UDC 378:159.98-051]:[378.091.33-028.26:004.8

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BEYOND TRADITIONAL TRAINING: AI AS A SUPPORTIVE INSTRUMENT IN PSYCHOLOGIST DEVELOPMENT

Abstract. This study explores the integration of artificial intelligence (AI) into training and professional development of psychologists mastering the innovative Eco-Centered Psychological Facilitation (ECPF) method, developed within P.V. Lushyn's ecofacilitative approach. Psychologist-ecofacilitators are professionals who have mastered this method and practice based on ecofacilitative principles. The study focuses on AI's impact on skill development, motivation, and professional identity formation. Through a mixed-methods approach, the study examines AI-assisted learning within the ECPF framework, emphasizing ecological adaptability, tolerance for uncertainty, and facilitation of natural developmental processes. A pilot study involving 40 participants tested the effectiveness of AI (Claude 3.5 Sonnet) in various interaction formats—consultant, client, and supervisor—over a two-month period. Factor analysis identified a three-dimensional model of professional development, encompassing personal-professional orientation, technical mastery, and communicative competence. Cluster analysis revealed distinct motivational profiles among participants, highlighting the need for differentiated AI-assisted learning approaches. Findings indicate high user satisfaction (85% positive ratings) and demonstrate that AI serves as a valuable training tool, providing a safe and adaptive environment for skill acquisition and reflective practice. The study underscores the necessity of balancing structured learning with independent experimentation, as well as addressing ethical considerations in AI-assisted training. Practical recommendations include developing structured prompts, differentiated task design, and expanded group learning opportunities. The study contributes to ongoing discourse on AI-enhanced education, offering a novel model for integrating AI into psychologist training while preserving core ECPF principles. The findings pave the way for future research on AI-assisted facilitation, professional identity formation, and personalized learning trajectories in the digital era.

Keywords: artificial intelligence; Eco-Centered Psychological Facilitation – ECPF; psychologist training; professional development; personal educational trajectory; reflective practice.

1. INTRODUCTION

The problem statement. Contemporary educational systems are undergoing a period of intense transformation under the influence of artificial intelligence (AI), a phenomenon particularly evident in the professional training of specialists in helping professions. The integration of AI into psychologist training opens new possibilities for intensifying and personalizing the educational process. However, it also introduces a series of challenges related to balancing technological support with the development of professional competencies.

The use of AI in training and professional development of psychologists mastering the innovative Eco-Centered Psychological Facilitation (ECPF) method, developed within P.V. Lushyn's ecofacilitative approach, is of particular relevance. Psychologist-ecofacilitators are professionals who have mastered this method and practice based on ecofacilitative

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principles of ecological adaptability, tolerance for uncertainty, and facilitation of natural developmental processes. Paradoxically, these very principles can be enhanced through AI interactions, which provide a safe space for skill development and self-reflection.

An analysis of existing research highlights contradictions between traditional psychologist training systems and the new opportunities offered by AI. On the one hand, both students and educators are actively and informally using AI, significantly enhancing learning efficiency. On the other hand, there are justified concerns about the superficial assimilation of knowledge and the potential loss of critical aspects of professional development due to an over-reliance on technology. In response to these challenges, a pilot project was conducted to integrate AI (Claude 3.5 Sonnet) into the training of psychologists.

Analysis of recent studies and publications. *Transformation of Educational Programs and Adaptive Learning.* Updating educational programs in a rapidly changing world is of paramount importance. Research by Manase and Omondi [1] confirms the effectiveness of dynamic curricula that align with industry needs, improving graduate employability. Nwafor et al. [2] emphasize the necessity of integrating technology to enhance critical thinking and practical skills, while Gerlich [3] underscores the importance of adapting educational programs to emerging technologies. The educational system must be restructured to meet the demands of the modern labor market. Millal´en [4] demonstrates the effectiveness of AI-based adaptive learning systems for personalized education. Vindigni [5] highlights the need for adaptive pedagogical approaches to foster professional competencies. Voloshynov et al. [6] confirm the positive impact of adaptive technologies on educational quality. The OECD report supports the idea that flexible curricula better cater to student needs [7]. Ayeni et al. [8] explore AI's role in adapting learning content, while Xu [9] proposes strategies for developing personalized courses.

Immersive Technologies and Creativity. Immersive education and virtual learning environments also demonstrate significant potential. Botuzova [10] investigates how visualizing abstract concepts in mathematics enhances student engagement. Kramarenko and Kochina [11] prove the efficacy of Virtual Reality (VR) and Augmented Reality (AR) in professional training. A systematic review by Poupard et al. [12] emphasizes that while virtual and augmented reality improve learning outcomes, they can also introduce additional cognitive load, necessitating adjustments in teaching strategies. AI applications for creative tasks yield positive results. Misha [13] highlights AI's support for creative processes, while Merrill et al. [14] report an increase in students' creative potential. The Canva report [15], underscores the role of digital tools in creativity, although Thomson et al. [16] document mixed student responses regarding AI's influence on creativity.

Development of Critical Thinking and Learning Optimization. Interactive learning methods incorporating AI effectively foster critical thinking among Generation Z students by encouraging active participation and information analysis [17]. AI-driven automation of routine tasks, according to the World Bank, improves educational quality [18]. Kyselova [19] details the benefits of automation in project-based learning, while Mili´cevi´c et al [20] demonstrate its impact on student autonomy. Studies on procrastination by Jones and Blankenship [21] establish a direct link between task completion timeliness and academic success. Farooq et al [22] highlight time management as a crucial factor in online learning. Alternative assessment methods are gaining traction – Psico-Smart Editorial Team [23], Awad and Al Adwan [24] argue for diverse approaches to evaluating knowledge, while Avdiu and Ahmedi [25] analyze their impact on the learning process.

Ethical Considerations and Psychological Practice. The ethical dimensions of AI implementation demand special attention. Barnes et al. [26] propose an ethical framework for AI in education, while Gouseti [27] systematically examines key ethical issues in school- based AI applications. Lushyn and Sukhenko [28], explore Eco-Centered Psychological Facilitation

(ECPF) as a framework for sustainable education and social therapy, emphasizing the importance of adaptive learning environments that foster critical thinking and technology integration. Their latest study focuses on human-AI interactions in education, stressing the need to redefine learning strategies in psychologist training [29]. Lushyn [30] further examines ECPF as a mechanism for post-traumatic growth, suggesting that AI could enhance personal development and trauma integration. The Australian Psychological Society highlights AI's potential to improve access to psychological services, contingent upon appropriate training [31]. Abrams [32] notes that automating routine psychological tasks allows professionals to focus on creative and technologically adaptive aspects of their work. Thomson et al [16] report that students perceive AI as a valuable tool for education and career development, particularly in customizing learning pathways. Prescott and Barnes [33] advocate for AI integration into therapeutic practices and emphasize the need to prepare specialists for emerging technological challenges.

Synthesis of Contradictions and Future Directions. The literature review identifies several key contradictions in contemporary psychologist training: between formal educational practices and the actual needs of professional preparation; between traditional learning approaches and the necessity of AI integration; between standardized curricula and the growing demand for personalized learning. Analysis of these contradictions across four key dimensions – curriculum transformation, immersive technologies, critical thinking development, and ethical concerns in psychology – suggests that a reassessment of traditional learning methods is essential. The integration of AI into education is an urgent necessity, yet research on its synthesis with psychologist training remains limited. In this context, Eco-Centered Psychological Facilitation (ECPF) emerges as a viable approach to resolving these contradictions. Its principles – ecological adaptability, tolerance for uncertainty, and support for natural developmental processes – create a foundation for the dialectical integration of AI into professional psychologist training.

The research goal. This framework justifies the research aim*:* to develop and experimentally validate an educational technology that integrates AI into psychologist training based on the method of Eco-Centered Psychological Facilitation (ECPF). To achieve this, the study outlines the following research objectives: (a) analyze current trends and contradictions in AI-based psychologist training through a systematic literature review; (b) conduct a theoretical analysis of AI and immersive technology integration in professional training for helping professions; (c) identify paradoxes and contradictions to establish theoretical foundations for transforming the educational process through AI; (d) develop and pilot-test an AI-based training technology for ECPF, including: implementing the proposed educational model, conducting quantitative survey analysis, performing qualitative data analysis through focus groups; (e) develop practical recommendations based on empirical findings and outline future directions for AI-assisted psychologist training in the digital era.

2. THE THEORETICAL BACKGROUNDS

AI is Informally Ruling – What Comes Next? The academic environment is increasingly incorporating artificial intelligence into the educational process, engaging both students and educators. Many participants in education already informally rely on AI, recognizing its advantages even in controversial areas, sometimes raising questions about the legitimacy and appropriateness of such an approach. AI has long been used for academic writing, software development, and even grading student work, prompting discussions on the trustworthiness of AI-generated outputs in the absence of human intervention. Within traditional educational structures, procrastination is becoming more common, with some students viewing it as a strategy for efficiently completing tasks just before deadlines,

particularly with AI assistance. Increasingly, students bypass reading and analyzing materials independently, instead relying on specialized applications that simplify complex concepts or provide ready-made answers, especially in the humanities.

One of AI's most promising applications is immersive education, which simulates real-world conditions and is widely used in professional training. These experiential learning environments provide students with hands-on experience that directly enhances their professional decision-making skills. At the same time, the traditional educational process continues unchanged, maintaining standard curricula, course structures, and completion timelines. However, many stakeholders anticipate a sudden, radical shift – a transformation that will disrupt or reconstruct the existing system. For some, this anticipated transition signals the collapse of outdated structures, while for others, it represents an opportunity for constructive resolution of long- standing contradictions.

From a dialectical perspective, several key premises emerge. AI efficiently performs tasks that do not require human intervention, managing technical and routine operations. This allows educational institutions to redistribute resources and time, enabling students and instructors to focus on higher-order thinking and creative challenges. A new synthesis is taking shape, where structured (thesis-driven) and experimental (antithesis-driven) learning coexist, encompassing both reproductive and creative engagement with the educational environment. The traditional five-year university model, designed for adaptation to existing professional conditions, is becoming increasingly obsolete.

From the perspective of personal transformation and eco-facilitative psychological-pedagogical assistance, these systemic contradictions serve as indicators for future educational innovations. Analyzing paradoxical trends reveals key areas for rethinking educational practices: (a) procrastination before deadlines highlights the need to rethink assignment structures and evaluation methods to promote more consistent and intentional learning engagement rather than last-minute completion; (b) superficial knowledge acquisition via AI signals a demand for shifting the educational paradigm toward critical and independent thinking, rather than mechanical knowledge reproduction; (c) an overabundance of lectures and academic courses that do not always align with student interests or labor market demands suggests the need for greater curriculum flexibility; (d) outdated educational programs and methodologies in a rapidly evolving world paradoxically underscore the necessity for a more dynamic education system focused on practical skills and adaptability; (e) standardized assessment methods often fail to capture students' actual abilities and creativity, emphasizing the need for more complex, multidimensional evaluation frameworks.

The identified trends, contradictions, and paradoxes in modern education highlight the urgent need for innovative educational technologies. Particularly in psychologist training, where AI, immersive technologies, and eco-facilitative approaches can establish an entirely new learning paradigm.

3. RESEARCH METHODS

This study employed a mixed-methods research design, integrating quantitative and qualitative approaches. Throughout 2024, a pilot project was conducted to implement AI (Claude 3.5 Sonnet) into the training of psychologists-ecofacilitator. The study sample consisted of 40 participants with diverse educational and professional backgrounds who engaged with Claude 3.5 Sonnet over two months in various formats.

The composition of the sample. Educational Background: Master's degree holders 75%, PhD holders 10%, PhD candidates 5%, Bachelor's degree holders 10%. Field of Study: Psychology graduates 50%, Bachelor's-level psychology students 5%, Psychology students in training 15%, Other disciplines 30%. Prior Training in ECPF: No prior experience 25%, Basic

training 15%, Intermediate-level training 25%, Advanced-level training 35%. Professional Experience in Psychological Assistance: No experience 40%, Up to 3 years 20%, Experienced practitioners 40%. Demographics: Female participants 95%. Age group: 35–44 years 50%. Prior AI Experience: prior to the training, 40% of participants reported having no experience with AI, 40% had used AI a few times, and 20% were regular AI users.

Data Collection Instruments. Two primary data collection methods were employed. The author-developed "AI Integration in ECPF Training Questionnaire" administered via Google Forms. The questionnaire demonstrated high internal consistency, with Cronbach's alpha 0.878, confirming its reliability and validity. It combined Likert-scale items (5-point scale) and open- ended questions. The questionnaire covered six key dimensions: (A) Motivation and engagement; (B) Training experience and ECPF skill development; (C) Personal development; (D) Program improvement suggestions; (E) AI engagement intensity; and (F) Socio-demographic data (the complete questionnaire is provided in Appendix).

Focus Group Discussion (Semi-Structured Interview) conducted as a two-hour moderated session with video recording and transcription for in-depth analysis. Thematic areas explored: general experiences with AI training, effectiveness of AI interaction formats (consultant, client, supervisor), skills development in ECPF, experiences with experimental techniques, ethical considerations, future integration of AI into psychologist training.

Data Analysis Methods. A comprehensive analytical approach was used: Quantitative Analysis, Factor analysis (Principal Component Analysis with Varimax rotation), Cluster analysis, Descriptive statistics, Correlation analysis, Statistical processing was conducted using SPSS 21.0, Qualitative Analysis, Content analysis of open-ended responses, Thematic analysis of focus group transcripts.

Research Ethics. The study adhered to ethical guidelines outlined in "Ethical Standards of Professional Activity of Psychologist-Ecofacilitator", particularly regarding AI integration in psychological practice [34]. This framework emphasizes transparency in AI usage, data confidentiality, and the principle that AI serves as a complementary tool rather than a replacement for human interaction. AI usage in this study was twofold: participants interacted with Claude 3.5 Sonnet following special guidelines aligned with ECPF principles, experimenting with different roles and documenting their experiences in structured protocols, while AI also served as an assistant in research development, specifically for editing and translation purposes. All theoretical constructs, data interpretations, and conclusions were developed by the researchers, ensuring that AI enhanced rather than replaced human expertise in the research process.

4. THE RESULTS AND DISCUSSION

4.1. Results from the author's questionnaire "AI Integration in ECPF Training Questionnaire"

Section A: Motivation and Engagement. A principal component factor analysis demonstrated good sampling adequacy (KMO = 0.76) and identified a three-factor structure explaining 80.83% of total variance among participants using AI in training (survey items A1–A9). Intrinsic Motivation and Self-Efficacy (30,60%): this factor encompasses confidence in applying acquired skills (0.842), alignment of training with personal values (0.735), importance of success in mastering ECPF (0.723), interest in continuing training (0.658), and perceived support in skill formation (0.637). Engagement and Social Interaction (29,71%): characterized by high loadings on connection with the community (0.782) and immersion in learning (0.704), with a negative loading on advancement (-0.586). Initial Motivation and Progress (20,52%):

defined by high loading on initial interest (0.844) and negative loading on advancement (-0.570). The detailed factor loadings are presented in Table 1.

Table 1

Rotated Component Matrix for Motivation and Engagement Factors

Variable	Component 1	Component 2	Component 3
A5. Professional Confidence	.842		
A2. Value Alignment	.735		
A6. ECPF Success Value	.723		
A9. Continuation Motivation	.658		
A4. ECPF Skills Development	.637		
A8. Community Connection		.782	
A3. Learning Engagement		.704	
A7. AI Progress		-.586	-.570
A1. Initial Motivation			.844

A cluster analysis of factor scores identified three participant groups. Cluster 1 (45%): Moderately positive evaluation for Intrinsic Motivation and Self-Efficacy (0.501); Neutral on Engagement and Social Interaction (0.037); Negative on Initial Motivation and Progress (-0.760). Cluster 2 (25%): Negative evaluations for Intrinsic Motivation and Self-Efficacy (-0.994) and Engagement and Social Interaction (-0.838); Slightly positive on Initial Motivation and Progress (0.280). Cluster 3 (30%): Moderately positive evaluation for Intrinsic Motivation and Self-Efficacy (0.296); Highly positive on Engagement and Social Interaction (0.938); Strongest positive on Initial Motivation and Progress (1.032). The detailed cluster centers are presented in Table 2.

Table 2

Final Cluster Centers for Motivation and Engagement Profiles

Factor	Cluster 1	Cluster 2	Cluster 3
Intrinsic Motivation and Self-Efficacy	.501	-.994	.296
Engagement and Social Interaction	.037	-.838	.938
Initial Motivation and Progress	-.760	.280	1.032

A content analysis of responses to three open-ended survey questions further contextualized motivation and engagement patterns. Personal Development Goals (A10): 36% Development of ECPF-specific skills, including positive confrontation and working with the “buffer zone”; 28% Supervisory practice; 18% Deepening interaction with AI; 18% Personal development as a consultant. Motivational Factors (A11): 35% Professional growth, including enhanced eco-facilitator skills and diversification of counseling styles; 26% Technological advantages, such as ease of use and mobility; 21% Practical value of training; 18% Psychological safety. Personal Objectives (A12): 50% Clear professional goals, including practicing counseling skills and engaging in various professional roles; 30% Research interest, focused on exploring AI capabilities; 20% General personal development, aimed at enhancing effectiveness in work and self-growth.

The frequency distribution of responses to questions A1-A9 (by categories: minimal, below average and moderate, high and maximum) is presented in Figure 1.

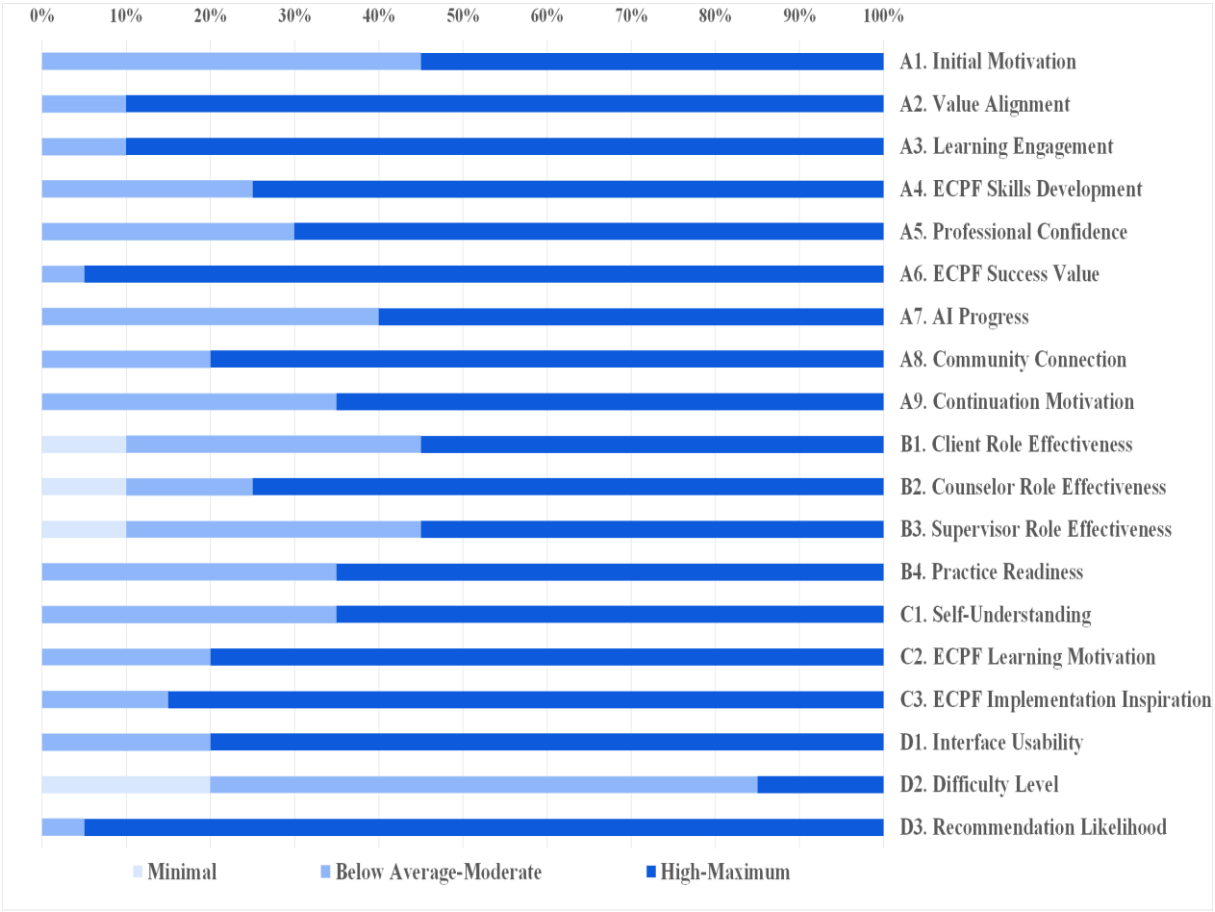

Figure 1. Response Frequency Distribution of the "AI Integration in ECPF Training Questionnaire"

The analysis reveals a three-factor motivation structure, with intrinsic motivation and self-efficacy as the dominant factor. The three identified participant clusters exhibit varying motivational profiles, ranging from moderately positive engagement to highly integrated participation with strong social involvement. Notable are the negative factor loadings of variable A7 (self-assessment of AI interaction progress) in factors "Engagement and Social Interaction" and "Initial Motivation and Progress," which can be explained both by Varimax rotation artifacts and low correlation of A7 with the overall scale (r = -0.197), and by psychological mechanisms: technically oriented participants may show greater preference for individual learning, or the Dunning-Kruger effect, where participants with higher initial motivation underestimated the complexity of AI mastery, leading to lower self-assessments of progress, but this requires further investigation. As evidenced by the content analysis above, participants demonstrated a predominantly professional orientation in their goals (36% ECPF-specific skills, 28% supervisory practice, 50% clear professional goals), with particular emphasis on ECPF-specific skill development and supervisory practice.

Section B: Skills Development and Training Experience. An analysis of the perceived usefulness of different AI interaction formats (B1–B3) revealed that the consultant role was rated as the most beneficial (Mean 2.60, SD 0.995), followed by the client role (Mean 2.45, SD 1.050), while the supervisor role received the lowest ratings (Mean 2.40, SD 1.095). Regarding the impact on practical confidence (B4), participants reported a notably positive influence of AI-assisted training, with 65% of respondents rating their confidence level as high or very high, and 35% indicating a moderate level of confidence (Figure 1).

An examination of ECPF skill dynamics (B5) using factor analysis (KMO 0.76, 80.82% total explained variance) identified a three-factor structure of professional development. Personal- Professional orientation (30.60% variance explained): Acceptance (0.885), Future-oriented thinking (0.787), Empathy (0.757), Strategic reflection (0.726), Tolerance for uncertainty (0.660). Technical Mastery (29.71% variance explained): Overcoming impasses (0.857), Handling contradictions (0.821), Resource-based problem-solving (0.717), Tolerance for uncertainty (0.686), Tactical reflection (0.594). Communicative Competence (20.52% variance explained): Active listening (0.764), Facilitation of self-disclosure (0.719), Tactical reflection (0.609). Additionally, two skills demonstrated cross-factor loadings, suggesting their integrative role in the professional development of psychologist: Tolerance for uncertainty (0.660; 0.686), Tactical reflection (0.594; 0.609).

The consultant role was perceived as the most valuable training format, with 90% of participants reporting increased confidence in practical skills application. Factor analysis revealed a three-factor model of professional skill development, encompassing personal-professional orientation, technical mastery, and communicative competence. The integration of tolerance for uncertainty and tactical reflection across multiple skill domains suggests that these are core competencies in the development of ecofacilitators.

Section C: Personal Development. An analysis of personal development indicators revealed high mean scores across all parameters. However, the highest ratings were observed for inspiration and motivation to apply ECPF principles (C3), with 85% of participants reporting high or maximum levels (Mean 4.5, SD 0.8). Other key findings: desire to continue training (C2) 80% of participants reported high or maximum levels (Mean 4.2, SD 0.9). Impact on understanding personal psychological issues (C1) 65% of participants rated this highly or at the maximum level (Mean 4.0, SD 1.0). The frequency distribution of responses to questions C1-C3 is presented in Figure 1.

Content Analysis of Personal Changes (C4). A qualitative analysis of responses regarding personal transformation identified four primary categories. Professional Self-Awareness 36%: recognizing one's professional resources, understanding personal strengths, developing a holistic view of oneself as a consultant, building professional confidence. Personal Insights 32%: identifying patterns of self-trust, understanding internal contradictions, discovering new areas for personal growth, gaining new perspectives. Technical Improvement 24%: enhancing precision in prompt formulation, identifying key elements of the eco-facilitation process, developing counseling skills. Practical Experience 18%: addressing personal psychological concerns, conducting real consultations, gaining experience in reflection.

The results indicate strong personal development outcomes, with no participants giving minimum ratings for any parameter. This suggests that AI-assisted training in ECPF provides a solid foundation for personal growth. The most significant impacts were observed in professional self-awareness, personal insights, technical skill enhancement, and practical counseling experience.

Section D: Program Enhancement. An analysis of program effectiveness revealed high overall participant satisfaction. User- friendliness of Claude 3.5 Sonnet (D1): 80% of participants rated it as high or maximum (Mean 4.15, SD 0.745). Perceived difficulty level (D2): rated as moderate (Mean 2.40, SD 0.995) with a balanced distribution of responses. Willingness to recommend the program (D3): 85% of participants stated they would recommend the program, while 15% indicated they might recommend it, no participants provided negative responses (Mean 4.65, SD 0.587). The frequency distribution of responses to questions D1-D3 is presented in Figure 1.

Content Analysis of Learning Challenges. A qualitative analysis of learning difficulties (D4) identified four primary categories. Technical Limitations 42%: restrictions of the free version, session and message limits. Time Constraints 23%: need for additional time to practice

and structure learning. Formulation Difficulties 19%: challenges in precisely articulating prompts and configuring interactions. Methodological Limitations 16%: artificial nature of simulated scenarios. Suggestions for Program Improvement. Participants' recommendations (D5) were grouped into four key areas. Group Interaction 36%: integration of group sessions, facilitating experience exchange among participants. Methodological Support 28%: development of a guideline with prompt examples. Expanded Interaction Formats 23%: inclusion of new training formats. Technical Enhancements 13%: expanding system functionality.

The findings demonstrate high user satisfaction, with strong recommendations for further adoption of AI-based ECPF training. Despite moderate challenges, particularly regarding technical and methodological limitations, participants emphasized the need for structured group interactions, better methodological support, and expanded training formats.

Section E: Training Intensity and Time Investment. An analysis of AI training intensity revealed the following key findings (E1): Number of Protocols Created: 65% of participants created 1–3 protocols, 25% created 4–7 protocols, 10% created more than 11 protocols (Mean 1.85, SD 0.587). Weekly Practice Time with AI (E2): 45% of participants practiced for up to 2 hours per week, 30% practiced for 2–3 hours per week, 10% practiced for 4–5 hours per week, 10% practiced for more than 5 hours per week, 5% reported no practice (Mean 2.75, SD 1.070). Correlation Between Time Investment and Productivity: A positive statistically significant correlation (0.527) was found between time spent practicing and the number of protocols created. Expected Time to Achieve Professional Competence (D3): 35% estimated 6 months, 25% estimated 1–2 years, 20% estimated more than 2 years, 15% estimated up to 1 year, 5% estimated within 2 months (Mean 3.20, SD 1.281).

The typical interaction pattern with AI was characterized by moderate intensity, with most participants practicing for 2–3 hours per week. However, individual variations depended on time availability and personal preferences. A direct relationship was observed between time invested and productivity, reinforcing the importance of consistent engagement for skill development.

4.2. Focus Group Results.

An analysis of focus group discussions provided a comprehensive picture of participants' experiences in AI-assisted training. While most participants reported positive emotions and high engagement, some noted the limitations of AI compared to live interactions. Comparative Analysis of Interaction Formats. Different AI interaction formats demonstrated distinct characteristics and potential. Consultant Role (Participant) – Client Role (AI): identified as the most effective format; created optimal conditions for practicing counseling skills and experimenting with interventions; participants highlighted AI's predictable responses compared to real clients. Client Role (Participant) – Consultant Role (AI): received mixed evaluations; allowed participants to work on personal issues and experience therapeutic effects; required frequent adjustments to AI-generated responses to align with ECPF principles; worked best with clearly formulated personal requests. Supervision Role (AI as a Generator of Counseling Dialogues): identified as the most challenging format; allowed for the analysis of counseling patterns and common errors; required significant effort to adapt AI responses to eco-facilitative principles; found particularly valuable for experienced participants, who could compare AI-generated samples with their own supervision experiences.

Professional Skill Development. Participants observed significant progress in the development of professional competencies through AI-assisted training. Notable improvements included: increased precision in formulating thoughts and concisely expressing ideas; enhanced active listening and non-judgmental acceptance skills; improved cognitive flexibility and ability

to work with contradictions; deeper understanding of ECPF theoretical foundations through consistent practical application.

Future Prospects of AI in Eco-Facilitative Training. Participants emphasized AI's particular value for beginners, while also stressing the need to maintain a balance between structured learning tasks and independent experimentation. The optimal approach appears to be AI integration as a supplement to traditional training, allowing for personalized learning trajectories.

Recommendations for Program Improvement. Participants suggested several key recommendations to enhance the AI-based training process: (a) expanding informational support for working with AI; (b) developing differentiated tasks of varying complexity levels; (c) strengthening group components to facilitate experience exchange, (d) creating a repository of training materials; (e) addressing ethical considerations in AI-based training.

The focus group discussions confirmed AI's potential as an effective training tool, especially for skill development in ECPF. While each interaction format had its strengths and limitations, AI-assisted training was found to be most beneficial when integrated into a broader educational framework that includes structured guidance, peer interaction, and ethical considerations.

4.3. Practical Implications for Enhancing the Educational Technology "The Image of the Future in the Training of Psychologist-Eco-Facilitators".

Integration of AI and the Structure of Professional Development. This study expands the understanding of technological transformation in the professional training of psychologist-ecofacilitators. The pilot implementation of AI-assisted training revealed that integrating artificial intelligence into the educational process creates new dimensions for professional identity formation and development, positioning AI as a technological element of an expanded professional ecosystem in the process of eco-facilitator development. Findings from focus group discussions and quantitative analysis confirmed a three-factor model of professional development, underscoring the need for a comprehensive approach to training design. A key takeaway is the importance of differentiating AI interaction formats: (a) the consultant role emerged as the most effective format, allowing participants to safely practice foundational ECPF skills; (b) the client role requires more structured request formulation for effective engagement; (c) the supervision format is best suited for experienced practitioners, as it facilitates in-depth counseling style analysis and professional self-reflection.

Organization and Components of the Educational Technology. The variety of AI interaction approaches, as confirmed by participant experiences, highlights the necessity for a flexible learning structure. The analysis of time engagement patterns (ranging from 0 to 5+ hours per week) and the expressed need for group components justify the development of educational models that support multiple individualized learning trajectories. In this context, the AI- enhanced training model evolves into a collaborative learning space, structured around: (a) a laboratory for experimenting with different interaction formats (consultant, client, supervisor), each offering unique learning opportunities; (b) a stepwise skill development system, progressing from basic technique practice to complex supervision formats; (c) methodological support, including guidelines, sample prompts, and best practices for AI-assisted interactions.

Formation of Professional Identity and Future Directions. The development of a psychologist-ecofacilitator's professional identity occurs through a complex skill-building process, encompassing: precision in communication and active listening, the ability to work with contradictions and tolerate uncertainty, the ability to reflect on diverse counseling styles through AI-assisted interactions.

The supervision component of AI-assisted training enriches counseling skill acquisition by providing opportunities for cross-style comparisons and self-reflection. Furthermore, AI pedagogy in the ECPF framework must maintain a balance between structured learning tasks and open-ended experimentation, ensuring adaptability across different experience levels. A critical aspect of AI-assisted training is the ethical dimension of AI use, necessitating the creation of structured group reflection spaces to process experiences effectively.

The proposed implications outline a path for refining AI-enhanced training programs for psychologist-ecofacilitators. Future programs should incorporate technological components based on participant expertise levels and learning objectives, ensuring that AI is used as a customizable tool rather than a one-size-fits-all solution.

4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

This study presents a complex picture of the transformation of psychologist training in the context of AI integration. A systematic literature review identified significant contradictions between formal educational practices and the real needs of psychologist training when incorporating AI. While most existing research explores the general application of AI in education, its specific role in psychologist training remains underexplored.

A theoretical analysis of immersive technologies and AI in the training of helping professionals demonstrated their potential to create safe spaces for practicing professional skills. The study found that the principles of ECPF – ecological adaptability, tolerance for uncertainty, and facilitation of natural developmental processes – can be effectively realized through AI interactions. Based on identified paradoxes, the study theoretically substantiated the transformation of the educational process, highlighting: a shift from mechanical knowledge acquisition to critical thinking development; a reconceptualization of procrastination as a learning mechanism; the necessity for flexible educational programs; the importance of alternative assessment methods.

The experimental validation of the proposed educational technology identified a three-factor structure of motivation and professional development: personal-professional orientation; technical mastery; communicative competence. These three core development areas were confirmed by both quantitative and qualitative data. A differentiated approach to AI interaction formats proved to be crucial. The consultant role provided optimal conditions for practicing fundamental ECPF skills. The client role required a more structured approach to formulating requests to be effective. The supervision format proved to be most valuable for experienced practitioners, opening new possibilities for professional self-reflection.

The study identified key conditions for the effectiveness of the educational technology, including: a flexible organization of the learning process that accounts for individual patterns of interaction; a balance between structured learning tasks and room for experimentation; the importance of group-based components for experience exchange.

Participants demonstrated varied paces and styles of mastering the technology, dedicating between two and five or more hours per week to practice. This variability underscores the necessity of an individualized approach to training.

The high level of participant satisfaction (85% positive ratings) demonstrates the effectiveness of the developed educational technology. This effectiveness is further supported by strong quantitative indicators of impact on personal and professional development: 85% of participants demonstrated high inspiration and motivation to apply ECPF principles, 65% reported increased confidence in practical skill application, and 80% expressed strong desire to continue training. Notably, no participants provided minimum ratings for any personal development parameter, indicating universally positive outcomes. At the same time, a comprehensive methodological approach is essential, incorporating: the development of sample

prompts; examples of effective AI-assisted interactions; structured training protocols; attention to ethical aspects of AI integration in professional training.

The results of this study establish a foundation for the further advancement of psychologist-ecofacilitator training within the framework of digital transformation. The proposed technology can be adapted to different levels of training and learning objectives while preserving its core principles and values.

APPENDIX: AI INTEGRATION IN ECPF TRAINING QUESTIONNAIRE

Section A: Motivation and Engagement

A1. How would you rate your interest and motivation for AI-assisted training before starting the intensive program?

A2. To what extent do you feel that AI-assisted training aligns with your personal interests and values?

A3. How often did you feel fully immersed and focused during the sessions?

A4. To what extent has AI-assisted training helped you develop eco-facilitation skills?

A5. How confident are you in your ability to successfully apply the acquired skills after training?

A6. How important is it for you to achieve success in mastering eco-facilitation skills?

A7. How would you assess your progress in mastering interaction with AI?

A8. To what extent has AI-assisted training contributed to your sense of connection with other participants?

A9. How interested are you in continuing AI-assisted training at the next level?

A10. What personal development goals would you like to explore more deeply? (open-ended question)

A11. What motivates you the most to continue learning with AI? (open-ended question)

A12. Did you have clear personal goals during your AI training? (open-ended question)

Section B: AI Interaction Formats

B1. How useful was your experience interacting with AI in the role of a client?

B2. How useful was your experience interacting with AI in the role of a consultant?

B3. How useful was your experience interacting with AI in the role of a supervisor?

B4. How has AI-assisted training influenced your confidence in applying the skills in real practice?

B5. Rate your skills before and after the training in:

B5.1. Active listening

B5.2. Empathy

B5.3. Non-judgmental acceptance

B5.4. Resource focusing

B5.5. Client self-disclosure facilitation

B5.6. Contradiction identification

B5.7. Tactical reflection

B5.8. Strategic reflection

B5.9. Tolerating uncertainty and deadlocks

B5.10. Managing deadlock situations

B5.11. Working with future image

Section C: Personal Development

C1. Did AI-assisted training help you better understand your psychological concerns?

C2. How has AI-assisted training influenced your desire to continue learning and developing in the field of eco-facilitation? (open-ended question)

C3. After completing AI-assisted training, did you feel more inspired and motivated to apply ECPF principles?

C4. What personal changes have you experienced due to AI training? (open-ended question)

Section D: Program Effectiveness and Usability

D1. How convenient and intuitive do you find the Claude 3 Opus interface?

D2. Rate the difficulties you encountered during AI-assisted training.

D3. How likely are you to recommend this AI-assisted learning option to your colleagues?

D4. What difficulties or limitations did you encounter during AI training? (open-ended question)

D5. If you could change or add something to the AI training process, what would it be? (open-ended question)

Section E: Training Intensity and Time Investment

E1. How many interaction protocols did you complete as a result of AI-assisted training?

E2. On average, how many hours per week did you practice with AI during the intensive program?

E3. How much time do you estimate you need to become a proficient consultant in the field of ECPF?

Block F: Socio-demographic Data

F1. Level of education

F2. Level of psychological education

F3. Previous learning experience at Professor P.V.Lushyn's School of ECPF

F4. Experience in psychological counseling

F5. Previous experience in using AI in learning or professional activities

F6. Gender

F7. Age

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Text of the article was accepted by Editorial Team 22.04.2025

ЗА МЕЖАМИ ТРАДИЦІЙНОГО НАВЧАННЯ: ШТУЧНИЙ ІНТЕЛЕКТ ЯК ПІДТРИМУЮЧИЙ ІНСТРУМЕНТ РОЗВИТКУ ПСИХОЛОГА

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Анотація. У статті досліджується інтеграція штучного інтелекту (ШІ) у підготовку та підвищення кваліфікації психологів, які опановують інноваційний метод «Екологічна психологічна фасилітація (ECPF)», розроблений у межах екофасилітативного підходу П.В. Лушина. Психолог-екофасилітатор – це фахівець, який опанував метод ECPF і працює на засадах екофасилітативного підходу. Дослідження зосереджується на впливі ШІ на розвиток навичок, мотивацію та формування професійної ідентичності. За допомогою змішаного методологічного підходу у дослідженні розглядається навчання за підтримки ШІ в межах ECPF, підкреслюється екологічна адаптивність, толерантність до невизначеності та фасилітація природних процесів розвитку. Дослідження за участю 40 осіб тривало 2 місяці й засвідчило ефективність практикування з ШІ (Claude 3.5 Sonnet) у різних форматах взаємодії (консультант, клієнт і супервізор). Факторний аналіз виявив тривимірну модель професійного розвитку, що охоплює особистісно-професійну орієнтацію, технічну майстерність і комунікативну компетентність. Кластерний аналіз засвідчив різні мотиваційні профілі серед учасників, підкреслюючи потребу диференційованого підходу до навчання за допомогою ШІ. Результати демонструють високу задоволеність (85% позитивних оцінок) ШІ і підтверджують, що він є цінним навчальним інструментом, який забезпечує безпечне та адаптивне середовище для набуття навичок ECPF і рефлексивної практики. У дослідженні

підкреслено необхідність балансу між структурованим навчанням та експериментуванням, а також вирішення етичних питань. Практичні рекомендації передбачають розроблення структурованих промптів, диференційований дизайн завдань і розширення групових можливостей навчання. Дослідження збагачує дискурс про освіту, доповнену ШІ, пропонуючи інноваційну модель інтеграції ШІ у підготовку психологів зі збереженням основних принципів ECPF. Результати прокладають шлях для майбутніх досліджень щодо фасилітації за допомогою ШІ, формування професійної ідентичності та персоналізованих траєкторій навчання в цифрову епоху.

Ключові слова: штучний інтелект; екологічна психологічна фасилітація – ECPF; підготовка психологів; професійний розвиток; індивідуальна освітня траєкторія; рефлексивна практика.

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