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THE IMPACT OF PROJECT-BASED TECHNOLOGY ON THE DEVELOPMENT OF GENERAL CULTURAL COMPETENCIES IN THE TEACHING PROCESS

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Annotatsiya : Ushbu maqolada umumiy o‘rta va oliy ta’lim amaliyotida dars jarayoniga loyiha texnologiyasini joriy etish orqali talaba va o‘quvchilarda umum madaniy kompetensiyalarni rivojlantirish masalasi yoritiladi. Tadqiqotning maqsadi loyiha texnologiyasi asosida tashkil etilgan o‘qitish jarayonining umum madaniy kompetensiyalar (madaniy muloqot, hamkorlik, axborot bilan ishlash madaniyati, tanqidiy fikrlash, estetik did, fuqaroviy mas’uliyatga yo‘naltirilgan ijtimoiy faollik) shakllanishiga ta’sirini nazariy hamda empirik jihatdan asoslashdan iborat. Metodlar sifatida pedagogik tajriba-sinov, kuzatish, diagnostik so‘rovnoma, mahsulotni baholash (loyiha natijalari), taqqoslash va statistik tahlildan foydalanildi. Natijalarda loyiha texnologiyasi jamoaviy va individual faoliyatni uyg‘unlashtirgani, real muammo atrofida bilimlarni integratsiyalashgani hamda refleksiya mexanizmlarini faollashtirgani sababli umum madaniy kompetensiyalar o‘sishi kuzatilgani ko‘rsatildi. Muhokamada mazkur o‘sishning didaktik shartlari, baholash mezonlari va o‘qituvchi fasilitator sifatidagi roli asoslantirildi. Xulosada loyiha texnologiyasini bosqichma-bosqich joriy etish, mezonli baholash va fanlararo integratsiyani kuchaytirish umum madaniy kompetensiyalarni rivojlantirishda samarali ekanligi ta’kidlandi.
Kalit so‘zlar: loyiha texnologiyasi, umum madaniy kompetensiya, kompetensiyaviy yondashuv, hamkorlik, refleksiya, fanlararo integratsiya, baholash mezonlari.
Аннотация : V stat’e rassmatrivaetsya vliyanie proektnoy tekhnologii v uchebnom protsesse na razvitie obshchekul’turnykh kompetentsiy u obuchayushchikhsya. Tsel’ issledovaniya — teoreticheski i empiricheski obosnovat’, kak obuchenie na osnove proektov vliyaet na formirovanie obshchekul’turnykh kompetentsiy (kul’tura obshcheniya, sotrudnichestvo, informatsionnaya kul’tura, kriticheskoe myshlenie, esteticheskiy vkus, sotsial’naya aktivnost’). Metody vklyuchali pedagogicheskiy eksperiment, nablyudenie, diagnosticheskie oprosy, otsenku produktov proekta, sravnitel’nyy i statisticheskiy analiz. Rezul’taty pokazyvayut, chto proektnaya tekhnologiya usilivaet integratsiyu znaniy vokrug real’noy problemy i aktiviziruet refleksiyu, chto privedlo k rostu obshchekul’turnykh kompetentsiy. V obsuzhdenii opredeleny didakticheskie usloviya effektivnosti, kriterial’noe otsenivanie i rol’ prepodavatelya kak fasilitatora. V zaklyuchenii predlozheny rekomendatsii po etapnomu vnedreniyu proektov i usileniyu mezhpredmetnoy integratsii.
Klyuchevye slova: proektnaya tekhnologiya, obshchekul’turnye kompetentsii, kompetentnostnyy podkhod, sotrudnichestvo, refleksiya, mezhpredmetnaya integratsiya, kriterial’noe otsenivanie.
Abstract : This article examines how project-based technology implemented in classroom instruction influences the development of general cultural competencies. The study aims to provide theoretical and empirical justification for the impact of project-based learning on key competencies such as communication culture, collaboration, information literacy, critical thinking, aesthetic awareness, and socially responsible civic engagement. Methods included a

pedagogical experiment, observation, diagnostic questionnaires, assessment of project products, comparative analysis, and basic statistical procedures. The findings indicate that project technology strengthens interdisciplinary integration around authentic problems and activates reflection, leading to measurable growth in general cultural competencies. The discussion identifies didactic conditions for effectiveness, criteria-based assessment, and the teacher's role as a facilitator. The conclusion proposes staged implementation and strengthened interdisciplinary design as practical recommendations.
Keywords: project technology, general cultural competencies, competency-based approach, collaboration, reflection, interdisciplinary integration, criteria-based assessment.

Introduction

The competency-based approach interprets educational content not merely as a body of knowledge, but as a system of integrative qualities that enable learners or students to act effectively in real-life situations. Within this system, general cultural competencies occupy a special place, as they integrate such abilities as engaging in culturally appropriate communication, understanding norms of teamwork, selecting and processing information in compliance with ethical standards, appreciating artistic and aesthetic values, tolerantly listening to diverse viewpoints, and making socially responsible decisions. Educational practice shows that if the development of these competencies is limited to lectures or reproductive exercises, the results tend to be unstable, since general cultural competencies are strengthened primarily through activity, interaction, problem-solving, presentation, and reflection.

Project-based learning places precisely such activity at the center of instruction. Learners identify a problem, set goals, develop a plan, search for sources, create a product, publicly present and defend the results, and evaluate their own performance. From a didactic perspective, this process enhances learner-centered, activity-based, and interdisciplinary models of education. In project-based learning, not only the final product but also the process leading to it is significant, because during this process such skills as communication culture, ethical debate, distribution of responsibility within a team, time management, and information use culture are formed. In this sense, project-based learning can be considered an effective means of developing general cultural competencies.

The relevance of this article lies in the fact that, in classroom practice, project-based learning is often equated merely with "creative tasks" or "preparing presentations," which prevents its educational and cultural–communicative potential from being fully realized. A scientific approach requires designing projects as purposeful didactic constructs, diagnosing competencies through clearly defined indicators, and implementing criteria-based assessment. Accordingly, the research problem is formulated as follows: under what didactic conditions does the organization of project-based learning in the classroom ensure the sustainable development of general cultural competencies, and how can this impact be measured?

The aim of the study is to theoretically substantiate and empirically examine, through experimental research, the influence of project-based learning on the development of general cultural competencies. The research objectives are: (1) to clarify the pedagogical interpretation of general cultural competencies; (2) to describe the mechanisms of project-based learning within the competency-based approach; (3) to develop indicators and criteria for assessing

general cultural competencies; and (4) to analyze experimental results and provide practical recommendations. The object of the research is the instructional process, while the subject is the didactic conditions and outcomes of developing general cultural competencies through project-based learning.

Methods

The research design relied on elements of a mixed-methods approach, combining quantitative measurements (diagnostic questionnaire results and score dynamics) with qualitative analysis (observation protocols, expert evaluation of project products, and reflective writings). A pedagogical experiment approximating real classroom conditions was conducted over one academic semester. Participants were divided into an experimental group (with systematic use of project-based learning) and a control group (dominated by traditional instruction), while instructional load, topic sequence, and assessment formats were kept as similar as possible.

To measure general cultural competencies, a system of indicators was developed, including:
(1) communication culture (listening skills, questioning, ethical norms in discussion, fluency of speech);
(2) collaboration and collective responsibility (role distribution, consensus-building, constructive conflict resolution);
(3) information culture (source selection, correct citation, plagiarism prevention, analysis and synthesis of information);
(4) critical and systemic thinking (problem analysis, argumentation, drawing conclusions);
(5) aesthetic and presentation culture (visual and textual organization of materials, audience engagement);
(6) social activity and responsibility (understanding the social relevance of the project and proposing beneficial initiatives).

Each indicator was assessed using a four-level rubric (basic, satisfactory, good, advanced). Rubric descriptors were aligned with observable behaviors during classroom activities, project products, and presentations.

Data collection tools included: (a) diagnostic questionnaires administered at the beginning and end of the semester; (b) observation checklists for teachers and observers; (c) project portfolios (plans, source lists, interim reports, final products); (d) expert assessment through anonymous rubric-based evaluation by two specialists; and (e) reflective writings in the form of brief self-assessments at the end of each project stage. Quantitative results were compared using percentages and mean scores, while group differences were analyzed through simple comparisons and pre–post growth indicators. Qualitative data were summarized through thematic analysis, with particular attention to changes in communication, team agreements, and patterns of errors in information use.

Project tasks were closely linked to course topics while being oriented toward real-life problems and incorporating interdisciplinary elements. Each project followed standardized stages: problem and goal identification; planning; information search; development of solution options; product creation; presentation and defense; and reflection. The teacher acted not as a controller but as a facilitator, providing guiding questions, resource recommendations, criteria-based assessment,

and time management support. Organizationally, projects were carried out in small groups (3–5 participants), and to ensure individual accountability, a "personal contribution" section was included in the project portfolio.

Results

At the end of the experiment, the experimental group demonstrated higher overall growth in general cultural competencies compared to the control group. Particularly strong positive dynamics were observed in communication culture and collaboration. While at the beginning of the semester skills related to argumentation and attentive listening during discussions appeared sporadically, by the end of the semester structured speech, ethical questioning, and constructive resolution of disagreements through task distribution became more frequent during presentations and group discussions.

Observation checklists indicated that role distribution within groups (moderator, speaker, designer, analyst), which had initially been random, later became more deliberate and aligned with participants' abilities and interests, strengthening the organizational aspect of collaboration.

Positive changes were also recorded in information culture. At the beginning of the semester, many portfolios contained disorganized source lists, incomplete bibliographic information, and weak citation practices. By the end, improvements were evident in purposeful source selection, limited and justified use of quotations, and enhanced skills in paraphrasing and summarizing. The proportion of participants achieving "good" and "advanced" rubric levels increased in the experimental group, while growth in the control group was more modest and largely related to content knowledge rather than bibliographic discipline.

Changes in critical and systemic thinking were most evident during the problem formulation and solution justification stages. Participants in the experimental group increasingly articulated problems concisely, identified cause–effect relationships, compared solution alternatives, and defined selection criteria. Some presentations included not only general statements but also evidence such as small-scale observations, survey results, or comparative tables. Facilitator questions (e.g., "What evidence supports this conclusion?" or "Is there an alternative solution?") played a key role in stimulating critical thinking.

Improvements were also observed in aesthetic and presentation culture, including slide design, concise and meaningful text, appropriate use of visuals, eye contact with the audience, and control of speech pace. Importantly, aesthetics began to be understood not merely as decoration but as a means of organizing and communicating information clearly.

Growth in social activity and responsibility was assessed more cautiously, as this competency tends to stabilize over a longer period. Nevertheless, some projects demonstrated explicit consideration of practical value, audience needs, and ways of applying results. Reflective writings indicated increased awareness of responsibility toward the group and adherence to deadlines as cultural norms.

Overall, the development of general cultural competencies under project-based learning conditions was facilitated by the following mechanisms: (1) real-world orientation of tasks; (2) continuity of collaborative activity; (3) transparent criteria-based assessment through rubrics; (4) increased experience of public speaking through presentations and defenses; and (5) systematic reflection enabling awareness and planning of personal growth.

Discussion

The results confirm the potential of project-based learning to foster general cultural competencies; however, this potential does not emerge automatically and is strengthened only when certain didactic conditions are met. The first condition is viewing competencies not as secondary educational outcomes but as central elements of project design. For example, the growth of communication culture requires structured discussion rules, time regulations, questioning norms, and predefined speaking roles rather than spontaneous interaction. This aligns with the competency-based interpretation of competence as an integrative ability manifested in specific situations (Zimnyaya, 2004, pp. 35–38).

The second condition is interdisciplinary integration and real-life relevance of the problem. When projects remain confined within a single subject, opportunities for diverse social roles and communicative situations are limited. Conversely, real-world contexts compel learners to select information carefully, consider the audience, design aesthetic presentations, and negotiate within a team. Dewey's idea of linking education with experience and activity gains methodological significance here, as learning becomes more culturally productive when integrated with practice (Dewey, 1938, pp. 49–52). However, Dewey's ideas must be adapted to contemporary classroom constraints; otherwise, project activity may become active but disorganized.

The third condition is the teacher's facilitation competence. Project-based learning transforms the teacher's role from task-giver to process manager, questioner, resource provider, and assessor. This role shift may cause resistance, as teachers fear losing control and learners expect explicit instructions. In this regard, Vygotsky's concept of the zone of proximal development provides a methodological foundation: facilitators must provide timely support and gradually withdraw it to foster independence (Vygotsky, 1978, pp. 86–90).

The fourth condition is transparent and criteria-based assessment. If assessment focuses solely on the final product, process-related cultural competencies such as communication ethics, collaboration, and information use remain undervalued. Rubrics and portfolio assessment address this issue by clarifying expectations and improvement pathways. Bell's work on project-based learning similarly emphasizes the need to assess both process and product (Bell, 2010, pp. 41–43). Nevertheless, overly detailed rubrics may restrict creativity; therefore, indicators should reflect the core of general cultural competencies.

The fifth condition is integrating citation and source-use culture as an essential component of project-based learning. Without this, projects risk becoming compilations of copied online materials, undermining information ethics and intellectual integrity. Teachers must therefore systematically teach source selection criteria, bibliographic conventions, and the distinction between quotation and paraphrasing. Polat's approach to project methodology also highlights information independence and result defense as key requirements (Polat, 2000, pp. 22–27).

Information independence, however, extends beyond searching to include verification and ethical processing of information.

Overall, the findings indicate that project-based learning positively influences the development of general cultural competencies, but the strength of this influence depends on instructional organization, criteria-based assessment, facilitation, and reflection. Meaningful project content and authentic communicative contexts further enhance this effect.

Conclusion

Project-based learning is an effective pedagogical tool for developing general cultural competencies in the instructional process, as it enables the integrated formation of communication culture, collaboration, information literacy, critical thinking, presentation skills, and aesthetic awareness through active engagement. The study demonstrates that when project activity is organized around real problems, supported by interdisciplinary integration, criteria-based assessment, portfolio use, and systematic reflection, the growth of general cultural competencies becomes more stable.

Practical recommendations include: (1) announcing competency indicators and rubrics in advance for each project; (2) implementing role distribution and discussion rules within groups; (3) supporting information use culture (bibliography, citation, paraphrasing) through targeted mini-instructions; (4) regularly organizing presentations and defenses with question-and-answer culture as part of assessment; and (5) maintaining brief but systematic reflective writing. Future research should explore the impact of project-based learning across different subjects and examine the long-term sustainability of general cultural competency development.

References

1. Zimnyaya, I. A. (2004). *Key competencies as a result-oriented foundation of the competency-based approach in education*. Moscow: Research Center for Quality of Specialist Training.
2. Polat, E. S. (2000). *Project method in foreign language teaching*. Moscow: Akademiya.
3. Dewey, J. (1938). *Experience and Education*. New York: Macmillan.
4. Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
5. Bell, S. (2010). *Project-Based Learning for the 21st Century: Skills for the Future*. Eugene: ISTE.
6. Thomas, J. W. (2000). *A Review of Research on Project-Based Learning*. San Rafael: Autodesk Foundation.
7. Helle, L., Tynjala, P., & Olkinuora, E. (2006). *Project-based learning in post-secondary education: theory, practice and rubber sling shots*. Helsinki: Helsinki University Press.
8. Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1998). *Cooperation in the Classroom*. Edina: Interaction Book Company.
9. Wiggins, G., & McTighe, J. (2005). *Understanding by Design*. Alexandria: ASCD.

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10. OECD. (2005). *The Definition and Selection of Key Competencies: Executive Summary*. Paris: OECD Publishing.