

PREPARING PRE-SERVICE TEACHERS FOR ONLINE ENGLISH INSTRUCTION DURING TIMES OF UNCERTAINTY

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Abstract. This study investigates the effectiveness of targeted preparation of pre-service English teachers for online instruction during times of uncertainty, with particular relevance to contemporary Ukraine, where the full-scale war has transformed online delivery from a crisis contingency into a normalised professional practice. The study employs a mixed-methods design. Forty-eight students from two English language teaching programmes at Vasyl Stefanyk Carpathian National University participated: 27 students majoring in “English Language and Literature and Second Foreign Language” and 21 students majoring in “Secondary Education (English Language and Foreign Literature).” A 25-item survey instrument assessed readiness for online teaching across five categories using a 5-point Likert scale: technical competency, methodological readiness, understanding of online learning specifics, confidence in abilities, and readiness to work under uncertainty. The survey was administered pre-course, at mid-course, and post-course. Additional data were gathered through practical lesson-design assignments, classroom observations, longitudinal reflective essays, and focus group discussions. Results demonstrated significant improvement across all readiness dimensions: technical competency (from 2.3 to 4.1), methodological readiness (from 2.1 to 4.3), understanding of online learning specifics (from 2.4 to 4.5), confidence in abilities (from 2.2 to 4.0), and readiness for uncertainty (from 2.6 to 4.2). All improvements were statistically significant ($p < 0.001$) with large effect sizes (Cohen’s d ranging from 1.83 to 2.87). Qualitative analysis of reflective essays revealed a fundamental transformation from viewing online teaching as a simplified transposition of traditional methods to recognising it as a distinct pedagogical approach requiring specialised competencies. The study confirms the effectiveness of systematic course-based preparation for online English language teaching and provides evidence-based guidance for teacher education programmes operating under conditions of ongoing disruption.

Keywords: teacher preparation, online learning, English language teaching, digital competencies, uncertainty conditions, distance education, emergency remote teaching.

1. INTRODUCTION

Contemporary challenges facing Ukraine’s educational system, particularly during the full-scale war since 2022, have underscored the critical need to prepare future teachers for online instruction. The unprecedented shift to digital learning environments has exposed significant gaps in teacher preparation programmes worldwide, with many educators finding themselves unprepared for the complexities of online pedagogy (Carrillo & Flores, 2020). Research demonstrates that the transition to online learning creates multifaceted challenges for educators, especially in foreign language teaching contexts where the communicative approach is fundamental and interactive engagement is essential for

language acquisition (Lo, 2023).

The uncertainty characterising the modern educational landscape requires pedagogical professionals to rapidly adapt to new conditions and effectively utilise digital technologies to ensure quality learning outcomes. This need is particularly acute in countries experiencing ongoing conflict or other disruptions to traditional educational delivery. The concept of emergency remote teaching has emerged as distinct from planned online education, characterised by temporary shifts to alternative delivery modes due to crisis circumstances (Adedoyin & Soykan, 2020). In Ukraine, however, what began as an emergency response has become a permanent professional condition, creating a demand for teacher preparation that addresses not only technical skills but long-term adaptive capacity.

Traditional foreign language teaching methods rely heavily on direct interaction, spontaneous communication, and non-verbal cues that require significant adaptation for online environments. This adaptation challenge is particularly relevant for developing communicative skills, where traditional classroom dynamics such as group work, peer interaction, and immediate feedback play crucial roles in language acquisition (Teh, 2021). The Communicative Language Teaching approach, which emphasises meaningful interaction and authentic communication, faces particular difficulties in digital environments where technical limitations may constrain natural language use patterns (Kong & Moorhouse, 2020).

Limited research exists specifically examining the preparation of pre-service teachers for online instruction in contexts of ongoing uncertainty, such as contemporary Ukraine where educational institutions must maintain continuity despite recurring disruptions. Most existing studies focus on in-service teacher adaptation during emergency transitions rather than proactive preparation of future educators for digital teaching environments. This gap is particularly significant given that new teachers entering the profession now encounter hybrid and fully online teaching as standard rather than exceptional circumstances. This study addresses this gap by examining the effectiveness of a comprehensive, skills-structured course designed to prepare future English teachers for online instruction during uncertain times.

The scientific novelty of this study lies in providing the first empirical cross-programme evaluation of a competency-based pre-service teacher preparation course for online EFL instruction specifically designed for conditions of sustained educational disruption. Unlike prior research focused predominantly on in-service teacher adaptation during acute crises, this study examines proactive, systematic preparation of future teachers for what has become a normalised professional reality in wartime Ukraine. The study independently replicates and empirically corroborates the Digital Pedagogical Resilience framework (Melnyk et al., 2025) across two concurrent programmes, providing the first cross-programme validation of the framework's four-dimension developmental model. The integration of mixed-methods data - quantitative readiness scales, practical lesson-design rubrics, longitudinal reflective essays, and focus group discussions - yields a multidimensional portrait of pre-service digital pedagogy development unavailable in single-method designs.

2. LITERATURE REVIEW

The theoretical foundation of this study rests on three interconnected bodies of literature: frameworks for digital pedagogy in language teaching, research on online English language instruction challenges, and scholarship on teacher preparation for crisis conditions.

The Digital Pedagogical Resilience framework, proposed and cross-institutionally validated by Melnyk, Devitska, and Datsko (Melnyk et al., 2025), provides the primary theoretical lens for this study. Synthesising social constructivist learning theory, Technological Pedagogical Content Knowledge models (Mishra & Koehler, 2006), and crisis pedagogy scholarship, the framework conceptualises effective online teaching in uncertain contexts through four interrelated dimensions: technical agility, encompassing adaptive problem-solving with digital tools; methodological flexibility, involving

reconceptualising pedagogy for digital environments; emotional intelligence, addressing stress management and pedagogical relationships across digital distance; and contextual awareness, encompassing sensitivity to infrastructure inequity and sociopolitical constraints on learning. The present study applies this framework to interpret course-level findings, building on its cross-institutional validation with empirical data from a single-institution, two-program design.

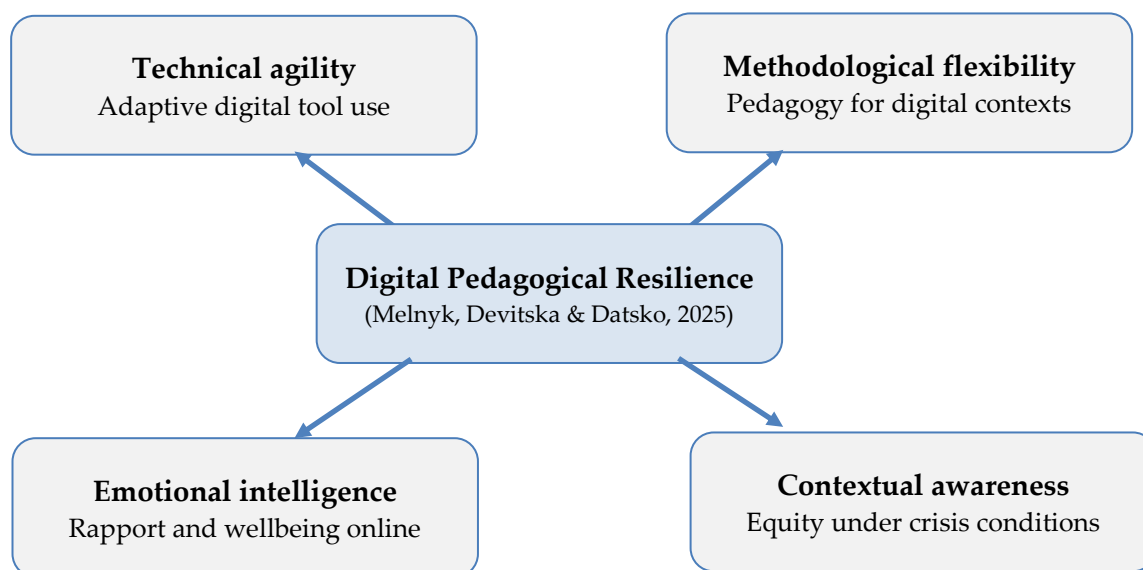


Fig. 1. The Digital Pedagogical Resilience (DPR) framework

Source: developed by the authors based on Melnik et al. (2025)

Research documents various challenges English language teachers face when transitioning to online platforms. Studies reveal that teachers struggle with maintaining student engagement, adapting interactive activities, and providing effective feedback in virtual environments (Kong & Moorhouse, 2020; Cheung, 2021). Research from other contexts indicates that technical difficulties, pedagogical uncertainties, and increased workload are common concerns among language educators adapting to online teaching (Rahman, 2020; Wong et al., 2022). The shift to emergency remote teaching during the COVID-19 pandemic exposed significant gaps in teacher preparation programmes, with many educators feeling unprepared for the rapid transition and lacking both technical skills and pedagogical knowledge for effective digital teaching (La Velle et al., 2020; König et al., 2020).

The theoretical foundation for understanding online language learning challenges lies in social constructivist approaches that emphasise the importance of social interaction in knowledge construction. Vygotsky's concept of the zone of proximal development becomes particularly relevant in online contexts, where the scaffolding typically provided through peer interaction and teacher guidance must be reconceptualised for digital platforms (Hamat & Embi, 2010). Literature analysis reveals that effective online English teaching requires not only technical skills but also deep understanding of pedagogical principles for adapting methodologies to digital environments (Hazaymeh, 2021). Research has identified specific strategies that prove effective in online English language teaching contexts: videoconferencing for developing speaking skills (Fakhruddin, 2018; Loranc-Paszyk, 2015), instant messaging applications for written interaction (Ahmed, 2019; Lestyanawati & Widyanoro, 2020), and gamification strategies using platforms such as Kahoot, Quizizz, and Quizlet to enhance motivation and active participation (Gozcu & Caganaga, 2016; Ma, 2018).

Teacher preparation programmes have been slow to integrate comprehensive training in online pedagogy, often treating digital tools as supplementary rather than central to modern teaching practice (Rapanta et al., 2020; Carrillo & Flores, 2020). Research suggests that effective preparation requires not only technical training but fundamental reconsideration of pedagogical approaches, assessment strategies, and student support mechanisms (Budnyk, 2024). The psychological impact of online

teaching on educators has also emerged as a significant concern, with studies documenting elevated levels of stress, workload, and isolation among teachers adapting to online instruction during crisis conditions (Mheidly et al., 2020). These findings suggest that teacher preparation programmes must address psychological readiness alongside technical and pedagogical competencies — a principle central to the Digital Pedagogical Resilience framework's emotional intelligence dimension (Melnyk et al., 2025).

Emerging research on artificial intelligence in EFL contexts is beginning to reshape what teacher preparation for digital environments must encompass. As AI-assisted tools — including chatbots, intelligent tutoring systems, and generative AI writing assistants — become increasingly integrated into online English language classrooms, pre-service teachers require not only competence in established digital platforms but also foundational AI literacy as a component of technological pedagogical knowledge (Sperling et al., 2024). Studies on online English classroom social climate underscore that the quality of digital interaction, not merely the technological medium, is the primary determinant of learning outcomes (Castillo, 2022). These developments reinforce the argument that comprehensive preparation for online EFL instruction must be treated as an evolving professional requirement rather than a discrete technical module.

3. RESEARCH METHODS AND MATERIALS

A. Research Procedure

The main research objective is to analyse the effectiveness of the specialised course "Distance Learning of Foreign Languages" in developing pre-service English teachers' readiness for online instruction during times of uncertainty. Specific research questions include: (1) What are the primary needs and challenges of pre-service English teachers regarding online instruction? (2) How does participation in a specialised online teaching course impact student confidence and competency in digital pedagogy? (3) What qualitative changes occur in students' understanding of online teaching principles and practices? (4) Which aspects of online teaching preparation require additional emphasis?

The theoretical framework draws from the Digital Pedagogical Resilience model proposed by Melnyk, Devitska, and Datsko (Melnyk et al., 2025), which integrates social constructivist learning theory, Technological Pedagogical Content Knowledge models (Mishra & Koehler, 2006), and emergency preparedness literature. This framework provides conceptual tools for interpreting findings across four dimensions - technical agility, methodological flexibility, emotional intelligence, and contextual awareness - and for understanding the qualitative transformation in professional identity that effective online teaching preparation produces.

B. Research Design and Participants

This mixed-methods study was conducted at Vasyl Stefanyk Carpathian National University during the 2024 semester. Forty-eight students from two different English language teaching programmes participated: 27 students majoring in "English Language and Literature and Second Foreign Language" (4 male, 23 female, ages 20–22) and 21 students majoring in "Secondary Education (English Language and Foreign Literature)" (5 male, 16 female, ages 20–22). The research design employed a pre-post intervention approach with both quantitative and qualitative data collection methods.

Participant selection was based on enrolment in the required course "Distance Learning of Foreign Languages." No exclusion criteria were applied, ensuring representation of the full range of student backgrounds and initial competency levels. Prior to the course, 82% of students had experience as online learners but only 14% had attempted to conduct any form of online instruction. Contextually, 78% of participants reported having experienced at least one air-alert-driven interruption to academic study during the current academic year, and 34% reported disruptions to home internet connectivity — conditions that lend direct ecological validity to the study's focus on uncertainty readiness.

C. Course Description

The course "Distance Learning of Foreign Languages" consisted of 32 academic hours delivered over 16 weeks, combining theoretical foundations with extensive practical application. The curriculum was structured around eight main topics directly corresponding to the English language skills curriculum: (1) Online Teaching Context and Key Skills — introduction to online pedagogy principles and digital literacy for educators; (2) Teaching Reading Online — strategies for developing reading comprehension in virtual environments using platforms such as Padlet and Google Docs; (3) Teaching Listening Online — audio and video resource integration and attention management; (4) Teaching Speaking Online — strategies for facilitating oral communication and breakout room management; (5) Working with Pronunciation in Online Format — digital tools for pronunciation instruction and feedback; (6) Developing Writing Skills Online — collaborative writing platforms and digital peer review; (7) Teaching Grammar and Vocabulary Online — gamification strategies and interactive presentation techniques; and (8) Planning Online Lessons — comprehensive lesson planning with contingency design for technical disruptions.

Each topic combined theoretical input with hands-on practice, requiring students to experiment with digital platforms including Zoom, Google Classroom, Padlet, Kahoot!, Flipgrid, Jamboard, Mentimeter, and Nearpod, and to develop original teaching materials. The course emphasised practical application, with approximately 60% of class time devoted to active experimentation. Both programmes explicitly foregrounded uncertainty as a design parameter, requiring students to develop contingency plans for every lesson and practise responding to simulated technical failures — a feature of particular relevance in the wartime Ukrainian context.

D. Data Collection Instruments

A comprehensive 25-item survey instrument, adapted from the Digital Pedagogical Resilience Scale developed and validated by Melnyk, Devitska, and Datsko (Melnik et al., 2025), assessed participants' readiness for online teaching across five key dimensions using a 5-point Likert scale (1=strongly disagree, 5=strongly agree): (1) Technical Competency — confidence in using digital platforms and troubleshooting; (2) Methodological Readiness — ability to adapt teaching methodologies for online environments; (3) Understanding of Online Learning Specifics — knowledge of digital learning environment characteristics; (4) Confidence in Personal Abilities — self-efficacy regarding online teaching effectiveness; and (5) Readiness for Uncertainty — preparedness to adapt to changing circumstances. Expert review and pilot testing confirmed content validity; reliability analysis using Cronbach's alpha confirmed strong internal consistency ($\alpha > .85$ for all subscales), consistent with the psychometric properties reported by Melnyk et al. (2025).

The survey was administered three times: pre-course (Week 1), mid-course (Week 8), and post-course (Week 16). Qualitative data were gathered through: eight practical assignments (complete online lesson fragments, one per course topic); systematic classroom observation protocols; three longitudinal reflective essays (Weeks 2, 9, and 15); and two focus group sessions per group (mid-course and post-course, $n=12$ volunteer participants). The study received university ethics committee approval; all participants provided informed consent. Special procedural safeguards were implemented to ensure honest feedback given the instructor-researcher relationship.

E. Data Analysis

Quantitative data were analysed using SPSS version 28.0. Descriptive statistics were calculated at each measurement point, and paired t-tests assessed statistical significance of pre-post changes. Effect sizes were calculated using Cohen's d . Qualitative data underwent systematic thematic analysis following Braun and Clarke's (Braun & Clarke, 2006) six-phase approach, with both inductive and deductive orientations applied in parallel. Member checking with selected participants validated interpretive accuracy. Direct quotations were selected to illustrate key themes; participant confidentiality was maintained through pseudonym assignment.

4. RESULTS AND DISCUSSION

A. Pre-Course Assessment: Initial Needs and Challenges

Initial survey results revealed significant gaps in students’ perceived readiness for online teaching, with an overall mean readiness score of 2.4 out of 5 (Table 1). This finding aligns with international research documenting inadequate preparation of pre-service teachers for digital pedagogical environments (La Velle et al., 2020) and with the pre-course baseline profiles documented by Melnyk et al. (2025) for the same institutional programmes, confirming the representativeness of the present sample. The lowest scores were observed in methodological readiness (M=2.1, SD=0.7) and confidence in personal abilities (M=2.2, SD=0.8), indicating substantial uncertainty about capabilities to teach effectively in online environments.

Tab. 1

Initial Assessment Results (n=48)

Category	Mean Score	Standard Deviation	Range
Technical competency	2.3	0.8	1.2–3.8
Methodological readiness	2.1	0.7	1.0–3.4
Understanding of online learning specifics	2.4	0.9	1.2–4.0
Confidence in abilities	2.2	0.8	1.0–3.6
Readiness for uncertainty	2.6	1.0	1.4–4.2

Source: authors’ own research

Students identified their greatest preparation needs in adapting communicative exercises to online formats (89% of respondents), using interactive digital tools effectively (85%), organising meaningful group work in virtual environments (82%), implementing digital assessment mechanisms (78%), and maintaining student motivation during online instruction (75%). Analysis of initial challenges identified three primary categories. Technical challenges included unstable internet connectivity (concern to 92% of students), reflecting infrastructure limitations common across Ukrainian regions under wartime conditions. Methodological challenges centred on adapting traditional teaching to online formats (primary concern for 86%) and ensuring active participation from all students in virtual environments (81%). Psychological challenges included the absence of direct physical contact (78% of participants), difficulty assessing student comprehension through digital interfaces (72%), and maintaining student motivation during online sessions (70%).

Initial reflective essays revealed fundamental misunderstandings about online pedagogy. Students conceptualised online teaching as a simplified version of traditional instruction: “I think online teaching is basically the same as regular teaching, just using a computer instead of a blackboard. The main challenge will probably be making sure everyone can hear me clearly” (Student A). “Online lessons seem easier in some ways because you don't have to manage classroom behaviour... Teaching is teaching, regardless of the medium” (Student B). These perspectives reveal a superficial, technology-as-tool orientation characteristic of what Melnyk et al. (2025) identify as the pre-resilience stage of Digital Pedagogical Resilience development, which necessitated comprehensive reconceptualisation throughout the course.

B. Post-Course Improvements and Outcomes

After course completion, significant improvements were observed across all measured categories, with the overall readiness score increasing from 2.4 to 4.2 (Table 2). These improvements were both statistically significant and practically meaningful, as confirmed by large effect sizes. The largest improvements occurred in methodological readiness (+2.2 points) and understanding of online learning specifics (+2.1 points), demonstrating the effectiveness of the practical, application-oriented course design. Effect sizes exceeded Cohen's $d=1.8$ for all categories, indicating not only statistical significance but substantial practical importance.

Tab. 2

Pre-Post Comparison Results (n=48)

Category	Pre-Course	Post-Course	Diff.	t-stat.	p-value	Cohen's d
Technical competency	2.3 ± 0.8	4.1 ± 0.6	+1.8	-12.4	<0.001	2.34
Methodological readiness	2.1 ± 0.7	4.3 ± 0.5	+2.2	-15.2	<0.001	2.87
Understanding of OL specifics	2.4 ± 0.9	4.5 ± 0.4	+2.1	-13.8	<0.001	2.61
Confidence in abilities	2.2 ± 0.8	4.0 ± 0.7	+1.8	-11.9	<0.001	2.25
Readiness for uncertainty	2.6 ± 1.0	4.2 ± 0.6	+1.6	-9.7	<0.001	1.83

Source: authors' own research. OL = Online Learning

These results align closely with outcomes reported by Melnyk et al. (2025) for the same institutional programmes (overall Digital Pedagogical Resilience gain: $d=2.71-2.89$), providing independent cross-study replication and further validating the framework's developmental model. By course completion, 89% of students demonstrated confident use of at least five to seven different online platforms and tools. More importantly, students learned to select tools based on pedagogical objectives rather than novelty, reflecting a fundamental shift from instrumental to constitutive understanding of digital technology — from treating technology as a delivery channel to recognising it as a pedagogically transformative environment.

C. Qualitative Transformation in Understanding

Thematic analysis of reflective essays revealed a fundamental conceptual transformation across the course. Pre-course reflections demonstrated superficial, technology-centred misconceptions. Post-course conceptualisations demonstrated sophisticated reconceptualisation: "I now understand that online teaching requires completely rethinking every aspect of pedagogy. It's not about replicating traditional classroom activities through technology — it's about understanding how learning happens differently in digital spaces and designing experiences that leverage these unique characteristics" (Student A). "Technology is just the beginning. The real challenge is understanding how students interact with content and each other in virtual environments" (Student D). "Online teaching is actually more demanding than face-to-face instruction in many ways. Without physical presence, I have to work much harder to create connections with students and ensure everyone is participating meaningfully" (Student H).

This transformation from technology-as-tool to technology-as-pedagogy orientation represents the defining qualitative milestone in Digital Pedagogical Resilience development, first theorised by Melnyk

et al. (2025). The present study's independent replication of this transformation pattern strengthens confidence in it as a robust, cross-contextually consistent developmental marker. Analysis of mid-course essays revealed recognisable intermediate stages of productive confusion — "I'm starting to realise that everything I thought I knew about teaching needs to be reconsidered for online environments. This is overwhelming but also exciting — I'm discovering new possibilities I never imagined" (Student I) — consistent with social constructivist accounts of conceptual change through guided experiential learning (Hamat & Embi, 2010).

D. Readiness for Uncertainty and Continuing Challenges

A particularly important outcome was improved readiness to work under uncertain conditions, especially relevant in the Ukrainian educational context. Students developed systematic contingency planning and flexible pedagogical responses: "The course taught me that uncertainty isn't something to fear — it's a normal part of online teaching that requires preparation and creativity. I now automatically develop Plan B and Plan C for every lesson" (Student O). "Living through the war while learning to teach online has shown me how education can continue even in the most difficult circumstances" (Student P). The readiness for uncertainty dimension showed a meaningful if somewhat smaller gain (Cohen's $d=1.83$) relative to technical and methodological dimensions, consistent with the Digital Pedagogical Resilience framework's characterisation of contextual awareness as the dimension most resistant to rapid development, requiring sustained experiential engagement beyond a single course (Melnyk et al., 2025).

Despite significant overall improvements, analysis revealed continuing challenges in three areas. Assessment authenticity in online environments remained a concern for 43% of students: "I feel confident about teaching online, but I'm still uncertain about how to ensure that students are doing their own work" (Student S). Working effectively with large classes online challenged 38% of participants, particularly given Ukraine's increased school consolidation due to displacement. Maintaining emotional connections with students in virtual environments continued to affect 35% of participants, reflecting the importance of interpersonal relationships in language learning contexts and the acute social disruption of wartime conditions. These persistent challenges indicate the need for continued professional development extending into early career practice, including structured mentoring programmes aligned with the Digital Pedagogical Resilience framework's emotional intelligence and contextual awareness dimensions.

5. CONCLUSIONS

This study confirmed the effectiveness of targeted, comprehensive preparation of pre-service English teachers for online instruction during times of uncertainty. The specialised course "Distance Learning of Foreign Languages" successfully addressed critical competency gaps and produced statistically significant, practically meaningful improvements across all measured readiness dimensions (Cohen's $d: 1.83-2.87$, all $p<0.001$). The research provides empirical support for the Digital Pedagogical Resilience framework (Melnyk et al., 2025), demonstrating through an independently conducted study that the framework's four dimensions accurately characterise the competencies developed through systematic pre-service online teaching preparation.

Key findings highlight the importance of hands-on experimentation, guided reflection, and sustained practice in developing online teaching competencies. The transformation documented through qualitative analysis — from viewing online teaching as simplified traditional instruction delivered through technology to understanding it as a sophisticated pedagogical practice — replicates the technology-as-tool to technology-as-pedagogy shift theorised by Melnyk et al. (2025) as the defining qualitative milestone of Digital Pedagogical Resilience development. The consistency of this pattern across independently conducted studies at the same institution strengthens confidence in the Digital Pedagogical Resilience framework as a robust theoretical model for teacher preparation in crisis

contexts.

The study's focus on wartime Ukraine provides evidence that proactive preparation for normalised rather than acute educational disruption is both feasible and necessary. The practical implications are clear: teacher education programmes require comprehensive integration of digital pedagogy training throughout curricula rather than isolated technology modules; hands-on experimentation with productive failure must be built into course design; psychological resilience and crisis adaptability require explicit attention alongside technical and methodological competencies; and persistent challenges in assessment authenticity and large-group management indicate specific areas requiring continued research and pedagogical innovation.

The practical significance of the study consists in the development and empirical validation of a replicable 32-hour course model for pre-service EFL teacher preparation that can be directly adopted or adapted by teacher education programmes facing conditions of recurring disruption. The course curriculum, eight-topic competency framework, assessment instruments (including the adapted Digital Pedagogical Resilience Scale), and contingency-design pedagogy are transferable across institutional contexts. The findings further provide data-grounded recommendations for educational policy: accreditation standards should recognise online teaching competency as an essential professional requirement, and teacher preparation programmes should explicitly address psychological resilience alongside technical and methodological skills as inseparable dimensions of digital pedagogical readiness.

Limitations include the relatively small sample size ($n=48$) and single-institution context. Future research should incorporate objective measures of teaching effectiveness rather than self-report alone, longer-term longitudinal studies tracking graduates into professional practice, comparative studies across different institutional and national contexts, and investigation of how emerging technologies such as artificial intelligence interact with digital teaching competency development in disrupted educational environments.

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All authors have read and agreed to the published version of the manuscript.

Acknowledgment: The authors acknowledge the valuable contributions of the 48 students who participated in this research and provided honest, thoughtful feedback about their learning experiences. Special recognition goes to colleagues who provided input on course design and research methodology.

Conflict of interest: The authors declare no conflict of interest.

REFERENCES

- [1] Adedoyin, O., & Soykan, E. (2020). COVID-19 pandemic and online learning: The challenges and opportunities. *Interactive Learning Environments*, 31, 863–875. <https://doi.org/10.1080/10494820.2020.1813180>
- [2] Ahmed, S. T. S. (2019). Chat and learn: Effectiveness of using WhatsApp as a pedagogical tool to enhance EFL learners' reading and writing skills. *International Journal of English Language and Literature Studies*, 8(2), 61–68. <https://doi.org/10.18488/journal.23.2019.82.61.68>
- [3] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- [4] Budnyk, O. (2024). Problems of professional activity of teachers working with students with disabilities: Challenges of the Russian-Ukrainian war. In O. Budnyk & S. Sydoriv (Eds.), *The space of inclusive education: Voices from Ukraine and beyond* (pp. 272–281). BRILL. https://doi.org/10.1163/9789004688131_029
- [5] Carrillo, C., & Flores, M. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(3), 466–487. <https://doi.org/10.1080/02619768.2020.1821184>
- [6] Castillo, V. V. (2022). Teaching English online in higher education: Understanding the social climate of online academic English courses. *Australasian Journal of Educational Technology*, 38(6), 91–106. <https://doi.org/10.14742/ajet.7978>
- [7] Cheung, A. (2021). Language teaching during a pandemic: A case study of Zoom use by a secondary ESL teacher in Hong Kong. *RELC Journal*, 54, 55–70. <https://doi.org/10.1177/0033688220981784>
- [8] Fakhruddin, A. (2018). Using Google Meet in teaching speaking. *Journal of English Language Learning*, 2(2), 43–46.
- [9] Gozcu, E., & Caganaga, C. K. (2016). The importance of using games in EFL classrooms. *Cypriot Journal of Educational Sciences*, 11(3), 126–135. <https://doi.org/10.18844/cjes.v11i3.625>
- [10] Hamat, A., & Embi, H. (2010). Constructivism in the design of online learning tools. *European Journal of Educational Studies*, 2(3), 237–246.
- [11] Hazaymeh, W. (2021). EFL students' perceptions of online distance learning for enhancing English language learning during COVID-19 pandemic. *International Journal of Instruction*, 14(3), 501–518. <https://doi.org/10.29333/iji.2021.14329a>
- [12] König, J., Jäger-Biela, D., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, 43(4), 608–622. <https://doi.org/10.1080/02619768.2020.1809650>
- [13] Kong, K., & Moorhouse, B. (2020). The impact of social uncertainty, protests, and COVID-19 on Hong Kong teachers. *Journal of Loss and Trauma*, 25(8), 649–655. <https://doi.org/10.1080/15325024.2020.1776523>
- [14] La Velle, L., Newman, S., Montgomery, C., & Hyatt, D. (2020). Initial teacher education in England and the Covid-19 pandemic: Challenges and opportunities. *Journal of Education for Teaching*, 46, 596–608. <https://doi.org/10.1080/02607476.2020.1803051>
- [15] Lestiyawati, R., & Widyantoro, A. (2020). Strategies and problems faced by Indonesian teachers in conducting e-learning during the COVID-19 outbreak. *Journal of Culture, Literature, Linguistic and English Teaching*, 2(1), 71–82.
- [16] Lo, N. Pk. (2023). Digital learning and the ESL online classroom in higher education: Teachers' perspectives. *Asian-Pacific Journal of Second and Foreign Language Education*, 8, 24. <https://doi.org/10.1186/s40862-023-00198-1>
- [17] Loranc-Paszylk, B. (2015). Videoconferencing as a tool for developing speaking skills. In *Second Language Learning and Teaching* (pp. 189–203). Springer. https://doi.org/10.1007/978-3-642-38339-7_12
- [18] Ma, K. (2018). The application of educational games in English teaching for non-English major students. In *Proceedings of the 8th International Conference on Education and Management* (pp. 46–48). Atlantis Press. <https://doi.org/10.2991/icem-18.2019.12>
- [19] Melnyk, I., Devitska, A., & Datsko, Y. (2025). Digital pedagogical resilience: Framework for EFL pre-service teachers in crises' context. *Scientific Bulletin of Uzhhorod University. Series: Philology*, 2(54). [https://doi.org/10.24144/2663-6840.2025.2.\(54\).58-63](https://doi.org/10.24144/2663-6840.2025.2.(54).58-63)
- [20] Mheidly, N., Fares, M. Y., & Fares, J. (2020). Coping with stress and burnout associated with telecommunication and online learning. *Frontiers in Public Health*, 8, Article 574969. <https://doi.org/10.3389/fpubh.2020.574969>
- [21] Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- [22] Rahman, K. (2020). Learning amid crisis: EFL students' perception on online learning during the COVID-19 outbreak. *English Teaching, Learning, and Research Journal*, 6(2), 179–194.
- [23] Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the COVID-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education*, 2(3), 923–945. <https://doi.org/10.1007/s42438-020-00155-y>
- [24] Sperling, K., Stenberg, C.-J., McGrath, C., Åkerfeldt, A., Heintz, F., & Stenliden, L. (2024). In search of artificial intelligence (AI) literacy in teacher education: A scoping review. *Computers and Education Open*, 6, Article 100169. <https://doi.org/10.1016/j.caeo.2024.100169>

- [25] Teh, W. (2021). Communicative language teaching (CLT) in the context of online learning: A literature review. *International Journal of TESOL and Education*, 1(2), 65–71. <https://i-jte.org/index.php/journal/article/view/23>
- [26] Teng, M., & Wu, J. (2021). Tea or tears: Online teaching during the COVID-19 pandemic. *Journal of Education for Teaching*, 47(2), 290–292. <https://doi.org/10.1080/02607476.2021.1886834>
- [27] Wong, C., Pomepeo-Fargnoli, A., & Harriott, W. (2022). Focusing on ESOL teachers' well-being during COVID-19 and beyond. *ELT Journal*, 76(1), 1–10. <https://doi.org/10.1093/elt/ccab013>

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Received: March 6, 2026; **revised:** June 6, 2026; **accepted:** September 21, 2026; **published:** September 29, 2026.

Мельник Інеса, Девіцька Антоніна, Дацько Юлія, Бочарова Олена. Підготовка майбутніх вчителів до викладання англійської мови в онлайн-форматі в умовах невизначеності. *Журнал Прикарпатського університету імені Василя Стефаника*, 13 (3) (2026), 61-72.

Стаття присвячена дослідженню ефективності цілеспрямованої підготовки майбутніх вчителів англійської мови до викладання в онлайн-форматі в умовах невизначеності, характерних для сучасної України під час повномасштабного вторгнення, коли онлайн-навчання трансформувалося з кризового резерву на нормалізовану педагогічну практику. Дослідження використовує змішану методологію. У дослідженні взяли участь 48 студентів двох різних освітніх програм з викладання англійської мови Карпатського національного університету імені Василя Стефаника: 27 студентів спеціальності «Англійська мова та література і друга іноземна мова» та 21 студент спеціальності «Середня освіта (англійська мова та зарубіжна література)». Інструмент дослідження включав 25 запитань для оцінки готовності до онлайн-викладання за п'ятьма категоріями з використанням п'ятибальної шкали Лікерта: технічна компетентність, методична готовність, розуміння специфіки онлайн-навчання, впевненість у власних здібностях та готовність до роботи в умовах невизначеності. Анкетування проводилося тричі: до початку курсу, в середині та після завершення курсу. Додаткові дані збиралися через практичні завдання з розробки уроків, спостереження в аудиторії, поздовжні рефлексивні есе та фокус-групові дискусії. Результати показали значне покращення за всіма вимірами готовності: технічна компетентність (з 2,3 до 4,1), методична готовність (з 2,1 до 4,3), розуміння специфіки онлайн-навчання (з 2,4 до 4,5), впевненість у власних здібностях

(з 2,2 до 4,0) і готовність до роботи в умовах невизначеності (з 2,6 до 4,2). Усі покращення є статистично значущими ($p < 0,001$) з великими розмірами ефекту (d Коена в діапазоні від 1,83 до 2,87). Якісний аналіз рефлексивних есе виявив фундаментальну трансформацію — від сприйняття онлайн-викладання як спрощеної транспозиції традиційних методів до визнання його окремим педагогічним підходом, що потребує спеціалізованих компетентностей. Дослідження підтверджує ефективність систематичної курсової підготовки до онлайн-викладання англійської мови та надає науково обґрунтовані рекомендації для програм педагогічної освіти, що функціонують в умовах тривалих порушень освітнього процесу.

Ключові слова: підготовка вчителів, онлайн-навчання, викладання англійської мови, цифрові компетентності, умови невизначеності, дистанційна освіта, екстрене дистанційне навчання.