Cultivating Critical Thinking in Foreign Language Students during the Process of Learning a Foreign Language

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Abstract. Critical thinking is a core competency for foreign language professionals. This paper focuses on Russian major students, analyzing the current state of their critical thinking development. It finds that students are relatively weak in evaluative reflection and systematic thinking, with traditional lecture-based teaching and single evaluation methods being the main limiting factors. To address this, it proposes building a training system that integrates critical thinking: shifting teaching concepts and strengthening awareness of thinking training; systematically incorporating thinking objectives into the curriculum; adopting teaching methods such as problem-based and seminar-style instruction; and establishing a diverse, process-oriented evaluation mechanism. Through systematic reform, language proficiency and thinking skills can develop in tandem, cultivating high-quality Russian language professionals with solid language foundations, independent critical thinking abilities, and cross-cultural competence.

Keywords: Foreign language learning; critical thinking; language teaching

1 Introduction

Under the wave of globalization, the connections between countries around the world are becoming increasingly close, and foreign languages, as an important tool for cross-cultural communication, are obviously crucial in education[1]. Against this backdrop, the goal of foreign language education is no longer merely to enable students to master the basic knowledge of a language, but also to cultivate their ability to use the language for in-depth communication, understand diverse cultures, and engage in independent

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thinking and problem-solving. Critical thinking, as a higher-order cognitive skill, plays a vital role in this process[2].

Critical thinking helps students analyze information from the outside world comprehensively and deeply, distinguish its authenticity and value, and avoid blind acceptance. In today's era of information explosion, the foreign language information that students encounter is diverse and complex, encompassing both accurate, valuable knowledge and potentially erroneous or one-sided viewpoints[3]. Students with critical thinking skills can discern truth from falsehoods in the vast sea of information and select content that is beneficial for their learning and growth[4]. Therefore, in this context, cultivating students' critical thinking in foreign language learning has become an important issue in the reform of foreign language education. This not only relates to the improvement of students' personal language skills and comprehensive qualities but also to whether foreign language education can meet the needs of the times, cultivating high-quality talents with an international perspective, cross-cultural communication skills, and innovative thinking[5].

2 Literature Review

The term 'critical' comes from the Greek words 'kriticos' (analytical judgment) and 'krinein' (standard), with its original meaning being to analyze and judge something based on a standard. Scholars such as Edward M. Glaser have elaborated on the definition of critical thinking from various perspectives, including the abilities, characteristics, processes, principles, or methods of critical thinking. Since modern times, education, especially higher education, has increasingly focused on cultivating students' critical thinking skills. Many Western universities have listed the development of college students' critical thinking abilities as one of the important goals of future higher education[6]. Domestic research started later; it was not until the mid-to-late 1990s that scholars began to study it, and the cultivation of critical thinking has only become a hot topic in higher education in recent years[7].

The academic community has generally reached a consensus on the conceptual connotation of 'critical thinking': first, the core purpose of critical thinking is 'to make reasonable judgments about things or views based on standards.' Second, individuals with critical thinking need to master good critical skills and possess a sufficient critical mindset[8]. Critical skills primarily include core sub-skills such as interpretation, clarification, analysis, inference, evaluation, and self-correction. The critical mindset refers to certain specific emotional traits, such as curiosity and inquisitiveness about the unknown, vigilance against prejudice, and openness to problems and controversies. Finally, critical thinking also includes 'metacognition' or 'meta-reflection,' meaning that an individual 'needs to strategically use specific critical skills to monitor, adjust, and correct their thinking process.' Drawing on the definition of reflective ability by domestic scholars, critical thinking ability is 'the ability to make a purposeful and reasoned judgment based on standards regarding things or views.' It is a rational and reflective way of thinking and represents both a thinking skill and a thinking tendency[9].

3 Survey and Analysis of Critical Thinking Tendency of Russian Major Students

3.1 Survey Design

To comprehensively and scientifically assess the current state and developmental characteristics of critical thinking among Russian language majors, this study employs questionnaire surveys as its primary research tool. The survey was conducted from September to November 2023, selecting three representative universities with distinct geographical distributions (located in North China, East China, and Northeast China) that are prominent in Russian language program development as the sample sources. The survey population encompassed full-time undergraduate students from freshman to senior years in these institutions' Russian language programs, ensuring the sample reflected cognitive development across different academic stages.

Regarding sampling methodology, stratified random sampling was employed. First, the planned sample size for each grade level was determined based on the proportion of students in each year within the Russian language programs at each university. Subsequently, specific students within each grade were selected for participation using random number tables. A total of 380 questionnaires were distributed, with 358 returned. After excluding incomplete, patterned, or uniformly selected responses, 346 valid questionnaires were obtained, yielding a valid response rate of 91.1%. The sample demonstrated good representativeness.

3.2 Overall Level of Critical Thinking Tendency

Data analysis of 346 valid questionnaires revealed that Russian language majors scored an overall average of M=3.48 (standard deviation SD=0.62) on critical thinking tendencies. Using the midpoint of 3 on the 5-point scale as the theoretical median, this indicates a slightly above-average level overall. This result suggests that current Russian language majors possess a certain degree of critical thinking orientation, yet significant room for improvement remains. Scores across each dimension are presented in Table 1.

Table 1. Critical Thinking Scores Across Dimensions for Russian Language Majors

Dimension	*Number*	*Mean (M)*	*SD*	*Rank*
Open-mindedness	9	3.72	0.71	1
Curiosity	9	3.65	0.68	2
Analyticality	9	3.52	0.74	3
Systematicity	9	3.28	0.82	4
Maturity	9	3.19	0.79	5
Total Score	45	3.48	0.62	

The table reveals that students perform relatively well on the emotional traits of "openness" and "curiosity," with average scores exceeding 3.60. This indicates a general willingness among students to engage with new perspectives and maintain interest in the unknown. However, scores on the core cognitive dimensions of "systematicity" and "maturity"—which pertain to the organization, depth, and prudence of thinking—were notably low ($M < 3.30$). These areas represent the shortcomings that constrain the overall level of critical thinking ability.

3.3 Grade Differences in Critical Thinking Tendencies

To examine whether critical thinking develops with increasing depth of specialized study, a one-way ANOVA was conducted on the total critical thinking scores of students across different grade levels. Results indicated significant grade-level differences: $F(3, 342) = 5.41$, $p < 0.01$. Further post-hoc multiple comparisons (LSD method) revealed that the critical thinking total scores of senior students ($M=3.72$, $SD=0.58$) were significantly higher than those of freshman students ($M=3.25$, $SD=0.65$), $p<0.001$; senior students also scored significantly higher than sophomore students ($M=3.41$, $SD=0.61$), $p<0.05$. No significant differences were found among other grade levels.

As shown in the figure, students' overall critical thinking scores exhibit a steady upward trend from freshman to senior year, with a particularly noticeable surge between junior and senior years. This indicates that systematic Russian language studies and higher education experiences have a positive cumulative effect on the development of students' critical thinking skills. However, the absolute increase from freshman year (3.25) to senior year (3.72) is modest (0.47), and the senior-year average still falls short of the "Fairly Aligned" threshold (4 points). This suggests that the current professional education system requires further enhancement in its effectiveness for cultivating critical thinking.

Further analysis of each dimension across grades reveals: "Openness" and "Curiosity" maintain high levels throughout all four grades with minimal inter-grade variation, indicating students enter with strong exploratory inclinations and open mindsets, which professional education partially sustains. "Analytical Thinking" exhibits a clear upward trajectory, with particularly marked improvements in the junior and senior years. This may correlate with increased training in deep textual deconstruction through literary analysis and translation criticism in upper-level courses. "Systematic Thinking" and "Maturity" started at low levels and showed slow progress. Although some improvement occurred in the senior year, these remained the weakest areas even at graduation. This suggests current teaching may lack deliberate training in complex information integration, multi-perspective deliberation, and prudent decision-making.

3.4 Analysis of Main Influencing Factors

To investigate the key teaching factors influencing the development of critical thinking among Russian language majors, this study constructed a multiple linear regression model with critical thinking total score (CT) as the dependent variable. Four teaching

practice variables potentially exerting significant influence were selected as predictor variables. The predictor variables and their assigned values are as follows:

$$CT = 1.85 + 0.29X_1 + 0.26X_2 + 0.18X_3 + \in \quad (1)$$

X_1 represents the dominant orientation of classroom teaching methods (1 = primarily teacher-centered instruction and language knowledge transmission; 2 = primarily task-driven and language application-based; 3 = primarily problem-based discussion and inquiry-debate); X_2 represents research-based learning participation (comprehensively measured by the frequency of activities such as "participating in research projects" and "writing course papers or reports," 1 = never participated, 5 = frequent participation). X_3 represents frequency of cross-cultural practice (measured by participation in activities like "attending Sino-foreign exchange events" or "using Russian for cross-cultural communication"; 1 = rarely, 5 = very frequently); X4 represents assessment method orientation (1 = primarily evaluated through end-of-term written language knowledge exams; 2 = comprehensive assessment incorporating regular performance, project assignments, oral presentations, etc.).Regression analysis employed stepwise regression, with results presented in Table 2.

Table 2. Results of the Multiple Linear Regression Analysis of Factors Influencing Critical Thinking

Model	*Variables Entered*	*Unstandardized Coefficients B*	*Std. Error*	*Standardized Coefficients Beta*	*t-value*
M1	(Constant)	2.451	0.112	0.291	21.876
	X1	0.317	0.054		5.870
M2	(Constant)	2.288	0.115		19.904
	X1	0.265	0.054	0.243	4.907
	X2	0.102	0.027	0.187	3.778

4 Ways to Cultivate Critical Thinking in Russian Majors

Based on the findings that critical thinking development is uneven and significantly influenced by teaching methods and assessment mechanisms, this paper proposes a four-dimensional cultivation approach aligned with the intrinsic patterns of foreign language learning and cognitive development.

4.1 Transform Teaching Philosophy and Build a Critical Thinking-Oriented Russian Classroom

Cultivating critical thinking must first start with a fundamental shift in teaching philosophy. Teachers should move beyond the traditional view of language as merely a tool and adopt a teaching philosophy that emphasizes the co-development of language and

thinking. In classroom teaching, the proposed 'reading-discussion-writing' cycle involves designing language tasks that present conceptual challenges. For example, in literary reading, students are guided not only to understand the content of the text but also to analyze the author's argumentative logic, underlying values, and cultural stance in depth; in oral practice, students participate in activities such as themed debates and simulated interviews, which encourage them to construct viewpoints from multiple perspectives and engage in reasoned argumentation and rebuttal. The teacher's role should shift from that of a knowledge transmitter to a designer and facilitator of thinking activities, fostering a classroom culture that encourages questioning and exploration through open-ended questions and cognitive scaffolding.

4.2 Reconstructing the Curriculum System and Integrating the Training Objectives of Critical Thinking Systematically

The cultivation of critical thinking should not rely solely on fragmented teaching activities but should be systematically integrated into the professional curriculum. Regarding the integration of courses for developing critical thinking skills in foreign language majors, a three-in-one integration model of 'language skills - professional knowledge - research methods' is proposed. In lower-level language skills courses (such as intensive reading and writing), training in thinking sub-skills such as analysis, evaluation, and inference should be explicitly included—for example, through exercises like analyzing argumentative structures and identifying logical fallacies to enhance students' text analysis and critical reading abilities. In upper-level professional knowledge courses (such as Russian literature, history, and social culture), 'content-based instruction' (CBI) should be adopted, guiding students to collect information, compare viewpoints, and form and justify personal opinions on controversial cultural or social issues. At the same time, specialized courses like 'Academic Writing and Critical Thinking' should be offered to systematically teach critical thinking methods.

4.3 Innovative Teaching Method Drives Thinking Development by Inquiry and Practice

An effective teaching method is key to putting thinking skills training into practice. Student-centered and inquiry-based teaching models should be vigorously promoted. First, widely adopt Problem-Based Learning (PBL) and Project-Based Learning, designing real and interdisciplinary language-use scenarios (such as writing a feasibility analysis report for a Sino-Russian cooperation project), allowing students to integrate language and critical thinking skills while solving complex problems. Second, deepen the application of seminar-style teaching in courses such as literature, translation, and regional studies, requiring students to engage in in-depth reading before class, lead discussions during class, and reflect and summarize afterward, thereby continuously developing their analytical, integrative, and evaluative abilities. Additionally, actively utilize digital tools (such as corpora, mind mapping software, and online collaboration platforms) to support students in constructing arguments and processing information, enhancing the systematicness and accuracy of their thinking.

4.4 Reform the Evaluation Mechanism, Lead the Thinking Growth with the Multiple Evaluation

Evaluation is a guiding tool and must establish a diversified evaluation system that aligns with the goal of cultivating critical thinking. It is necessary to change the current tendency to focus on language form while neglecting the quality of thinking, and shift toward process-oriented and comprehensive evaluation. Regarding evaluation content, more emphasis should be placed on dimensions such as depth of analysis, quality of argumentation, logical rigor, and originality of ideas. In terms of evaluation methods, 'portfolio assessment' should be implemented to continuously collect students' reflective notes, project reports, multiple drafts of essays, peer review records, etc., dynamically reflecting the trajectory of their thinking development; 'performance-based assessment' should be introduced to evaluate students' ability to use language for critical analysis and communication in complex contexts through authentic tasks like simulated international conferences, negotiations, and news commentary. Regarding evaluation participants, a mechanism combining teacher assessment, self-assessment, and peer assessment should be established. Specifically, in peer assessment, students should be guided to use structured rubrics to focus on each other's argumentation logic, thereby reflecting on their own thinking through evaluating others and achieving the goal of 'assessment promoting thought.'

5 Conclusion

In the dual context of globalization and informatization, critical thinking has become a core competency for high-quality foreign language talents. This study, through a survey, found that the overall level of critical thinking among current Russian major students needs improvement, especially in evaluation, reflection, and systematic thinking. The knowledge-transmission-oriented approach and single evaluation methods in traditional teaching are the main limiting factors. Therefore, cultivating critical thinking in Russian majors must involve systematic reforms in teaching philosophy, curriculum system, teaching methods, and evaluation mechanisms. The key lies in achieving the 'four transformations': shifting teaching objectives from 'language proficiency' to 'co-development of language and thinking'; shifting teaching content from 'knowledge coverage' to 'problem exploration'; shifting teaching methods from 'teacher lectures' to 'teacher-student collaborative research'; and shifting teaching evaluation from 'result judgment' to 'process facilitation.

Future Russian teaching should build an eco-friendly learning environment that is student-centered, problem-driven, thinking-focused, and supported by diversified evaluation. Only in this way can we cultivate new-era Russian talents who are not only proficient in language but also possess profound insight, rigorous analytical skills, and cross-cultural communication capabilities, giving them a real competitive edge in complex international interactions and professional fields. The framework for cultivation proposed in this study aims to provide a theoretical reference and practical path for this reform, while its specific effectiveness still needs further verification and refinement through subsequent teaching experiments.

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References

1. Xiaoqing Xu. 2023. Cultivating Critical Thinking in Foreign Language Majors under the New Liberal Arts Initiative. English Square (10): 83–87. https://doi.org/10.16723/j.cnki.yygc.2023.10.023.
2. Shuping Du and Xiaojie Wang. 2019. Research and Practice on Cultivating Critical Thinking Abilities of Foreign Language Majors in Local Universities. English Square (07): 96–97. https://doi.org/10.16723/j.cnki.yygc.2019.07.050.
3. Dong C, Zhang L, You Y, et al. Research on Text Mining of JD Commodity Review Information Based on NLP[C]//Proceedings of the 7th International Conference on Computer Science and Application Engineering. 2023: 1-6..
4. Xiaolu Yuan, Juan Zhao, and Mei Dong. 2017. Current Situation and Attribution of Cultural Awareness Cultivation in Foreign Language Education. Foreign Language Education 38(3): 56–61. https://doi.org/10.16362/j.cnki.cn61-1023/h.2017.03.013.
5. Zhuo Gong and Gaiying Chai. 2015. Research on Thinking in Foreign Language Education in China: A Corpus-based Retrospect and Prospect. Computer-Assisted Foreign Language Education (6): 69–75.
6. Su J, Dong C, Su K, et al. Research on the construction of digital economy index system based on K-means-SA algorithm[J]. SAGE Open, 2023, 13(4): 21582440231216359.
7. Ying Gao and Ying Xu. 2015. On the Construction of Critical Thinking Cultivation Model for Foreign Language Majors in China. Foreign Language Research (2): 127–132. https://doi.org/10.16263/j.cnki.23-1071/h.2015.02.024.
8. Weiguo Qu. 2015. Which is Truly Lacking: Critical Thinking or Systematic Knowledge? Revisiting the Issue of Critical Thinking Among Foreign Language Majors. Foreign Languages in China 12(1): 60–66. https://doi.org/10.13564/j.cnki.issn.1672-9382.2015.01.009.
9. Yumei Ju and Fang Peng. 2014. Burke’s Educational Philosophy and the Cultivation of Rhetorical Competence of Foreign Language Majors. Foreign Language World (2): 76–82. https://doi.org/ 10.26971/j.cnki.flw.1004-5112.2014.02.010.