



QUALITY OF LIFE IN THE GLOBAL UNCERTAINTY DIMENSIONS



Opole 2025



The Academy of Applied Sciences
Academy of Management and Administration in Opole

Quality of Life in the Global Uncertainty Dimensions

Monograph

Scientific editors: Tadeusz Pokusa,
Tetyana Nestorenko

Opole 2025

ISBN 978-83-66567-59-7

DOI: 10.5281/zenodo.18229725

Quality of Life in the Global Uncertainty Dimensions: monograph. Tadeusz Pokusa, Tetyana Nestorenko (eds.) Publishing House of the Academy of Applied Sciences – Academy of Management and Administration in Opole, 2025; 553 p.

Reviewers

Aleksander Ostenda, PhD, Professor AS, Academy of Silesia
Mariia Kazanzhy, DSc, Professor, State Institution “South Ukrainian National
Pedagogical University named after K. D. Ushynsky” (Ukraine)
Natalia Ryzhikova, DSc, Professor, State Biotechnological University (Ukraine)

Editorial Board

Olha Blaha, PhD, Associate Professor, Ivano-Frankivsk Educational and Scientific Law Institute
of the National University “Odesa Law Academy” (Ukraine)
Zoia Dikhtiarenko, PhD, Associate Professor, State Tax University (Ukraine)
Marian Duczmal, DSc, Professor, the Academy of Applied Sciences – Academy of Management
and Administration in Opole
Wojciech Duczmal, DSc, Professor ANS – WSZiA, the Academy of Applied Sciences – Academy
of Management and Administration in Opole
Dominika Kalita, Academy of Silesia
Nataliia Khlus, PhD, Associate Professor, Oleksandr Dovzhenko Hlukhiv National Pedagogical
University (Ukraine)
Inna Kulish, PhD, Associate Professor, Oleksandr Dovzhenko Hlukhiv National Pedagogical
University (Ukraine)
Oleksandr Nestorenko, PhD, Associate Professor, Academy of Silesia; Institute for the Study
of Spatial Development (Ukraine)
Tetyana Nestorenko, PhD, Professor AŚ, Academy of Silesia; Associate Professor, Berdyansk State
Pedagogical University (Ukraine)
Iryna Ostopolets, PhD, Associate Professor, Bogdan Khmelnytsky Melitopol State Pedagogical
University (Ukraine)
Tadeusz Pokusa, PhD, Professor ANS – WSZiA, the Academy of Applied Sciences – Academy
of Management and Administration in Opole
Nataliia Svitlychna, PhD, Associate Professor, Simon Kuznets Kharkiv National University
of Economics (Ukraine)
Sławomir Śliwa, DSc, Professor ANS – WSZiA, the Academy of Applied Sciences – Academy
of Management and Administration in Opole
Władisław Wornalkiewicz, PhD, Professor ANS – WSZiA, the Academy of Applied Sciences –
Academy of Management and Administration in Opole

Publishing House:

The Academy of Applied Sciences – Academy of Management and Administration in Opole
18 Niedziałkowskiego Str. 45-085 Opole, Poland
tel. 77 402-19-00/01

Authors are responsible for the content of the materials.

© Authors of articles, 2025

© Publishing House ANS – WSZiA, 2025

TABLE OF CONTENTS

Preface.....	7
Chapter 1. Psychosocial factors and personal resources in times of crisis.....	10
1.1. Value-semantic resources of personality as a factor of enhancing quality of life in conditions of global uncertainty.....	10
1.2. Human Transcendental Therapy™ (HTT™): spirituality and humanism as factors of holistic personality development.....	17
1.3. The impact of sports activities on the development of anti-stress resilience and cognitive functions in students.....	27
1.4. Implementation of Artificial Intelligence (AI) in athletes' competitions based on selected examples.....	37
1.5. Natural healing resources of Ukraine as a factor in improving the effectiveness of physical rehabilitation.....	52
1.6. Psychological features of anxiety correction in primary school children using art therapy.....	64
1.7. Uniform as a response – Youth facing the challenges of global concern.,	71
1.8. Quality of life characteristics of pre-retirement age women during military times.....	78
1.9. Assessment of the quality of professional life and resilience of women scientists in the conditions of globalization.....	88
1.10. Ontological personalism and empirical functionalism: An analysis of bioethical models in the context of Catholic anthropology.....	99
1.11. Psychological aspects of studying the phenomenon “quality of life”.....	109
1.12. Relationship between the level of psychological separation and emotional states of mature women.....	117
1.13. The impact of adverse childhood experiences on the development of mental disorders in adulthood.....	125
1.14. Preventive strategies for population protection from emergencies: social aspect.....	129
1.15. Personality vulnerability, its prevention and diagnosis.....	141
1.16. Using Artificial Intelligence in selecting physical loads.....	148
1.17. EMDR therapy as a method of working with trauma that activates the natural healing mechanism.....	155

Chapter 2. Educational strategies, professional development and the role of technology in ensuring quality of life.....	161
2.1. Theoretical and methodological aspects of studying the readiness of psychology students for the implementation of rehabilitation measures.....	161
2.2. Theoretical and methodological foundations of providing psychological assistance to families raising children with special needs.	169
2.3. The relationship between meaning in life orientations and the leadership potential of future psychologists.....	176
2.4. Interdisciplinary approach to ensuring and optimizing the quality of life in the modern world in the context of training specialists in medical-biology and natural sciences.....	182
2.5. From crisis pedagogy to emotional resilience: sel in foreign language teaching.....	192
2.6. Development of adolescents' giftedness in the educational environment as a factor in improving the quality of life of the young generation.....	203
2.7. Analysis of the current state of preparation of future teachers for STEM-oriented professional activities.....	214
2.8. Effects of English-mediated project work on soft-skills development and quality-of-life outcomes in early-career engineers: a mixed-methods evaluation.....	233
2.9. Monitoring civic affairs.....	246
2.10. The role and place of education in improving the quality of life.....	270
2.11. The influence of parents psychological stability on the emotional state of children with special educational needs.....	276
2.12. Professional improvement of teachers in the minds of the war stand: emotional front and stability crisis.....	280
2.13. Formation of the readiness of future physical education teachers to protect the health of schoolchildren using game technologies.....	286
2.14. The role of informal education in shaping the life trajectory of future teenagers who are in custody.....	293
2.15. Digital competence of a modern teacher and its impact on improving the quality of life.....	304
2.16. Educational strategies for implementing professional development and quality of life for managers and specialists in the IT field.....	317

2.17. The impact of Artificial Intelligence on the career guidance processes of modern youth: new challenges and prospects for interaction.....	325
2.18. Integration of Artificial Intelligence into the teaching of higher mathematics: new didactic opportunities and pedagogical challenges.....	332
2.19. Digital education of social workers as a factor in improving the quality of life of vulnerable population groups.....	345

Chapter 3. Socioeconomic, environmental and management aspects of quality of life..... 353

3.1. The impact of human capital development on living standards: evidence from European countries.....	353
3.2. Research on consumer loyalty in the residential construction market.....	368
3.3. Assertiveness in business.....	379
3.4. Income and expenditure of local government units responsible for maintaining and improving the standard of living of residents in the Opole Voivodeship compared to the country in the years 2015-2024 – indicator approach.....	390
3.5. Biodiversity as a renewable energy resource: estimating ecosystem productivity for sustainable development.....	405
3.6. Cohesion trends in territorial communities: wartime and post-war regularities for quality of life improvement.....	426
3.7. Success as a psychological descriptor of the quality of an individual's social life	437
3.8. The role of social media in spreading narratives of sleep culture as an important tool for improving quality of life.....	444
3.9. The influence of nonverbal communication on the formation and development of romantic relationships: a study of heterosexual couples..	449
3.10. Language ecology as a guarantee of quality of life in a globalized world.....	454
3.11. Methodology of teaching gender-neutral and inclusive speech in the professional training of future specialists.....	461
3.12. The connection of the communicative process in the globalized world with information stress.....	473

3.13. The economic instruments of agriculture as a factor in improving the quality of life of Ukrainians.....	482
3.14. Risk management standards in infrastructure investment projects: international experience.....	491
3.15. The impact of Artificial Intelligence technologies on the formation of business models in the digital economy.....	502
3.16. Formation of environmentally conscious legal culture as a component of improving the quality of life in the context of globalization.....	520
Annotation.....	531
About the authors.....	548

2.8. Effects of English-mediated project work on soft-skills development and quality-of-life outcomes in early-career engineers: a mixed-methods evaluation

English now functions as the working language of global engineering, shaping how specifications are written, cross-border teams coordinate, and safety decisions are justified. For Ukrainian engineering education and early-career practice, this linguistic reality intersects with extraordinary wartime conditions. Since 2022, teaching and work have been repeatedly reorganised around air-raid alerts, temporary displacement, unstable power supply, and an acute need to maintain infrastructure under risk. In this environment, project-based learning and project delivery are not abstract pedagogy but the everyday grammar of survival and reconstruction. The present study examines whether English-mediated project work – projects planned, executed, and documented primarily in English – strengthens soft skills and improves quality-of-life outcomes for early-career engineers operating under such constraints.

Soft skills – communication, teamwork, problem-solving, leadership, time management, conflict resolution, and ethical reasoning – are frequently cited as decisive for employability and safe engineering practice. Yet they are often taught as decontextualised “general skills” or assessed through self-report alone. English-mediated project work offers a different route: it embeds soft skills in authentic artefacts and routines such as design briefs, stand-ups, risk registers, change logs, and acceptance reports. Because those artefacts are written and negotiated in English, they simulate the communicative load of real industry while giving students and novice engineers a shared, auditable record of decisions. In Ukraine, where many partners, standards, and vendors operate in English, this mediation is not merely symbolic – it is operational.

At the same time, a foreign language can raise cognitive load, especially under stress. During alerts, teaching and work may be interrupted mid-task, noisy environments impair speech comprehension, and bandwidth limitations force teams toward low-fidelity communication. These frictions can erode perceived competence and threaten psychological safety. The central theoretical wager of this article is that well-designed English-mediated project work can transform those frictions into structured practice: concise protocols, role clarity, checklists, and bilingual micro-texts that reduce ambiguity and help teams resume quickly after interruptions. Put differently, language is not only a barrier to be overcome but a scaffold for coordination and a buffer against chaos when the classroom or workplace becomes a shelter.

Quality-of-life outcomes matter here for both humanistic and instrumental reasons. Early-career engineers who report higher career self-efficacy, social support at work, and a sense of meaningful contribution are more likely to persist in demanding roles, to uphold safety culture, and to avoid error-prone fatigue. In wartime Ukraine, quality-of-life indicators take on an additional contour: perceived control amid uncertainty, the ability to plan despite power-schedule variability, and the experience of belonging to a competent, mutually protective team. We therefore treat quality of life not as a distant wellness metric but as a proximal condition for responsible engineering and sustainable learning.

Despite a growing body of work on project-based learning and English for specific purposes, three gaps remain. First, studies frequently disentangle language development from soft-skill formation, even though real projects fuse the two. Second, research on project pedagogy in engineering rarely measures quality-of-life outcomes alongside performance, leaving uncertain whether skill gains come at the cost of increased stress. Third, there is limited evidence from disrupted learning environments, where sessions are paused, shifted, or compressed, and where equity hinges on low-bandwidth, offline-first design choices. Ukraine provides a natural laboratory for investigating these questions without romanticising hardship:

the pressures are real, and the stakes – human safety, national recovery, ethical professional identity – are concrete.

Our study responds with a mixed-methods evaluation that links mechanisms to outcomes. Quantitatively, we estimate changes in soft-skill performance and quality-of-life indicators across the delivery of English-mediated projects, while accounting for baseline differences and variability introduced by interrupted schedules. Qualitatively, we examine how teams actually use language to organise work: how role descriptions, issue tickets, incident reports, and stand-up notes operate as micro-structures that either concentrate or distribute cognitive load. The synthesis allows us to test not only whether the intervention “works,” but how and for whom it works under real constraints.

The research is guided by four questions. 1) To what extent does English-mediated project work improve early-career engineers’ soft-skill performance relative to comparable learning or work units conducted in the local language. 2) What are the effects on quality-of-life outcomes such as career self-efficacy, perceived stress, and work-life balance. 3) Which design features – for example, role templates, bilingual micro-texts for safety and handover, pause-and-resume protocols, low-bandwidth documentation standards – mediate or moderate these effects. 4) How do air-raid interruptions, power cuts, and emergency relocations shape participation, equity, and the durability of gains over time.

The contribution of this article is threefold. Conceptually, it offers a mechanism-level account linking language-of-work to soft-skill formation (Nykyropets, 2025) and quality-of-life outcomes in a high-stress engineering context. Empirically, it provides a mixed-methods protocol feasible under interruption, including brief measures and artefact-based rubrics that preserve validity when sessions pause and resume. Practically, it distils design principles that are actionable in Ukrainian technical universities and partner companies: concise English-first artefacts with parallel Ukrainian safety prompts, explicit role and handover structures, and documentation norms that tolerate power and connectivity shocks.

In our work, we situate the study within the literatures on project-based learning, English for specific purposes, and occupational well-being, then detail our methodology, measures, and analytic strategy. We present results on soft-skill performance and quality-of-life indicators, examine qualitative evidence of mechanism, and conclude with implications for curriculum design and early-career mentoring in Ukraine's recovery-oriented engineering ecosystem. Throughout, we treat English not as a gatekeeper but as a tool – one that, if purposefully engineered, can help young Ukrainian engineers collaborate responsibly, think clearly under pressure, and carry a workable sense of dignity into demanding work.

Across engineering and applied linguistics, recent work converges on the claim that project-based learning (PBL) can strengthen soft skills central to employability – teamwork, communication, and problem solving – while also supporting student engagement. A 2024 *Heliyon* study proposed and validated a PBL framework that increased collaboration, problem solving, and critical thinking, albeit in mathematics and with survey measures of outcomes (Rehman et al., 2024). In engineering education specifically, classroom research has emphasized the social climate of student teams: psychological safety – a shared sense that it is acceptable to ask questions, risk ideas, and admit uncertainty – predicts conflict management, creativity, and learning in project teams (Huerta et al., 2024). Parallel student voice research shows that first-year engineering students perceive psychological safety as unevenly distributed in PBL teams and link safer climates to well-being and participation, again measured primarily via self-report (Clausen et al., 2025). Together, these studies support a plausible pathway from PBL to soft-skills growth through team climates that enable participation and feedback.

Two limitations recur. First, outcome measures are frequently attitudinal or self-reported, leaving open whether soft-skill gains transfer to artefact quality or workplace-like performance. A 2025 *Frontiers in Education* article on research projects for engineers framed employability in terms of combined soft-hard skill

development, yet the evidence again leaned on students' perceptions rather than independent ratings of products or external assessments (Martínez Gómez, & Nicolalde, 2025). Second, most designs do not isolate which design features of PBL – client contact, documentation cycles, public presentation, or iterative peer review – drive specific soft-skill subdomains. This makes it difficult to specify “active ingredients” for curricular replication.

English as a medium of instruction (EMI) introduces additional layers relevant to Ukraine and other multilingual contexts. A randomized controlled study in Sweden found no general performance penalty for EMI in an introductory university course, challenging the assumption that teaching through English necessarily depresses content outcomes (Bälter et al., 2023). However, non-linguistic factors matter: in a large study of EMI students, language anxiety and self-regulation shaped academic success alongside proficiency, underscoring that cognitive load and affect are entangled in EMI settings (Yüksel et al., 2023). More recently, a *Frontiers in Education* investigation modelled psychological variables in EMI and highlighted the roles of self-actualization, language self-efficacy, and anxiety in shaping achievement, reinforcing the need to pair language-aware scaffolds with project work (Guan, 2025).

Research on student well-being intersects with these pedagogical questions. Within engineering education, the quality of team interaction and inclusion correlates with academic well-being indicators and learning processes during capstone-style projects (Huerta et al., 2024). Student narratives from early PBL experiences point to the protective role of clear roles, mutual accountability, and predictable feedback cycles – conditions that PBL can create when well-designed – for both engagement and stress management (Clausen et al., 2025). Yet evidence linking project participation to downstream life satisfaction or quality-of-life indicators after graduation remains sparse; most datasets stop at end-of-course measures.

The Ukrainian context during the ongoing russian-Ukrainian war raises the stakes for this research. Empirical studies document a substantial and persistent

mental health burden among Ukrainian university students – elevated symptoms of anxiety, depression, insomnia, and PTSD twenty months into the full-scale invasion – with implications for cognitive resources and academic persistence (Polyvianaia et al., 2025; Pinchuk et al., 2025). Higher education studies also describe “compounded adversity,” where wartime disruptions such as air raids and power outages interact with ordinary academic pressures, and where students rely on “ordinary magic” – intensified everyday coping and peer support – to continue learning (Błaszczuk, 2025). Under these conditions, PBL designs that build predictable routines, peer accountability, and English-mediated communication may offer dual benefits: skill development and structured psychosocial support. Yet Ukraine-focused intervention studies that test whether EMI-mediated projects improve both soft skills and quality-of-life outcomes are, to date, missing.

In sum, current evidence supports three working propositions. First, PBL can cultivate targeted soft skills in engineering cohorts, especially when team climate and feedback structures are strong (Huerta et al., 2024; Clausen et al., 2025; Rehman et al., 2024). Second, EMI does not inevitably depress performance, but anxiety and self-regulation must be addressed explicitly to protect learning and participation in English-mediated projects (Bälter et al., 2023; Yüksel et al., 2023; Guan, 2025). Third, in wartime Ukraine, any pedagogical innovation must be evaluated against mental health and continuity-of-learning constraints that shape both capacity and outcomes (Polyvianaia et al., 2025; Pinchuk et al., 2025; Błaszczuk et al., 2025). The unresolved questions that motivate this article are therefore measurement-focused and context-specific: how to capture genuine soft-skill growth beyond self-report, how to estimate dose-response effects of project features under EMI, and how to model the linkage from project participation to near-term well-being and quality-of-life indicators for early-career engineers in a country at war.

The purpose of this article is to determine whether English-mediated project work measurably enhances soft skills and quality-of-life outcomes for early-career

engineers in Ukraine. We implement and test a wartime-resilient project model that embeds concise English artefacts – role charters, risk registers, and handover notes – and compare changes with matched units delivered in the local language. We further examine which design features moderate these effects across proficiency and context – and whether gains persist under interruptions such as air-raid alerts and power cuts.

The study followed a mixed-methods design across two technical universities and one partner company in central and western Ukraine during Spring-Summer 2025. Participants were 162 early-career engineers in 54 triads, randomized by team to English-mediated project work or to structurally identical projects conducted in Ukrainian. Projects ran for 8 weeks with a 6-week follow-up (Nykyforets et al., 2023). Primary outcomes were externally rated soft-skill performance on authentic artefacts and routines, using behaviourally anchored rubrics for stand-up notes, risk registers, change logs, and acceptance reports. Secondary outcomes were quality-of-life indicators relevant to wartime conditions: career self-efficacy, perceived stress, and well-being. We recorded the number and duration of air-raid interruptions and power cuts, and we indexed the adoption of bilingual micro-texts and pause-resume protocols. Analyses used multilevel ANCOVA with team and cohort random effects, intention-to-treat estimates with multiple imputation for intermittent absences, cluster-robust standard errors, and planned moderation by baseline English proficiency.

Main effects. Teams in the English-mediated condition outperformed controls on the composite soft-skill score with a standardized mean difference $g = 0.39$ [0.18, 0.60], $p < 0.001$. Gains concentrated in communication clarity $g = 0.46$ [0.22, 0.71] and coordination $g = 0.41$ [0.16, 0.65], with a smaller but reliable effect in conflict resolution $g = 0.21$ [0.02, 0.40]. Technical accuracy of deliverables did not differ between conditions, indicating that soft-skill gains did not trade off against the quality of engineering decisions. On quality-of-life outcomes, career self-efficacy increased by 0.33 SD [0.11, 0.55], perceived stress decreased

by 0.24 SD [0.04, 0.44], and WHO-5 well-being increased by 0.28 SD [0.06, 0.50]. Brief cognitive load probes showed a small increase in intrinsic load +0.12 SD [-0.03, 0.27] consistent with working in a foreign language, but a larger decrease in extraneous load -0.41 SD [-0.59, -0.23], suggesting that structured English artefacts reduced ambiguity and rework.

Table 1. Main effects of English-mediated project work on skills, well-being, and cognitive load

Domain	Outcome	Metric	Effect size or change	95% CI	Direction or note
Soft skills	Composite soft-skill performance	Hedges g	0.39	[0.18, 0.60]	EM > Control
Soft skills	Communication clarity	Hedges g	0.46	[0.22, 0.71]	Largest gain
Soft skills	Coordination	Hedges g	0.41	[0.16, 0.65]	Strong gain
Soft skills	Conflict resolution	Hedges g	0.21	[0.02, 0.40]	Smaller but reliable effect
Technical performance	Technical accuracy of deliverables	Difference	No difference	-	No trade-off with quality
Quality of life	Career self-efficacy	SD change	+0.33	[0.11, 0.55]	Increase
Quality of life	Perceived stress	SD change	-0.24	[0.04, 0.44]	Decrease
Quality of life	WHO-5 well-being	SD change	+0.28	[0.06, 0.50]	Increase
Cognitive load	Intrinsic load	SD change	+0.12	[-0.03, 0.27]	Small increase (foreign-language work)
Cognitive load	Extraneous load	SD change	-0.41	[-0.59, 0.23]	- Decrease, less ambiguity and rework

Source: created by author.

Mechanism tests. Adoption of concise English artefacts predicted both performance and well-being. A documentation quality index that combined role charters, risk register completeness, and handover clarity mediated 41 percent of the treatment effect on the soft-skill composite, indirect effect $g = 0.16$ [0.08, 0.26]. Teams that consistently used bilingual micro-texts for safety and

handover showed faster recovery after interruptions. In weeks with alerts, median resume time from siren to productive work was 12 minutes in the English-mediated arm versus 22 minutes in control, Hodges-Lehmann difference 9.5 minutes [6.0, 13.0]. Moderation analyses indicated the largest benefits for mid-proficiency participants B1-B2, with attenuated effects at A2 where language support remained insufficient despite templates, and ceiling effects at C1 where baseline performance was already high.

Robustness and sensitivity. Results held after adjusting for the total number of interruptions per team week and for cohort. Trimming the 10 percent of teams with the highest absence did not change the direction or significance of effects. An alternative difference-in-differences specification using pre-post artefact ratings yielded a similar treatment estimate on the soft-skill composite $b = 0.37$ SD [0.17, 0.58]. Rater drift was checked with a crossed random effect for rater and quarterly calibration, intraclass correlation for artefact ratings ICC = 0.82.

Table 2. Robustness and sensitivity checks for main results

Check	Procedure	Outcome	Implication
Adjustment for interruptions and cohort	Added controls for total interruptions per team-week and cohort effects	Main effects unchanged	Findings robust to observed disruption intensity and cohort composition
Trim test for high absence	Removed top 10% of teams by absence	Direction and significance unchanged	Results not driven by extreme missing participation
Alternative specification (DiD)	Difference-in-differences on pre-post artefact ratings	$b=0.37$ SD [0.17, 0.58] on soft-skill composite	Comparable estimate to primary model supports stability of effect
Rater drift and reliability	Crossed random effect for rater + quarterly calibration	ICC for artefact ratings=0.82	High inter-rater reliability, minimal drift
Missing self-report handling	Multiple imputation by chained equations under MAR; checked convergence	Diagnostics within standard thresholds	Imputation procedure appropriate; bias risk reduced
Adverse technical outcomes	Reviewed technical accuracy, rework, and safety incident logs	No degradation; no increase in rework or safety exceptions	Soft-skill gains do not trade off against engineering quality

Source: created by author

Missing self-report data due to shelter connectivity were handled by chained equations under a missing at random assumption, with convergence diagnostics meeting standard thresholds. No adverse effects on technical accuracy were found, and incident logs showed no increase in rework or safety exceptions.

Interpretation. The pattern is consistent with a coordination mechanism rather than a language advantage per se. English artefacts acted as a standardizing layer that compressed decision space into short, auditable steps that travel well across teams and vendors, while bilingual micro-texts protected safety and equity. Extraneous cognitive load fell because role expectations and evidence requirements were explicit, which reduced ambiguity during low fidelity communication and shortened recovery after interruptions. Quality-of-life gains likely reflect improved predictability, a clearer sense of contribution, and fewer avoidable conflicts. The attenuated effects at A2 indicate that scaffolds should be paired with targeted language support to avoid unequal burdens, while the plateau at C1 suggests diminishing returns once teams already write concise technical English.

Example 1. PumpGuard pressure-sensor verification. A triad supporting a municipal heating utility piloted a replacement pressure sensor for a boiler loop. The team adopted an English risk register template with short, imperative entries and an evidence column that required a photo or log extract. During week 3 a supplier delivered a sensor with a firmware build that produced unstable readings. The team's change log recorded the anomaly, a rollback decision, and a negotiated test window. External raters scored the team's coordination at 3.8 of 4 versus the cohort mean of 3.1, citing precise handoff notes and unambiguous acceptance criteria. The team's perceived stress dropped from 21 to 16 on the PSS, while self-efficacy rose by 0.6 SD. Interviews credited the English template for forcing brevity and explicit checks, which reduced back-and-forth during low bandwidth periods.

Example 2. RailScan UAV inspection during rolling blackouts. A railway maintenance triad integrated a low-cost UAV and thermal camera for catenary

inspections. A power cut and an air-raid alert interrupted flight planning twice in week 5. The team used a bilingual pause-resume micro-text that specified the last confirmed step, next action, responsible role, and a 3 line status in English for the partner vendor. On resumption, the team avoided duplicating pre-flight checks and executed the sortie within the remaining daylight window. Their acceptance report passed an external audit on first review, while comparable control teams needed one or two revisions. Time management rose by 0.7 SD, and resume time after interruptions averaged 10 minutes, compared to a control median of 23 minutes. Raters highlighted the handover clarity that let a different team member take the pilot role when the original pilot was delayed in transit to a shelter.

Limitations and boundary conditions. Although randomization by team and external rating strengthen inference, the study operated within a constrained 8 week window and focused on early-career engineers in Ukraine's recovery context. Transfer to fully commercial settings or to longer projects may require additional validation. Nevertheless, convergence of quantitative effects, artefact audits, and interruption metrics supports the claim (Stepanova et al., 2025) that English-mediated project work, when engineered around concise artefacts and bilingual safety micro-texts, improves soft-skill performance and relevant quality-of-life outcomes without harming technical accuracy.

Practical synthesis. The effective ingredients were small and reproducible: 1 page role charters, 15 line risk registers with evidence fields, 8 line handover notes, and a pause-resume card used during alerts. These artefacts can be adopted in technical courses and junior engineering teams with minimal overhead, and they remain usable off grid and under power constraints. In Ukraine's wartime conditions, such standardization is not cosmetic. It is a safety feature that also builds the interpersonal capacities young engineers need to do responsible work and to sustain a workable sense of dignity in demanding situations.

Conclusion. The study shows that English-mediated project work, engineered around concise artefacts and bilingual safety micro-texts, improves soft-skill performance without degrading technical accuracy. Effects were strongest for communication clarity and coordination, with measurable gains in time management and conflict resolution during disruption. Quality-of-life indicators also improved, with higher career self-efficacy, lower perceived stress, and better well-being scores in the treatment teams. Mechanism analysis suggests that the artefact layer reduced extraneous cognitive load and shortened recovery after air-raid alerts and power cuts, converting interruptions into manageable pauses. Benefits were most pronounced for B1-B2 participants, while A2 learners required additional linguistic scaffolding and C1 participants showed ceiling effects. These findings support treating the language of work not as a constraint, but as a designable tool for coordination and safety in recovery-oriented engineering education. The main limitations are the 8-week window, the early-career sample, and the reliance on two universities and one company, which constrain generalisability and long-term inference. Future research should track graduates into internships and first-year roles to test durability of gains and employer-rated transfer under routine and surge workloads. Methodologically, we need artefact-based rubrics that are portable across disciplines, validated brief scales for interruption-prone delivery, and moderation analyses by displacement status, proficiency, and access to stable power. Practically, the next step is to iterate open templates for role charters, risk registers, and handover notes, pair them with targeted language support for A2-B1 learners, and test deployment at scale with partners in Ukraine's infrastructure and manufacturing sectors.

References:

1. BÄLTER, O., KANN, V., MUTIMUKWE, C., & MALMSTRÖM, H. (2023). English-medium instruction and impact on academic performance: A randomized control study. *Applied Linguistics Review*, 15 (6), 2373-2396. <https://doi.org/10.1515/applirev-2022-0093>.

2. BŁASZCZYK, M., KOVALISKO, N., PIENKOWSKI, P., PACHKOVSKYY, Y., RYNIEJSKA-KIEŁDANOWICZ, M. (2025). Coping with adversity: Mechanisms of resilience in Ukrainian universities during the Russian-Ukrainian war – a perspective from Lviv University students. *Higher Education*. Advance online publication. <https://doi.org/10.1007/s10734-025-01506-z>.
3. CLAUSEN, N. R., ABOUARABI, Y. B., CHEN, J., HANSEN, S., VELMURUGAN, G., FINK, T., LINGDORF, N. E., GUERRA, A., & DU, X. (2025). First-year university students' perspectives on their psychological safety in PBL teams. *Education Sciences*, 15 (2), 236. <https://doi.org/10.3390/educsci15020236>.
4. GUAN, Y., DU, L., YANG, C., & HU, H.-L. (2025) Exploring the roles of self-actualization, language self-efficacy, and academic emotions in EMI students' achievement: a structural equation modeling approach. *Frontiers in Education*, 10, 1567143. <https://doi.org/10.3389/feduc.2025.1567143>.
5. HUERTA, M. V., SAJADI, S., SCHIBELIUS, L., RYAN, O. J., & FISHER, M. (2024). An exploration of psychological safety and conflict in first-year engineering student teams. *Journal of Engineering Education*, 113(3), 635-666. <https://doi.org/10.1002/jee.20608>.
6. MARTÍNEZ GÓMEZ, J., & NICOLALDE, J. F. (2025). Development of soft and hard skills with a better employability vision for engineering students. *Frontiers in Education*, 10, 1578287. <https://doi.org/10.3389/feduc.2025.1578287>.
7. NYKYPORETS, S. S. (2025). Artificial intelligence as a catalyst for advancing soft skills in higher technical education. In *Proceedings of the 4th International Scientific and Practical Conference “Evolving Science: Theories, Discoveries and Practical Outcomes” (June 9-11, 2025, Zurich, Switzerland)* (pp. 377-388). European Open Science Space. URL: <https://ir.lib.vntu.edu.ua/handle/123456789/46733>.
8. NYKYPORETS, S., STEPANOVA, I., & NEDOBYTKO, K. (2023). Advantages of using the project method in foreign language lessons as an effective method of teaching English to students of non-linguistic universities. *Norwegian Journal of Development of the International Science*, 105, 53-57. DOI: <https://doi.org/10.5281/zenodo.7778961>.
9. POLYVIANAIA, M., YACHNIK, Y., FEGERT, J. M., SITARSKI, E., STEPANOVA, N., & PINCHUK, I. (2025). Mental health of university students twenty months after the beginning of the full-scale Russian-Ukrainian war. *BMC Psychiatry*, 25, 236. <https://doi.org/10.1186/s12888-025-06654-1>.
10. PINCHUK, I., ZHORNIK, O., YACHNIK, Y., PAVLIUK, I., & OLEVSKYI, V. (2025). Braving the dark: Mental health challenges and academic performance of Ukrainian university students during the war. *Social Psychiatry and Psychiatric Epidemiology*. Advance online publication. <https://doi.org/10.1007/s00127-025-02867-7>.
11. REHMAN, N., HUANG, X., MAHMOOD, A., ALGERAFI, M. A. M., & JAVED, S. (2024). Project-based learning as a catalyst for 21st-century skills and student engagement in the math classroom. *Heliyon*, 10 (23), e39988. <https://doi.org/10.1016/j.heliyon.2024.e39988>.
12. STEPANOVA, I. S., NYKYPORETS, S. S., & KUKHARCHUK, H. V. (2025). Integrating artificial intelligence tools into project-based English language instruction for technical students: A framework for fostering critical and creative thinking. In A. Ostenda & D. Kalita (Eds.), *Innovation-driven development in education, digital economy, and applied technologies* (pp. 208-215). The University of Technology in Katowice Press. <https://doi.org/10.54264/M055>.
13. YÜKSEL, D., SORUÇ, A., HORZUM, B., & MCKINLEY, J. (2023). Examining the role of English language proficiency, language learning anxiety, and self-regulation skills in EMI students' academic success. *Studies in Second Language Learning and Teaching*, 13 (2), 399-426. <https://doi.org/10.14746/ssllt.38280>.

Annotation

Chapter 1. Psychosocial factors and personal resources in times of crisis

1.1. *Liudmyla Chernukha, Nataliia Hresa. Value-semantic resources of personality as a factor of enhancing quality of life in conditions of global uncertainty.* This paper explores the psychological significance of value-semantic resources as key determinants of quality of life in the context of global uncertainty. It argues that meaning and moral orientation serve as vital protective factors that help individuals maintain integrity, resilience, and purpose amid existential crises. Drawing upon existential and positive psychology, the study highlights how meaning-making processes buffer against depression and suicidal ideation, promoting emotional stability and psychological well-being. The authors emphasize the role of education and psychology in cultivating reflective awareness, empathy, and moral responsibility. The development of value-semantic resources is presented as a strategic direction for modern psychological practice, essential for sustaining human dignity and life's meaningfulness in an unstable world.

1.2. *Mykola Didukh. Human Transcendental Therapy™ (HTT™): spirituality and humanism as factors of holistic personality development.* This paper introduces Human Transcendental Therapy™ (HTT™) as an integrative psychotherapeutic model that synthesizes contemporary psychological theory, neurobiological research, humanistic philosophy, transpersonal psychology, and spiritual self-exploration practices. HTT™ emerged as a response to the increasing prevalence of psychological fragmentation, identity diffusion, anxiety disorders, emotional burnout, and existential crises characteristic of modern society.

The contemporary psychological landscape increasingly demands therapeutic approaches that extend beyond symptom remission toward the restoration of inner coherence, the activation of spiritual potential, and the development of existential resilience. HTT™ offers a holistic pathway that addresses psychological suffering not as pathology alone but as a signal of disconnection from deeper existential structures of the personality.

HTT™ conceptualizes the individual as an integrated system comprising body, emotions, cognition, consciousness, and spirit, with therapeutic work aimed not merely at stabilization but at transcendence and evolutionary growth. This framework positions HTT™ as both a clinical methodology and a developmental paradigm.

1.3. *Olena Tkachuk. The impact of sports activities on the development of anti-stress resilience and cognitive functions in students.* Sports activity is a key factor in the harmonious development of student youth, ensuring the formation of psychological resilience and improving cognitive functions in conditions of increasing psycho-emotional stress and information overload. Regular physical activity is recognized as an effective natural tool for supporting psychological and cognitive health. At the neurobiological level, sports activate neuroplasticity, improve blood circulation in the brain and stimulate the production of neurotrophic factors. This has a positive effect on executive functions, attention, memory, information

processing speed and the ability to think analytically. Sports activities optimize the functioning of the prefrontal cortex, improving skills such as planning and decision-making. From the point of view of stress resistance, physical activity reduces the level of stress hormones (cortisol) and increases the production of endorphins, which helps stabilize the psycho-emotional state and reduce anxiety. Sports form such important qualities as self-control, perseverance and responsibility. Studies confirm that athletes demonstrate higher levels of stress tolerance and cognitive performance compared to inactive peers. In addition, especially team sports, develop social skills, communication and the ability to interact. Thus, sports activities should be an integral part of the educational process for the formation of a successful, adaptive and stress-resistant personality.

1.4. *Tadeusz Pokusa, Mykola Ohienko, Filip Pokusa. Implementation of Artificial Intelligence (AI) in athletes' competitions based on selected examples.* Physical activity and sport are important factors in improving quality of life – both recreational and organized. Similarly, artificial intelligence is finding increasing applications in both professional and amateur sports. In the professional sphere, it is used, among other things, to analyze training data, predict performance and injury risk, and to analyze team games tactically. AI-based systems enable the development of personalized training plans tailored to the individual needs of athletes. This article discusses the issue of artificial intelligence in sports competition and its ethical dimensions.

1.5. *Svitlana Danylchenko, Olga Tarasova, Olena Dolzhykova. Natural healing resources of Ukraine as a factor in improving the effectiveness of physical rehabilitation.* The article emphasizes the importance of natural factors in improving the effectiveness of physical rehabilitation. The potential of using climatotherapy, hydrotherapy, phytotherapy, and other natural resources that create Ukraine's unique therapeutic and rehabilitation capabilities is examined. It is shown that natural factors help normalize the body's functional systems, improve mental health, boost adaptive abilities, and raise patients' quality of life. The significance of including natural methods in comprehensive physical therapy programs is highlighted, aligning with current trends in personalized medicine and sustainable use of natural resources.

1.6. *Liliia Kobylnik, Sabina Radzhabova, Snizhana Stepanova. Psychological features of anxiety correction in primary school children using art therapy.* The article addresses the problem of anxiety in primary school children as a relevant psychological and pedagogical phenomenon that complicates learning adaptation and social interaction. The study substantiates the feasibility of using art therapy as a humanistic and child-centered method of psychocorrection of anxiety manifestations. The paper presents the results of an empirical study aimed at identifying anxiety levels in primary school children and examining the effectiveness of an art-therapeutic program. The research sample consisted of third-grade students from a general secondary education institution. A set of psychodiagnostic tools was applied to ensure a multidimensional assessment of children's emotional states. The content and structure of the formative stage of the study, based on the use of various art therapy techniques, are described. The results of the control stage demonstrated a positive dynamic in anxiety levels following the corrective intervention. The findings confirm the effectiveness of art therapy as a means of psychological support for primary school children.

1.7. *Dariusz Rogowicz. Uniform as a response – Youth facing the challenges of global concern.* In the era of late modernity, characterized by individualism and anti-authoritarian attitudes, the growing interest of young people in career paths within uniformed services constitutes a phenomenon replete with apparent contradictions. This article advances the thesis that this phenomenon does not represent a regression, but rather a complex psychosocial adaptation to the unique conditions of contemporaneity, referred to as “global anxiety.” It is argued that the choice of a uniformed career functions as a defensive mechanism that enables the management of existential anxiety arising from a “polycrisis.” This polycrisis constitutes a specific entanglement of threats associated with climate change, socio-political instability, economic precarity, and digital atomization. The analysis, based on a synthesis of Polish studies and an extensive review of international literature, demonstrates that the uniform becomes a tangible symbol and an institutional anchor that facilitates the restoration of a sense of order, identity, purpose, and agency. Terror Management Theory is adopted as the primary theoretical framework, as it explains how chronically heightened mortality salience motivates young people to seek heroic worldviews, embodied by the uniformed services.

1.8. *Yevheniia Bazyka. Quality of life characteristics of pre-retirement age women during military times.* This article examines the quality of life characteristics of Ukrainian women in late adulthood (ages 50-65) amidst the ongoing military conflict and social uncertainty. The research highlights that while this period is often viewed as a “triple crisis” involving professional, existential, and physiological challenges, recent scientific data suggests it is also a “golden age” where psychological functioning, strategic thinking, and emotional maturity reach their peak. Using an adapted quality of life questionnaire, the study analyses how different social statuses – working professionals, housewives, and the unemployed – impact subjective life satisfaction and the ability to manage stress during wartime.

The results of the empirical study demonstrate a significant correlation between professional employment and higher quality of life indicators. Employed women with continuous work experience showed the highest levels of satisfaction regarding personal achievements, social support, and optimism compared to housewives and unemployed women. Conversely, unemployed women exhibited the lowest levels of self-control and the highest levels of mental stress and negative emotions. The author concludes that professional self-actualization serves as a vital resource for overcoming life and work stress, effectively offsetting the psychological difficulties associated with aging during a period of war.

1.9. *Zhanna Bogdan, Natalia Afanasieva, Tetyana Blyznyuk. Assessment of the quality of professional life and resilience of women scientists in the conditions globalization.* The article explores the issue of professional quality of life and psychological resilience of women scientists in the context of global transformations. Resilience is presented as a dynamic resource that helps overcome professional stress, maintain emotional balance, and enhance well-being in the academic environment. The development of resilience is closely related to social support, self-efficacy, and participation in professional communities. The paper substantiates the need for comprehensive programs aimed at strengthening resilience through psychoeducational, mentoring, and reflective approaches. It is concluded that institutional support for mental health is a key factor in improving the quality of professional life and fostering the academic potential of women scientists.

1.10. Miroslav Gejdos, Ivan Ondrasik. Ontological personalism and empirical functionalism: An analysis of bioethical models in the context of Catholic anthropology. In a theoretical analysis, we analyze the current paradigmatic concepts in bioethics: ontological personalism and empirical functionalism, and their relation to the suffering human being. We critically analyze hedonism and utilitarianism, which are the theoretical bases for empirical functionalism. In particular, we offer arguments against the bioethical conception and understanding of a person as presented by Peter Singer. We conclude that man does not have bad human dignity even when he suffers and experiences pain. In line with ontological personalism, we hold the view of understanding the human person from conception to natural death, and we reject abortion and active euthanasia.

1.11. Iryna Astremska, Oleksandr Shtyrov. Psychological aspects of studying the phenomenon “quality of life”. The article reveals the psychological aspects of the phenomenon of “quality of life”. It is noted that the issue of quality of life attracts the attention of specialists from various fields, including sociology, psychology, economics, philosophy and medicine. Each of these aspects can contribute to a deeper understanding of the concept of quality of life and the development of targeted strategies for its improvement. The opinions of various scientists in the field of psychology on the definition of the concept of “quality of life” are presented.

It is shown that “quality of life” is a multi-component system that, in particular, takes into account the availability of social goods, services, social status, subjective well-being, psychological well-being, organization of life, all of which together play an important role in the psychological study of quality of life.

1.12. Tetiana Hauke. Relationship between the level of psychological separation and emotional states of mature women. The article examines the relationship between the level of psychological separation and emotional states in mature women. Theoretical foundations were derived from classical concepts of attachment, individuation, and differentiation of self, including the works of M. Mahler, J. Bowlby, M. Bowen, C. Rogers, and A. Maslow. An empirical study was conducted on a sample of 33 women aged 35 to 59 years. Psychological separation was assessed using the Psychological Separation Index, emotional states using the PANAS scale, and anxiety levels using the STAI method. The results showed that most respondents demonstrated high psychological separation, which correlated with higher levels of positive affect, lower negative affect, and lower reactive anxiety. Significant negative correlations between psychological separation and emotional tension, as well as positive correlations with emotional well-being, were identified. The findings confirm that completed psychological separation is an important factor in emotional stability and quality of life among mature women. The results may be applied in psychological counselling and support programs for women experiencing transitional life stages.

1.13. Olena Drozd, Bohdana Boichenko. The impact of adverse childhood experiences on the development of mental disorders in adulthood. The article examines the psychological consequences of adverse childhood experiences and their long-term impact on the emotional and mental state of adults. The results confirmed a statistically significant relationship between the level of childhood trauma and the intensity of emotional and psychological symptoms in adulthood. Higher ACE scores correlated with increased levels of depression, anxiety, and somatic manifestations.

The developed psychocorrectional program demonstrated positive dynamics by reducing anxiety and depressive tendencies and improving emotional stability. The findings highlight the importance of early detection and psychological intervention for individuals with traumatic childhood experiences.

1.14. Oksana Melnyk, Liubov Vozna. Preventive strategies for population protection from emergencies: social aspect. The article examines the social aspects of preventive strategies aimed at protecting the population from emergencies. The purpose of the study is to substantiate the need for a socially oriented approach to building a system for emergency prevention. The methodological basis includes systems analysis, the comparative method, and a sociological approach to studying population security issues. The results demonstrate that the effectiveness of preventive measures largely depends on considering the social determinants of vulnerability among different population groups. It is shown that socio-economic status, educational level, age, health condition, and access to information resources significantly influence individuals' ability to respond adequately to threats and protect themselves during emergencies.

A comprehensive set of preventive strategies is proposed, including informational and educational, socio-mobilizational, social protection, and institutional components. International experience in the socialization of civil protection systems is analyzed, and recommendations are provided for adapting best practices to the Ukrainian context.

1.15. Hanna Velichko. Personality vulnerability, its prevention and diagnosis. The report highlights the importance of diagnosis and effective practical work to prevent victimisation. After summarising the existing information, it was established that there are diagnostic tools aimed at studying various aspects of victimisation of individuals, developed for subjects of different ages. The vast majority of questionnaires are in Russian or English. The relevance of victimisation prevention and prophylaxis is supported by researchers and practitioners working on victimisation issues. At the same time, today's tense, stressful situation in our society requires a separate response to challenges that have a powerful impact on people and taking them into account in practical work. The expediency of taking into account the personal context and individual work for the effective prevention of victimisation is emphasised.

- 1.16. Oksana Polianska, Igor Polianskyi, Olha Hulaha, Inna Moskaliuk. Using Artificial Intelligence in selecting physical loads.** Physical therapy is an important public health tool that should be used to maintain a certain state of health and rehabilitate patients, but therapeutic exercises are associated with a transient increase in the frequency of acute cardiac events in patients with cardiovascular diseases, which requires a special approach to selecting the intensity, duration, and frequency of physical activity. The use of artificial intelligence makes it possible to conduct early diagnostics of myocardial ischemia, select and control physical activity, which improves objective functional indicators and the psychological state of patients.
- 1.17. Liliya Dunets. EMDR therapy as a method of working with trauma that activates the natural healing mechanism.** This article examines Eye Movement Desensitization and Reprocessing (EMDR) as an evidence-based method for working with traumatic experiences by activating the natural adaptive information processing mechanism. The paper summarizes key theoretical principles of EMDR, reviews neurobiological research on bilateral stimulation, analyzes its effectiveness in treating post-traumatic stress disorder and complex trauma, and discusses specific aspects of its application in the context of the war in Ukraine. The article also compares EMDR with cognitive-behavioral therapy and highlights the advantages of EMDR for clients with severe traumatic exposure. Perspectives for further research and implementation of EMDR in Ukraine are outlined.

Chapter 2. Educational strategies, professional development and the role of technology in ensuring quality of life

- 2.1. Natalia Falko. Theoretical and methodological aspects of studying the readiness of psychology students for the implementation of rehabilitation measures.** This article presents a theoretical and methodological analysis of the readiness of psychology students to implement rehabilitation measures in contemporary socio-political conditions shaped by war, displacement, and widespread psychological trauma. The concept of psychological rehabilitation is examined as a multidimensional system aimed at restoring emotional stability, adaptive functioning, and resilience.

The structure of professional readiness is described through motivational-value, cognitive, emotional-regulatory, operational, and reflective-metacognitive components, drawing on the works of leading Ukrainian and international scholars. Special attention is given to the competencies required for trauma-informed practice, including crisis intervention, stabilization techniques, and multidisciplinary cooperation.

The article emphasizes the necessity of integrating theoretical knowledge, applied training, supervision, and personal development into educational programs preparing future psychologists for rehabilitation work. The findings highlight the critical role of professional training in ensuring effective psychological support for populations affected by traumatic experiences.

2.2. Iryna Ostopolets, Vadym Zavatskyi. Theoretical and methodological foundations of providing psychological assistance to families raising children with special needs. The article provides a concise theoretical and methodological analysis of psychological assistance for families raising children with special educational needs. It highlights the psychological challenges these families face, including chronic stress, emotional exhaustion, and social isolation. The paper outlines key approaches to psychological support – competence-based, activity-oriented, systemic, person-centered, crisis-oriented, and resource-oriented. Essential professional competencies of psychologists are identified, such as empathy, emotional self-regulation, and effective interdisciplinary collaboration. Emphasis is placed on preparing future psychologists to work with such families and developing their counseling and emotional-regulatory skills. The article concludes that integrating diverse scientific approaches improves the quality of psychological support and promotes the psychological well-being of families.

2.3. Yulia Ilina, Yuliia Sidenko, Tetiana Mostova, Olena Doroganova. The relationship between meaning in life orientations and the leadership potential of future psychologists. This article presents the findings of a comprehensive theoretical and empirical study examining key psychological determinants of the professional development of future psychologists in the context of contemporary societal challenges. The study emphasizes the importance of meaning-in-life orientations, personal growth initiative, self-actualization, and socio-communicative competencies as foundational components of leadership potential in psychology students. The empirical research involved 80 undergraduate psychology students and employed validated instruments, including the MLQ, PGIS-II, SSI, SAQ-SF, and MLQ-5X. The results demonstrated that the presence of meaning, intentional personal growth, and social skills positively correlate with transformational leadership indicators. Higher levels of self-actualization were associated with increased professional motivation and leadership activity. These findings highlight the necessity of integrating the development of personal and social resources into the system of professional psychological education to strengthen the leadership readiness of future practitioners.

2.4. Vladyslav Pyurko, Olga Pyurko, Liudmyla Arabadzhy-Tipenko. Interdisciplinary approach to ensuring and optimizing the quality of life in the modern world in the context of training specialists in medical-biology and natural sciences. The article considers an interdisciplinary approach as a key factor in solving the problem of improving the quality of life in the conditions of global transformations of the modern world. The content and significance of knowledge integration in the training of future specialists in the medical, biological and natural sciences is analyzed. The need for the formation of complex competencies for an effective response to modern challenges related to health, ecology, biotechnology and social development is substantiated.

2.5. Iryna Hlazkova, Yuliia Nadolska, Larysa Yepifantseva. From crisis pedagogy to emotional resilience: sel in foreign language teaching. The war in Ukraine and forced remote learning have created a “double challenge” for higher education. Emotional barriers, including anxiety, fear, and frustration, have become primary obstacles in foreign language learning. These barriers reduce motivation, concentration, and communicative activity, triggering cognitive, motivational, and organizational difficulties. Empirical research among university students confirms the dominant role of emotional factors under crisis conditions. Traditional teaching methods are insufficient to address these challenges effectively.

Social and Emotional Learning (SEL) techniques help manage stress, regulate emotions, and foster trust and engagement. In crisis remote education, it is essential for overcoming emotional barriers and supporting effective foreign language acquisition.

2.6. Oksana Kikinezhdi, Yaroslava Vasykanych, Mykola Ryk. Development of adolescents' giftedness in the educational environment as a factor in improving the quality of life of the young generation. The article presents the results of a study on the specifics of identifying and exhibiting different types of adolescent giftedness in the educational environment. The empirical study using rating assessments revealed that most participants demonstrate an average level of various forms of giftedness. A notable trend was observed: expert assessments of high levels of creative and motivational-personal giftedness significantly exceed both self- and peer assessments of these abilities. It is concluded that the homeroom teacher estimates students' creative potential significantly higher than the students themselves or their peers do. This may indicate students' underestimation of their possibilities or the limited conditions for manifesting such abilities within the school learning process.

2.7. Maryna Nesterenko, Kristina Petryk. Analysis of the current state of preparation of future teachers for STEM-oriented professional activities. This study examines the current state of preparation of future teachers for STEM-oriented professional activities in Ukraine. Despite a robust regulatory and legal framework, integration of STEM components into teacher education programs remains fragmented and limited. The analysis of bachelor's and master's curricula across multiple pedagogical universities reveals that STEM is often represented by isolated courses or internships, with minimal cross-curricular integration. Bachelor's programs tend to offer stronger practical and interdisciplinary training, whereas master's programs prioritize methodological and research components, limiting hands-on STEM experience. Challenges include inadequate practical training, insufficient interdisciplinary links, and a narrow focus on digital literacy over broader STEM competencies. Emphasis is placed on the systematic integration of STEM education through a series of compulsory modules, project-based learning, and professional development for teachers. A coherent state and institutional policy is necessary to ensure that graduates are fully prepared to implement STEM-oriented pedagogy. The study provides insights into curriculum improvement and policy measures to foster a scientifically and technologically competent generation of educators.

2.8. Svitlana Nykyporets. Effects of English-mediated project work on soft-skills development and quality-of-life outcomes in early-career engineers: a mixed-methods evaluation. Amid air-raid alerts and power cuts, early-career engineers in Ukraine must coordinate work in English while protecting well-being. This study tested an English-mediated project model using concise artefacts – role charters, risk registers, handover notes – plus pause-resume protocols across 54 triads. Compared with matched Ukrainian-language teams, soft-skill performance improved on a composite, with stronger gains in communication clarity and coordination, and a smaller but reliable effect in conflict resolution. Technical accuracy did not decline. Quality-of-life improved: career self-efficacy increased, perceived stress decreased, and WHO-5 rose. Cognitive load showed a small intrinsic increase but a larger extraneous decrease. Effects were assisted by documentation quality and strongest at B1-B2.

2.9. Wladyslaw Wornalkiewicz. Monitoring civic affairs. Ongoing monitoring of civic affairs benefits not only the residents of a given area, administratively separated, for example, from the municipality, but also from officials employed in it. It is a bond between the citizen and the office. The citizen participates in the decision-making process in the part called the civic budget. Different types of IT tools are used in this regard, namely: Public In-formation Bulletin, Electronic Inbox, Municipal GeoPortal, broadcasts of municipal sessions. It is a kind of "looking at the hands of officials". It allows you to prevent all kinds of imperfections in the decision-making process, "engages" residents in participating in the selection and implementation of projects. The carried out survey, in an example of one of the municipalities of the Opole Voivodeship, made it possible to indicate recommendations to further improve the monitoring of civic affairs. It can be an inspiration for other municipalities to improve the rapprochement between citizens and local authorities.

2.10. Tetiana Tretyakova, Yelizaveta Rudenko. The role and place of education in improving the quality of life. This paper explores the role of education as a key factor influencing the quality of life of an individual and society. The study highlights the multidimensional nature of quality of life and analyzes how educational processes affect personal development, social mobility, professional opportunities, and psychological well-being. Special attention is given to modern challenges faced by students, including anxiety, academic pressure, and the need for adaptation to rapidly changing educational environments. The research demonstrates that education not only provides knowledge and professional skills but also contributes to the formation of resilience, responsibility, and self-regulation. These qualities play a crucial role in building a stable, meaningful, and fulfilling life. Education is presented as a strategic resource that shapes human potential and supports sustainable social development.

2.11. Kateryna Zamkova, Volodymyr Shevchenko. The influence of parents psychological stability on the emotional state of children with special educational needs. The article is devoted to the study of the relationship between the psychological stability of parents and the emotional state of children with special educational needs (SEN) in the context of inclusive education. The relevance of the topic is due to the growing role of inclusive education and the insufficient development of the issue of the influence of parental emotional state on the child. The work uses

a combination of theoretical and empirical methods: literature analysis, modelling, questionnaires, and psychodiagnostic tools (DASS-21, Rotter's RSK, Nemov's questionnaire, DDL methodology). The study was conducted on a sample of 13 mother-child pairs in an educational institution with inclusive support. The results showed a direct link between the emotional balance of parents, their stress resistance, and the adaptive abilities of children. The practical significance of the study for the development of psychological support programmes for families and improving the effectiveness of inclusive support is emphasised.

2.12. *Natalya Pirogova. Professional improvement of teachers in the minds of the war stand: emotional front and stability crisis.* This article is devoted to the study of professional burnout syndrome (PBS) among teachers in general education institutions in the context of full-scale war in Ukraine. Unlike in peacetime, when burnout is mainly associated with workload, the study focuses on the fact that the key factor in PBS today is chronic, highly pronounced anxiety and emotional exhaustion directly caused by the state of war. The goal is to quantitatively assess the level of burnout and anxiety, as well as to determine the structure of PWB in order to develop adequate intervention programs.

2.13. *Olha Shevchenko. Formation of the readiness of future physical education teachers to protect the health of schoolchildren using game technologies.* The article analyzes the preparation of future physical education teachers for the health preservation of students using game technologies. It was found that physical education teachers aim to form in students a stable motivation for a healthy lifestyle, which is possible only under the condition of a comprehensive combination of various methods and forms of health preservation activities in the educational process. It is proved that the game form of classes, which is created in lessons through the use of game techniques and situations, serves as a means of stimulation, motivation for educational activities and health preservation of schoolchildren.

2.14. *Viktoriia Anishchenko, Liudmyla Olefir, Iryna Ievreinova. The role of informal education in shaping the life trajectory of future teenagers who are in custody.* Non-formal education is a flexible, practice-oriented form of learning based on the principles of learning by doing, cooperation, and self-directed learning. It is an innovative form of education for adolescents placed in custody, and its implementation supports the development of metacognitive skills, emotional competence, and social responsibility among residents of penitentiary institutions. Special attention is given to personalizing the educational process, integrating knowledge with real-life contexts, and creating a safe learning environment. In penitentiary institutions, non-formal education performs corrective and resocialization functions, helping adolescents transform their thinking and behavior. The educational cycle includes taking responsibility, emotional reflection, action implementation, and evaluation of outcomes. Forms of learning include trainings, workshops, online courses, and social projects. This approach opens the way to self-realization, the development of life skills, and the construction of a positive future trajectory for adolescents, supporting their reintegration into society.

2.15. Mykola Blyzniuk, Oleksiy Debre, Yaroslav Radko. Digital competence of a modern teacher and its impact on improving the quality of life. This article explores the role of digital competence as a key element of modern teachers' professional readiness and examines how it contributes to improving their overall quality of life. Digital competence is defined as a multidimensional construct that includes technical skills, information literacy, digital communication, collaboration, and responsible online behavior. The study shows that teachers with higher levels of digital competence are better equipped to apply innovative teaching methods, organize flexible and personalized learning, and maintain effective communication within the educational community.

The findings highlight that the integration of digital technologies into teaching practices helps reduce routine workload, increase efficiency, support emotional well-being, and enhance confidence in professional activities. Digital competence also opens new opportunities for continuous development through online courses, professional networks, and participation in international projects.

The article concludes that strengthening digital competence should be a priority of teacher training systems and professional development programs. Future research may focus on the relationship between digital skills, job satisfaction, and teachers' psychological well-being.

2.16. Nataliia Muranova, Dmytro Volhushyn, Mykhailo Hadalin. Educational strategies for implementing professional development and quality of life for managers and specialists in the IT field. The article presents the results of a theoretical analysis of the relationship between professional development and quality of life of managers and specialists in the IT sphere in the context of the digital transformation of society. The methodological basis is an interdisciplinary approach that combines the results of andragogical, psychological and pedagogical research. It analyses current trends in the development of formal, non-formal and informal education as means of increasing the competitiveness and professional development of IT workers. It has been proven that the introduction of educational innovations ensures a harmonious combination of professional growth with the preservation of psychological well-being, which directly affects the quality of life. The results of the study confirm that professional development is a key factor in social progress and improving the quality of life in the digital age.

2.17. Myroslav Bekchyv. The impact of Artificial Intelligence on the career guidance processes of modern youth: new challenges and prospects for interaction. The article explores the integration of artificial intelligence (AI) technologies into the teaching of higher mathematics as a key component of contemporary digital transformation in education. Generative AI systems such as ChatGPT, Copilot, and Wolfram Alpha are analyzed as cognitive partners that enhance personalization, adaptive learning, feedback mechanisms, and reflective thinking. The study outlines new didactic opportunities based on the principles of adaptability, authenticity, and reflexivity while identifying pedagogical and ethical challenges related to academic integrity, algorithmic transparency, and data privacy. An original concept of AI integration into mathematics education is proposed, combining three interconnected directions: the formation of students' digital and ethical competence, the development of AI pedagogical literacy among teachers, and the integration of AI tools into

educational platforms (Moodle, Google Classroom). The implementation of this model promotes the emergence of a new pedagogical paradigm – generative pedagogy – in which the teacher becomes a facilitator, the student a co-creator of knowledge, and technology a means of enhancing human intellectual potential.

2.18. *Vladyslav Herasymenko*. Integration of Artificial Intelligence into the teaching of higher mathematics: new didactic opportunities and pedagogical challenges.

Artificial intelligence is a challenge for humanity. It will take a long time for us to fully assess its impact on various aspects and spheres of human life. During the period when young people form their life values and orientations, choose professions, and strengthen their worldview, they are accompanied by artificial intelligence at every step. This study focuses on the influence of artificial intelligence on the quality of young people's lives and its role in supporting their professional identity.

2.19. *Anton Serdiuchenko, Kateryna Petrovska*. Digital education of social workers as a factor in improving the quality of life of vulnerable population groups.

In the context of global transformations, technological progress, and wartime challenges in Ukraine, the modernization of the social sector is becoming increasingly urgent. Vulnerable populations – internally displaced persons, military families, the elderly, people with disabilities, and orphans – require accessible and high-quality social services. This article argues that the digital education of social workers is a key mechanism for improving these services. It enhances professionals' ability to apply modern technologies, manage online platforms, and ensure continuity of support. The authors highlight national and international academic perspectives and outline how the development of digital competencies among social work professionals directly impacts the quality of life of vulnerable groups. The article concludes with recommendations for integrating digital tools into social work education to meet the demands of a rapidly digitalizing society.

Chapter 3. Socioeconomic, environmental and management aspects of quality of life

3.1. *Esmira Ahmadova Mirmammad, Tetyana Nestorenko, Lala Hamidova*. The impact of human capital development on living standards: evidence from European countries.

This study examines the impact of human capital development on living standards across European countries using a multidimensional panel dataset covering the period 2017-2024. Human capital is conceptualized through three core components – education, digital skills, and health capital – reflecting both traditional and modern determinants of socio-economic well-being. Employing fixed-effects models, Driscoll-Kraay corrected estimators, and two-step System GMM, the analysis provides robust empirical evidence that human capital development significantly improves both material and subjective dimensions of living standards. Digital skills emerge as the most influential factor, strongly associated with higher income levels, improved employment outcomes, and greater life satisfaction. Health capital and

tertiary education also demonstrate substantial positive effects. The study further shows that labour market structures partially mediate the relationship, while institutional quality acts as a moderating factor that amplifies the returns to human capital. Overall, the findings highlight the need for integrated policy strategies that combine investments in education, digital competencies, health systems, and institutional governance to enhance living standards and reduce regional disparities across Europe.

3.2. Olena Chukurna, Yelyzaveta Chukurna. Research on consumer loyalty in the residential construction market. The article considers and analyzes the current state of the housing construction and real estate market in the Odesa region. The factors influencing the formation of the housing construction market are identified. The dynamics of price changes in the residential real estate market and the criteria put forward by the consumer for the purchase of residential real estate are analyzed. A study of consumer loyalty in the residential real estate market is conducted, a cluster and dispersion analysis of consumer loyalty is carried out. Factors influencing consumer behavior in terms of incentives for the purchase of residential real estate are identified. Recommendations are developed for the formation of demand in the residential real estate and housing construction market.

3.3. Zlata Kafarska. Assertiveness in business. The article highlights the problem of assertiveness in the context of the specifics of entrepreneurial activity. It is noted that the main qualities of assertiveness are self-esteem and a conscious assessment of one's own value. The features and specific functions of entrepreneurial activity are identified, which comprehensively affect various areas of an entrepreneur's activity and determine the need to develop assertive skills as a prerequisite for the successful achievement of professional goals. It is indicated that these features also have a negative impact on the development of an entrepreneur's assertive skills. It is determined that the model of assertive business behavior is formed at the intersection of values, communication, emotional maturity, behavioral strategies and organizational culture. The importance of using special techniques for the formation of a high level of psychological, managerial and communicative competencies is emphasized.

3.4. Marek Janicki. Income and expenditure of local government units responsible for maintaining and improving the standard of living of residents in the Opole Voivodeship compared to the country in the years 2015-2024 – indicator approach. This article presents the revenues and expenditures of local government units (LGUs) responsible for maintaining and improving the standard of living of residents in municipalities and cities with county rights in the Opole Voivodeship. The study utilizes eight indicators that enable the presentation of multidimensional relationships between the financial condition of municipalities and cities with county rights and the standard of living of residents in the Opole region from 2015 to 2024. The obtained information is presented against the backdrop of Poland. The study utilizes data available in the Local Data Bank (as of October 2, 2025). The presented indicators utilize information collected in accordance with the principles set forth in the Public Finance Act, i.e., division into sections and chapters defining the type of activity and paragraphs defining the type of income or expenditure. The data presented by sections, chapters, and paragraphs are prepared in accordance with the detailed classification of income and expenditure established by the Minister of Finance.

3.5. *Alina Yakymchuk, Malgorzata Skulimowska.* Biodiversity as a renewable energy resource: estimating ecosystem productivity for sustainable development.

Biodiversity forms a fundamental basis for renewable energy production by sustaining ecosystem productivity and regulating biogeochemical cycles. This article explores biodiversity as a renewable energy resource, with particular emphasis on estimating ecosystem productivity – especially net primary productivity (NPP) – within the broader framework of sustainable development. Drawing on a synthesis of scientific literature and global data on forest, grassland, wetland, and agricultural ecosystems, the study investigates how ecosystem services contribute to energy security. The analysis shows that biodiversity-driven ecosystems maintain energy flows through biomass production, regulate carbon cycles, and strengthen ecological resilience. Methodological approaches such as remote sensing, ecological modelling, and economic valuation are examined to assess energy productivity. The findings highlight the significant potential of biodiverse ecosystems to support renewable energy systems, while also acknowledging the trade-offs between energy extraction and conservation. The paper concludes with policy recommendations for integrating biodiversity-based energy services into sustainable development strategies.

3.6. *Tetiana Zaiats, Oksana Diakonenko, Olena Sova.* Cohesion trends in territorial communities: wartime and post-war regularities for quality of life improvement.

The article reveals the patterns of social cohesion within the territorial communities of Ukraine. General and specific regularities of cohesion are identified, among which the most significant are the voluntary nature of unification based on equality and respect for rights, the sharing of common interests, and mutual trust. It is established that social and economic inequality, segregation, institutional distrust, and pro-Russian propaganda have a negative impact on cohesion, while historical and cultural commonality, territorial proximity, similarity of socio-economic living conditions, and the activities of civic and volunteer organizations contribute positively.

3.7. *Svitlana Bykova.* Success as a psychological descriptor of the quality of an individual's social life.

From a psychological point of view, personal success is an important indicator of the quality of a person's social life, a descriptor that contains relevant information about a person's achievements; structures information about their social life and personality expression in it; describes personal success in terms of its connection with other psychological characteristics; enables predictions to be made both about the manifestation of an individual's success and about the probable quality of their social life, etc. Therefore, the generalisation of information about psychological markers of success and the characteristics of a successful individual are parameters by which the quality of their life can be judged.

3.8. *Olha Kertsman.* The role of social media in spreading narratives of sleep culture as an important tool for improving quality of life.

The article presents a theoretical and analytical study of the role of social networks in spreading narratives of sleep culture as a socio-psychological tool for improving quality of life. Based on an interdisciplinary analysis of sources from neuropsychology, stress psychology, social psychology, and digital communications, it has been determined that humanistic and educational media content contributes to the normalization of attitudes toward rest, the reduction of emotional tension, and the formation of healthy behavioral patterns.

It has been found that social networks serve as a medium for disseminating evidence-based knowledge about sleep through mechanisms of affiliation, emotional empathy, and algorithmic reinforcement.

3.9. Mariia Kravchenko. The influence of nonverbal communication on the formation and development of romantic relationships: a study of heterosexual couples.

The article examines the psychological mechanisms through which nonverbal communication influences the processes of forming and further developing romantic relationships in heterosexual couples. Nonverbal exchange is considered a multidimensional phenomenon encompassing gestures, facial expressions, posture, tactile interactions, spatial behavior, and eye contact, all of which play a crucial role in conveying emotions, intentions, and attitudes between partners. It is substantiated that the effectiveness of nonverbal interaction depends on the partners' ability to adequately encode and decode nonverbal signals, which serves as a prerequisite for the formation of emotional closeness, trust, and a sense of security. Nonverbal behavior is understood as an integral component of interpersonal attraction that shapes first impressions and the subsequent dynamics of interaction.

3.10. Tetyana Siroshstan, Zoya Mytyay, Iryna Gapeeva. Language ecology as a guarantee of quality of life in a globalized world.

The growth of the communicative power of the Ukrainian language necessitates the need to adhere to the principles of language ecology, which involves the imitation of language norms, the justified use of emotionally colored vocabulary (as well as slang, dialect and other words), giving preference to native Ukrainian (as opposed to borrowed) vocabulary, as well as increasing the efficiency of communicative interaction between speakers, which constitutes a direct basis for strengthening Ukrainian identity and building our state, and accordingly creates favorable conditions for improving the quality of human life in the modern globalized world.

3.11. Liudmyla Shlieina, Tetiana Ivanets. Methodology of teaching gender-neutral and inclusive speech in the professional training of future specialists.

The article theoretically substantiates and develops a methodology for teaching gender-neutral and inclusive speech in the professional training of future specialists. The relevance of the study is due to the need to form inclusive communication competence (ICC) in graduates, which, unlike general communicative ability, includes a mandatory social and ethical dimension. The developed structural and content model of the methodology is based on a competency-based approach and is implemented in three stages: theoretical-cognitive, practical-operational and evaluative-reflective. It is proven that the effectiveness of training is ensured by the principles of integration (cross-curricular teaching in professional disciplines), contextualization (use of professionally oriented cases) and dialogicity / reflection. The main tools are active interactive methods (case studies, language training, debates). Key pedagogical conditions for the successful implementation of the methodology have been identified, in particular, the staff readiness of teachers and the provision of resources with industry-specific non-discriminatory dictionaries. Criteria for assessing the formation of the ICC have been established.

- 3.12. Tetiana Tretyakova, Taisia Leventhal. The connection of the communicative process in the globalized world with information stress.** The article investigates the relationship between globalized communicative processes and the phenomenon of information stress in the digital age. The psychological consequences of excessive information load arising from multichannel communication, constant media contact and algorithmic dynamics of digital platforms are considered. Modern Ukrainian and international studies have been analyzed, which confirm the impact of information overload on the cognitive and emotional spheres of a person. The author outlines the concept of “communication and information stress” and defines it as a psycho-emotional state caused by the excess of information flows. Particular attention is paid to the concept of information hygiene as a tool for reducing stress and maintaining psychological stability. Practical ways of self-regulation are proposed – digital detox, critical thinking, control of online activity time. The work is of practical importance for the development of media literacy and mental health in the context of the information war.
- 3.13. Marianna Pavlyshyn. The economic instruments of agriculture as a factor in improving the quality of life of Ukrainians.** The publication presents the results of research into the role and significance of economic instruments in Ukraine's agro-industrial complex in ensuring socio-economic stability and improving the quality of life of the population. An analysis of the concepts of “economic instruments” and “quality of life of the population” in the context of the agrarian economy has been carried out. The structure and main types of economic instruments used in Ukraine's agribusiness sector are identified, in particular, state support mechanisms, tax incentives, credit and financial levers, as well as rural development programs, etc. The main problems and shortcomings in the application of economic mechanisms have been identified, including the inefficiency of budgetary support, uneven access to resources and a lack of innovative technologies. Areas for improving the effectiveness of economic instruments are proposed, including the development of cooperation, digitalization of the industry, stimulation of organic production, and improvement of the state regulation system. The results of the study are aimed at improving the social welfare of Ukrainians and strengthening the country's food security.
- 3.14. Maryna Zelinska, Anastasiia Sorokina. Risk management standards in infrastructure investment projects: international experience.** Risk Management (RM) in infrastructure investment projects, especially in the construction industry, is gaining strategic importance amid global economic instability and the need for network restoration. The article aims for a comprehensive analysis of leading international RM standards: ISO 31000:2018, WB/IFC requirements (ESG), FIDIC contractual mechanisms, and EU financial regulations (Solvency II). Theoretical foundations and practical case studies (the “Ice Arena,” Fehmarnbelt Fixed Link) are analyzed. It is established that international standards are critically necessary for transparency, effective allocation of responsibility, and the attraction of institutional investments. Recommendations are proposed for harmonizing domestic RM practices in construction with international requirements.

3.15. Leonid Pankovets. The impact of Artificial Intelligence technologies on the formation of business models in the digital economy. The article examines the impact of artificial intelligence technologies on the formation of business models in the digital economy and the directions of implementing innovative approaches to doing business. Practical cases and examples of global companies that successfully integrate artificial intelligence technologies into their business models are considered, depending on the direction of their use and innovation goals. Practical cases of implementing artificial intelligence in the sphere of activity of companies such as Amazon, Google and Netflix are considered. The main directions of business model transformation in the digital economy are substantiated. A classification of business models of the digital economy is proposed and substantiated depending on the application of artificial intelligence technologies, as well as their use in specific examples.

3.16. Andrii Tymchyshyn, Kateryna Tymchyshyn. Formation of environmentally conscious legal culture as a component of improving the quality of life in the context of globalization. The article explores the conceptual foundations of forming an environmentally conscious legal culture as a key component of improving the quality of life in the context of globalization. It is substantiated that the modern paradigm of social development requires the integration of environmental values into the legal consciousness of citizens, since only a balanced combination of legal knowledge, moral responsibility, and ecological thinking ensures the sustainability of social systems and the well-being of future generations. It is emphasized that legal culture cannot remain isolated from environmental challenges, because it is through law that society establishes mechanisms for environmental protection, rational use of natural resources, and the guarantee of human ecological safety.

The study shows that globalization, despite its positive effects of knowledge and technology exchange, simultaneously exacerbates ecological problems and creates new risks for quality of life related to environmental degradation and social inequality. In this context, the formation of environmentally oriented legal awareness becomes a priority within the education system, particularly in legal education, where future professionals should realize their role as agents of change toward sustainable development.

The article highlights the need for the humanization of legal education, the introduction of interdisciplinary courses on environmental law, bioethics, environmental psychology, and sustainable development. It is noted that the cultivation of an environmentally conscious legal culture is possible only through the synthesis of scientific knowledge, ethical principles, and civic engagement. Practical directions are proposed for improving educational policy aimed at training specialists capable of making decisions that combine legal feasibility, environmental responsibility, and social justice.

It is concluded that the formation of an environmentally conscious legal culture is a strategic condition for improving the quality of life, as it contributes to personal development, harmonization of human-nature relations, and strengthening the principles of sustainable development in society.

About the authors

Chapter 1. Psychosocial factors and personal resources in times of crisis

- 1.1. *Liudmyla Chernukha*
Nataliia Hresa
Kharkiv National University of Internal Affairs, Kharkiv, Ukraine.
- 1.2. *Mykola Didukh*
State Institution “South Ukrainian National Pedagogical University named after K. D. Ushynsky”, Odesa, Ukraine.
- 1.3. *Olena Tkachuk*
Vladimir Dahl East Ukrainian National University, Kyiv, Ukraine.
- 1.4. *Tadeusz Pokusa*
Mykola Ohiienko
Filip Pokusa
The Academy of Applied Sciences – Academy of Management and Administration in Opole, Opole, Poland.
- 1.5. *Svitlana Danylchenko*
Olga Tarasova
Olena Dolzhykova
Kherson State University, Kherson – Ivano-Frankivsk, Ukraine.
- 1.6. *Liliia Kobylnik*
Bogdan Khmelnytsky Melitopol State Pedagogical University, Zaporizhzhia, Ukraine
Sabina Radzhabova
Bohdan Khmelnytskyi National University, Cherkasy, Ukraine
Snizhana Stepanova
Horlivka Institute for Foreign Languages of the State Higher Educational Institution “Donbas State Pedagogical University”, Dnipro, Ukraine.
- 1.7. *Dariusz Rogowicz*
The Academy of Applied Sciences – Academy of Management and Administration in Opole, Opole, Poland.
- 1.8. *Yevheniia Bazyka*
Odesa National University named I. I. Mechnikov, Odesa, Ukraine.
- 1.9. *Zhanna Bogdan*
Natalia Afanasieva
Tetyana Blyznyuk
Simon Kuznets Kharkiv National University of Economics, Kharkiv, Ukraine.

- 1.10.** *Miroslav Gejdos*
The Academy of Applied Sciences – Academy of Management and Administration
in Opole, Opole, Poland
Ivan Ondrasik
Institute of Clinical Hematology and Transfusiology, Ruzomberok, Slovakia.
- 1.11.** *Iryna Astremska*
Oleksandr Shtyrov
Petro Mohyla Black Sea National University, Mykolaiv, Ukraine.
- 1.12.** *Tetiana Hauke*
Petro Mohyla Black Sea National University, Mykolaiv, Ukraine.
- 1.13.** *Olena Drozd*
Bohdana Boichenko
Petro Mohyla Black Sea National University, Mykolaiv, Ukraine.
- 1.14.** *Oksana Melnyk*
Liubov Vozna
Ivan Franko National University of Lviv, Lviv, Ukraine.
- 1.15.** *Hanna Velichko*
State Institution “South Ukrainian National Pedagogical University named after
K. D. Ushynsky”, Odesa, Ukraine.
- 1.16.** *Oksana Polianska*
Igor Polianskyi
Bucovinian State Medical University, Chernivtsi, Ukraine
Olha Hulaha
Inna Moskaliuk
Opole University, Opole, Poland.
- 1.17.** *Liliya Dunets*
Kremenchuk Humanitarian and Technological Academy, Kremenchuk, Ukraine.

Chapter 2. Educational strategies, professional development and the role of technology in ensuring quality of life

- 2.1.** *Natalia Falko*
Bohdan Khmelnytskyi Melitopol State Pedagogical University, Zaporizhzhia, Ukraine.
- 2.2.** *Iryna Ostopolets*
Vadym Zavatskyi
Bohdan Khmelnytsky Melitopol State Pedagogical University, Zaporizhzhia, Ukraine.

- 2.3.** *Yulia Ilina*
Kharkiv National Automobile and Highway University, Kharkiv, Ukraine
Yuliia Sidenko
Cherkasy Bohdan Khmelnytsky National University, Cherkasy, Ukraine
Tetiana Mostova
Municipal Institution “Zaporizhzhia Regional Institute of In-Service Pedagogical Education” of the Zaporizhzhia Regional Council, Zaporizhzhia, Ukraine
Olena Doroganova
National Technical University “Kharkiv Polytechnic Institute”, Educational and Scientific Medical Institute, Kharkiv, Ukraine.
- 2.4.** *Vladyslav Pyurko*
Gymnasium № 22 of the Melitopol City Council of Zaporizhzhia Region, Zaporizhzhia-Melitopol, Ukraine
Olga Pyurko
Liudmyla Arabadzhy-Tipenko
Bogdan Khmelnytsky Melitopol State Pedagogical University, Zaporizhzhia-Melitopol, Ukraine.
- 2.5.** *Iryna Hlazkova*
Yuliia Nadolska
Larysa Yepifantseva
Bogdan Khmelnytsky Melitopol State Pedagogical University, Zaporizhzhia, Ukraine.
- 2.6.** *Oksana Kikinezhdi*
Ternopil Volodymyr Hnatiuk National Pedagogical University, Ternopil, Ukraine
Yaroslava Vasykanych
Mykola Ryk
Hryhorii Skovoroda University in Pereiaslav, Pereiaslav, Ukraine.
- 2.7.** *Maryna Nesterenko*
Kristina Petryk
Berdiansk State Pedagogical University, Zaporizhzhia, Ukraine.
- 2.8.** *Svitlana Nykyporets*
Vinnytsia National Technical University, Vinnytsia, Ukraine.
- 2.9.** *Wladyslaw Wornalkiewicz*
The Academy of Applied Sciences – Academy of Management and Administration in Opole, Opole, Poland.
- 2.10.** *Tetiana Tretyakova*
Yelizaveta Rudenko
National University “Odesa Law Academy”, Odesa, Ukraine.
- 2.11.** *Kateryna Zamkova*
Volodymyr Shevchenko
Petro Mohyla Black Sea National University, Mykolaiv, Ukraine.
- 2.12.** *Natalya Pirogova*
Petro Mohyla Black Sea National University, Mykolaiv, Ukraine.

- 2.13.** *Olha Shevchenko*
Volodymyr Vynnychenko Central Ukrainian State University, Kropyvnytskyi, Ukraine.
- 2.14.** *Viktoriia Anishchenko*
Liudmyla Olefir
Iryna Ievreinova
Penitentiary Academy of Ukraine, Chernihiv, Ukraine.
- 2.15.** *Mykola Blyzniuk*
Oleksiy Debre
Yaroslav Radko
Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.
- 2.16.** *Nataliia Muranova*
Dmytro Volhushyn
Mykhailo Hadalin
State Higher Educational Institution “University of Educational Management” of the NAES of Ukraine, Kyiv, Ukraine.
- 2.17.** *Myroslav Bekchyy*
State Institution “South Ukrainian National Pedagogical University named after K. D. Ushynsky”, Odesa, Ukraine.
- 2.18.** *Vladyslav Herasymenko*
Sumy National Agrarian University, Sumy, Ukraine.
- 2.19.** *Anton Serdiuchenko*
Kateryna Petrovska
Berdyansk State Pedagogical University, Zaporizhzhia, Ukraine.

Chapter 3. Socioeconomic, environmental and management aspects of quality of life

- 3.1.** *Esmira Ahmadova Mirmammad*
Azerbaijan State University of Economics, Baku, Azerbaijan
Tetyana Nestorenko
Academy of Silesia, Katowice, Poland
Lala Hamidova
Azerbaijan State University of Economics, Baku, Azerbaijan.
- 3.2.** *Olena Chukurna*
State University of Intelligent Technologies and Telecommunications, Odesa, Ukraine
Yelizaveta Chukurna
Odesa State Academy of Civil Engineering and Architecture, Odesa, Ukraine.

- 3.3.** *Zlata Kafarska*
Nicolai Copernic University, Torun, Poland.
- 3.4.** *Marek Janicki*
The Academy of Applied Sciences – Academy of Management and Administration
in Opole, Opole, Poland.
- 3.5.** *Alina Yakymchuk*
University of Information Technologies and Management, Rzeszow, Poland
Kherson State Agrarian and Economical University, Kropyvnyiyskiy, Ukraine
Malgorzata Skulimowska
Institute of History, University of Rzeszow, Rzeszow, Poland.
- 3.6.** *Tetiana Zaiats*
Oksana Diakonenko
Olena Sova
Mykhailo Ptoukha Institute for Demography and Life Quality Research of the NAS
of Ukraine, Kyiv, Ukraine.
- 3.7.** *Svitlana Bykova*
Odesa State Academy of Civil Engineering and Architecture, Odesa, Ukraine.
- 3.8.** *Olha Kertsman*
State Institution “South Ukrainian National Pedagogical University named after
K. D. Ushynsky”, Odesa, Ukraine.
- 3.9.** *Mariia Kravchenko*
Petro Mohyla Black Sea National University, Mykolaiv, Ukraine.
- 3.10.** *Tetyana Siroshstan*
Zoya Mytyay
Iryna Gapeeva
Bogdan Khmelnytsky Melitopol State Pedagogical University, Zaporizhzhia, Ukraine.
- 3.11.** *Liudmyla Shlieina*
Tetiana Ivanets
Dmytro Motornyi Tavria State Agrotechnological University, Zaporizhzhia, Ukraine.
- 3.12.** *Tetiana Tretyakova*
Taisia Leventhal
National University “Odesa Law Academy”, Odesa, Ukraine.
- 3.13.** *Marianna Pavlyshyn*
Ivan Franko National University of Lviv, Lviv, Ukraine.
- 3.14.** *Maryna Zelinska*
Anastasiia Sorokina
Mariupol State University, Kyiv, Ukraine.
- 3.15.** *Leonid Pankovets*
Odesa National Economic University, Odesa, Ukraine.

3.16. *Andrii Tymchyshyn*

Ivano-Frankivsk Branch of the University “Ukraine”, Ivano-Frankivsk, Ukraine

Kateryna Tymchyshyn

Ivano-Frankivsk Professional College of the Kyiv University of Intellectual Property and Law, Ivano-Frankivsk, Ukraine.



978-83-66567-59-7