

Genre-Based Teaching Approach and Problem-Based Learning (GBA- PBL) Application, Reading Strategies, and Self-Regulation

Qingyao Fan^{1,*}

¹ Road Longshan, District Hedong, Tianjin 300252, China

* Corresponding author: Qingyao Fan (Email: qfqq712@126.com)

Abstract: This study evaluates the Genre-Based Teaching Approach and Problem-Based Learning (GBA-PBL) mode on English expository reading and learning experiences in Chinese high schools. Using a quantitative and descriptive methodology, it profiles 428 Tianjin students from grades 10 to 12, focusing on their demographic details like age, sex, school type, and grade level. The research assesses GBA-PBL's effectiveness in understanding expository texts and developing critical thinking. It identifies predominant reading strategies such as predicting, monitoring, inferring, and summarizing, and examines students' self-regulation levels, including goal-setting, progress monitoring, and self-reflection. Significant variations in responses based on age, especially in goal setting and self-reflection, were observed, while other demographics showed less impact. The study confirms a strong relationship between understanding expository text structures, reading strategies, and self-regulation. Based on these findings, it proposes a reading program to enhance high school students' reading skills. This research highlights the beneficial impacts of GBA-PBL in fostering better comprehension and critical analysis of expository texts among high school students.

Keywords: Critical Thinking, Expository Reading, Genre-Based Teaching Approach, Problem-Based Learning, Reading Strategies, Self-Regulation.

1. Introduction

The importance of English proficiency in a globalized educational landscape, particularly post China's accession to the World Trade Organization in 2001, has become increasingly pronounced, especially in cities like Tianjin. This development has accentuated the need for effective English reading skills among high school students, an area where innovative teaching methods are crucial. This study focuses on the integration of the Genre-Based Teaching Approach (GBA) and Problem-Based Learning (PBL), two methodologies with potential synergies in enhancing English reading competencies. The relevance of GBA in teaching English has been noted in previous research, such as by Cheng Xiaotang [1], highlighting its effectiveness in exposing students to a variety of text genres, aiding comprehension and navigation through diverse texts. Conversely, PBL encourages the development of critical thinking and problem-solving skills through engagement with real-world challenges. However, the integration of these methodologies in educational settings, and its efficacy, has not been extensively explored.

This manuscript aims to investigate the impact of a combined GBA-PBL approach on students' understanding of expository texts, their development of reading strategies, and their capacity for self-regulation in learning. It seeks to understand how these elements can be effectively incorporated into the curriculum, addressing the challenges faced by students and educators in this integration.

Following this introduction, the methodology section outlines the research design and approach. The findings are then presented and analyzed, followed by a discussion of the implications of these findings in the context of English

language education. The study concludes with recommendations for the application of the GBA-PBL approach in high school settings, particularly in Tianjin, and suggests avenues for future research.

2. Objectives of the Study

The purpose of this study is to determine the relationship among structure of expository text, reading strategy and self-regulation of Chinese senior high school students in order to develop an effective GBA-PBL teaching mode.

Specifically, this study aims to describe the demographic profile of the target respondents, including age, sex, school type, and grade level; determine the application of GBA-PBL program to the structure of expository text in terms of students' expository text and students' development of critical thinking skills from expository text; identify the reading strategies used by students when reading expository texts, such as predicting, monitoring, inferring, and summarizing; determine the level of self-regulation exhibited by students when reading expository texts, including their ability to set goals, monitor progress, and self-reflect. This also tests significant differences among expository text structure, reading strategies, and self-regulation when grouped according to demographic profiles; tests the relationship among expository text structure, reading strategies, and self-regulation; and finally, proposes a language learning program for improved reading skills of high school learners.

3. Literature Review

3.1. Genre-Based Teaching Approach and Problem-Based Learning (GBA- PBL)

The integration of the Genre-Based Teaching Approach

(GBA) and Problem-Based Learning (PBL), referred to as the GBA-PBL mode, is a significant innovation in the field of language education.

Genre-Based Teaching Approach (GBA): This approach, grounded in Systemic Functional Linguistics, focuses on teaching language skills through various genres or types of texts. Derewianka [2] emphasizes the context of language use in GBA, teaching students about the characteristics of different genres and how these influence the structure, language, and content of texts. Hammond and Gibbons [3] highlight that GBA aims to provide learners with a comprehensive understanding of language variability across genres, enhancing their ability to comprehend and construct texts effectively.

Problem-Based Learning (PBL): PBL is a student-centered pedagogy where learning occurs through problem-solving. Hmelo-Silver [4] notes that PBL was initially developed in medical education but has been applied across various disciplines, including language education. It presents students with real-world problems to solve collaboratively, thereby developing critical thinking, problem-solving, and self-regulation skills. Stoller and Grabe [5] discuss how, in language learning, PBL facilitates authentic and meaningful use of the target language.

The GBA-PBL mode combines the strengths of both approaches. Chen and Liang et al. [6] show that this integrated mode can significantly improve language skills, including reading comprehension, writing, and oral communication. It also enhances critical thinking, problem-solving abilities, and promotes higher-order thinking skills.

In summary, the GBA-PBL mode is a promising approach in language education, combining the genre-based focus on language structure and usage with the real-world, problem-solving orientation of PBL. It has shown significant potential in improving various language skills, critical thinking, problem-solving abilities, and self-regulation in learners, making it a valuable tool in the realm of language teaching and learning.

3.2. Expository text structure

Expository text structure is crucial in understanding and comprehending informational texts. Meyer [7] explains that this structure organizes ideas in a way that clarifies relationships and enhances reader comprehension. Buehl [8] identifies common structures such as comparison, cause-effect, problem-solution, and sequence.

Recognizing these structures, as Meyer, Ray, and Frazier [9] note, helps readers discern the author's purpose and apply suitable reading strategies, combining bottom-up and top-down processes.

Felton [10] highlight the benefits of explicit text structure instruction for students with learning disabilities, a sentiment shared by Hebert et al. [11] who noted its positive impact on comprehension and memory. For ESL learners, Paivio [12] emphasize the importance of text structure awareness in reading comprehension.

Wood et al. [13] revealed the potential of text-to-speech technology in aiding comprehension, and Assis and de Souza [14] showed its effectiveness for students with dyslexia.

In summary, the literature underscores the significance of teaching expository text structure to enhance reading comprehension. Explicit instruction in this area is particularly

beneficial for diverse student groups, including those with learning disabilities, ESL learners, and high school students.

3.3. Reading Strategies

Reading strategies are essential cognitive processes for text comprehension. Afflerbach, Pearson, and Paris [15] define them as mental procedures that assist readers in understanding texts. Anderson [16] categorizes them into before-reading, during-reading, and after-reading strategies.

Research highlights their importance in improving reading comprehension, especially among high school and EFL (English as a Foreign Language) learners. Studies by Zhang [17] have demonstrated that explicit instruction in reading strategies significantly enhances reading comprehension skills. Furthermore, studies like those by Li and Wang [18] indicate that specific reading strategies, such as problem-solving and summarizing, are beneficial for enhancing reading comprehension in various contexts.

In summary, reading strategies play a critical role in enhancing reading comprehension, especially in EFL contexts. Their effective use, combined with explicit instruction and the integration of technology, can lead to significant improvements in reading skills.

3.4. Self-Regulation

Self-regulation in learning, as Zimmerman [19] defines, is crucial for understanding and controlling learning processes. This involves goal-setting, self-monitoring, and self-assessment. Kitsantas [20] highlight the success of students who are adept at self-regulation. Zimmerman's cyclical model outlines the self-regulation process in three stages: forethought, performance, and self-reflection.

Research indicates a strong correlation between self-regulated learning and academic performance. For example, Pintrich and Dent & Koenka [21] found that self-regulated learning strategies positively impact academic success.

In conclusion, self-regulated learning is a pivotal factor in educational achievement, especially in reading comprehension. Developing self-regulated learning skills is essential in teaching, particularly in complex tasks like understanding expository text.

4. Methods

4.1. Research Design

This study utilized a descriptive research method to explore the application of the Genre-Based Teaching Approach (GBA) and Problem-Based Learning (PBL) in teaching high school students in China. The focus was on how these methods impacted students' understanding of expository text structure, their reading strategies, and self-regulation skills. The research was exploratory and did not manipulate any variables but rather observed and described the natural educational setting. Surveys were used to gather data from a significant sample of Chinese high school students, aiming to understand their perspectives on the effectiveness of the GBA-PBL model. Additionally, the study sought to identify any correlations between the key variables – expository text structure, reading strategies, and self-regulation – and how they interact in the context of the GBA-PBL teaching mode. The ultimate goal was to offer insights into second language teaching methodologies, particularly in the context of high school English instruction in China.

4.2. Participants of the Study

The study involved 428 high school students from grades 10 to 12 in Tianjin, China. Selected through stratified random sampling from about 15,000 students, the sample aimed to represent various school types, grades, and genders. Initially targeting 375 students for a 5% margin of error at a 95% confidence level, the sample was expanded for broader research scope. The participants were almost equally divided between public (208 students) and private schools (220 students), covering grades 10 (115 students), 11 (184 students), and 12 (129 students). Gender balance was achieved with 204 male and 224 female students. The selection process also considered socio-economic backgrounds and English proficiency levels, with students participating voluntarily and informed consent obtained from them or their guardians. The study ensured participants had limited prior exposure to GBA or PBL models for an unbiased assessment of these teaching approaches.

4.3. Instrument

The instrument for this study, designed to evaluate the effectiveness of the Genre-Based Teaching Approach (GBA) and Problem-Based Learning (PBL), underwent a comprehensive ethical review and expert verification in the field of English Education. A statistician conducted a reliability test on the questionnaire, with the results showing strong reliability and consistency, as indicated by Cronbach's alpha values above 0.7 for all variables and sub-dimensions.

Table 1. The Reliability Test for Three Variables

Indicators	Cronbach Alpha	Remarks
understanding of expository text	0.892	Good
students' development of critical thinking skills	0.841	Good
predicting	0.752	Acceptable
monitoring	0.843	Good
inferring	0.888	Good
summarizing	0.838	Good
ability to set goals	0.866	Good
monitor progress	0.842	Good
self-reflect	0.892	Good

George and Mallery (2003) provide the following rules of thumb:

“ $\alpha > .9$ – Excellent, $\alpha > .8$ – Good, $\alpha > .7$ – Acceptable, $\alpha > .6$ – Questionable, $\alpha > .5$ – Poor, and $\alpha < .5$ – Unacceptable”

The questionnaire consists of four key sections. The first part collects demographic information (names, ages, sexes, grades, and school types). The second part, based on frameworks by Hyland[22], Savery[23] and Abrami et al.[24], assesses the application of the GBA-PBL mode to understanding expository text structure and developing critical thinking skills. This section is divided into two main parts, each with 15 items rated on a 4-point Likert scale.

The third section, adapted from the Strategies in English Reading questionnaire by Mokhtari[25] and Yildirim [26], focuses on reading strategies and metacognitive awareness, structured into four distinct sections. Finally, the self-regulation section, drawing from theories by Zimmerman and Schunk[27], Butler and Winne [28], comprises three subsections (goal setting, monitoring progress, self-reflection)

with a total of 36 statements rated on a 4-point Likert scale.

The Cronbach Alpha values, categorized as 'Good' and 'Acceptable' according to George and Mallery's guidelines, suggest the questionnaire's robustness in measuring the intended constructs, thereby supporting the validity of the study's findings.

4.4. Data Gathering Procedure

The data collection process for this study involved several key steps to ensure its accuracy and reliability. Initially, 10 experienced English teachers from two senior high schools were contacted, and a pilot study with 25 students was conducted to assess their comprehension of bilingual (Chinese and English) questionnaires. After obtaining necessary approvals from educational institutions, the questionnaires were distributed to 428 high school students in August 2023 using the "Questionnaire Star" platform. The data collection was completed within two weeks, ensuring the validity of the data.

4.5. Data Analysis

Data from the Likert scale questionnaire will be analyzed using SPSS 28.0. The analysis includes descriptive statistics, Pearson correlation, and multiple linear regression to understand relationships between expository text structure understanding, reading strategies, and self-regulation.

4.6. Ethical Considerations

The study was approved by the LPU - B - Research Ethics Review Committee. Participants were briefed about the survey's purpose, and confidentiality of personal information and data was maintained.

5. Results and Discussion

Table 2. Relationship Between Application of GBA-PBL mode to the structure of expository text and Reading Strategies

Understanding of expository text	r-value	p-value	Interpretation
Pretending	.468**	0.000	Highly Significant
Monitoring	.435**	0.000	Highly Significant
Inferring	.491**	0.000	Highly Significant
Summarizing	.520**	0.000	Highly Significant
Students' development of critical thinking skills			
Pretending	.377**	0.000	Highly Significant
Monitoring	.369**	0.000	Highly Significant
Inferring	.439**	0.000	Highly Significant
Summarizing	.417**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 2 meticulously delineates the substantial correlation between the implementation of the Genre-Based Teaching

Approach and Problem-Based Learning (GBA-PBL) mode on the structure of expository text and the development of adept reading strategies among high school students in China. Clearly, the *r*-values and *p*-values manifested in the table signify a highly significant correlation between the understanding of expository text and the students' augmentation of critical thinking skills in various dimensions including pretending, monitoring, inferring, and summarizing.

In the scholarly realm, there exists a burgeoning consensus regarding the positive influence of incorporating GBA-PBL mode in enhancing students' reading strategies, specifically in understanding expository texts. To dissect this further, the correlation between the understanding of expository texts and various facets of reading strategies are delineated - an analysis grounded in substantial empirical evidence.

Pretending (*r*-value: .468, *p*-value: 0.000): Highly significant correlations have been established in the sphere of literary analysis, where the capacity to utilize pretending as a strategy in understanding expository texts has been notably enhanced through the GBA-PBL approach. Gao [29] posited that engaging with texts in a manner akin to a simulated experience (or 'pretending') can foster a deeper connection with the material, facilitating a heightened understanding. It is argued that the GBA-PBL mode encapsulates a fertile ground for nurturing this ability, thus, fostering a rich, immersive learning experience.

In terms of monitoring, (*r*-value: .435, *p*-value: 0.000), students' ability to monitor their comprehension processes is instrumental in nurturing a nuanced understanding of expository texts. Pressley [30] corroborated that proficient readers often exhibit a proclivity for constant monitoring of their understanding, making adjustments as necessary. In line with this, the GBA-PBL mode fosters a nurturing environment that accentuates these monitoring capabilities, steering students towards becoming adept readers.

In terms of Inferring (*r*-value: .491, *p*-value: 0.000): The realm of inference represents a critical juncture in the pathway to cultivating a deep-seated understanding of expository texts. In a similar vein, the GBA-PBL approach, being deeply rooted in critical thinking, enhances students' abilities to draw meaningful inferences from texts, therefore offering a promising avenue for further research and implementation.

For Summarizing (*r*-value: .520, *p*-value: 0.000), contemporary research affirms that summarization is instrumental in understanding central ideas, retaining information, and facilitating critical analysis. Fiorella and Mayer [31] examined the generative learning strategies, which include summarization, and concluded that these strategies are not only effective for fostering comprehension but also for enhancing the application of knowledge through critical analysis and reasoning. Wittwer [32] also investigated how summarization aids in the development of deeper understanding. Their findings suggest that when learners generate summaries, they engage in higher-order thinking that goes beyond mere retention of information, thereby supporting the development of critical analysis skills.

Thus, the GBA-PBL mode, fostering skills of summarization, acts as a potent catalyst in enhancing students' understanding of expository texts, a finding which is highly echoed in the current study.

Under Pretending (*r*-value: .377, *p*-value: 0.000), the

correlation between students' ability to use 'pretending' as a strategy and the development of critical thinking skills cannot be understated. Marzano et al.[33] posit that engaging in the act of 'pretending' while interacting with texts can significantly bolster critical thinking capacities, a conjecture which finds resonance in the significant *r*-value presented in this study. The GBA-PBL approach, with its emphasis on active engagement and critical analysis, enhances the prospects for the integration of 'pretending' as a fruitful strategy in fostering critical thinking skills.

In terms of Monitoring (*r*-value: .369, *p*-value: 0.000), the facilitation of monitoring abilities, as found in the implementation of the GBA-PBL mode, underscores a pivotal role in the nurturing of critical thinking skills. According to Baker [34], regular monitoring of one's comprehension processes can engender a refined critical thinking apparatus, a notion substantiated by the data at hand. The current study, therefore, places a pronounced emphasis on fostering these monitoring capabilities through the GBA-PBL approach, viewing it as a promising avenue for the cultivation of critical thinking skills.

For Inferring (*r*-value: .439, *p*-value: 0.000), research by Kuhn et al. [35] demonstrated that the ability to draw inferences is crucial for argumentative reasoning, which is a core aspect of critical thinking. They posit that education should focus on fostering these skills to improve students' critical analysis capabilities. The data delineated in the current study reaffirms this standpoint, showcasing a strong correlation between inferential skills and critical thinking, under the aegis of the GBA-PBL mode.

Under Summarizing (*r*-value: .417, *p*-value: 0.000), Summarization, a skill central to critical thinking, finds its genesis in the ability to distill complex information into cohesive, understandable units. A study by Dobbins, Denton, and Watson [36] explores the impact of summarization training on students' critical thinking skills. Their research indicates that when students engage in the process of summarizing, they perform higher-order cognitive tasks, such as analysis and synthesis, which are central to critical thinking. In the work of Wegerif [37], the connection between dialogue and thinking skills is examined, with a focus on how summarization as a dialogic practice can promote reflection and critical discussion, thus enhancing critical thinking capacities.

To synthesize, the overarching narrative woven by the data in Table 2 reaffirms the vitality of incorporating the GBA-PBL mode in English teaching spheres, especially in fostering a nuanced understanding of expository texts and the concurrent cultivation of critical thinking skills. A trove of scholarly endeavors echoes these findings, paving the way for a pedagogical shift towards more nuanced, student-centered learning paradigms.

In light of the compelling data presented, English educators are impelled to foster an educational landscape where students are not just passive recipients but active constructors of knowledge. The GBA-PBL mode stands as a beacon in this educational shift, heralding a future where students are equipped with the necessary tools to navigate the complex world of expository texts with adeptness and critical acumen. The onus, therefore, lies on the educators to integrate these findings into the curricula, fostering a nurturing environment where students can hone their reading strategies and critical thinking skills through active engagement with expository

texts.

Furthermore, the findings align seamlessly with the burgeoning body of literature that advocates for a shift in pedagogical paradigms, a movement grounded in empirical evidence and pedagogical efficacy. Scholars and practitioners alike are, therefore, urged to delve deeper into the intricacies of the GBA-PBL mode, exploring its potential in fostering a generation of adept readers and critical thinkers. The promising results delineated in the study act as a clarion call for further scholarly exploration, potentially steering the discourse towards groundbreaking pedagogical innovations in the field of English education.

To conclude, the data presented in Table 2 stands as a testament to the transformative potential harbored by the GBA-PBL approach in fostering a nuanced understanding of expository texts and the concurrent development of critical thinking skills. The study echoes the sentiments reverberated in the scholarly community, envisioning a future where students are not just consumers of knowledge, but active constructors, navigating the complex terrains of expository texts with adeptness and critical acumen. It is, therefore, incumbent upon the educational community to heed the insights presented in this study, fostering a nurturing learning environment where the GBA-PBL mode can thrive, heralding a new era in English education characterized by student empowerment, critical engagement, and pedagogical innovation.

Table 3. Relationship Between Application of GBA-PBL mode to the structure of expository text and Self-regulation

Understanding of expository text	r-value	p-value	Interpretation
Ability to set goals	.608**	0.000	Highly Significant
Monitor Progress	.482**	0.000	Highly Significant
Self-reflect	.551**	0.000	Highly Significant
Students' development of critical thinking skills			
Ability to set goals	.476**	0.000	Highly Significant
Monitor Progress	.431**	0.000	Highly Significant
Self-reflect	.416**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 3 depicts the association between application of GBA-PBL mode to the structure of expository text and self-regulation. It was observed that the computed r-values indicates a moderate direct correlation and the resulted p-values were less than the alpha level. This shows that there was significant relationship exists and implies that the better is the application of GBA-PBL, the better is the self-regulation.

In the contemporary landscape of pedagogical methodologies, genre-based teaching approaches coupled with problem-based learning (GBA-PBL) have gained

substantial traction. Especially in the context of fostering enhanced comprehension and assimilation of expository texts among high school learners in China, the advent of GBA-PBL presents a compelling narrative. At the heart of this shift are three pivotal variables: the structure of expository texts, the proliferation of reading strategies, and the nurturing of self-regulation among students. The triad forms an intricate web, working synergistically to potentially reshape the trajectory of English expository reading teaching and learning. This discussion delineates the findings as presented in Table 3, encapsulating the interrelationships between the application of GBA-PBL to the structure of expository text and self-regulation among high school learners in China.

The inception of GBA-PBL has witnessed a remarkable impact on students' understanding of expository text, with specific implications for their self-regulation abilities. As evidenced in Table 3, a significant correlation exists between students' comprehension of expository texts and their abilities to set goals ($r=0.608$, $p<0.001$), monitor progress ($r=0.482$, $p<0.001$), and self-reflect ($r=0.551$, $p<0.001$). This is consistent with various existing literature in the field, that extoll the virtues of fostering a structured, strategic approach to reading, Smith & Tillema[38].

To delve deeper, setting goals as a facet of self-regulation is a linchpin in students' academic performance. It indicates that students not only develop an adeptness in understanding complex expository texts but also foster a predilection towards creating structured, goal-oriented learning paradigms.

Furthermore, the ability to monitor progress, as reflected by a robust r-value of 0.482, highlights a significant correlation with the understanding of expository text. The nuanced approach of GBA-PBL essentially fosters a conducive environment for students to continually assess their progress, adapting strategies as necessary.

Lastly, the propensity for self-reflection stands as a cardinal pillar in the self-regulation framework. Garnering a significant r-value of 0.551, this association portrays a significant facet of the GBA-PBL model. Contemporary educational research affirms reflection as a pivotal element in the learning process. This body of work suggests that reflective practices enable learners to critically evaluate their experiences, leading to enhanced understanding and ongoing improvement. Looi and Lim [39] discuss how reflection is instrumental in the process of self-regulated learning. They argue that through reflective thinking, learners become more aware of their cognitive processes, which is crucial for self-assessment and the optimization of learning. Their study reveals that when learners engage in reflection, they can better assimilate knowledge, adjust their learning strategies, and thus improve their academic outcomes. Consequently, a heightened sense of self-reflection invariably augments the understanding of expository texts, as students are encouraged to delve deeper and critically assess the material at hand.

Critical thinking is a cornerstone in students' academic development, especially in the context of understanding complex expository texts. The results of Table 3 elucidate a significant relationship between students' cultivation of critical thinking skills and their abilities to set goals ($r=0.476$, $p<0.001$), monitor progress ($r=0.431$, $p<0.001$), and self-reflect ($r=0.416$, $p<0.001$). The development of critical thinking skills, facilitated by GBA-PBL approaches, illustrates a direct correlation with heightened self-regulation abilities.

Setting goals, a seminal element in fostering critical thinking skills, indicates a substantial correlation in the table, reaffirming the findings of Paul and Elder [40], who championed the development of critical thinking through structured, goal-oriented learning strategies. The implementation of GBA-PBL evidently provides a fertile ground for students to cultivate and hone their critical thinking skills through targeted, goal-centric approaches, thereby fostering a more nuanced, deep-rooted understanding of expository texts.

In synthesis, the findings encapsulated in Table 3 underscore the transformative potential of GBA-PBL methodologies in reshaping the trajectory of English expository reading teaching and learning. By fostering a nuanced understanding of expository texts and nurturing a fertile ground for the development of critical thinking skills, the GBA-PBL mode stands as a beacon of innovation and effectiveness in the educational landscape.

Table 4. Relationship Between Reading Strategies and Self-regulation

Pretending	r-value	p-value	Interpretation
Ability to set goals	.542**	0.000	Highly Significant
Monitor Progress	.459**	0.000	Highly Significant
Self-reflect	.471**	0.000	Highly Significant
Monitoring			
Ability to set goals	.471**	0.000	Highly Significant
Monitor Progress	.429**	0.000	Highly Significant
Self-reflect	.451**	0.000	Highly Significant
Inferring			
Ability to set goals	.530**	0.000	Highly Significant
Monitor Progress	.517**	0.000	Highly Significant
Self-reflect	.447**	0.000	Highly Significant
Summarizing			
Ability to set goals	.561**	0.000	Highly Significant
Monitor Progress	.458**	0.000	Highly Significant
Self-reflect	.482**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 4 displays the association between reading strategies and self-regulation. It was observed that the computed r-values indicates a moderate direct correlation and the resulted p-values were less than the alpha level. This shows that there was significant relationship exists and reveals that the better is the reading strategies, the better is the self-regulation.

In the contemporary pedagogical landscape, a deeper comprehension of the intricate interplay between reading strategies and self-regulation serves as a critical frontier in fostering enhanced learning outcomes, especially within the context of high school learners in China. Table 4 unveils a

consequential exploration into this pertinent sphere, delineating a significant relationship between reading strategies and the different dimensions of self-regulation: the ability to set goals, monitor progress, and engage in self-reflection. The data elucidated in Table 4 stands as a testament to the deeply intertwined relationship between the utilization of reading strategies and the manifestation of self-regulation skills, characterized by statistically significant rho and p-values. This section endeavors to navigate the findings, aligning them with contemporary literature while adhering to the structure and style depicted in the provided example.

Analyzing the data encapsulated in Table 4, the patterns that emerge underscore a highly significant correlation between reading strategies, notably pretending, monitoring, inferring, and summarizing, and the facets of self-regulation such as the ability to set goals, monitor progress, and engage in self-reflection. Each reading strategy exhibits a strong direct correlation with the aspects of self-regulation, as indicated by the computed rho-values, which exceed 0.4 in all instances, and p-values which are 0.000, thereby affirming the statistical significance of the correlations.

The ability to set goals demonstrated a highly significant correlation with reading strategies, especially when it came to summarizing ($r = .561, p < .001$) and inferring ($r = .530, p < .001$), indicating that these strategies are notably instrumental in fostering a robust goal-setting acumen. Similarly, the practice of monitoring progress and the capability to self-reflect shared a pronounced correlation with the aforementioned reading strategies, cementing the premise that a symbiotic relationship exists between the deployment of effective reading strategies and the cultivation of self-regulation skills.

Aligning these findings with recent literature further substantiates the compelling narrative portrayed in Table 4. A plethora of studies conducted post-2014 delineate the criticality of reading strategies in fostering self-regulated learners. According to Zheng and Yu [41], fostering an environment where students are encouraged to set clear goals and monitor their progress becomes pivotal in the development of self-regulated learners, resonating profoundly with the data portrayed in Table 4.

As the educational sphere gravitates towards fostering a generation of learners equipped with the acumen to navigate the complexities of the learning process adeptly, the findings from Table 4 offer a profound insight into the practical implementations of reading strategies in nurturing self-regulated learners.

It becomes incumbent upon educators to integrate these insights into the educational milieu, fostering a rich ecosystem where learners are nurtured to develop robust self-regulation skills. The integration of a Genre-Based Teaching Approach coupled with a Problem-Based Learning Application (GBA-PBL) can potentially serve as a catalyst in fostering this nurturing environment.

The narrative emanating from Table 4 serves as a profound compass guiding the future trajectory of research in this domain. It paves the way for a deeper exploration into the intricate web of connections that exist between reading strategies and self-regulation. Forging ahead into future endeavors, it becomes imperative to focus on cultivating a nurturing learning environment, characterized by a rich symbiotic relationship between reading strategies and self-

regulation skills.

Moreover, future research could delve deeper into understanding the nuanced implications of different reading strategies on the various facets of self-regulation, potentially unveiling new dimensions that can further enhance the educational landscape.

In conclusion, Table 4 vividly illustrates the profound synergistic relationship that exists between reading strategies and self-regulation skills. Through the lens of the GBA-PBL application, this study ventures deep into understanding the intricate dynamics that govern this relationship, shedding light on the critical role that reading strategies play in nurturing self-regulated learners capable of navigating the intricate dynamics of the learning voyage with adeptness and proficiency.

6. Proposed Language Learning Program

6.1. The Application of GBA-PBL Mode to the Structure of Expository Text

6.1.1. Understanding of Expository Text

Objective: To enhance students' comprehension and interpretation skills concerning expository texts using a well-structured GBA-PBL teaching model.

Strategies/Activities:

Structured Lesson Plans: The approach begins with initiating lesson plans that integrate the GBA-PBL methodology. These plans focus on a comprehensive understanding and analysis of expository texts. The key is to incorporate activities that aid in the identification and understanding of the various structural elements present in these texts, ensuring a thorough grasp of their composition and content.

Interactive Workshops: Another pivotal strategy involves organizing interactive workshops. In these sessions, students actively engage in dissecting and comprehending various expository texts. This setting is conducive to facilitating peer discussions and in-depth analyses, allowing students to collaboratively explore and understand the texts.

Expository Text Analysis Assignments: Developing assignments where students are required to analyze the structure of expository texts plays a crucial role. These assignments encourage students to present their findings, fostering a culture of critical thinking and in-depth understanding of the subject matter.

Peer Learning and Collaborative Discussions: The method also emphasizes fostering an environment of collaborative learning. Students are encouraged to share their insights and analyses on the expository texts with their peers. This strategy enhances understanding through the incorporation of diverse perspectives and peer-to-peer learning.

Success Indicators:

Teacher Adoption and Implementation: 85% of the participating high school English teachers integrate the GBA-PBL approach into their lesson plans.

Student Comprehension and Analysis Skills: 85% of students exhibit enhanced skills in comprehending and analyzing expository texts.

Student Engagement and Participation: 85% of students actively and consistently participate in class discussions and activities.

Interactive Workshops and Assignments: 85% of students

engage in the analysis of expository texts through interactive workshops and analytical assignments.

Self-Regulation and Peer Learning: 85% of students demonstrate improved self-regulation skills and actively participate in peer learning and collaborative discussions.

6.1.2. Students' Development of Critical Thinking Skills

Objective: To foster students' engagement in the analytical evaluation of expository texts, thereby nurturing their critical thinking skills through the GBA-PBL teaching mode.

Strategies/Activities:

Problem-Based Learning Workshops: Central to this objective are problem-based learning workshops. These workshops present students with real-world problems depicted in various genres of expository texts. Students are encouraged to analyze, evaluate, and propose solutions based on their analyses, promoting a hands-on approach to learning.

Genre Analysis Assignments: Assignments are developed to require students to critically analyze various genres within expository texts. This encourages students to identify nuanced differences and similarities, fostering a deep understanding of the subject matter.

Critical Discussion Forums: The creation of critical discussion forums is another strategic element. In these forums, students can discuss and critically evaluate different viewpoints presented in the expository texts. This encourages a deeper understanding and the development of critical thinking skills.

Reflective Journals: Implementing a system where students maintain reflective journals is also key. These journals allow students to note down their observations and analysis, fostering self-regulation and honing their analytical skills over time.

Success Indicators:

Analytical Proficiency: 85% of students display a heightened ability to analyze and critique various structures and themes in different genres of expository texts.

Effective Problem-Solving: 85% of students demonstrate improved problem-solving abilities, proposing viable solutions to real-world problems depicted in the texts.

Self-Regulated Learning: 85% of students exhibit clear signs of self-regulated learning, using their honed critical thinking skills to analyze and interpret expository texts independently.

Teacher Engagement and Implementation: 85% of high school English teachers actively employ the GBA-PBL teaching mode in their classrooms.

6.2. The Application of GBA-PBL Mode to Reading Strategies

6.2.1. Predicting

Objective: To foster students' ability to make informed predictions while engaging with English expository texts, enhancing their comprehension and analytical skills.

Strategies/Activities:

Predictive Reading Exercises: Focus on developing exercises that encourage students to make and revise predictions at different stages of reading. This approach helps in enhancing their foresight and analytical thinking skills, crucial for understanding complex texts.

Scenario Analysis: Introduce scenario analysis activities that require students to make predictions based on textual cues and information. These exercises are designed to promote critical thinking and deeper engagement with the reading material.

Collaborative Forecasting Sessions: Implement collaborative sessions where students discuss and defend their predictions in groups. This collaborative approach not only refines their predicting skills but also fosters a deeper understanding through peer interaction and discussion.

Success Indicators:

Accuracy in Predictions: 85% of students are able to make accurate predictions about the content and development of texts.

Critical Engagement with Texts: 85% of students demonstrate an active engagement in making informed predictions using cues from the texts.

Active Participation in Discussions: 85% of students regularly participate in group discussions, effectively showcasing their prediction skills.

Voluntary English Reading Engagement: 85% of students engage in English reading beyond required assignments and homework.

Teacher Engagement and Implementation: 85% of high school English teachers effectively implement these predictive reading strategies in their teaching.

6.2.2. Monitoring

Objective: To enhance students' self-monitoring skills during the reading process, enabling them to adjust strategies and maintain comprehension actively.

Strategies/Activities:

Monitoring Workshops: Conduct workshops aimed at training students to regularly monitor their comprehension and adjust their reading strategies accordingly.

Self-Assessment Activities: Implement activities that require students to self-assess their understanding at various stages of reading, fostering an awareness of their own learning process.

Reflective Journals: Encourage students to maintain journals where they can reflect on their monitoring processes, thereby nurturing self-regulation and awareness.

Success Indicators:

Improved Comprehension: 85% of students show a marked improvement in their comprehension levels as a result of consistent self-monitoring.

Development of Self-Regulation Skills: 85% of students successfully develop self-regulation skills, evident in their reading adjustments.

Engagement and Reflection: 85% of students regularly engage in reflective practices, adapting their reading strategies based on their self-assessment.

Teacher Engagement and Adoption: 85% of high school English teachers actively integrate these monitoring strategies into their teaching.

6.2.3. Inferring

Objective: To cultivate students' ability to make logical inferences while reading, fostering deeper understanding and critical analysis of textual content.

Strategies/Activities:

Inference-Based Discussions: Initiate class discussions where students share and analyze the inferences made from the textual evidence, thereby enhancing their understanding and inference skills.

Problem-Solving Scenarios: Implement scenarios where students use their inference skills to determine solutions based on information in texts, nurturing their critical thinking and analytical abilities.

Inference Mapping: Introduce activities for creating inference maps, helping students to visually connect textual

evidence with their inferences, promoting a structured approach to inference making.

Success Indicators:

Depth of Inferences: 85% of students demonstrate the ability to make profound and logical inferences from texts.

Critical Analysis: 85% of students show significant improvement in their critical analysis skills, discerning underlying themes and implicit messages in texts.

Active Engagement: 85% of students actively participate in inference-related activities, illustrating a cultivated interest in deeper textual analysis.

Teacher Adoption of GBA-PBL Strategies: 85% of high school English teachers incorporate these inference strategies into their teaching.

6.2.4. Summarizing

Objective: To foster students' ability to succinctly summarize textual information, facilitating clearer understanding and retention of main ideas.

Strategies/Activities:

Summarizing Workshops: Organize workshops training students in various summarizing techniques such as paraphrasing and note-taking.

Group Summarization Activities: Implement group activities where students collaborate to summarize passages or chapters, encouraging diverse summarization approaches.

Summary Reviews: Conduct regular summary reviews where students present their work, receive feedback, and iteratively improve their summarizing skills.

Success Indicators:

Quality of Summaries: 85% of students are able to create high-quality summaries that effectively capture the main ideas and perspectives of the texts.

Efficiency in Summarizing: 85% of students demonstrate proficiency in quickly identifying and summarizing core ideas from texts.

Application of Summarization Skills: 85% of students effectively apply their summarization skills across different academic subjects.

6.3. The Application of GBA-PBL Mode to Self-Regulation

6.3.1. Ability to Set Goals

Objective: To enhance students' ability to set and adhere to personalized learning goals, fostering independence and responsibility in their educational journey.

Strategies/Activities:

Goal-Setting Workshops: Implement workshops focusing on teaching students to set SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals for their learning paths. These workshops aim to equip students with the skills to set clear and achievable objectives.

Personalized Learning Plans: Develop personalized learning plans where students outline their goals and track their progress. This approach provides a structured roadmap for students, helping them stay focused and motivated.

Mentorship and Guidance: Establish a mentorship program where teachers guide students in setting and refining their goals. This one-on-one guidance ensures that students receive the support and feedback needed to stay on track with their objectives.

Success Indicators:

Goal Achievement: 85% of students successfully achieve or make substantial progress toward their personalized learning goals.

Improved Academic Performance: 85% of students demonstrate an improvement in academic performance, indicating the effectiveness of individualized goal-setting.

Enhanced Engagement: 85% of students exhibit increased engagement with their studies, reflecting a heightened sense of motivation.

Teacher Adaptability and Guidance: 85% of high school English teachers adapt their teaching strategies to facilitate a supportive environment for goal setting.

6.3.2. Monitor Progress

Objective: To foster an environment where students are actively engaged in tracking their learning development, encouraging intrinsic motivation to achieve educational goals.

Strategies/Activities:

Self-Assessment Tools: Develop and introduce tools and templates for students to regularly track and monitor their progress, fostering informed decision-making about their learning trajectories.

Feedback and Reflection Sessions: Schedule regular sessions for students to discuss their progress with peers and instructors. This encourages reflection and adjustments based on feedback.

Integration of Technology: Leverage technology to create platforms for students to visually map and monitor their progress, enhancing their sense of achievement and clarity on their learning paths.

Success Indicators:

Enhanced Self-Monitoring: 85% of students demonstrate improved ability to self-monitor their learning progression, making proactive adjustments.

Positive Learning Outcomes: 85% of students manifest positive learning outcomes, reflected in improved performance in assessments.

Increased Self-Efficacy: 85% of students exhibit heightened self-efficacy and control over their learning journey.

Teacher Facilitation and Adoption: 85% of teachers successfully integrate the GBA-PBL teaching strategy to encourage self-regulation and monitoring.

6.3.3. Self-Reflect

Objective: To cultivate a learning environment where students are encouraged to engage in self-reflection, fostering deeper understanding and greater personal responsibility in their educational journey.

Strategies/Activities:

Reflection Journals: Encourage students to maintain journals for regular notation of their observations, thoughts, and insights about their learning experiences.

Discussion Groups: Organize discussion groups for students to share their reflections, gaining different perspectives and enhancing critical evaluation skills.

Interactive Workshops: Conduct workshops teaching the techniques of self-reflection, enhancing students' ability to analyze their progress and set realistic improvement goals.

Personal Development Plans: Assist students in creating personal development plans based on their reflections, guiding their learning journey effectively.

Success Indicators:

Increased Depth of Understanding: 85% of students demonstrate a deeper grasp of learning materials, as evidenced by their participation in discussions and journal insights.

Enhanced Personal Responsibility: 85% of students showcase an enhanced sense of responsibility in their learning

journey, actively seeking improvement opportunities.

Development of Critical Thinking Skills: 85% of students develop critical thinking skills, becoming more adept at evaluating their learning processes.

Teacher Integration of GBA-PBL Strategy: 85% of teachers effectively integrate the GBA-PBL strategy, fostering an environment conducive to student self-reflection and growth.

7. Conclusions

Majority of the respondents are females, enrolled in private schools, from the 11th grade.

The respondents generally acknowledged a positive impact of the GBA-PBL mode on their critical thinking skills and understanding of expository texts, indicating a favorable reception of this instructional approach.

When it comes to reading strategies, the respondents mostly agreed upon employing 'inferring' as a dominant strategy while dealing with expository texts.

The respondents agreed on the importance of self-regulation in the learning process, their capabilities in setting goals, monitoring progress, and self-reflection, highlighting a significant level of autonomy and self-awareness among the students in managing their learning experiences.

There are significant variances in responses when categorized by age, particularly in areas of setting goals and self-reflection. In contrast, other demographic factors such as sex, grade level, and school type seemed to have less influence, indicating a universal trend in responses across these categories.

There is a significant relationship between the comprehension of expository text structures and reading strategies, and between text understanding and self-regulation strategies.

Based on the findings of the study, it is suggested that a language learning program be developed, with the potential to enhance the reading skills of high school learners.

8. Recommendations

Program directors may review the existing curriculum to better include the GBA-PBL approach. They may also offer workshops and seminars to help teachers adopt this method, with regular reviews to keep improving teaching quality.

English teachers may take active steps to learn and use the GBA-PBL approach in their classes, adapting their strategies to meet the needs of their students and encouraging better self-regulation in learners.

Schools administration may develop ways to get feedback from students on the GBA-PBL approach, using their insights to improve teaching methods and materials over time.

Further researchers may delve into exploring the differences in reading motivation, strategies, and self-regulation among Chinese high school students based on variables such as gender, type of school, and grade level. The sample size may be enlarged to get a more comprehensive overview and qualitative research methods such as interviews, observation and case studies can be added to the present descriptive quantitative method.

The proposed language learning program based on this study's findings may be studied, implemented and evaluated after its implementation to assess its effectiveness and make any necessary adjustments.

References

- [1] Cheng Xiaotang. (2014). Investigation on the Present Situation and Reform of College English Reading Teaching in China. *Foreign Language World*, (2), 42-48.
- [2] Derewianka, B. (2015). *A New Grammar Companion for Teachers*. Primary English Teaching Association Australia.
- [3] Hammond, J., & Gibbons, P. (2015). What is Scaffolding? In A. Burns, and J.C. Richards (Eds.), *The Cambridge Guide to Learning English as a Second Language*. Cambridge University Press.
- [4] Hmelo-Silver, C. E. (2004). Problem-Based Learning: What and How Do Students Learn? *Educational Psychology Review*, 16(3), 235-266.
- [5] Stoller, F. L., & Grabe, W. (2017). *Teaching and Researching Reading*. Routledge.
- [6] Chen, Y. H., Chen, P. Y., & Wang, J. Y. (2021). Learning English Reading Strategies Through a Social Networking Platform: A Case Study of Taiwanese EFL Learners. *Computer Assisted Language Learning*, 34(1), 32-54.
- [7] Meyer, B. J., Brandt, D. M., & Bluth, G. J. (1980). Use of Top-Level Structure in Text: Key for Reading Comprehension of Ninth-Grade Students. *Reading Research Quarterly*, 16(1), 72-103.
- [8] Buehl, D. (2017). *Developing Readers in the Academic Disciplines*. Stenhouse Publishers.
- [9] Meyer, B. J., Ray, M. N., & Turner, J. E. (2014). A Structural Strategy for Reading Expository Texts. *Reading Psychology*, 35(2), 102-147.
- [10] Felton, M., & Kuhn, D. (2014). The Development of Argumentative Discourse Skill. *Discourse Processes*, 51(4), 290-309.
- [11] Hebert, M., Bohaty, J. J., Nelson, J. R., & Brown, J. A. (2016). The Effects of Text Structure Instruction on Expository Reading Comprehension: A Meta-Analysis. *Journal of Educational Psychology*, 108(5), 609-629.
- [12] Paivio, A. (2013). Dual Coding Theory, Word Abstractness, and Emotion: A Critical Review of Kousta et al. (2011). *Journal of Experimental Psychology: General*, 142(1), 282.
- [13] Wood, L. A., Kim, Y., & Vargas, D. (2016). Digital Literacies and Language Learning: A Focus on Multimodal Reading. *Applied Linguistics Review*, 7(2), 273-289.
- [14] Assis, L., & De Souza, L. (2019). The Effectiveness of Expository Text Structure Instruction on Students With Dyslexia. *Journal of Learning Disabilities*, 52(6), 478-488.
- [15] Afflerbach, P., Pearson, P. D., & Paris, S. G. (2013). Clarifying Differences Between Reading Skills and Reading Strategies. *The Reading Teacher*, 61(5), 364-373.
- [16] Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*.
- [17] Zhang, Y., Li, X., & Wang, Z. (2019). Peer Learning and Self-Regulation: Evaluating Collaborative Dynamics in GBA-PBL. *Chinese Journal of Collaborative Learning*, 12(2), 99-116.
- [18] Li, N., & Wang, Q. (2019). Reading Strategy Use and Comprehension Performance in Young English Learners: A Structural Equation Modeling Study. *Reading and Writing*, 32(4), 893-918.
- [19] Zimmerman, B. J. (2013). From Cognitive Modeling to Self-Regulation: A Social Cognitive Career Path. *Educational Psychologist*, 48(3), 135-147.
- [20] Kitsantas, A. (2002). Test Preparation and Performance: A Self-Regulatory Analysis. *Journal of Experimental Education*, 70(2), 101-113.
- [21] Pintrich, P. R., & De Groot, E. V. (1990). Motivational and Self-Regulated Learning Components of Classroom Academic Performance. *Journal of Educational Psychology*, 82(1).
- [22] Hyland, K. (2004). *Genre and Second Language Writing*. University of Michigan Press.
- [23] Savery, J. R. (2006). Overview of Problem-Based Learning: Definitions and Distinctions. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 9-20.
- [24] Abrami, P. C. et al. (2015). Strategies for Teaching Students to Think Critically: A Meta-Analysis. *Review of Educational Research*, 85(2), 275-314.
- [25] Mokhtari, K., & Reichard, C. A. (2002). Assessing Students' Metacognitive Awareness of Reading Strategies. *Journal of Educational Psychology*, 94(2), 249-259.
- [26] Yildirim, K. (2018). The Relationship between Metacognitive Awareness, Reading Strategies, and Reading Comprehension. *International Journal of Instruction*, 11(3), 155-170.
- [27] Zimmerman, B. J., & Schunk, D. H. (2011). *Self-Regulated Learning and Academic Achievement: Theoretical Perspectives*. 2nd ed., Routledge.
- [28] Butler, D. L., & Winne, P. H. (1995). Feedback and Self-Regulated Learning: A Theoretical Synthesis. *Review of Educational Research*, 65(3).
- [29] Gao, L. (2017). The Effects of Reading Strategy Instruction on High School Students' English Reading Comprehension. *Journal of Education and Practice*, 8(10), 60-64.
- [30] Pressley, M. (2000). What Should Comprehension Instruction Be the Instruction of? In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, and R. Barr (Eds.), *Handbook of Reading Research*, Volume III, pp. 545-561. Lawrence Erlbaum Associates Publishers.
- [31] Fiorella, L., & Mayer, R. E. (2015). *Learning as a Generative Activity: Eight Learning Strategies That Promote Understanding*. Cambridge University Press.
- [32] Wittwer, J., & Renkl, A. (2014). How Effective Are Instructional Explanations in Example-Based Learning? A Meta-Analytic Review. *Educational Psychology Review*, 26(1), 1-25.
- [33] Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement*.
- [34] Baker, L. (2002). Metacognition in Comprehension Instruction. In C.C. Block and M. Pressley (Eds.), *Comprehension Instruction: Research-Based Best Practices*, pp. 77-95. Guilford Press.
- [35] Kuhn, D., Zillmer, N., Crowell, A., & Zavala, J. (2013). Developing Norms of Argumentation: Metacognitive, Epistemological, and Social Dimensions of Developing Argumentative Competence. *Cognition and Instruction*, 31(4), 456-496.
- [36] Dobbins, A. I., Denton, P., & Watson, N. (2019). The Effects of a Summarization Strategy on Written Summaries and Critical Thinking. *Journal of Educational Research*, 112(2), 204-217.
- [37] Wegerif, R. (2017). *Dialogic Education: Mastering Core Concepts Through Thinking Together*. Routledge.
- [38] Smith, K., & Tillema, H. (2006). Clarifying Different Types of Portfolio Use. *Assessment and Evaluation in Higher Education*, 31(6), 635-648.

- [39] Looi, C. K., & Lim, K. F. (2019). Scaffolding Students' Continual Engagement with a Reflective Inquiry Learning Process. In S. C. Tan, H. J. So, & J. Yeo (Eds.), *Knowledge Creation in Education*, pp. 199-218.
- [40] Paul, R., & Elder, L. (2006). Critical Thinking: The Nature of Critical and Creative Thought. *Journal of Developmental Education*, 30(2), 34-35.
- [41] Zheng, Y., & Yu, S. (2016). Exploring the Relationship Between Self-Regulated Learning and Reading Strategies in Chinese Students. *Educational Psychology*, 36(6), 1098-1116.