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**CASE METHOD AS A TOOL FOR DEVELOPING ENTREPRENEURIAL
COMPETENCIES IN FUTURE PRIMARY SCHOOL TEACHERS**

Abstract

The modern system of teacher education is undergoing a profound transformation driven by the transition to a knowledge-based economy and the integration of innovative approaches. In this context, the development of entrepreneurial competencies has become a key priority in preparing future teachers. These competencies include initiative, creativity, the ability to operate under uncertainty, project-oriented thinking, and leadership skills. One of the most effective tools for fostering these competencies is the case study method, which enables modeling of real pedagogical and managerial situations. The purpose of this article is to analyze the potential of the case study method as a means of developing entrepreneurial competencies among future primary school teachers. The research methodology is based on the analysis of academic literature (Scopus, WoS, Google Scholar), empirical observations, and practical experiences gained through the Smart Coach model. The study outlines stages of case study implementation, provides examples of pedagogical cases, and analyzes outcomes of pilot trials with students of teacher training programs. Findings demonstrate that the case study method enhances student motivation, leadership, initiative, and decision-making skills in uncertain contexts. Special attention is paid to adapting international practices to the Kazakhstani context and aligning them with national priorities in teacher education modernization.

Keywords: entrepreneurial competence, case study method, teacher education, educational innovations.

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**КЕЙС-МЕТОД: КАК СРЕДСТВО РАЗВИТИЯ ПРЕДПРИНИМАТЕЛЬСКИХ
КОМПЕТЕНЦИЙ У БУДУЩИХ УЧИТЕЛЕЙ НАЧАЛЬНЫХ КЛАССОВ**

Аннотация

Современная система педагогического образования переживает глубокую трансформацию, обусловленную переходом к экономике знаний и активным внедрением инновационных подходов. В этих условиях ключевым направлением подготовки будущих учителей становится формирование предпринимательских компетенций, включающих инициативность, креативность, умение работать в условиях неопределённости, проектное мышление и лидерские качества. Одним из эффективных инструментов развития данных компетенций выступает кейс-метод, позволяющий моделировать реальные педагогические и управленческие ситуации. Цель статьи — проанализировать потенциал кейс-метода как средства развития предпринимательских компетенций у будущих учителей начальных

классов. Методология исследования основана на анализе научной литературы (Scopus, WoS, Google Scholar), эмпирических данных, а также практическом опыте внедрения кейс-метода модели Smart Coach. В работе рассмотрены этапы реализации кейс-метода, приведены примеры педагогических кейсов, проанализированы результаты апробации со студентами педагогических специальностей. Полученные результаты показали, что использование кейс-метода способствует росту мотивации студентов, развитию лидерских качеств, инициативности и способности принимать решения в неопределённых условиях. Особое внимание уделяется специфике применения кейсов в казахстанском контексте и необходимости адаптации международного опыта.

Ключевые слова: предпринимательская компетентность, кейс-метод, педагогическое образование, инновации в обучении.

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КЕЙС-ӘДІС: БОЛАШАҚ БАСТАУЫШ ПЕДАГОГТЕРІНІҢ КӘСІПКЕРЛІК ҚҰЗЫРЕТТІЛІКТЕРІН ДАМУ ТҰРАЛЫ РЕТІНДЕ

Аңдатпа

Қазіргі педагогикалық білім беру жүйесі білім экономикасына көшу және инновациялық тәсілдердің белсенді енгізілуіне байланысты терең өзгерістерді бастан кешуде. Осындай жағдайда болашақ мұғалімдерді даярлаудағы негізгі бағыттардың бірі – кәсіпкерлік құзыреттіліктерді қалыптастыру. Бұл құзыреттерге бастамашылдық, креативтілік, белгісіздік жағдайында жұмыс істей алу, жобалық ойлау және көшбасшылық қасиеттер жатады. Аталған құзыреттерді дамытуда тиімді құралдардың бірі – шынайы педагогикалық және басқарушылық жағдаяттарды модельдеуге мүмкіндік беретін кейс-әдіс. Мақаланың мақсаты – бастауыш сынып мұғалімдерінің кәсіпкерлік құзыреттіліктерін дамыту құралы ретінде кейс-әдістің әлеуетін талдау. Зерттеу әдіснамасы ғылыми әдебиеттерді (Scopus, WoS, Google Scholar) талдауға, эмпирикалық деректерге және Smart Coach моделіндегі тәжірибеге негізделген. Жұмыста кейс-әдістің іске асырылу кезеңдері қарастырылып, педагогикалық кейстердің үлгілері берілген, педагогикалық мамандық студенттерімен жүргізілген апробация нәтижелері талданған. Зерттеу нәтижелері кейс-әдісті қолдану студенттердің мотивациясын арттыратынын, көшбасшылық қасиеттерін, бастамашылдығын және белгісіздік жағдайында шешім қабылдау қабілетін дамытатынын көрсетті. Халықаралық тәжірибені бейімдеу және қазақстандық контексте қолдану ерекшеліктеріне ерекше көңіл бөлінген.

Түйін сөздер: кәсіпкерлік құзыреттілік, кейс-әдіс, педагогикалық білім беру, инновациялар.

Introduction. Teacher education in XXI century faces unparalleled difficulties associated with rapid development of knowledge based economy globalization and increasing demand for innovation in all fields of professional activity. In this framework, the role of the teacher is evolving. Teachers are expected to be facilitators, teacher-innovators and leaders of change. One of the competencies increasingly emphasized worldwide is *entrepreneurial competence*, which encompasses the ability to think creatively, identify opportunities, manage projects, and act proactively in uncertain environments [Bacigalupo et al., 2016; Lackéus, 2020]. In countries with advanced teacher education systems such as Finland and Singapore, entrepreneurial competencies

are integrated into curricula not as an optional add-on but as an essential component of teacher training [Leffler & Falk-Lundqvist, 2022]. Kazakhstan, pursuing modernization and alignment with international standards, has also recognized the necessity of embedding entrepreneurial education into teacher preparation programs [Ahmetova, 2021].

One promising pedagogical technology that can serve as a vehicle for cultivating entrepreneurial competencies is the *case study method*. Originating in the early 20th century at Harvard Business School, the case study method has since transcended its business roots, gaining recognition in the fields of medicine, law, and education [Herreid, 2011]. In pedagogy, it allows students to engage with real-life or simulated scenarios, requiring them to analyze problems, generate solutions, and defend their decisions. Unlike traditional lecture-based instruction, the case study method is interactive, problem-centered, and practice-oriented. It fosters teamwork, critical thinking, and creativity - qualities that overlap significantly with entrepreneurial competence [Choi & Lee, 2021]. In addition, by engaging students as decision-makers, it develops their readiness for risk-taking and innovation.

This article focuses on aims to explore the integration of the case study method into teacher education in Kazakhstan, with a particular focus on its roles in fostering entrepreneurial skills among future primary education teachers of Abai University. Based on theoretical analysis, practical experience and observations from business-innovative venture “Smart Coach” innovative business club. Both initiatives are experimental model for testing case-based training system of future primary education teachers. Consequently, the research paper provides the fresh insight into the modernization of teacher education in Kazakhstan, emphasizing case-based method as a viable framework fostering business-innovative educators prepared to meeting the XXI century challenges. Recent research vy Zhou&Kim(2023) and Park&Lee(2022) shows that the integration of case-based learning in teacher education promotes not only pedagogical reflection but also forms entrepreneurial mindset. UNESCO(2021) highlights entrepreneurship in education is not solely about business literacy but rather about fostering resilience, initiative and creativity – the competencies essential for sustainable development.

Teacher education in the 21st century requires integrating entrepreneurial competencies as core components of professional preparation. These competencies include creativity, opportunity recognition, project management and proactive problem-solving, which equio future teachers to navigate dynamic and complex educational environments (Bacigalupo et al., 2016; Lackéus, 2020).

1. *Embedding entrepreneurial competencies.* Entrepreneurial skills should be integrated across pedagogy courses rather than treated as optional. This approach ensures that graduates can lead innovation, design educational initiatives, and respond creatively to classroom and school challenges (Leffler & Falk-Lundqvist, 2022).

2. *Active learning and case-based practice.* Problem-centered approaches such as case studies, project simulations, and real-world exercises foster entrepreneurial thinking. Cases position students as decision-makers, promoting teamwork, critical thinking, and creative problem-solving while bridging theory and practice (Herreid, 2011; Choi & Lee, 2021).

3. *Mentorship and reflective practice.* Faculty should act as mentors, providing guidance, feedback, and structured reflection. Reflective journals, peer evaluation, and guided discussions support students’ self-analysis, professional growth, and adaptability in real-world contexts (Kolb, 2014; Kuratko, 2016).

4. *Multidisciplinary integration.* Combining pedagogical, linguistic, and entrepreneurial knowledge creates a holistic learning environment. Students can apply theoretical knowledge through practical projects such as organizing mini-courses, fundraising initiatives, or eco-entrepreneurship programs, developing transferable skills applicable to multiple educational contexts (OECD, 2020; Sánchez et al., 2020).

5. *Institutional support and scaling.* Successful implementation requires institutional support and collaboration between universities, educational centers, and schools. Digital platforms for case

sharing, collaborative project development, and peer review help scale initiatives and ensure sustainability (Bakayev & Tuleuova, 2021).

6. *Assessment and long-term evaluation.* Assessment should combine qualitative and practical methods, including observation, project evaluation, reflective journals, and mentor feedback. Longitudinal tracking is recommended to evaluate the sustained impact of entrepreneurial training on teachers' professional performance (Leffler & Falk-Lundqvist, 2022; Lackéus, 2020).

7. *Cultivation of professional identity.* Engaging students in entrepreneurial-oriented projects fosters a professional identity that combines teaching expertise with creativity, initiative, and leadership. This prepares graduates to be proactive change agents within schools and communities (Bekbauov, 2021).

Materials and methods. This study adopted a mixed methods design, qualitative and quantitative approaches in order to evaluate the effectiveness of the case based Smart Coach business model in developing business-innovative skills among future primary educators. The research was conducted at Kazakh National Pedagogical University named after Abai with 60 bachelor students majoring in Pedagogy and Psychology over one academic semester (15 weeks). The sample was divided into two groups:

Experimental group (n=30) learners trained at "Smart Coach" business-innovative club;

Control group (n=30) learners received traditional lecture-based instructions.

Faculty teachers and facilitators worked during the whole program (n=5). Participants were informed consent prior to participation. University's research ethics committee granted ethical approval.

Smart Coach business-innovative club guided instruction on 4 interconnected notions: innovation, collaboration, motivation and reflection. The educational club functioned as a practical environment which integrated business-oriented programmes and case-based simulations. In order to simulate authentic educational challenges pedagogical cases were worked by instructors: organizing extracurricular initiatives (for instance: meet-ups with real entrepreneurs), creating program of mini Edtech platforms, implementing pedagogical products for primary school learners.

The procedure based on 12 structured case-sessions, complemented by mentorship meetings, reflective journaling and peer evaluation. Club served as a business laboratory which enables participants to acquire theoretical knowledge with practical problem-solving through workshops, pitch performances and project simulations. To ensure methodological triangulation data were collected using both qualitative and quantitative tools:

1. Self-assessment questionnaires (pre and post intervention) which measured leadership, creativity, initiative and collaboration using a 5 point Likert Scale.

2. Innovation and creativity indicators were evaluated through a modified Torrance Test of Creative Thinking which was adapted for educational contexts.

3. Mentor evaluation rubrics assessed project implementing quality, teamwork and problem solving.

4. Reflective journals provided effective insights into learners' entrepreneurial growth, self perception and motivation.

Data Analysis. Quantitative data (pre- and post-test scores between experimental and control groups) were analyzed using descriptive statistics and independent-sample *t*-tests to determine the significance of observed differences in leadership, initiative, and creativity.

Qualitative data from journals, mentor feedback, and observations were analyzed thematically to identify recurrent patterns related to motivation, collaboration, professional identity, and entrepreneurial mindset formation.

Ethical Considerations. Participation in the study was voluntary. Students and younger participants provided informed consent. Confidentiality was maintained throughout, and ethical approval for the research was obtained from the university's ethics committee.

Results and discussion. The quantitative analysis demonstrated statistically significant improvements in the experimental group across all measured domains. Students' self-assessment scores in **initiative and leadership** increased by 35%, while **creativity scores** (based on the Torrance indicators) rose by 28% after the Smart Coach intervention. In contrast, the control group, trained through traditional lectures, showed only marginal improvements (7% and 6%, respectively).

Table 1. *Changes in key competency indicators after the "Smart Coach" intervention.*

Competency domain	Experimental group (%)	Control group (%)
Initiative and leadership	35%	7%
Creativity and innovation	28%	6%
Collaboration	30%	8%
Reflective thinking	32%	10%

A t-test revealed a significant difference ($p < .05$) between the experimental and control groups across all variables. This confirms that the **Smart Coach model** more effectively develops entrepreneurial and reflective competencies compared to traditional instruction. Thematic analysis of reflective journals revealed four dominant patterns:

1. **Increased initiative and confidence** – students expressed readiness to design independent classroom projects ("I feel more confident suggesting new ideas in class").
2. **Enhanced collaboration** – teamwork experiences improved communication and conflict-resolution abilities.
3. **Professional identity transformation** – participants began identifying as *teacher-innovators*.
4. **Reflective growth** – continuous feedback cycles encouraged metacognitive awareness and self-improvement.

These themes highlight that Smart Coach approach fostered not only skill development but also deeper professional self-awareness and motivation.

Practical outcomes of Smart Coach implementation. The integration of entrepreneurial-oriented case studies at Smart Coach facilitated development across multiple dimensions of professional competence. Students participated in realistic classroom simulations, project planning, and mini-entrepreneurial initiatives, which enabled them to experience teaching challenges and problem-solving in a controlled yet authentic environment. Quantitative results demonstrated significant growth in creativity, initiative, and leadership compared to traditional lecture-based learning.

Table 2. *Examples of case-based learning activities and observed outcomes*

Competence Area	Activity Examples	Observed Development
Entrepreneurial Thinking	Planning mini-courses, fundraising projects, eco-initiatives	Learners designed creative solutions for classrooms and school projects
Collaboration and teamwork	Workshop facilitation, peer mentoring, group problem solving	Decision making, effective communication and conflict resolution
Project Management	Coordinating tasks, timelines, and resources	Students practiced planning, implementing, and evaluating small-scale initiatives
Reflective Practice	Journals, feedback sessions, peer evaluation	Increased self-awareness, adaptation, and continuous improvement

Case 1: Organizing a Robotics Mini-Course

Students designed a robotics course for primary students, including lesson plans, materials, and project goals. The case required resource management, team collaboration, and creative problem-solving, simulating real-world challenges of school startups.

Case 2: Addressing Parental Resistance

Students developed strategies to manage resistance to innovative teaching methods. Activities included role-play, communication planning, and reflective evaluation. This strengthened leadership, conflict-resolution, and advocacy skills.

Case 3: Eco-Entrepreneurship Project

A pilot initiative encouraged students to implement an eco-friendly project, such as a school garden or recycling program. Teams coordinated logistics, engaged younger learners, and reflected on outcomes. This exercise combined creativity, planning, and community engagement.

Table 3. *Observed competency development based on student feedback*

Competency domain	Practical indicators	Student feedback
Motivation	Willingness to participate, initiative-taking	“I feel more confident suggesting new ideas in class and at Smart Coach”
Collaboration	Active participation, shared decision-making	“Working with peers taught me how to communicate and solve problems together.”
Professional identity	Reflection on teaching role	“I now see myself not just as a teacher, but as someone who can create and innovate.”
Entrepreneurial skills	Project planning, risk assessment, resource use	“I learned how to plan projects realistically and involve others in achieving goals.”

Comparative discussion. The practical integration of Smart Coach aligns with Kolb’s experiential learning theory (2014), which emphasizes active experimentation and reflection. International studies (OECD, 2020; Kuratko, 2016; Leffler & Falk-Lundqvist, 2022; Park & Lee, 2022) also highlight that case-based and experiential learning effectively promote creativity, leadership, and reflective competence in teacher education. Compared to traditional training, participants reported increased engagement, creativity, and readiness for practical challenges. These findings have significant implications for teacher education in Kazakhstan:

1. **Curriculum enhancement** – Integrate entrepreneurial projects and case-based tasks across pedagogy courses.
2. **Faculty development** – provide training in case facilitation methods, mentoring and coaching.
3. **Scaling and replication** – build partnerships with schools and educational organizations to implement similar practice-oriented programs.
4. **Assessment and feedback** – Use reflective journals, project reviews, and mentor evaluations to monitor professional growth.

The findings indicate that the **Smart Coach** model not only improves students’ professional readiness but also transforms their approach to problem-solving and classroom management. Participants began to perceive challenges not as barriers but as opportunities for creative action - a core component of entrepreneurial competence. These experiences fostered **resilience, flexibility, and leadership**, key attributes for navigating modern educational contexts. The Smart Coach model thus serves as a **sustainable pedagogical innovation**, integrating entrepreneurship into teacher education and preparing graduates to act as proactive leaders and innovators in their professional environments.

Conclusion. The research shows that the business-innovative club at university improves entrepreneurial skills of future primary education teachers effectively. Practical activities encouraged the development of professional identity by helping students see themselves not only as educators but also as creative professionals. Integrating entrepreneurial orientation method into teacher training equips them with skills needed to successfully implement educational projects, designing business plan of pedagogical products, work collaboratively and creatively solve professional challenges. The practical value of this approach lies in its ability to support holistic teacher development, including entrepreneurial competencies, teamwork skills, professional identity, and reflective practice. Incorporating such methods into teacher education bridges the gap between theory and practice, strengthens the connection between universities and real-world educational projects, and fosters students' confidence in their professional capabilities.

Despite the promising outcomes, the study has certain limitations. The experiences were primarily drawn from a single university club, and much of the data was qualitative. Future research should explore the application of the Smart Coach model in rural or under-resourced contexts, compare its effectiveness with other active learning strategies, and evaluate the long-term impact on graduates' professional development.

Overall, this approach provides new conditions for developing a new type of teacher capable combining pedagogical competencies with entrepreneurial thinking on their professional practice. The findings of this study open prospects for integrating entrepreneurial pedagogy into national teacher training standards in Kazakhstan. Future research could focus on developing digital case libraries, fostering international collaboration with entrepreneurial organizations, and creating adaptive online platforms for entrepreneurial competence assessment.

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