

SECTION: PEDAGOGY, PHILOLOGY AND LINGUISTICS

DOI 10.70286/ISU-27.08.2025.006

IMPLEMENTATION OF THE PROJECT-ORIENTED APPROACH IN THE EDUCATIONAL PROCESS OF THE COURSE "FUNDAMENTALS OF WEB DESIGN"

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The transformation of the contemporary educational paradigm, determined by the global shift toward a competency-based model, has significantly intensified the requirements for the professional training of future computer science teachers and vocational education lecturers. The role of an educator today is not limited to the transmission of subject-specific knowledge but increasingly involves the mastery of innovative pedagogical technologies, the ability to cultivate applied skills, and the development of methodological competence necessary for the effective organization of the educational process. In the context of the rapid advancement of digital technologies and the growing significance of the web in all spheres of life, the discipline “Fundamentals of Web Design” acquires a particularly important place in teacher education. Its function is dual: on the one hand, it provides students with a system of technical knowledge and applied skills, while on the other, it contributes to the development of creative, logical, and systemic thinking.

Within this framework, the project-oriented approach (POA) emerges as one of the most effective pedagogical strategies, since it ensures not only the assimilation of web design at a high practical level but also facilitates the formation of methodological readiness to apply project-based learning in one’s own teaching activity. The application of POA, therefore, contributes to the integrated development of professional, pedagogical, and methodological competencies, which represent the core of professional identity for future teachers.

Relevance of the Study. The urgency of addressing the given problem stems from the dual challenge faced by the modern educational system. Firstly, there is a pronounced necessity to train educators who not only possess advanced technical knowledge of web design but are also well-versed in the latest tools, platforms, and design methodologies that reflect the current state of digital culture. Secondly, it is

essential to equip these educators with pedagogical strategies that allow for the effective adaptation and integration of project activities into the educational process.

Traditional, predominantly reproductive forms of instruction: lectures, demonstrations, and simplified practical exercises—are often insufficient in preparing future educators for the demands of interactive, practice-oriented teaching. Such an approach creates a methodological gap between the possession of knowledge and the ability to transmit it effectively in pedagogical contexts. The systematic implementation of POA is capable of bridging this gap, ensuring the continuity between theory and practice and contributing to the development of innovative teaching activity.

Purpose and Research Objectives. The primary aim of this research is to provide a theoretical justification and experimental verification of the potential and efficiency of applying the project-oriented approach in the educational process of the discipline “Fundamentals of Web Design” with a view to forming integrated professional and methodological competencies among future computer science teachers and vocational education lecturers.

In accordance with this aim, the study pursued the following objectives:

1. Theoretical analysis of the evolution, essence, and pedagogical potential of POA, including an examination of its fundamental principles: problem-orientation, independence, practical applicability, interdisciplinary integration, and adaptability.

2. Identification of competencies crucial for the professional readiness of future educators, with a clear distinction between technical (HTML5/CSS3, JavaScript, UX/UI, use of modern graphic editors) and methodological (designing learning projects, facilitating collaboration, assessing outcomes, integrating digital project management tools) dimensions.

3. Design and experimental testing of a methodology for implementing POA in the “Fundamentals of Web Design” course, which incorporated all phases of project activity: planning, execution, evaluation, and presentation.

4. Pedagogical experiment aimed at comparing the effectiveness of POA versus traditional instructional methods through pre- and post-testing, practical assignments, and case-based tasks.

5. Development of methodological recommendations for the systematic integration of POA into curricula, including the implementation of interdisciplinary projects, hackathons, design sprints, and the refinement of lecturers’ professional competencies.

The novelty of the study lies in the substantiation and development of a comprehensive methodology for the application of POA in pedagogical education, specifically tailored to the discipline “Fundamentals of Web Design.” This methodology ensures the simultaneous and integrated formation of two interdependent groups of competencies: subject-specific, involving the acquisition of advanced knowledge and practical skills in web design; and methodological, encompassing the ability to structure, facilitate, and evaluate web design learning projects.

This dual focus allows for overcoming the persistent discrepancy between the theoretical preparation of educators and their readiness for practical implementation of

project-based pedagogical strategies. Theoretically, the study contributes to expanding the conceptual foundations of competency-based and project-based pedagogies in the context of digital education.

The practical importance of the research is demonstrated by the elaboration of pedagogical tools and methods that can be directly employed in the system of higher pedagogical education. The findings of the study can be integrated into university curricula and teaching programs, as well as applied in professional development courses for current educators. The methodology offers a framework for the creation of authentic projects: educational websites, interactive resources, and school-based digital platforms thus enabling students to accumulate experience that is both technically relevant and pedagogically meaningful.

Moreover, the implementation of POA provides future educators with the opportunity to compile portfolios consisting not only of their individual web projects but also of pedagogically structured project assignments developed for students, thereby demonstrating their readiness for teaching activity in real-world conditions.

Conclusions and Expected Outcomes. The conducted research allows us to argue that the systematic introduction of POA into the educational process of “Fundamentals of Web Design” has the potential to generate significant positive outcomes, including:

1. The substantial improvement of practical preparedness of educators to design and implement user-centered web resources.
2. The acquisition of methodological skills for managing project-based learning activities, including task formulation, facilitation, and assessment.
3. The enhancement of teamwork, communication, and presentation competencies.
4. The growth of intrinsic motivation and engagement in the learning process.
5. The accumulation of a pedagogically valuable portfolio, serving as evidence of both professional mastery and teaching readiness.

In summary, the project-oriented approach should be regarded not only as an effective instructional methodology for teaching web design but also as a powerful pedagogical instrument for the integrated development of professional and methodological competencies of future computer science teachers and vocational education lecturers. Its systematic application will contribute to the preparation of specialists capable of responding to the challenges of the digital society and ensuring the effective formation of students' digital literacy.

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МУЛЬТИМОДАЛЬНІСТЬ ЯК ОЗНАКА СУЧАСНОЇ КОМУНІКАЦІЇ: ТЕОРЕТИЧНІ ПІДХОДИ ТА ІНТЕРПРЕТАЦІЇ

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Мультимодальність як феномен комунікації дедалі частіше розглядається не як допоміжна характеристика, а як структурно-смыслотворчий принцип, що визначає взаємодію модусів у межах дискурсу. У тезах здійснено огляд основних теоретичних підходів до вивчення мультимодальності, виокремлено типові ознаки модусів, проаналізовано особливості взаємодії знакових систем у різних типах сучасного дискурсу.

Сучасна комунікативна ситуація характеризується зміщенням центру з тексту як лінгвістичного об'єкта до тексту як багаторівневої семіотичної структури. У цьому контексті поняття мультимодальності набуває ключового значення як категорія, що дозволяє описати взаємодію різних каналів передачі інформації та смислу — вербального, візуального, акустичного, жестового, просторового тощо.