Chykalova Maryna, Candidate of Sciences (Education), Associate Professor, Head of Foreign Languages Chair, Sumy State Pedagogical University, Sumy, Ukraine, ORCID: 0000-0002-2660-3710

DEVELOPING CRITICAL THINKING THROUGH ENGLISH LANGUAGE EDUCATION IN DIGITAL AND MULTICULTURAL LEARNING ENVIRONMENTS: BRIDGING SPECIALIZED SECONDARY SCHOOL AND UNIVERSITY EDUCATION IN THE UKRAINIAN WARTIME AND POST-WAR CONTEXT

Abstract

The transformation processes of contemporary education amid digitalisation, globalisation, and rising social instability have intensified the need to develop learners' critical thinking as a key transversal competency of the twenty-first century. Modern educational systems are expected not only to transmit knowledge but also to cultivate the ability to analyse information critically, evaluate arguments, distinguish facts from opinions, make informed decisions, and respond flexibly to rapidly changing social and professional environments. These expectations are particularly relevant in foreign language education, where communication extends beyond linguistic competence to include intercultural awareness, reflective thinking, and active participation in global discourse. In the Ukrainian educational context, wartime and post-war realities have created additional challenges for both secondary and higher education. Educational institutions are required to adapt to unstable learning conditions, emotional and psychological pressures, digital transformation, and the necessity to maintain educational quality despite external disruptions. These circumstances demand pedagogical approaches that promote resilience, independent reasoning,

information literacy, and learners' capacity to interpret and critically assess diverse sources of information.

English language education possesses significant potential for integrating critical thinking into educational practice due to its communicative, interdisciplinary, and intercultural nature. This article explores conceptual and methodological approaches to developing critical thinking through English language education in high schools, particularly specialised secondary schools (Grades 10–12), and higher education institutions. Based on my teaching experience, I believe that we cannot rely solely on the latest achievements. It is essential to consider the historical foundations of critical thinking. This study recognizes classical philosophical and pedagogical traditions and highlights the contributions of scholars whose ideas have influenced our current understandings of reflective and analytical thinking. Using a teacher-researcher perspective, this article proposes a conceptual model for integrating critical thinking into English language instruction and presents differentiated classroom activities adapted to B1–B2 and B2–C1 proficiency levels. Particular attention is paid to digital learning environments, multicultural communication, media literacy, and educational adaptation in wartime and post-war conditions.

Keywords: critical thinking; English language education; specialised secondary school; higher education; digital learning; wartime education; Ukraine.

Problem statement

Contemporary educational transformation is increasingly focused on developing competencies that help learners navigate uncertainty, critically evaluate information, and engage responsibly in a global society. Among these competencies, critical thinking plays a central role. The Cambridge Dictionary defines critical thinking as "the process of thinking carefully about a subject or idea, without allowing feelings or opinions to affect you" [1].

In addressing international educational practices, we realize that language learning should extend far beyond mere linguistic proficiency; it must enhance learners' analytical, communicative, and intercultural skills.

In Ukraine, educational change has become especially important under wartime conditions. Observations in Ukrainian educational settings indicate that maintaining educational continuity requires balancing academic expectations with learners' emotional resilience and adaptability. English language education is seen not just as an academic subject but also as a tool for global communication.

Despite growing emphasis on critical thinking, the continuity between specialized secondary education and higher education remains insufficiently explored. Learners often experience a methodological disconnect: school instruction tends to focus on examination-oriented tasks, while university education often emphasizes independent inquiry and argumentation. This article aims to bridge this gap.

Purpose of the Article

The goal of this study was to create and support a conceptual and methodological model for promoting critical thinking through English language education in both specialized secondary and university settings.

Analysis of recent research and publications

As mentioned above, the concept of critical thinking has evolved through multiple philosophical, psychological, and educational traditions and has gradually become one of the central competencies in contemporary education. Early conceptualisations can be traced to John Dewey (1910), who viewed reflective thinking as a disciplined process of inquiry grounded in experience and aimed at solving practical and intellectual problems [2]. Building on this tradition, Robert Ennis (1987) defined critical thinking as "reasonable and reflective thinking focused on deciding what to believe or do", emphasising both cognitive processes and decision-making [3]. Further development of the concept is reflected in Peter

Facione's (1989) multidimensional model, which identifies core critical thinking skills, including interpretation, analysis, evaluation, inference, explanation, and self-regulation [4].

A significant contribution to the practical implementation of critical thinking in education was made by Richard Paul and Linda Elder (2014), who proposed a framework based on intellectual standards such as clarity, relevance, precision, depth, logic, and fairness [5]. Their work provides methodological tools for integrating critical thinking into educational curricula and classroom practice.

The cognitive dimension of critical thinking is also reflected in Bloom's Taxonomy (1956), which classifies learning processes into hierarchical levels ranging from remembering and understanding to analysing, evaluating, and creating [6].

Contemporary research demonstrates the practical effectiveness of integrating critical thinking into language education. Diane Halpern (2014) emphasised the transferability of thinking skills across different contexts and disciplines [7]. Stephen Brookfield (2012) connected critical thinking with reflective teaching and the examination of assumptions [8]. In foreign language education, Liu and Guo (2006) demonstrated that teaching critical reading significantly contributes to the development of learners' analytical abilities [9]. Mary Kennedy (2007) highlighted the role of debate as an instructional strategy that enhances both critical thinking and communicative competence [10], while Melinda Campbell (2015) proposed the method of "team criticism", encouraging collaborative analysis, argumentation, and peer interaction [11].

Within the Ukrainian educational context, the implementation of critical thinking technologies in English language teaching has been explored by Olena Nikitchenko and Olha Tarasova (2017), who developed methodological approaches for fostering critical thinking skills in foreign language classrooms [**Error! Reference source not found.**]. Liudmyla Kravchenko and Olena

Ilchenko clarified the essence and content of the concept of "critical thinking" in the context of professional training of future specialists [13]. Svitlana Mudra investigates the development of critical thinking among students of non-philological majors through English language learning and emphasises the growing importance of lifelong learning in contemporary educational realities [**Error! Reference source not found.**]. The focus on critical thinking in English learning remains prevalent in various studies conducted by Ukrainian scholars, continually evolving with new methods for development and enhancement.

Presentation of the main material of the study

Since the purpose of the article is not to measure statistical outcomes but to construct and substantiate an educational model, the study employs a qualitative interpretive approach combined with conceptual modelling.

The research is conducted from a teacher-researcher perspective, where pedagogical practice becomes a source of professional inquiry and educational innovation. Such an approach allows integrating classroom experience, theoretical analysis, and methodological design into a coherent framework for developing critical thinking through English language education.

The methodological assumption underlying this study is that critical thinking develops most effectively when language learning shifts from reproduction of content toward inquiry, interpretation, dialogue, and argumentation. The research conceptualises critical thinking development as a continuous educational trajectory connecting specialized secondary education (Grades 10–12) with higher education. The model reflects four interconnected dimensions as shown inFig.1:

1) Educational Context

2) Pedagogical Intervention

3) Cognitive Development

4) Educational Outcomes

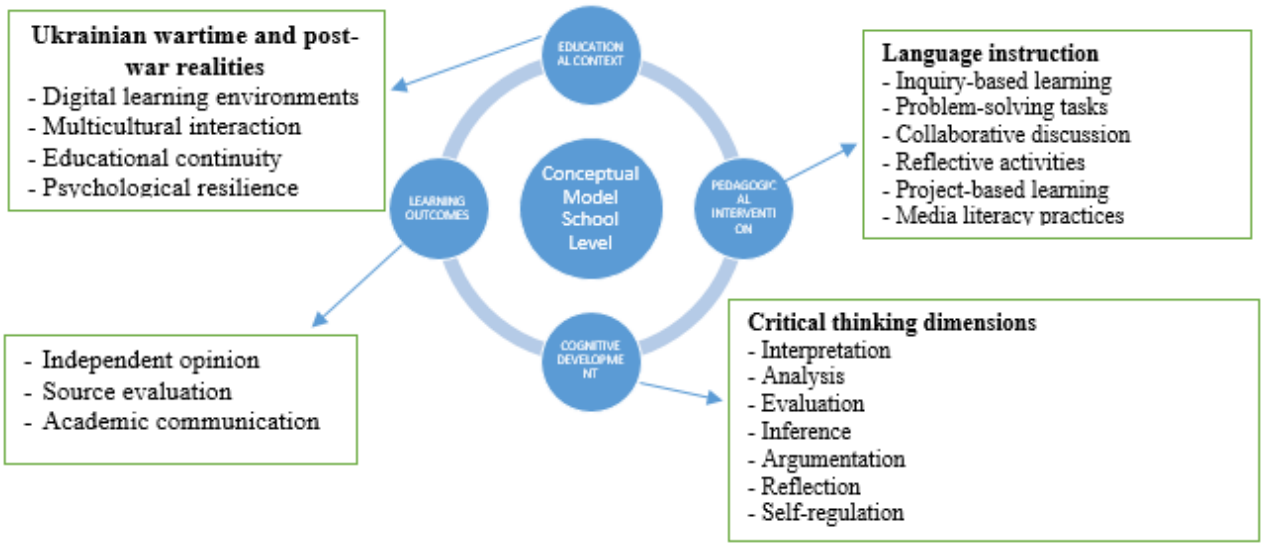


Figure 1 – Conceptual Model of Developing Critical Thinking through English Language Education – School Level (B1-B2)

At the University level (B2-C1), classroom observations suggest that learner autonomy develops progressively when instructional support is gradually reduced and learners are encouraged to justify positions independently. It comprises: research literacy, academic argumentation, interdisciplinary thinking and professional autonomy. As we can see at the specialized secondary school stage, students develop foundational critical thinking skills through scaffolded language interaction. Instruction prioritizes guided discussion, comparison of viewpoints, evidence identification, and contextual interpretation, while at the university stage, language education shifts toward academic inquiry, interdisciplinary dialogue, and independent knowledge construction. Students engage in analytical reading, research-based communication, and reflective synthesis.

To operate the model, instructional design follows three developmental phases (Table 1).

The proposed model does not treat critical thinking as an isolated skill. Instead, it positions critical thinking as an integrated educational outcome that emerges from the interaction among language competence, social participation, and reflective practice. Based on my teaching experience in both secondary and

higher education contexts, structured critical thinking activities appear to support not only language development but also learner confidence and academic autonomy.

Table 1

Modal developmental phases

Phase	Name of Phase	Teacher	Students	Recommended format
Phase 1	Guided Critical Engagement	scaffolding dominates	– distinguish facts from opinions; – formulate simple arguments; – identify assumptions; – compare sources.	discussion circles, guided reading, structured debate
Phase 2	Collaborative Knowledge Construction	support gradually decreases	– negotiate meanings; – formulate evidence-based conclusions; – work in multicultural teams	case studies, project work, peer assessment
Phase 3	Independent Critical Performance		become autonomous learners	– academic writing; – reflective analysis; – professional communication; – interdisciplinary problem-solving

Within the Ukrainian wartime and post-war educational context, instructional practices should simultaneously support academic achievement, emotional resilience, media literacy, and learner autonomy.

The activities (Table 2) proposed below are designed according to three principles:

1) continuity between specialized secondary and university education;

2) differentiated language support;

3) integration of critical thinking into authentic communication.

Table 2

Types of Practical Activities at School and University Levels

Activity Type	Name	Educational objective	Language focus	Critical thinking focus	Topic
1	Critical Reading and Evidence Evaluation	to develop learners' ability to distinguish facts, opinions, assumptions, and evidence	reading, speaking, academic vocabulary	analysis, evaluation, interpretation	How Digital Technologies Transform Education
2	Structured Debate	to develop argumentation and evidence-based communication	useful phrases	argumentation, evaluation, synthesis	Should AI become a permanent educational tool?
3	AI-Supported Critical Thinking Tasks	to transform AI from an answer-provider into a reflective learning tool.	students evaluate AI output rather than reproduce it.	argumentation, evaluation, interpretation	
4	Scenario-Based Learning	to apply critical thinking in uncertain contexts	topical vocabulary	problem-solving; decision-making; ethical reasoning	Education During Crisis Conditions

Activity Type 1

Specialized Secondary School **(Grades 10–12, B1–B2)**	***Stage 1 — Pre-reading*** Students discuss: • Which technologies changed education most? • Can digital tools replace teachers?
	Stage 2 — Reading Students receive two short texts presenting opposing perspectives. Text A: Digital technologies increase access and personalization. Text B: Excessive digitalization reduces social interaction.
	Stage 3 — Evidence Mapping Students complete a table: | Statement | Fact | Opinion | Evidence | Missing Information
	Stage 4 — Reflection Prompt: Which argument was stronger and why? Expected outcomes: identify bias; justify conclusions; compare perspectives.

University Level (B2–C1)	*Additional task:* Students critically evaluate: credibility of sources; author positioning; argument quality; omitted perspectives.
	Extension: Students write a 300-word critical response with external sources.

Activity Type 2

Specialized Secondary School (Grades 10–12, B1–B2)	*Debate structure:* Team A: AI enhances learning. Team B: AI limits independent thinking. Roles: presenter; evidence collector; moderator; observer. *Post-debate reflection:* Students evaluate: strongest argument; weakest evidence; possible compromise.
University Level (B2–C1)	*Modified Oxford-style debate.* *Additional requirements*: Students must: cite academic literature; incorporate counterarguments; identify logical fallacies. *Reflection questions:* • Did your opinion change? • *Which evidence influenced you most?*

Activity Type 3

Specialized Secondary School (Grades 10–12, B1–B2)	*Task:* *"Ask AI — Challenge AI"* *Stage 1:*Students generate a prompt: Explain how social media influences education.
	*Stage 2:*Students evaluate AI responses using criteria: accuracy, objectivity, completeness, evidence, bias
	Stage 3: Students rewrite the AI response. *Support questions:* What is useful? What seems unclear? What information is missing?
University Level (B2–C1)	*Advanced questions*: What assumptions shape the answer? How could methodology affect conclusions? Which scholarly sources are absent? *Expected outcomes:* information literacy; reflective judgment; ethical AI use.

Activity Type 4

Specialized Secondary School (Grades 10–12, B1–B2)	**University Level (B2–C1)**
Scenario: Your school/university must organize learning after infrastructure disruption. **Students must decide: • priorities; • communication strategies; • digital tools; • inclu-**	

sion measures.	
Output: group presentation	*Output:* policy proposal

Drawing on my observations in both specialized secondary and university education, I must say that critical thinking appears to develop more effectively when language instruction moves beyond reproduction. Within the proposed continuity model, task complexity gradually increases from specialized secondary school to higher education.

At the specialized secondary school level (B1–B2), instruction primarily focuses on guided critical engagement. Students are expected to identify information, compare perspectives, and justify personal opinions using structured language support. Typical learning activities include comparing viewpoints, summarizing evidence, and formulating simple arguments. Since learners at this stage are still developing academic autonomy, teacher scaffolding remains substantial. Expected learning outcomes involve structured oral and written communication, while assessment prioritizes learning processes and gradual cognitive progression.

At the university level (B2–C1), instructional emphasis shifts toward independent critical performance. In classroom implementation, learners gradually move from identifying information toward evaluating evidence and constructing independent interpretations. Learning tasks include source critique, development of research-based positions, and reflective academic writing. Teacher support becomes less directive and encourages autonomous inquiry. Assessment focuses primarily on performance quality and the ability to demonstrate independent academic discourse.

To evaluate critical thinking development, the study applies an analytical assessment framework based on five dimensions: interpretation, analysis, evaluation, argumentation, and reflection. Interpretation refers to understanding

and explaining meaning; analysis involves identifying relationships, assumptions, and underlying structures; evaluation concerns judging the credibility and relevance of information; argumentation reflects the ability to construct logical and evidence-based reasoning; and reflection demonstrates learners' capacity to monitor and regulate their own thinking processes. Student performance may be interpreted progressively: advanced critical performance reflects consistent demonstration of analytical independence; developing critical competence indicates emerging ability to justify and evaluate ideas; while lower levels suggest the need for additional scaffolding and guided instructional support. The implementation of differentiated and inquiry-oriented practices demonstrates that critical thinking can become a measurable educational outcome rather than an abstract educational aspiration.

The proposed model demonstrates that the development of critical thinking through English language education is most effective when it is embedded in a continuous learning trajectory spanning specialized secondary and higher education.

In the Ukrainian wartime and post-war educational context, the importance of such an approach becomes even more pronounced. Educational instability, information overload, and increased exposure to unverified digital content require learners to develop strong evaluative and interpretive skills. The integration of digital tools, including artificial intelligence, further transforms the pedagogical landscape. Rather than replacing human cognition, AI is positioned in this study as a cognitive partner that supports analysis, comparison, and reflection. However, its pedagogical value depends on the teacher's ability to design tasks that encourage critical interrogation of AI-generated content.

The continuity between specialized secondary school and university education remains a key pedagogical challenge. The study shows that without structured progression from guided tasks (B1–B2) to independent academic

inquiry (B2–C1), learners experience a gap in critical thinking development. The proposed model addresses this gap by introducing phased cognitive progression and scaffolded instructional design. Furthermore, differentiated tasks ensure inclusivity and adaptability within heterogeneous classrooms. This is particularly relevant in Ukrainian educational settings, where learners may demonstrate uneven language proficiency due to disrupted learning conditions.

Conclusions

This study conceptualized and substantiated a model for developing critical thinking which bridges specialized secondary education (Grades 10–12) and higher education, ensuring pedagogical continuity and progressive cognitive development. Critical thinking in English language education is a multidimensional construct that includes interpretation, analysis, evaluation, inference, argumentation, and reflection. Being a practical teacher, I must confirm that effective development of critical thinking requires integration of communicative, reflective, and inquiry-based pedagogical approaches. Continuity between secondary and higher education is essential for sustained cognitive development and should be explicitly structured through progressive task design. As we can see, digital environments and AI tools can enhance critical thinking development when used as objects of analysis rather than sources of unquestioned answers. Taking into account the contemporary situation we live in, we realise that the Ukrainian wartime and post-war educational context necessitates flexible, resilience-oriented pedagogies that combine academic development with emotional and informational literacy.

The study contributes to the field of English language pedagogy by offering a conceptual model that integrates critical thinking development across educational levels. Future research may focus on empirical validation of the model through classroom-based experimental studies and longitudinal tracking of learner outcomes.

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