who have studied special education, inclusive practice, and innovative pedagogical methods. The article identifies four types of curricular integration — multidisciplinary, interdisciplinary, transdisciplinary, and problem-based — and analyses the specific affordances and challenges of each type in inclusive settings. The main result is a methodological model that connects three dimensions: the type of integration, the principle of universal accessibility, and the mechanism of differentiated support. The model proposes five methodological principles for integrative teaching in inclusive classrooms: thematic coherence, multiple representation, flexible participation, scaffolded complexity, and collaborative construction of knowledge. The study concludes that integrative teaching in inclusive conditions is most effective when it is designed from the outset to accommodate learner diversity, rather than adapted retroactively after the curriculum has been developed for a homogeneous group.*

**Keywords:** *inclusive education, integrative teaching, interdisciplinary learning, universal design for learning, differentiated instruction, special educational needs, curriculum integration, diverse learners, accessibility, pedagogical methodology*



## ТЕОРЕТИКО-МЕТОДИЧЕСКИЕ ОСНОВЫ ИНТЕГРАТИВНОГО ОБУЧЕНИЯ ДИСЦИПЛИНАМ В УСЛОВИЯХ ИНКЛЮЗИВНОГО ОБРАЗОВАНИЯ

**Аннотация:** В статье рассматриваются теоретико-методические основы интегративного обучения дисциплинам в условиях инклюзивного образования. Две значимые тенденции современного образования — движение к инклюзивному образованию для всех учащихся независимо от их возможностей и осознание того, что дисциплинарная фрагментация ограничивает осмысленное обучение — развивались преимущественно параллельно, при недостаточном внимании к их пересечению. Исследование обращается к разрыву между инклюзивной педагогикой, сосредоточенной на создании доступных и поддерживающих образовательных сред для разнообразных учащихся, и интегративной дидактикой, направленной на связывание знаний через дисциплинарные границы для достижения более глубокого и переносимого понимания. Цель статьи — разработать теоретико-методическую рамку, объединяющую оба подхода и показывающую, что интегративное обучение не просто совместимо с инклюзивным образованием, но является особенно эффективной педагогической стратегией для разнородных классов. Исследование опирается на международную научную литературу по инклюзивному образованию, универсальному дизайну обучения, междисциплинарным учебным программам и дифференцированному обучению, а также на труды узбекских учёных в области специальной педагогики, инклюзивной практики и инновационных педагогических методов. Основным результатом является методическая модель, связывающая три измерения: тип интеграции, принцип универсальной доступности и механизм дифференцированной поддержки.

**Ключевые слова:** инклюзивное образование, интегративное обучение, междисциплинарное обучение, универсальный дизайн обучения, дифференцированное обучение, особые образовательные потребности, интеграция учебных программ, разнообразные учащиеся, доступность, педагогическая методика

## INKLYUZIV TA'LIM SHAROITIDA FANLARNI INTEGRATIV O'QITISHNING NAZARIY-METODIK ASOSLARI

**Annotatsiya:** Ushbu maqolada inklyuziv ta'lim sharoitida fanlarni integrativ o'qitishning nazariy-metodik asoslari o'rganiladi. Zamonaviy ta'limdagi ikkita muhim tendentsiya — qobiliyatidan qat'i nazar barcha o'quvchilar uchun inklyuziv ta'lim harakati va fan bo'linishining mazmunli o'rganishni cheklab qo'yishi anglashilishi — asosan parallel ravishda rivojlandi, ularning kesishish nuqtalariga yetarlicha e'tibor berilmadi.



*Tadqiqot turli o'quvchilar uchun qulay va qo'llab-quvvatlovchi o'quv muhitlarini yaratishga qaratilgan inklyuziv pedagogika va chuqurroq, ko'chiriladigan tushunchani shakllantirish uchun bilimlarni fan chegaralari orqali bog'lashga qaratilgan integrativ didaktika o'rtasidagi tafovutga murojaat qiladi. Maqolaning maqsadi ushbu ikki yondashuvni birlashtiruvchi nazariy-metodik ramka ishlab chiqish va integrativ o'qitish inklyuziv ta'lim bilan nafaqat mos kelishini, balki xilma-xil sinflar uchun ayniqsa samarali pedagogik strategiya ekanini ko'rsatishdan iborat. Tadqiqot inklyuziv ta'lim, universal o'quv dizayni, fanlararo o'quv dasturi va tabaqalashtirilgan ta'lim bo'yicha xalqaro ilmiy adabiyotlarga, shuningdek maxsus pedagogika, inklyuziv amaliyot va innovatsion pedagogik metodlarni o'rgangan o'zbek olimlarining asarlariga tayanadi. Asosiy natija uchta o'lchovni bog'laydigan metodik model: integratsiya turi, universal foydalanish imkoniyati tamoyili va tabaqalashtirilgan qo'llab-quvvatlash mexanizmi. Model inklyuziv sinflarda integrativ o'qitish uchun beshta metodik tamoyilni taklif qiladi: tematik uyg'unlik, ko'p qirrali taqdimot, moslashuvchan ishtirok, bosqichma-bosqich murakkablashtirish va bilimni hamkorlikda qurish.*

**Kalit so'zlar:** *inklyuziv ta'lim, integrativ o'qitish, fanlararo o'rganish, universal o'quv dizayni, tabaqalashtirilgan ta'lim, maxsus ta'lim ehtiyojlari, o'quv dasturlarini integratsiya qilish, xilma-xil o'quvchilar, foydalanish imkoniyati, pedagogik metodika*

## INTRODUCTION

Inclusive education and integrative teaching represent two of the most important conceptual developments in contemporary pedagogy, yet they have developed largely as separate fields with distinct literatures, professional communities, and practical traditions. Inclusive education, rooted in the human rights framework articulated in the Salamanca Statement (UNESCO, 1994) and the Convention on the Rights of Persons with Disabilities (United Nations, 2006), insists that all children — regardless of physical, intellectual, sensory, or other differences — have the right to education in regular schools with appropriate support. Integrative teaching, rooted in the recognition that disciplinary fragmentation produces shallow,

disconnected learning, proposes that academic subjects should be taught in ways that reveal their connections, enabling students to construct holistic understanding of complex phenomena.

The intersection of these two movements creates a powerful but underexplored pedagogical space. Inclusive classrooms contain students with widely varying abilities, learning styles, prior knowledge, and support needs. Traditional subject-by-subject teaching, with its uniform pace, standardized content, and single-mode instruction, is particularly poorly suited to such diversity. Integrative teaching, by contrast, naturally offers multiple entry points into a topic, multiple modes of engagement, and multiple ways of demonstrating understanding. A thematic



unit on water, for example, can be approached through science (the water cycle, chemistry of water), geography (rivers, climate), mathematics (measurement, statistics on water use), literature (poetry about rain, narratives about floods), and art (painting water, sculpting with clay). Different students can engage with different disciplinary perspectives at different levels of complexity, using different modes of representation, while all contributing to a shared exploration of the same theme.

In Uzbekistan, both inclusive education and curricular innovation have received significant policy attention in recent years. The Law on Education (2020) established the legal framework for inclusive education, affirming the right of children with special educational needs to education in mainstream schools. Mavalyanova (2017) examined the organizational and pedagogical conditions for implementing inclusive education in Uzbekistan, identifying key barriers including insufficient teacher preparation, limited material resources, and the need for methodological guidance. Djurayev and Turgunov (2006) addressed the development of pedagogical mastery including methods that accommodate diverse learner needs. Ishmuhamedov, Abduqodirov, and Pardayev (2008) developed interactive and innovative pedagogical technologies that, while not specifically designed for inclusive settings, provide methodological tools that can be adapted for diverse classrooms. Shomirzayev

(2020) studied the methodology of organizing integrative lessons in general education schools, demonstrating the effectiveness of cross-disciplinary connections for improving student understanding and motivation.

International research provides robust theoretical foundations for both inclusive education and integrative teaching. Florian and Black-Hawkins (2011) proposed the concept of inclusive pedagogy, arguing that effective teaching for all learners requires an approach that does not differentiate between those who can learn and those who cannot, but instead creates rich learning environments that provide sufficient opportunities for everyone to participate and learn. Tomlinson (2014) developed the framework of differentiated instruction, which proposes that teachers can differentiate content, process, product, and learning environment based on student readiness, interest, and learning profile. Rose and Meyer (2002) introduced Universal Design for Learning (UDL), a framework based on neuroscience research that proposes three principles for accessible curriculum design: providing multiple means of engagement, multiple means of representation, and multiple means of action and expression. Beane (1997) provided a foundational treatment of curriculum integration, arguing that integrated curriculum creates more meaningful learning because it connects academic knowledge to real-world problems and student experience.



Drake and Burns (2004) proposed a classification of curriculum integration into three types: multidisciplinary, where subjects are taught separately but organized around a common theme; interdisciplinary, where skills and concepts from different subjects are combined in a single unit; and transdisciplinary, where the starting point is a real-world problem or question that transcends disciplinary boundaries entirely. This classification, when combined with inclusive pedagogical principles, creates a framework for understanding how different types of integration serve different aspects of learner diversity.

The research problem of this article can be formulated as follows: what are the theoretical and methodological foundations that enable the effective integration of disciplines in inclusive education conditions, and what principles should guide the design of integrative lessons for classrooms that include learners with diverse abilities and needs? The purpose of the study is to develop a methodological framework that connects integrative didactics with inclusive pedagogy, providing principled guidance for teachers who work in diverse classrooms. The object of the study is the process of teaching academic disciplines in inclusive education settings. The subject is the theoretical and methodological foundations of integrative teaching approaches within these settings.

The hypothesis of the article is that integrative teaching becomes a

particularly effective strategy in inclusive classrooms when it is designed according to five methodological principles: thematic coherence that provides a meaningful organizing structure, multiple representation that offers diverse pathways into the content, flexible participation that allows different levels and modes of engagement, scaffolded complexity that supports progression at individual rates, and collaborative construction of knowledge that enables all learners to contribute from their strengths. When these principles are applied systematically, integrative teaching does not merely accommodate diversity but actively benefits from it, transforming learner differences from obstacles into resources for richer collective learning.

## METHODS

The article employs a theoretical and analytical research design. The method includes systematic literature review, comparative analysis of pedagogical frameworks, conceptual synthesis, and methodological model development. The literature base covers four categories of sources: international research on inclusive education and inclusive pedagogy; studies on curriculum integration and interdisciplinary teaching; the Universal Design for Learning framework and differentiated instruction; and Uzbek scholarly works on special education, innovative pedagogy, and integrative teaching methods.



The analytical procedure was organized in four stages. At the first stage, the theoretical foundations of inclusive education and integrative teaching were examined separately, identifying core principles, key frameworks, and major research findings. At the second stage, the intersection of inclusive pedagogy and integrative didactics was analysed, identifying points of convergence and potential tensions. At the third stage, types of curricular integration were classified and evaluated for their suitability in inclusive settings. At the fourth stage, a methodological model was developed that synthesizes inclusive principles with integrative

approaches into a coherent framework for practical application.

The article does not present original experimental data. Its contribution is theoretical and methodological: it provides a structured framework that connects two fields that are rarely examined together and offers principled guidance for curriculum designers, teacher educators, and practitioners. This approach is justified because the existing literature treats inclusive education and integrative teaching as separate topics, and practitioners who wish to combine them lack systematic methodological guidance.

## Results

### 1. Types of curricular integration and their affordances for inclusive settings

The first result is an analysis of four types of curricular integration and their specific affordances and challenges in inclusive education settings.

Type	Structure	Affordances for inclusion	Challenges for inclusion
Multidisciplinary	Subjects taught separately but organized around a shared theme	Maintains familiar subject structure; allows different levels of complexity within each subject; theme provides shared context for all learners	Connections between subjects may remain implicit; requires coordination among multiple teachers; risk of superficial thematic linking
Interdisciplinary	Skills and concepts from multiple subjects combined in unified learning units	Multiple entry points through different disciplines; natural differentiation through varied activities; deeper	Requires teachers with cross-disciplinary knowledge; assessment complexity increases; planning demands are high



Type	Structure	Affordances for inclusion	Challenges for inclusion
		understanding through multiple perspectives	
Transdisciplinary	Learning organized around real-world problems that transcend subject boundaries	Highly authentic and motivating; natural connection to student experience; maximum flexibility for diverse contributions; promotes collaboration	Most demanding for teacher preparation; difficult to ensure systematic coverage of disciplinary content; assessment of individual learning is complex
Problem-based	Learning driven by investigation of complex, open-ended problems requiring multiple disciplines	Develops critical thinking and collaboration; allows students to contribute according to their strengths; creates meaningful contexts for all abilities	Requires high levels of student autonomy; students with significant cognitive difficulties may need extensive scaffolding; time-intensive

The analysis reveals that no single type of integration is universally optimal for inclusive settings. The choice depends on the specific composition of the class, the learning objectives, the available resources, and the teachers' professional preparation. Multidisciplinary integration offers the lowest entry barrier for teachers who are new to integrative methods, while transdisciplinary integration offers the greatest potential for meaningful inclusion but demands the highest level of pedagogical skill. A progressive approach

— beginning with multidisciplinary connections and moving toward more ambitious forms of integration as teachers and students gain experience — is recommended as a practical implementation strategy.

In the Uzbek educational context, Shomirzayev (2020) demonstrated that integrative lessons combining elements of natural sciences and social studies produced higher student engagement and understanding than isolated subject lessons. This finding is consistent with



international research: Beane (1997) argued that curriculum integration creates more meaningful learning because it mirrors the interconnected nature of real-world experience. For inclusive classrooms, the additional benefit is that integrated content provides multiple access points: a student who struggles with mathematical calculations might contribute through artistic expression or verbal narrative when the lesson connects mathematics to art or literature.

## **2. Convergence of inclusive pedagogy and integrative didactics**

The second result is an analysis of the theoretical convergence between inclusive pedagogy and integrative didactics. Five points of convergence were identified.

First, both approaches reject the assumption that all students should learn the same content in the same way at the same time. Inclusive pedagogy rejects this assumption because students have diverse abilities and needs. Integrative didactics rejects it because different disciplinary perspectives offer different types of understanding. Together, they create a strong argument for pedagogical flexibility and multiple pathways to learning.

Second, both approaches emphasize the importance of meaningful context. Inclusive pedagogy argues that learning should be connected to students' real experiences and interests to maintain motivation, especially for students who may have experienced repeated academic failure. Integrative teaching argues that

learning should be connected across subjects and to real-world phenomena to produce deeper understanding. Together, they support a pedagogy grounded in authentic, contextually rich learning situations.

Third, both approaches value collaboration and peer interaction. Inclusive pedagogy recognizes that peer support, cooperative learning, and heterogeneous grouping benefit all learners by creating opportunities for social learning and mutual assistance. Integrative teaching often relies on group projects and collaborative investigation that require students to pool different knowledge and skills. Together, they create learning environments where diversity is a resource rather than an obstacle.

Fourth, both approaches require teachers to move beyond the transmission model of instruction. Inclusive pedagogy requires teachers to design, facilitate, and support rather than simply deliver content. Integrative teaching requires teachers to connect, synthesize, and guide investigation rather than present isolated facts. Together, they demand a sophisticated professional competence that combines pedagogical creativity with deep understanding of both subject content and learner diversity.

Fifth, both approaches share a philosophical commitment to educational equity. Inclusive education is fundamentally about the right of all children to quality education. Integrative teaching, when designed with attention to



accessibility, can reduce barriers to learning by offering multiple representations, multiple modes of engagement, and multiple ways of demonstrating understanding. Florian and Black-Hawkins (2011) argued that truly inclusive pedagogy is not about doing something different for some learners but about creating sufficiently rich learning environments that work for everyone. Integrative teaching provides a

methodological means of creating such environments.

### 3. Five methodological principles for integrative teaching in inclusive classrooms

The third result is the formulation of five methodological principles that guide the design and implementation of integrative teaching in inclusive education conditions.

No.	Principle	Description	Practical application
1	Thematic coherence	All learning activities are connected through a meaningful, accessible theme that provides structure and purpose	Select themes from students' real experience (home, nature, community); use the theme as an organizing frame for connecting subjects
2	Multiple representation	Content is presented through diverse modalities: visual, auditory, kinesthetic, verbal, symbolic, and experiential	Use images, audio, physical objects, movement activities, text, and hands-on experiments for the same concept across subjects
3	Flexible participation	Learning activities allow different levels and modes of participation so all students can contribute meaningfully	Design tasks with open-ended components; provide role options in group work; accept different forms of output
4	Scaffolded complexity	Content difficulty is graduated and supported through structured guidance that can be adjusted for individual needs	Provide simplified and enriched versions of the same activity; use peer tutoring; offer graduated task sequences
5	Collaborative construction	Knowledge is built through cooperative activity where diverse contributions create a richer collective understanding	Use heterogeneous groups with defined roles; design projects requiring different skills; celebrate diverse contributions

The first principle, thematic coherence, provides the structural foundation for integrative teaching in inclusive classrooms. A well-chosen theme gives all students, regardless of ability, a shared context for learning. The theme should be broad enough to connect

multiple disciplines yet concrete enough to be accessible to all learners. For example, the theme of Our Neighbourhood can connect geography (mapping the neighbourhood), mathematics (distances, counting buildings), natural science (plants and



animals in the neighbourhood), language arts (writing about the neighbourhood, interviewing residents), and art (drawing or photographing neighbourhood scenes). A student with an intellectual disability can participate in the counting and drawing activities, while a student with advanced abilities can conduct interviews and write analytical reports. The theme provides unity; the activities provide differentiation.

The second principle, multiple representation, is directly aligned with the UDL framework of Rose and Meyer (2002), which proposes multiple means of representation as one of three fundamental principles for accessible curriculum design. In an integrative lesson on the water cycle, the concept can be presented through a scientific diagram, a video animation, a physical demonstration with boiling water and condensation, a verbal story about a raindrop's journey, a mathematical graph of rainfall data, and a musical composition that represents different states of water. Each representation makes the concept accessible to students with different learning profiles. A student with a hearing impairment benefits from visual representations. A student with a visual impairment benefits from the physical demonstration and verbal narration. A student with an attention deficit benefits from the kinesthetic activity. Multiple representation is not redundancy — each mode reveals a different aspect of the concept.

The third principle, flexible participation, addresses the fact that inclusive classrooms contain students who can participate at very different levels of complexity and in very different modes. Tomlinson's (2014) differentiation framework provides the theoretical basis: teachers can differentiate what students learn (content), how they learn it (process), and how they demonstrate their learning (product). In an integrative project on nutrition, one student might create a poster showing healthy food groups, another might calculate the calorie content of meals, a third might write a persuasive essay on school nutrition policy, and a fourth might plant herbs in a school garden. All contribute to the shared theme, but each participates in a way that matches his or her abilities and interests.

The fourth principle, scaffolded complexity, recognizes that inclusive classrooms require systematic support structures that enable all students to progress. Vygotsky's concept of the zone of proximal development is the theoretical foundation: learning occurs most effectively when tasks are slightly beyond the student's current independent capacity but achievable with appropriate support. In an integrative lesson, scaffolding can take many forms: simplified instructions for some students, visual aids and graphic organizers, step-by-step task guides, peer tutoring arrangements, and teacher-led small group support. Mavalyanova (2017) emphasized that the organizational



conditions for inclusive education in Uzbekistan must include systematic support mechanisms that enable all students to participate in the learning process, and scaffolded complexity is one of the most important of these mechanisms.

The fifth principle, collaborative construction of knowledge, transforms learner diversity from a challenge into a pedagogical resource. When students with different abilities, perspectives, and skills work together on an integrative project, the result can be richer than what any individual student could produce alone. A student with strong artistic abilities contributes visual elements. A student with strong verbal abilities contributes written analysis. A student with strong social skills facilitates group interaction. A student with special educational needs contributes practical knowledge from personal experience. Ishmuhamedov, Abduqodirov, and Pardayev (2008) emphasized that interactive and collaborative methods activate students' cognitive and social resources in ways that individual work cannot achieve. In inclusive settings, this activation is particularly valuable because it creates legitimate roles for all participants.

#### **4. Methodological model for integrative teaching in inclusive conditions**

The fourth result is a methodological model that connects the type of integration, the principle of universal accessibility, and the

mechanism of differentiated support into a coherent planning framework.

The model proposes that the design of an integrative lesson or unit in inclusive conditions should proceed through five planning stages. At the first stage, the teacher selects a theme and determines which disciplines will be connected. The theme should be assessed for its accessibility to all learners in the class, its potential for multi-level engagement, and its relevance to students' experience. At the second stage, the teacher defines learning objectives at multiple levels of complexity: foundational objectives that all students should achieve, standard objectives that most students should achieve, and extended objectives that some students may achieve. This multi-level objective structure ensures that every student has achievable goals while maintaining high expectations for those who can reach them.

At the third stage, the teacher designs learning activities that incorporate multiple representations and flexible participation structures. Each activity should be analysable through the question: How can every student in this classroom participate in this activity in a meaningful way? If the answer is that some students cannot participate, the activity needs to be redesigned or supplemented with alternative pathways. At the fourth stage, the teacher plans scaffolding and support mechanisms for students who need them, including simplified materials, visual supports, peer



partnerships, and adult assistance. At the fifth stage, the teacher designs assessment activities that allow students to demonstrate learning through different modes: verbal, written, visual, kinesthetic, or collaborative products.

The model also specifies the role of the support team. In inclusive education, the classroom teacher does not work alone. Special education teachers, teaching assistants, school psychologists, and therapists all contribute to creating conditions for effective learning. In integrative lessons, these professionals can play specific roles: the special education teacher might prepare adapted materials and provide individual support during activities; the teaching assistant might work with a small group of students who need additional scaffolding; the school psychologist might advise on the emotional and social aspects of group work. Djurayev and Turgunov (2006) noted that pedagogical mastery in modern education includes the ability to coordinate with other professionals to achieve shared educational goals.

## Discussion

The results of the theoretical analysis demonstrate that inclusive pedagogy and integrative didactics share fundamental principles and can be combined into a unified methodological framework. The five points of convergence identified in this article — rejection of uniformity, emphasis on meaningful context, valuing collaboration, moving beyond transmission teaching, and commitment

to educational equity — provide a strong theoretical basis for claiming that integrative teaching is not merely compatible with inclusive education but is in fact a natural pedagogical partner for it.

The five methodological principles proposed in this article — thematic coherence, multiple representation, flexible participation, scaffolded complexity, and collaborative construction — are consistent with major international frameworks. The principle of multiple representation aligns directly with the UDL framework (Rose and Meyer, 2002). The principle of flexible participation corresponds to Tomlinson's (2014) differentiation of content, process, and product. The principle of collaborative construction reflects Florian and Black-Hawkins' (2011) vision of inclusive pedagogy as the creation of learning environments rich enough for all learners.

The Uzbek scholarly context provides both opportunities and challenges for the implementation of this framework. Shomirzayev (2020) has already demonstrated the effectiveness of integrative lessons in Uzbek schools, providing a practical foundation on which inclusive integration can be built. Mavalyanova (2017) has identified the key barriers to inclusive education in Uzbekistan — teacher preparation, resources, and methodological guidance — that the framework must address. Ishmuhamedov, Abduqodirov, and Pardayev (2008) have developed



interactive pedagogical technologies that can serve as methodological tools within the proposed framework. The challenge is to bring these separate contributions together into a coherent practice.

Several risks should be acknowledged. The first risk is superficial integration. Teachers may connect subjects thematically at the surface level without achieving genuine conceptual integration. A lesson that mentions water in both science and art classes but does not explore the deeper connections between scientific and artistic understanding of water does not achieve meaningful integration. The second risk is token inclusion. Students with special educational needs may be physically present in the integrative lesson but not genuinely participating in the learning process. Flexible participation and scaffolded complexity are designed to prevent this risk, but they require careful planning and ongoing monitoring. The third risk is teacher overload. Designing integrative lessons for inclusive classrooms is significantly more demanding than designing traditional single-subject lessons for homogeneous groups. Without adequate planning time, collaborative support, and professional development, teachers may experience burnout.

For teacher education, the discussion has clear implications. Pre-service programmes should include coursework on both inclusive pedagogy and integrative didactics, with specific attention to their intersection. Student

teachers should have practicum experiences in inclusive settings where they can observe and practise integrative teaching methods under supervision. In-service training should provide teachers with practical tools for designing multi-level, multi-modal integrative lessons and with opportunities to collaborate with colleagues across subject areas. The five methodological principles proposed in this article can serve as a planning framework for both initial teacher education and continuing professional development.

The proposed framework can be adapted across different educational levels. In primary education, where class teachers typically teach multiple subjects, integrative teaching is a natural approach that can be enriched with inclusive principles. In secondary education, where subject specialization creates organizational barriers to integration, interdisciplinary projects and thematic weeks can provide structured opportunities for integrative learning. In both contexts, the five principles remain applicable, though their specific implementation varies according to student age, curriculum structure, and institutional conditions.

## Conclusion

The theoretical and methodological foundations of integrative teaching in inclusive education conditions can be defined as a system of principles and approaches that connect the goals of accessible, equitable education with the methods of cross-disciplinary learning.



This article has identified five methodological principles — thematic coherence, multiple representation, flexible participation, scaffolded complexity, and collaborative construction of knowledge — that together form a coherent framework for designing integrative lessons and units in classrooms that include learners with diverse abilities and needs.

The main conclusion of the study is that integrative teaching is not merely compatible with inclusive education but is a particularly effective pedagogical strategy for diverse classrooms. When disciplines are connected through meaningful themes, when content is presented through multiple modalities, when participation structures are flexible, when complexity is scaffolded according to individual needs, and when knowledge is constructed collaboratively, the result is a learning environment that naturally accommodates diversity while producing deeper, more transferable understanding

for all students. Inclusive education and integrative teaching are strongest when they work together, because each addresses limitations of the other: inclusion provides the ethical and organizational framework, while integration provides the didactic methodology.

Further research should focus on empirical testing of the proposed framework in Uzbek schools with diverse student populations, development of practical planning tools and templates for teachers designing integrative lessons in inclusive settings, longitudinal studies tracking the academic and social outcomes of students in integrated-inclusive classrooms, comparative analysis of different types of curricular integration in inclusive settings, and teacher preparation programmes that systematically develop competence at the intersection of inclusive pedagogy and integrative didactics.

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