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INNOVATIVE EDUCATIONAL TRAJECTORIES IN VOCATIONAL EDUCATION: INDIVIDUAL AND GROUP LEARNING PROJECTS

In the context of rapid technological change, war-related disruptions and labour-market volatility, vocational education is under strong pressure to become more flexible, competence-oriented and student-centred. Recent studies on vocational education in Ukraine emphasise that challenges such as COVID-19, martial law, digitalisation and changing employment patterns require new models of organising the educational process and closer alignment with real professional tasks [1]. Thus, innovative educational trajectories based on individual and group learning projects are increasingly seen as a promising response rather than an optional add-on.

The concept of an individual educational trajectory is now understood as a personalised pathway that combines mandatory and elective modules, different learning formats and diverse assessment strategies. Research on individual trajectories stresses that they should be supported by clear digital tools, transparent rules for choosing electives and systematic academic guidance [2; 3; 4]. At the same time, bibliometric analyses of project-based learning (PBL) in vocational education show that project work is one of the most effective ways to translate career goals into concrete learning experiences and to reduce the gap between training and real professional practice [3; 6]. As we can see, there is a growing convergence between the discourse on individual trajectories and the discourse on project-based learning.

In our opinion, individual learning projects can be regarded as the core mechanism for operationalising innovative trajectories in vocational programmes. When a learner selects or co-designs a project linked to a specific professional context – safety in construction, digital marketing, tourism services or educational technologies – the project becomes a structuring element around which electives, internships and micro-credentials are organised. Studies on project-based training for future builders, for example, demonstrate that projects aimed at mastering safe working practices significantly increase responsibility, procedural knowledge and risk awareness among students [7]. Similarly, research on innovative learning technologies highlights that project formats create conditions for integrating digital tools, interactive methods and authentic tasks in a coherent way rather than as fragmented innovations [8].

At the same time, group learning projects provide a space for simulating real professional teams and for developing transversal skills that are explicitly demanded by employers. International studies indicate that project-based blended learning models in vocational education improve independent learning, digital literacy, creativity and teamwork [3; 6]. In Ukrainian and European educational practice, project teams often model roles similar to those in real professional environments (project coordinator, specialist responsible for the technical/content part, a member in charge of quality and documentation, and a student responsible for communication with the “client” or

stakeholders). This helps learners experience the main stages of the project cycle – from planning and task distribution to implementation, presentation and reflection.

Game-based and simulation-based projects further enrich these trajectories. The historical training game model developed by Pasichnyk and co-authors illustrates how mathematical and information components can be integrated into a serious game that reproduces complex historical and professional situations [9]. Such models can be adapted for vocational fields (logistics, engineering, service industries) to provide safe environments for practising decision-making. More broadly, research on innovative teaching technologies underlines that interactive and game-based tools, when embedded into project formats, support motivation, reflection and the formation of soft skills alongside hard technical competencies [8]. Thus, projects can embody not only cognitive but also emotional and ethical dimensions of professional growth.

An important precondition for implementing innovative trajectories through projects is the management of the educational process at institutional level. Studies on distance education in emergency and crisis conditions argue that vocational institutions must redesign timetables, assessment procedures and communication channels to support flexible, often hybrid or fully online learning [10]. On this basis, project-based modules can be organised in such a way that part of the work is carried out asynchronously (data collection, digital design, reflective journaling), while key collaboration and feedback moments are synchronised. In our opinion, effective management means not only adding project tasks to syllabi, but also ensuring that institutional regulations, digital platforms and quality assurance procedures explicitly support individual and group projects as core elements of educational trajectories.

Another strategic dimension concerns the integration of innovative technologies and academic integrity within project-based trajectories. Ukrainian research on innovative teaching technologies stresses that modern educational technologies should be introduced as part of a broader culture of quality and responsibility, not merely as technical tools [8; 10]. This is particularly important for vocational education, where project outcomes may involve real clients, external partners or high-risk professional contexts. Therefore, assessment of individual and group projects should include not only competence-based criteria but also indicators of ethical behaviour, originality of solutions and responsible use of digital resources.

Thus, innovative educational trajectories in vocational education emerge at the intersection of three key lines: personalisation of learning paths, systematic use of individual and group projects, and institutional capacity to manage these processes under challenging conditions. Individual projects allow learners to construct their own professional profile, while group projects situate them in realistic collaborative environments; together they transform the curriculum from a static list of disciplines into a dynamic system of experiences. As we can see, project-based approaches, strengthened by game-based and digital technologies, offer a powerful framework for aligning vocational education with the needs of the labour market and with the principles of lifelong learning. Therefore, in our view, the task for the coming years is to move from sporadic project practices to fully fledged project-centred models of innovative educational trajectories across vocational institutions.

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