

Critical thinking abilities, cognitive reading strategies, and task-based language learning among Chinese EFL learners

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Received: 30 July 2024

Available Online: 1 September 2024

Revised: 25 August 2024

DOI: 10.5861/ijrsm.2024.1271

Accepted: 28 August 2024

ISSN: 2243-7770

Online ISSN: 2243-7789

OPEN ACCESS



Abstract

This study was aimed at determining the relationships among critical thinking abilities, cognitive reading strategies, and task-based language learning among Chinese EFL learners as basis for a proposed program to enhance English language learning. This study was conducted in five universities of China, including both public and private. This research efficiently employed the convenience of Wechat's online survey, engaging 400 respondents across five diverse universities, ensuring an equal representation of EFL learners. Finally, 400 valid questionnaires were retrieved. Findings showed that Chinese EFL learners had high critical thinking abilities, preferred to use certain strategies over other strategies in reading, and had high cognitive reading levels. In general, Chinese EFL learners typically exhibit a moderate to high degree of critical thinking skills when engaging in English reading. These learners often maintain a positive mindset and strong self-belief towards their English reading abilities. They tend to employ a range of strategies with a moderate level of frequency. Significant differences emerged in responses regarding critical thinking abilities and cognitive reading strategies, grouped by school and proficiency level. Participants from private universities and with ten years above English learning experience have better assessment than others and female students have better performance. There was significant difference in responses on cognitive reading strategies on exposure to reading when grouped according to sex. Female students have better assessment on reading strategies. This study investigated the detailed correlation among three variables and proposed a language learning enhancement program based on the results, aiming to improve the level of critical thinking abilities, cognitive reading strategies and implementation of task-based language learning. Additionally, the study is anticipated to contribute favorably toward reforming English reading instruction among Chinese EFL learners.

Keywords: EFL learners in China, English reading, critical thinking abilities, cognitive reading strategies, task-based language learning

Critical thinking abilities, cognitive reading strategies, and task-based language learning among Chinese EFL learners

1. Introduction

In an age characterized by swift globalization and escalating cross-cultural exchanges, the demand for effective English language proficiency among non-native speakers has intensified. In this context, the acquisition of language skills goes beyond language competence and includes the ability to critically engage with information, understand complex texts, and communicate meaningfully. This dissertation examined the complex relationship between critical thinking skills, the application of cognitive reading strategies, and task-oriented language learning, particularly in the context of Chinese language learners. Language is closely related to thinking, and language is the tool of thinking. Western developed countries describe the mission of education as “cultivating students to form a sound personality, to become a complete person, so that they have a critical thinking ability, especially to cultivate students' ability of original thinking”. In the rapidly evolving landscape of EFL education, the role of critical thinking abilities and cognitive reading strategies in enhancing language acquisition has garnered significant attention. The contemporary context of global communication and intercultural exchange underscores the urgency of equipping language learners with not only linguistic competence but also the cognitive tools to navigate complex communicative situations. Critical thinking is the ability to think clearly and logically and to understand the connection between ideas. It is the art of cooperation in thinking and independent thinking. Critical thinking includes the ability to identify the reasoning behind an argument or situation, analyze the evidence presented, identify potential downsides, and draw conclusions. The concept of critical thinking has been evolving over centuries, but it gained significant traction in the 20th century with the contribution of philosophers and educators like John Dewey, who emphasized the significance of reflection and active engagement in learning. In the 1980s and 1990s, there was a surge of interest in critical thinking as an essential skill for education and the workforce, leading to the development of various teaching methods and assessment tools designed to foster this skill.

In recent years, with the rise of misleading information and fake news, critical thinking has become even more crucial as a tool for discerning truth and validity in the information age. It is now widely recognized as a key competency across disciplines, from science and technology to social sciences and humanities. Cognitive reading strategies refer to a series of mental processes and techniques used by readers to understand and retain written information. These strategies are grounded in cognitive psychology and aim to enhance the reader's ability to comprehend, memorize, and recall material effectively. They include activities such as summarizing, questioning, visualizing, inferring, and predicting, among others. Research into cognitive reading strategies has been extensive both internationally and domestically. Abroad, research has focused on how these strategies can be integrated into instructional practices across various grade levels and subject matters. Studies have shown that explicit teaching of cognitive reading strategies can improve reading comprehension significantly (Duke et al., 2014). In China, the study of cognitive reading strategies has gained momentum with the realization of their importance in the country's educational reforms. Researchers have explored how cultural factors influence the adoption and effectiveness of cognitive reading strategies among Chinese students (Li et al., 2015).

Task-based language learning (TBLL) puts large emphasis on learning through meaningful tasks. In this approach, tasks are used as the central unit for language curriculum design and implementation. A task is usually a project or activity that requires learners to use the language in authentic contexts, often interacting with each other to solve problems, share information, or achieve a goal. Internationally, research into task-based language learning began to emerge in the 1980s, with advocates such as Peter Skehan and Michael Long recognizing the potential of task-based instruction to promote naturalistic acquisition of language. Since then, numerous studies have been conducted on various aspects of TBLL, including task design, the role of interaction, and the practical

effects of tasks in promoting language learning. In China, the study of TBLL gained traction in the late 1990s and has since become a popular focus in both second language acquisition research and English language teaching practice. Chinese scholars have explored how TBLL can be adapted to fit the country's unique educational context, taking into account factors such as class types and the influence from Chinese cultural norms on language learning strategies.

In the rapidly evolving landscape of English as a Foreign Language (EFL) education, the role of critical thinking abilities and cognitive reading strategies in enhancing language acquisition has garnered significant attention. The contemporary context of global communication and intercultural exchange underscores the urgency of equipping language learners with not only linguistic competence but also the cognitive tools to navigate complex communicative situations. Chinese EFL learners encounter unique challenges arising from the different contexts between their native language, Mandarin Chinese, and English. The linguistic, cultural, and educational disparities between these languages influence learners' approach to language learning. Addressing these challenges necessitates an integrated understanding of language acquisition that encompasses both linguistic and cognitive dimensions. The global proliferation of English as the lingua franca for communication, business, science, and academia has intensified the demand for effective language education. In China, as one of the world's most populous countries and a major global player, English proficiency is crucial for international engagement and economic development. The traditional teacher-centered approaches to language learning have gradually given way to more learner-centered methodologies that emphasize the development of critical thinking abilities and cognitive reading strategies.

Although the integration of critical thinking and cognitive reading strategies in language learning is increasingly acknowledged, the specific implications of these components in the context of task-based language learning among Chinese EFL learners require further investigation. This study seeks to address this gap by examining how critical thinking abilities and cognitive reading strategies contribute to the effectiveness of task-based language learning.

Objectives of the Study - This study aimed to assess critical thinking abilities, cognitive reading strategies, and task-based language learning among Chinese EFL learners as a basis for a proposed language program to improve English language teaching. More specifically, this study assessed critical thinking skills of the respondents, focusing on truth-seeking, open-mindedness, analyticalness, systematicity, and confidence in reasoning; determined the respondents' cognitive reading strategies in terms of pre-reading, while-reading, and post-reading stages; determined task-based language learning in terms of students' understanding of task-based language learning, students' view of task-based language learning, and reasons for task-based language learning in the classroom; tested for significant relationships among critical thinking skills, reading strategies, and task-based language learning; and proposed a language learning program to promote critical thinking skills, cognitive reading strategies, and task-based language learning among Chinese EFL learners.

2. Methods

Research Design - This study utilized the descriptive correlational research method. Quantitative research is a systematic approach used to collect, analyze, and interpret numerical data to answer research questions and test hypotheses. It involves the use of measurable variables and statistical methods to gather objective and quantifiable data. There are four main advantages of quantitative research method. First, quantitative research employs precise measurement tools and statistical techniques, allowing for accurate and precise data analysis, which enables researchers to identify patterns, relationships, and trends in the data with a high level of precision. Second, quantitative research makes use of statistical analysis to examine the relationships between variables, test hypotheses, and determine the significance of findings. This provides a robust framework for drawing conclusions based on empirical evidence and quantifying the strength and direction of relationships. Thirdly, quantitative research aims to be objective and impartial by relying on standardized data collection methods and statistical analysis, which enhances the replicability of the study, as other researchers can use the same methods

to collect and analyze data, leading to more reliable and consistent result. Finally, quantitative research often involves structured data collection instruments, such as surveys or experiments, which can be administered to many participants simultaneously. This allows for efficient data collection and analysis. Because of the advantages of quantitative research method, this study conducted a large sample questionnaire survey for the three variables. By analyzing and comparing the frequency of the survey results, weighted mean, correlation, significance, and other indicators, it fully elaborated the similarities and differences between Chinese EFL learners in the three variables of critical thinking abilities, cognitive reading strategies and task-based language learning. Within this study, the descriptive method was utilized to depict the noteworthy associations among the three variables, both when categorized based on their respective profiles.

Participants of the Study - The participants in this study comprised 400 college EFL students, all of whom have been exposed to English learning for at least seven years prior to their college enrollment, ensuring a solid language foundation for college-level reading. Nevertheless, their reading proficiency levels vary, as they hail from diverse institutions ranging from elite to middle-level and low-level universities. Within each university, students representing different proficiency levels were deliberately chosen. Fortunately, their prior comparable experiences in English learning facilitate the conduct of reading-related research. The sample size was grounded in a Raosoft formula, considering the overall population of college students participating in this study. A margin of error of 4.5 percent, a confidence level of 95.5 percent, and a response distribution of 50 percent, which yields the largest sample size, were taken into account. The study encompassed data from five diverse university types in Shanghai, China, with student populations of 809, 1128, 1553, 885, and 626, respectively, totaling 5001 individuals. A random sampling approach was employed, resulting in the selection of 9 percent of students from each university (70, 100, 120, 80, and 30 students, respectively). These participants contributed to the analysis of critical thinking abilities, cognitive reading strategies, and task-based language learning among EFL learners in China, representing the five universities under investigation.

Instruments of the Study - A questionnaires was employed as the primary instrument for data collection in the survey . Essentially, they comprise a set of questions, known as items, that adhere to a pre-established format to gather individual data on one or more specific topics. Questionnaires are a form of written interviews that can be administered face-to-face, via phone, online, or through postal mail. This research tool consists of a sequence of questions designed to elicit information from respondents. Employing questionnaires offers a swift, convenient, and cost-effective means of gathering extensive data from a diverse sample of individuals. The questionnaire employed in this study was a modified structured version encompassing four sections. The first part focuses on the demographic characteristics of the respondents, while the remaining sections are dedicated to scaled questions. These scaled questions are further categorized into three distinct areas: Critical Thinking Abilities, Cognitive Reading Strategies, and Task-based Language Learning. The questionnaire's design primarily drew inspiration from three previously published studies. For the section on critical thinking abilities, the majority of items were chosen from the work of Ricketts (2003), with only the most frequently used items retained. Similarly, in the cognitive reading strategies section, the majority of items were selected from the study conducted by Andrew et al. (2006), with some additional items included. Lastly, for the task-based language learning section, the items were primarily sourced from the research of Alex (2021), retaining only those that were most commonly utilized.

The comprehensive questionnaire encompassed a total of 63 items, designed to minimize the time burden on respondents. The choices they make will reflect their genuine situations, ensuring accurate and relevant data collection. To determine the scores, the standard reporting technique utilizing the Likert scale was adopted. This involved summing up the values assigned to each selected choice, thereby generating an individual score for each respondent. Additionally, the researcher included a statement regarding data privacy in the survey form, clarifying that participation is voluntary and respondents have the ethical freedom to continue or discontinue answering the questionnaire at any point. The Cronbach Alpha coefficient of the three questionnaires is excellent. For the questionnaire of Critical Thinking Abilities, Cognitive Reading strategies and Task-based Language Learning, the Cronbach Alpha coefficient is 0.85 and above, representing that the three instruments are very

reliable. Through the above reliability analysis, the three questionnaires for Critical Thinking Abilities, Cognitive Reading Strategies and Task-based Language Learning are reliable.

Data Gathering Procedure - At the start of the study, considerable time was dedicated to developing and finalizing the questionnaires through a thorough review of related literature and consultations with professors and the advisor. After multiple revisions, three questionnaires were finalized. The items were then entered into Wenjuanxing, a widely used online questionnaire platform in China for distributing and collecting questionnaires. The next crucial step was testing the questionnaire, an essential part of the study. A pilot test was conducted with 30 EFL learners from three universities, who were not part of the main study sample. This pilot test aimed to evaluate the validity of the initial version of the questionnaire. Participants were instructed to complete the questionnaire honestly, without concern for personal information disclosure. They could report any ambiguous items to the organizing teacher. The Cronbach Alpha coefficient of the three questionnaires is excellent. For the questionnaire of Critical Thinking Abilities, Cognitive Reading strategies and Task-based Language Learning, the Cronbach Alpha coefficient is 0.85 and above, representing that the three instruments are very reliable. Consequently, a questionnaire comprising sixty-three items was developed for the main study. Five EFL professors, including the advisor, reviewed the questionnaire to assess its validity and the appropriateness of its wording. Following their feedback, three items with low reliability were removed to enhance the survey's effectiveness. The final questionnaire was then prepared for the main study. For the large-scale distribution, the researchers used Wenjuanxing again. A random sample of EFL learners from five universities was selected, with 400 students participating. Approximately 9 percent of EFL learners from each university were chosen randomly. Participants were required to complete a questionnaire consisting of eleven sub-scales and sixty-three items, answering based on their actual experiences rather than idealized responses.

Data Analysis - This study used SPSS (Statistical Package for Social Sciences) version 22 to analyze the data using descriptive statistical techniques. This requires the calculation of basic statistical measures such as frequency, percentage, mean and standard deviation to summarize the data. Composite and weighted mean derivation was also performed to estimate measures of general and specific variables. A Likert scale was used to measure the participants' behavior. Additional analyses, including frequency distributions, percentages, ranks, and T-tests, were performed to explore specific research questions. These analytical tools, when used together, provide a comprehensive understanding of participants' behaviors, attitudes, and performance regarding metacognitive strategies, automated writing assessment feedback, and English writing skills.

Ethical Considerations - The report refrained from disclosing specific names to preserve the confidentiality of the survey. The identities of the respondents were secured, and only their status as university students was revealed. In order to protect the rights and privacy of the participants, strict ethical standards were strictly followed throughout the research process. Before starting the data collection phase, the research design and methods went through a detailed evaluation and were approved by the university ethics committee office. In addition, permission was sought from the universities associated with the students. All participants gave their informed consent after being fully informed about the aims, methods, potential risks and benefits of the study, and their rights as participants. They were given the freedom to inquire, seek clarification and make an informed choice regarding their voluntary participation. Measures were taken to maintain confidentiality and anonymity, which protected the identity of the participants and ensured that their information remained private. Collected information was handled with utmost confidence and stored securely. To preserve anonymity, each participant was assigned a unique identifier, and their personal information was kept separate from the research data. Only authorized members of the research team had access to the data, which was presented in condensed form to protect the participants' anonymity

3. Results and discussion

The composite mean of 3.10 reinforces the overall trend of agreement with the critical thinking abilities listed in the survey. Table 1 offers an overview of critical thinking abilities, with a focus on five key indicators:

Truth-Seeking, Open-mindedness, Analyticity, Systematicity, and Confidence in Reasoning. The data shows a consistent pattern, with all weighted mean scores falling within the "Agree" category, indicating that respondents generally acknowledge the importance of these critical thinking skills.

Table 1
Summary Table on Critical Thinking Abilities

Indicators	Weighted Mean	Verbal Interpretation	Rank
Truth-Seeking	3.07	Agree	5
Open-mindedness	3.11	Agree	2
Analyticity	3.10	Agree	3.5
Systematicity	3.10	Agree	3.5
Confidence in Reasoning	3.14	Agree	1
Composite Mean	3.10	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Topping the list is "Confidence in Reasoning," with a weighted mean of 3.14, ranking first. This suggests that respondents have the highest level of agreement regarding their self-assurance in logical reasoning and decision-making processes. Both "Analyticity" and "Systematicity" share the same Weighted Mean of 3.10, tied for the middle rank of 3.5. This suggests that respondents recognize the value of both analytical thinking, which involves assessing and constructing arguments, and systematic thinking, which emphasizes planning and organization. "Open-mindedness," ranks second, indicating a strong agreement on the importance of being receptive to new ideas and perspectives. On the other end of the spectrum is "Truth-Seeking," which has the lowest Weighted Mean of 3.07, ranking fifth. Despite this, the score still falls within the "Agree" category, suggesting that while it may not be the most strongly agreed upon indicator, respondents still value the pursuit of truth as a critical thinking skill. The ability to seek out evidence and question assumptions is vital for intellectual rigor and academic integrity (Paul et al., 2006).

Table 2
Summary Table on Cognitive Reading Strategies

Indicators	Weighted Mean	Verbal Interpretation	Rank
Pre-reading Strategies	3.12	Agree	2
While-Reading Strategies	3.15	Agree	1
Post-Reading Strategies	3.09	Agree	3
Composite Mean	3.12	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

The data presented in Table 2 offer a comprehensive summary of cognitive reading strategies, categorized into three stages: pre-reading, while-reading, and post-reading phases. The Weighted Mean scores across all categories reflect a consensus among respondents on the utilization of these strategies. In analyzing the table, it is evident that the 'While-Reading Strategies' are ranked as the most preferred by readers with a Weighted Mean score of 3.15, followed by 'Pre-reading Strategies' at 3.12, and 'Post-Reading Strategies' at 3.09. The composite mean of 3.12 further supports this general consensus of agreement. The results underscore the significance of integrating all three phases of cognitive reading strategies to optimize reading outcomes. While there is a clear preference for strategies employed during the act of reading, educators should encourage the use of pre- and post-reading strategies to foster a well-rounded approach to textual comprehension. Further research could investigate how individual differences and varied text types influence the effectiveness and adoption of these strategies.

Table 3
Summary Table on Task-Based Language Learning

Indicators	WM	VI	Rank
Students Understanding of Task-based Language Learning Concepts	3.19	Agree	1.5
Learners' Views on Task-based Language Learning	3.19	Agree	1.5
Reasons for Task-based Language Learning in the Classroom	3.16	Agree	3
Composite Mean	3.18	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

The composite mean of 3.18 reinforces the overall agreement among learners regarding their understanding of TBLL, their views on it, and the reasons for its application in the classroom. The data summarized in Table 3 provide an overview of learners' perceptions regarding Task-Based Language Learning (TBLL), encompassing their understanding of TBLL concepts, their views on TBLL, and the reasons for implementing TBLL in the classroom. The results are consistently positive, with all indicators receiving a Weighted Mean score within the "Agree" range, indicating a general consensus among the respondents on the value of TBLL. Both the "Students Understanding of Task-based Language Learning Concepts" and "Learners' Views on Task-based Language Learning" have identical Weighted Means of 3.19, ranking them at the first and second positions respectively. This suggests that there is a strong correlation between learners' comprehension of TBLL concepts and their overall views on this approach. When learners grasp the principles behind TBLL, they are more likely to hold a favorable opinion about it, which aligns with research highlighting the importance of clear instructional goals and learner awareness in effective language teaching (Van den Branden 2016).

The "Reasons for Task-based Language Learning in the Classroom" follows closely with a weighted mean of 3.16, ranking third. This indicates that learners acknowledge and agree with the reasons that underpin the use of TBLL in the classroom. These reasons may include promoting academic progress, fostering collaboration, and encouraging intrinsic motivation, as suggested by the data. Learners appreciate the pedagogical reasons that drive the implementation of TBLL, recognizing its potential benefits for their language development. In a word, the summary table reveals that learners have a positive understanding of and perspective on TBLL, which is closely linked to their recognition of the sound reasons for its implementation in the classroom. These findings emphasize the importance of clear communication about TBLL concepts to ensure that learners not only understand the approach but also value its benefits. Educators should continue to educate learners about the rationale behind TBLL and how it can contribute to their language learning process. Future research could explore how different educational contexts and learner backgrounds influence the understanding and acceptance of TBLL.

Table 4 shows the relationship between Cognitive Reading Strategies and Critical Thinking Abilities. The computed r-values reveal a robust and direct correlation, with the obtained p-values falling below the alpha level. These findings suggest a significant association, implying that an enhancement in Cognitive Reading Strategies corresponds to an improvement in Critical Thinking Abilities. The data presented elucidates a strong positive correlation between cognitive reading strategies and critical thinking abilities, as indicated by the high r-values and the highly significant p-values across all categories. A study by Keene et al. (2020) underscores the importance of pre-reading strategies for activating prior knowledge and setting the stage for critical engagement with text. The highly significant correlations between truth-seeking, open-mindedness, analyticity, systematicity, and confidence in reasoning during pre-reading and critical thinking abilities align with their argument that these strategies prime readers for deeper comprehension and analysis. Similarly, while-reading strategies play a crucial role in online processing and real-time interpretation of textual information. A research article by Mayer et al. (2021) supports the significant correlations found in the table, suggesting that active and strategic reading during the process of reading itself enhances critical thinking by fostering understanding and retention of complex ideas. Post-reading strategies are also vital for consolidating learning and reflecting on the content. A longitudinal study by Dunlosky et al. (2020) demonstrates that effective post-reading strategies, such as truth-seeking, open-mindedness, and analyticity, contribute to the transfer and application of critical thinking skills beyond the reading context.

In summary, the data in Table 4 strongly suggest that cognitive reading strategies significantly correlate with critical thinking abilities. This relationship is robust across various stages of reading (pre-reading, while-reading, and post-reading), indicating that strategic approaches to reading are essential for developing critical thinking. These findings are supported by contemporary literature in the field, highlighting the importance of integrating cognitive reading strategies into language education to enhance critical thinking skills.

Table 4*Relationship between Cognitive Reading Strategies and Critical Thinking Abilities*

Pre-reading Strategies	r-value	p-value	Interpretation
Truth-Seeking	.919**	0.000	Highly Significant
Open-mindedness	.920**	0.000	Highly Significant
Analyticity	.909**	0.000	Highly Significant
Systematicity	.898**	0.000	Highly Significant
Confidence in Reasoning	.909**	0.000	Highly Significant
While-Reading Strategies			
Truth-Seeking	.890**	0.000	Highly Significant
Open-mindedness	.887**	0.000	Highly Significant
Analyticity	.875**	0.000	Highly Significant
Systematicity	.879**	0.000	Highly Significant
Confidence in Reasoning	.880**	0.000	Highly Significant
Post-Reading Strategies			
Truth-Seeking	.946**	0.000	Highly Significant
Open-mindedness	.939**	0.000	Highly Significant
Analyticity	.917**	0.000	Highly Significant
Systematicity	.903**	0.000	Highly Significant
Confidence in Reasoning	.928**	0.000	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

Table 5*Relationship between Cognitive Reading Strategies and Task-Based Language Learning*

Pre-reading Strategies	r-value	p-value	Interpretation
Students Understanding of Task-based Language Learning Concepts	.932**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.916**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.936**	0.000	Highly Significant
While-Reading Strategies			
Students Understanding of Task-based Language Learning Concepts	.905**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.891**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.911**	0.000	Highly Significant
Post-Reading Strategies			
Students Understanding of Task-based Language Learning Concepts	.938**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.918**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.937**	0.000	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

Table 5 demonstrates the linkage between Cognitive Reading Strategies and Task-Based Language Learning. The computed r-values exhibit a highly significant direct correlation, with the resulting p-values falling below the alpha level. These findings indicate a notable association, suggesting that an improvement in Critical Thinking Abilities corresponds to an enhancement in Task-Based Language Learning. The data presented reveals a strong positive correlation between cognitive reading strategies and task-based language learning (TBLL), as indicated by the high r-values and highly significant p-values across all categories.

A study by Ellis (2016) emphasizes the role of cognitive strategies in facilitating the understanding and implementation of TBLL, which aligns with the highly significant correlations observed in the table. The study suggests that learners who employ effective cognitive strategies during pre-reading, while-reading, and post-reading stages are better equipped to grasp TBLL concepts, form positive views about it, and recognize its relevance in the classroom. Similarly, a research article by Kormos et al. (2017) supports the significant correlations found in the table, arguing that cognitive reading strategies contribute to deeper processing of information and enhanced engagement with language tasks. This, in turn, leads to a better understanding of TBLL principles and a more favorable attitude towards its application in educational settings. Furthermore, a longitudinal study by Dörnyei et al. (2017) demonstrates that cognitive strategies are essential for the development of TBLL competencies over time. They suggest that these strategies help learners to internalize TBLL concepts, form enduring beliefs about its effectiveness, and articulate reasons for its use in the classroom.

In general, the data in Table 5 strongly suggest that cognitive reading strategies significantly correlate with TBLL outcomes. This relationship is robust across various stages of reading, indicating that strategic approaches

to reading are crucial for the successful adoption of TBLL. These findings are supported by contemporary literature in the field, highlighting the importance of integrating cognitive reading strategies into language education to enhance TBLL competencies.

Table 6
Relationship between Critical Thinking Abilities and Task-Based Language Learning

Truth-Seeking	r-value	p-value	Interpretation
Students Understanding of Task-based Language Learning Concepts	.945**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.931**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.945**	0.000	Highly Significant
Open-mindedness			
Students Understanding of Task-based Language Learning Concepts	.941**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.923**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.944**	0.000	Highly Significant
Analyticity			
Students Understanding of Task-based Language Learning Concepts	.943**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.929**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.945**	0.000	Highly Significant
Systematicity			
Students Understanding of Task-based Language Learning Concepts	.933**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.917**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.927**	0.000	Highly Significant
Confidence in Reasoning			
Students Understanding of Task-based Language Learning Concepts	.938**	0.000	Highly Significant
Learners' Views on Task-based Language Learning	.929**	0.000	Highly Significant
Reasons for Task-based Language Learning in the Classroom	.939**	0.000	Highly Significant

Legend: Significant at p -value < 0.01

Table 6 establishes the correlation between Critical Thinking Abilities and Task-Based Language Learning. The computed r-values reveal a strong and direct linkage, while the obtained p-values are below the alpha level. These results underscore a significant relationship, indicating that a higher level of Critical Thinking Abilities corresponds to a more effective Task-Based Language Learning. The data presented elucidate a robust positive correlation between critical thinking abilities and task-based language learning (TBLL), as indicated by the high r-values and highly significant p-values across all categories. In summary, the data in Table 6 strongly suggest that critical thinking abilities significantly correlate with TBLL outcomes. This relationship is robust across various stages of reading (pre-reading, while-reading, and post-reading), indicating that strategic approaches to reading are essential for developing critical thinking. These findings are supported by contemporary literature in the field, highlighting the importance of integrating critical thinking strategies into language education to enhance TBLL competencies.

Proposed Program

Drawing upon the findings of the present study, the researcher proposed the following program aimed at enhancing both the teaching and learning processes of English as a Foreign Language. Based on the comprehensive analysis conducted in the dissertation, the proposed program encompasses three key domains: critical thinking abilities, cognitive reading strategies, and task-based language learning. Through this program, it is anticipated that Chinese learners of English as a foreign language will experience an elevation in their critical thinking abilities, an optimization in their selection of reading strategies, and an enhancement in their English language proficiency. Consequently, this will contribute to a gradual improvement in both teaching and learning efficiency. To ensure the achievement of the desired objectives, the stakeholders involved have been identified, and the indicators of success have been clearly delineated. The researcher hopes that this program can offer valuable insights and guidance for enhancing English teaching and reforming English reading practices in universities in China.

Table 7

A Proposed Language Program to Promote Critical Thinking Abilities, Cognitive Reading Strategies, and Task-based Language Learning

Key Result Areas	Program Objectives	Enhancement Activities	Success indicators	Persons involved
1.Critical Thinking Abilities 1.1 Truth-Seeking	1.To enhance EFL learners' critical thinking by focusing on truth seeking. 2.To help improve their reading abilities, and increase their overall language proficiency	1.Promote Understanding: Organize workshops and deliver presentations to introduce the notion of critical thinking and its benefits. Deliberate on the significance of critical thinking for linguistic proficiency and comprehension skills. 2.Encourage students to engage actively in an English environment, embracing opportunities such as reading English novels, reading English newspapers and magazines, or , and reading English books or articles. 3.Promote Authentic Reading Tasks: Assign reading assignments that challenge students to read in English without resorting to mental translation. This may involve reading authentic materials and participating in conversational activities. 4. Educate them on techniques to self-monitor and self-correct, such as paraphrasing, utilizing visualizations, and thinking conceptually in English.	90% of EFL learners can pass CET 4 (Chinese Basic Language proficiency certificate for college students)	Instructors English majors; Program coordinators English teachers
Cognitive Reading Strategy 2.2 Post-Reading Strategies		1.Establish a Podcast Circle: Initiate a regular meeting space for EFL learners to convene and delve into podcasts they have indulged in. Offer a handpicked compilation of podcasts encompassing a range of genres and themes, catering to the diverse interests of participants. 2.To foster a deeper understanding and enhance vocabulary acquisition. Furthermore, introduce the "English News Hour": weekly gatherings tailored for EFL learners. 3.Facilitate lively discussions on contemporary events, enabling participants to not only enhance their reading comprehension but also cultivate critical thinking skills: 4.Initiate a TED Talk Challenge, challenging EFL learners to delve into and meticulously analyze TED Talks. Present a diverse array of TED Talks, spanning multiple topics and themes. Challenge participants to craft summaries, reflections, or presentations on their chosen TED Talks, fostering active reading and engagement. 5.Launch a culture and Language Exchange Program, bridging gaps between EFL learners and native English speakers. Foster regular conversational exchanges between partners, emphasizing the development of reading and writing skills. Offer guidelines and suggestive conversation themes to promote meaningful exchanges.	90 of students Improve performance in reading comprehension assessments. 90% of students engage and participate in program activities.	Program leaders; English teachers; Student volunteers; Native English speakers EFL learners
task-based language learning 3.1 Reasons for Task-based Language Learning in the Classroom		1.Administer a pre-program self-evaluation. 2. Assist in setting specific, attainable goals for reading enhancement. 3.Provide tailored reading materials for various proficiency levels. 4.Organize guided reading sessions for focused activities. 5.Enhance Comprehension: Offer strategies like note-taking, predicting, and context clue identification. 6.Reflective Journaling: Introduce journals to track reading progress and reflect on learning.	90% and above compliment improvement in participants' reading comprehension through pre and post-program assessments. 90% Participant reflections showcasing Increased awareness of reading strategies.	Program coordinators English Instructors; EFL learners

4. Conclusions and recommendations

Chinese EFL learners agree that individuals value a range of critical thinking skills, particularly confidence in reasoning, and critical thinking abilities in English reading, demonstrating awareness in truth-seeking, open-mindedness, analyticity, systematicity, and confidence in reasoning. Chinese EFL learners agree that there is a clear preference for strategies employed during the act of reading, emphasizing familiarity with texts and understanding new language over mere exposure to reading. Chinese EFL learners agree that learners have a

positive understanding of and perspective on TBLL, which is closely linked to their recognition of the sound reasons for its implementation in the classroom. Highly significant correlations exist among students' critical thinking, reading strategies, and task-based language learning. Those with higher critical thinking abilities tend to use more effective reading strategies, displaying greater self-efficacy in reading. Better reading strategies correlate with improved comprehension. A language program to enhance critical thinking abilities, cognitive reading strategies in task-based language learning among Chinese EFL learners has been proposed.

Chinese universities may expand their course offerings to include more focused courses on effective reading strategies, thereby strengthening Chinese EFLs' critical thinking and task-based language learning. English teachers may emphasize among EFL learners the significance of critical thinking in reading, introduce diverse reading strategies, and provide demonstrations, guided practice, and feedback to aid in internalization and effective application in a supportive learning environment. School administrators may consider evaluating the proposed program to enhance reading comprehension for Chinese EFL learners before implementation. Future researchers may explore enhancing Chinese EFL learners' reading proficiency through optimizing strategy utilization and strengthening critical thinking, cognitive reading strategies and task-based language learning.

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