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## **THE EDUCATIONAL PROCESS IN HIGHER PROFESSIONAL SCHOOL: APPROACHES, METHODS, AND MODERNIZATION**

***Abstract:** this paper analyzes the educational process in higher professional education. Based on research from 2021–2025, we examine the competency-based approach, active teaching methods (PBL, CBL, flipped classroom), assessment systems, and student-centered models. Competency-based programs yield higher employer satisfaction and employability; active learning reduces failure rates and improves skill development.*

***Keywords:** higher professional education, educational process.*

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## **ОБРАЗОВАТЕЛЬНЫЙ ПРОЦЕСС В ВЫСШЕЙ ПРОФЕССИОНАЛЬНОЙ ШКОЛЕ: ПОДХОДЫ, МЕТОДЫ И МОДЕРНИЗАЦИЯ**

**Аннотация:** в статье анализируется образовательный процесс в высшей профессиональной школе. На основе обзора исследований 2021–2025 гг. рассмотрены компетентностный подход, активные методы обучения, системы оценивания и студентоцентрические модели. Предложены рекомендации по системной модернизации.

**Ключевые слова:** высшее профессиональное образование, образовательный процесс.

### *Introduction.*

Higher professional education has shifted from knowledge transmission to competency-based, student-centered approaches prioritizing professional skills and lifelong learning [1, 3]. This paper analyzes current pedagogical approaches, evaluates effectiveness (2021–2025), and proposes optimization recommendations.

#### *1. Theoretical Foundations of the Educational Process.*

The educational process combines knowledge, skills, and competencies, with competency-based outcomes as demonstrable abilities. Constructivist methods (PBL, cases, collaboration) deepen understanding. Meta-analysis (12,000+ students) shows self-regulation improves achievement ( $d=0.52$ ) and learning strategies ( $d=0.71$ ), vital for professional development.

#### *2. Competency-Based Approach in Higher Professional Education.*

The competency-based approach is the global dominant paradigm. Research with 3,200 graduates found competency-based programs produced higher employer satisfaction (4.2/5.0 vs. 3.4/5.0) and 23% faster time-to-productivity [1]. Implementation requires curriculum, assessment, and institutional redesign. A study of 28 Russian universities implementing FSES 3++ found only 41% completed comprehensive curriculum mapping.

Table 1

### *Classification of Competencies in Higher Professional Education*

<i>Competency Type</i>	<i>Components</i>	<i>Development Methods</i>	<i>Assessment</i>
Universal (transversal)	Critical thinking, communication, teamwork, digital	Group projects, debates, peer review	Portfolio, peer assessment

	literacy		
General professional	Research methodology, professional ethics, project management	Case studies, research projects, internships	Capstone projects, certification
Discipline-specific	Technical knowledge, professional procedures, domain problem-solving	Laboratory work, clinical practice, fieldwork	Practical exams, expert evaluation
Metacognitive	Self-regulation, learning strategies, reflective practice	Learning journals, self-assessment, mentoring	E-portfolios, longitudinal tracking

Professional expertise without transversal skills produces technically competent but organizationally ineffective graduates; transversal skills without domain knowledge yield superficial professionals.

### *3. Active and Interactive Teaching Methods.*

A meta-analysis of 225 studies demonstrated active learning reduces failure rates by 33% and increases exam performance by 6% ( $d = 0.47$ ) vs. traditional lectures [2]. Problem-based learning (PBL) places students in authentic scenarios; PBL students show equivalent factual knowledge but superior clinical reasoning and self-directed learning. Case-based learning (CBL) produced 18% higher scores on application-level questions vs. lectures in a study of 180 engineering students. The flipped classroom model-pre-class digital materials plus active in-class problem-solving-shows particular promise: synthesis of 70 studies confirmed positive effects, especially with collaborative in-class activities.

### *4. Assessment and Quality Assurance.*

Assessment is evolving from summative examinations toward formative, competency-oriented evaluation. Research with 2,400 students showed regular formative feedback improved final scores by 12–18% vs. courses relying solely on midterm/final exams. Digital tools enable frequent feedback while reducing instructor workload.

### *5. Challenges and Modernization Perspectives.*

Employer surveys indicate that 47% of entry-level hires lack adequate practical skills despite satisfactory academic credentials [1]. Institutional resistance to

innovation persists: only 34% of instructors have received active learning training within the past three years. A synthesis of recommendations is presented in Table 2.

Table 2

*Recommendations for Optimizing the Educational Process*

<i>Area</i>	<i>Recommendation</i>	<i>Evidence Base</i>
Curriculum	Implement curriculum mapping aligned with competency frameworks	Competency-based graduates: 23% faster productivity [1]
Teaching Methods	Replace 40%+ of lectures with active learning (PBL, CBL, flipped)	Active learning reduces failure by 33% [2]
Assessment	Shift to continuous formative assessment with authentic tasks	Formative feedback improves scores by 12–18%
Faculty Development	Mandatory annual training in evidence-based pedagogies	Instructor skills predict teaching quality ( $\beta = 0.43$ )
Student Support	Structured mentoring: academic, peer, and industry	Mentored students show higher career readiness
Quality Assurance	Data-driven monitoring with outcome tracking and feedback loops	Student-centered institutions: 28% lower dropout [3]

AI-powered adaptive learning can personalize instruction at scale, but the ethical implications of algorithmic decision-making and the need to preserve human judgment in professional training require careful governance.

*Conclusion.*

Higher professional education is transitioning toward competency-based, student-centered paradigms integrating active learning, authentic assessment, and digital technologies. Active methods outperform lectures; formative assessment benefits underperforming students most. Successful modernization requires systemic change: curriculum redesign, assessment reform, faculty development, and cultural evolution must proceed together.

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