



Enhancing Modern Chinese Literature Learning: A Quasi-Experimental Study of the Superstar Learning Platform's Impact

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Abstract

Background and Aim: The integration of digital platforms in education enhances teaching and learning. This study evaluated the Superstar Learning Platform's effectiveness as a supplementary tool for Modern Chinese Literature (MCL), aiming to address the shortcomings of traditional methods, such as a lack of comprehensiveness and student engagement. The goal is to assess its effectiveness on reading competence, literary appreciation, student performance, and total scores.

Materials and Methods: A quasi-experimental design involving 95 undergraduates assessed the Superstar Learning Platform's impact on reading competence, literary appreciation, performance, and total scores. Fifty students used the platform (experimental group), while 45 received traditional teaching (control group). Quantitative data were gathered through the design, and qualitative data were collected via an open-ended questionnaire to explore the experimental group's satisfaction with MCL.

Results: Quantitative data showed that the experimental group achieved significantly greater improvements than the control group. Notable mean improvements were observed in reading competence (11.6 vs. 2.49), literary appreciation (4.48 vs. 2.38), student performance (4.02 vs. 1.12), and total scores (7.9 vs. 2.12), demonstrating the effectiveness of the intervention of Superstar Learning Platform. Qualitative feedback confirmed that most experimental group students expressed positive attitudes toward the Superstar Learning Platform.

Conclusion: This study demonstrated that with the platform, the experimental group achieved significant improvements in reading competence, literary appreciation, student performance, and total scores compared to the control group. Furthermore, a majority of the experimental group held positive attitudes towards the platform. It indicated that the implementation of the Superstar Learning Platform in MCL had notable effects.

Keywords: Superstar Learning Platform; Modern Chinese Literature; Quasi-experimental Design; Learning Effectiveness

Introduction

The collaborative advancement of information technology and education emerges as a focal point and priority in educational reform (Chen, 2016). The evolution of information technology spurs transformations in higher education, with interactive tools playing a key role in driving these changes (Leupin, 2016). The advancement of information technology makes blended learning a significant focus of educational reform both domestically and internationally (Chen, 2022). Traditional teaching models are gradually being replaced by blended learning models (Lightner & Lightner-Laws, 2013). However, to achieve ideal results from blended learning models, it is necessary to carefully screen online platforms for building course resources and effectively combine them with offline teaching (Guan, 2021). At this time, many online teaching platforms are widely used (Wu et al., 2019). Online teaching platforms play a very positive role in literary teaching (Gubbiyappa et al., 2016). Especially, mobile learning based on mobile devices has become an important direction of mobile internet technology applications (Zhang & Zuo, 2022). The mobile learning platform transcends the limitations of traditional teaching in terms of time and space, enabling students to experience convenience, autonomy, and a more personalized approach to learning. It facilitates a transition in pedagogy, shifting from teacher-centered to student-centered learning (Gashoot & Mohamed, 2022).

The advent of computer multimedia technology revolutionizes traditional teaching methodologies, offering a unique and innovative approach to the teaching of Chinese language and literature (Tang, 2019).



The information technology era calls for teaching reform in Literature Courses (Ty, 2018). Chinese literature has a tradition of at least three thousand years (Kern, 2010). However, Modern Chinese Literature does not emerge until the second decade of the 20th century (Tang, 2000). MCL is a compulsory course for Chinese Language and Literature majors in Chinese colleges and universities (Tang, 2024). It plays an important role in cultivating students' aesthetic consciousness and moral cultivation, improving students' humanistic quality and cultural taste, and shaping students' complete personalities (Gu & Lau, 2021). It focuses on the historical process and major achievements of the emergence and development of Chinese new literature since 1917 (Wang & Cao, 2023).

MCL is designed to help students understand the general development of modern Chinese literature, master its basic knowledge, and develop their literary competence. This competence includes various sub-skills that should be identified to enhance students' abilities in reading modern Chinese literature. The two most important skills are literary reading comprehension and literary appreciation (Ramli, 2022). Teaching literature is a challenging task that tests both teachers and students (Ristoska, 2021). It requires teachers to provide detailed literary analysis that stimulates students' enthusiasm for learning. Effective literary teaching demands teachers' creativity, originality, and innovative thinking (Liu, 2012).

Statement of the Problem

The traditional teaching mode has brought a series of challenges to the teaching of Modern Chinese Literature.

Limit students' self-development ability: Traditional MCL teaching relies heavily on teacher-centered methods, where instructors impart knowledge through lectures, and students passively receive information (Ahmad & Aziz, 2009; Xu, 2023). This approach limits students' active participation, leading to low learning efficiency and poor retention of knowledge (Liu, 2022).

Lack of Engagement and Motivation: Traditional teaching methods often result in dull and unengaging classrooms, causing students to lose interest in literature (Mariappan et al., 2017). Students lack motivation and initiative due to the absence of interactive and enjoyable learning experiences.

Neglect of Emotional and Creative Development: Teachers focus primarily on knowledge transmission and text interpretation, overlooking the cultivation of students' emotional experiences, imagination, and creativity (Yang & Wang, 2023). This limits students' ability to appreciate the charm of literature and develop critical thinking skills (Thambu et al., 2020).

Limited Teaching Resources: In traditional classrooms, teachers provide only limited resources, forcing students to spend additional time searching for materials outside of class (Zhang, 2011). This lack of accessible resources hinders students' ability to explore literature deeply and independently.

Insufficient Opportunities for Expression and Practice: Students lack opportunities to read, think critically, and express themselves, which are essential for developing literary competence and appreciation (Yang & Wang, 2023). The absence of a supportive learning environment prevents students from applying their knowledge and skills in meaningful ways (Thambu et al., 2020).

In all, there is a pressing need to shift from a knowledge-transmission-focused approach to an active learning model that emphasizes student engagement, creativity, and the application of knowledge. This study explores how the Superstar Learning Platform can address these challenges and enhance MCL learning outcomes.

Objectives

1. To determine the difference in the improvement of reading competence in MCL between the experimental group and the control group.
2. To determine the difference in the improvement of literary appreciation in MCL between the experimental group and the control group.
3. To determine the difference in the improvement of student performance in MCL between the experimental group and the control group.



4. To determine the difference in the improvement of total score in MCL between the experimental group and the control group.

Literature review

Information Technology

In the digital era, educational technology has transformed learning opportunities, with the proliferation of smartphones and mobile devices enabling more flexible and interactive learning experiences (Zhao & Brahmakasikara, 2021; Cann, 2015). Among the many mobile learning platforms available, the Superstar Learning Platform stands out due to its comprehensive learning ecosystem, interactive features, and data-driven instructional support (Chen, 2022; Yu, 2022). Established in 1993 by Superstar Company, the platform has expanded its reach across over 40 branches in China and the US, offering customized mobile learning solutions designed to enhance engagement and knowledge retention (Liu & Huang, 2019; Zhang et al., 2018).

Compared to other mobile learning platforms such as Rain Classroom and MOOCs, the Superstar Learning Platform distinguishes itself through a micro-services architecture that ensures scalability, a built-in social network for peer collaboration, and a robust set of tools for real-time student-teacher interaction (Huang & Yu, 2019; Cao et al., 2018). Unlike conventional mobile learning platforms that focus primarily on content delivery, Superstar integrates gamification elements (rewards, voting), cloud-based academic management (grading, attendance tracking), and AI-powered analytics for adaptive learning (Wang et al., 2019).

The platform's effectiveness is attributed to three key areas:

Comprehensive Resource Integration: The Superstar Learning Platform provides a vast digital library with both Chinese and foreign literature, interactive discussion forums, and real-time assessment tools, fostering an enriched literary learning experience (Shi et al., 2018).

Student-Centered Interactive Learning: Unlike traditional platforms that emphasize one-way content delivery, Superstar encourages collaborative learning through features like flipped classrooms, live Q&A sessions, and peer discussion forums, leading to active knowledge construction (Curley et al., 2016; Wu et al., 2019).

Personalized & Data-Driven Teaching: The platform's analytics dashboard allows educators to track student progress, assess learning behaviors, and adjust instructional strategies accordingly (Huang & Yu, 2019). This personalized approach enhances students' self-regulated learning skills and aligns with modern student-centered educational reforms (Fan, 2017).

The findings from previous studies underscore the platform's success in multiple disciplines, including vocational mathematics (Zhu, 2019), physics (Wang, 2018), and business English (Fan, 2017). Its ability to bridge the gap between traditional and digital learning methods makes it an ideal tool for enhancing Modern Chinese Literature (MCL) instruction, where critical thinking, literary analysis, and contextual understanding play vital roles.

In conclusion, the Superstar Learning Platform's unique blend of interactive learning, real-time analytics, and comprehensive content delivery makes it a superior choice for mobile learning in literature education. Unlike generic online learning tools, it fosters deeper student engagement, promotes collaborative learning, and aligns with modern educational trends. Future research should explore its comparative effectiveness across different literary disciplines and student demographics to further validate its pedagogical impact.

Reading competence

Literary competence plays an indispensable role in literary learning. Literary competence includes two most important skills: literary reading comprehension and literary analysis skills (Ramli, 2022). Reading competence includes the following important aspects: vocabulary recognition ability, the ability to integrate contextual knowledge and background knowledge, the ability to grasp chapter structure and construct meaning, the ability to use knowledge structure, personal experience, and imagination, assessment





ability, and reading speed (Deng & Sun, 2019). In the teaching of literature, various critical thinking methods are adopted to cultivate students' reading ability. (Karimi & Veisi, 2016) Reading competence can also be classified as a six-level system of knowledge, comprehension, application, analysis, synthesis, and evaluation (Dong, 2014). To assess the effectiveness of students' reading competence, the research incorporated both an existing administered instrument that assessed reading comprehension through questions and a newly devised test, which evaluated literary analysis of an unfamiliar text. The scores of the pre-test and post-test were compared between the experimental group and the control group to understand the influence of virtual literature circles on students' literary competence. (Ramli, 2022) To evaluate whether Facebook can be effective in learning novels, Mariappan et al. (2017) compared pre-test and post-test results to assess students' improvement in literary reading and appreciation skills. This study emphasized the utilization of Facebook in literature classrooms and demonstrated how digital platforms, such as the Superstar Learning Platform, can function as effective means for measuring students' literary appreciation abilities.

Literary appreciation

Literary appreciation is a critical judgment of the theme, form, and other aspects of literary works based on reading and understanding the literature (Al-Jarf, 2022d). Rather, it is the discussion, evaluation, and expression of a literary work (Al-Jarf, 2022). Fakoya and Ogunpitan (2014) mentioned that literary appreciation can be classified as the process by which the reader of a work of literature acquires a meaningful understanding of the theme and gains personal insights, which will help them realize the structure of the literary work. Literary appreciation is the process of readers understanding and responding to literary works (Nilsen & Donnellsen, 2009), including novels, poems, plays, and other literary works. It requires one to have a certain cultural background, reading experience, aesthetic taste, and good literary expression and writing skills (Guo & Qing, 2014). Through reading and understanding literary works, people can cultivate their taste, improve their cultural literacy, and enhance their comprehensive quality (Pan et al., 2020). Literary appreciation is not just about appreciating literary works but also fostering their ability to voice opinions, make informed predictions, and critically analyze specific literary works constructively and methodically (Draditaswari, 2024). Therefore, the ability to appreciate literature is very important, which is one of the important ways to cultivate comprehensive human quality. To measure literary appreciation skills, a 14-item survey questionnaire was used by the researcher (Magulod, 2018). These questions can reflect the student's ability to appreciate literature from low to high. Among the 14 identified literary appreciation skills, the item "recognition of the parts of the plot" means the development of students' literary appreciation skills. The research conducted by Mariappan et al. (2017) also offers valuable insights into whether the use of the Superstar Learning Platform can enhance students' literary appreciation abilities.

Student performance

Student performance can reflect the effectiveness of a teacher's teaching. It refers to temporary variations in behavior or knowledge that are observable or measurable during or immediately after instruction (Ayoub/Al-Salim & Aladwan, 2021). Student performance is a multidimensional structure composed of multiple structures (Hurlbut, 2018), such as student class attendance, classroom performance, completing homework, completing courses or learning projects, building skills, and acquiring knowledge. The classroom attendance rate of students plays a crucial role in the academic performance of higher education (Ancheta et al., 2021). Classroom interaction, such as answering questions, sharing viewpoints, or disagreeing with a certain viewpoint in class, is basic learning performance for students (Dhawan, 2020). Through dialogue and discussion between students and between teachers and students, the classroom atmosphere can be enlivened, and students' learning performance will also be better. Classroom interaction provides a platform for students to practice skills and enhances their confidence and communication skills (Darkwa and Antwi, 2021).

Total score

Academic performance is a way to measure a student's basic abilities, reflecting what they have learned during the learning process (Affuso et al., 2022). Good academic performance indicates that students have achieved positive learning outcomes during the learning process. The total score for student performance typically always involves combining various components, such as regular performance and final grades. (Jiang, 2022; Nawai et.al, 2021) In this study, the total scores of the curriculum are composed of (Zhan 2020) reading competence score, literary appreciation score, and performance score. The total score is 100, in which the score of literary competence accounts for 50%, the score of literary appreciation accounts for 25%, and student performance accounts for 25%.

Conceptual Framework

The study investigates the effect of using the Superstar Learning Platform in Modern Chinese Literature. It is a quasi-experimental research. At the methodological level, a mixed research design was used for this study: a quasi-experiment and an open-ended questionnaire. Quantitative data were obtained through a quasi-experimental research design that aimed to investigate the influence of the Superstar Learning Platform on students' reading competence, literary appreciation, performance, and total score. Qualitative data are collected via open-ended questionnaires to explore students' satisfaction with the course. The conceptual framework of the study is presented in Figure 1.

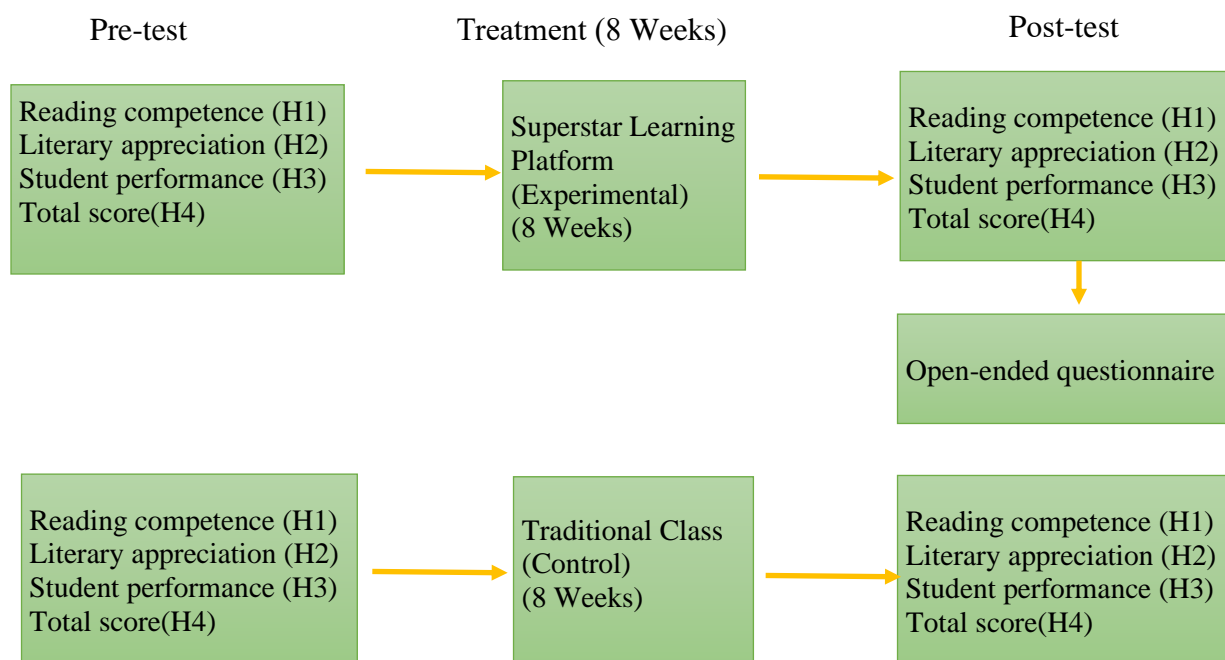


Figure 1 Research Framework

Methodology

Research Design

A mixed research design was employed for this study, combining a quasi-experimental approach with an open-ended questionnaire. The quasi-experimental design was chosen to compare the effects of the experimental group (using the Superstar Learning Platform) with the control group (traditional teaching). To ensure internal and external validity, measures such as random assignment of participants to groups and controlling for extraneous variables (e.g., prior knowledge, learning environment) were implemented.



A total of 95 students from a private university in Zhanjiang City, Guangdong Province, China, participated in the experiment. The purposive sampling method was selected to ensure that participants had similar academic backgrounds and were enrolled in the same Modern Chinese Literature (MCL) course. Inclusion criteria included being a full-time student with no prior experience using the Superstar Learning Platform, while exclusion criteria included students with significant prior knowledge of MCL or those who had previously used similar digital learning tools. This sampling approach aimed to enhance the generalizability of the findings to similar educational contexts.

In the first phase, all participants underwent a pre-test after 8 weeks of traditional teaching. The pre-test assessed students' reading competence, literary appreciation, and performance, with a total score calculated using a predetermined weighting system. Following this, 50 students were assigned to the experimental group and taught using the Superstar Learning Platform, while the remaining 45 students in the control group continued with traditional classroom instruction. After another 8 weeks, both groups took a post-test, which was identical in format to the pre-test. The improvement in scores was determined by calculating the difference between the post-test and pre-test results, reflecting the teaching effectiveness of each method. To further validate the findings, qualitative data from the open-ended questionnaire were analyzed to provide additional insights into students' experiences and perceptions. This multi-method approach ensured a comprehensive evaluation of the intervention's impact.

The open-ended questionnaire assessed the students' satisfaction with the MCL course in the experimental group after 8 weeks of using the Superstar Learning Platform to assist in teaching. The questionnaires mainly assessed students' attitudes, students' engagement, and satisfaction with the course.

Research Treatment

The experiments in the pre-test and post-test stages both include three teaching processes: pre-class teaching, in-class teaching, and after-class teaching. (Wang et al., 2019)

Pre-class teaching: The preview demonstrated the continuity of learning and served as an essential bridge across various disciplines and courses (Li & Liao, 2022). For the control group, both in the pre-test and post-test stages, the teacher assigned preview content from the textbook, and students completed their previews accordingly. For the experimental group, during the pre-test phase, the teaching methods were identical to those used for the control group. However, in the post-test phase, the teacher uploaded relevant PowerPoint presentations, electronic documents, and short videos onto the Superstar Learning Platform. Additionally, the teacher posed guiding questions to help students preview and reflect on the material. The students studied the learning resources and answered the assigned questions through the platform. By using the Superstar Learning Platform, students mastered fundamental content, such as literary history and key literary works in each chapter. At the same time, teachers gained insights into students' knowledge acquisition through the platform's background data, enabling them to focus on key and challenging concepts in the upcoming class.

In-class teaching: For the control group, both in the pre-test and post-test stages, the teacher lectured on literary history and literary works of MCL and assigned cooperative learning tasks. Students studied the content and completed the assigned tasks. For the experimental group, during the pre-test stage, the teaching methods were identical to those used for the control group. However, in the post-test phase, the teacher primarily addressed key and difficult issues identified through the Superstar Learning Platform's background data. The teacher also assigned in-class quizzes through the platform and cooperative learning tasks in the classroom. Students listened to explanations of challenging concepts, completed in-class quizzes via the Superstar Learning Platform, and engaged in cooperative learning tasks promptly. After the teacher clarified key and difficult content, students actively participated in learning through group discussions, communication, and knowledge-sharing activities. Teachers acted as task initiators, focusing on structuring and guiding students toward innovative thinking and fostering a culture of active exploration (Chen, 2017).

After-class teaching: For the control group, both in the pre-test and post-test stages, the teacher assigned paper-based homework and discussions, which students completed in writing. For the



experimental group, during the pre-test phase, the teaching methods were identical to those used for the control group. However, in the post-test phase, the teacher assigned homework and discussion tasks through the Superstar Learning Platform, and students completed them on the platform, allowing teachers to monitor students' learning progress in real time. Additionally, students engaged more actively in classroom interactions through the Superstar Learning Platform, which enhanced their initiative and enthusiasm for learning (Li et al., 2021).

Research Instruments

In the quantitative phase, the measurement method for each variable remained consistent across both the pre-test and post-test stages, as outlined below.

Reading Competence was assessed through a 100-point exam covering basic knowledge, analysis, and comprehension of literary works. The test included multiple-choice, fill-in-the-blank, short-answer, and essay questions.

Literary Appreciation was measured through a 3,000-word essay evaluating students' ability to analyze and interpret literature based on criteria such as clarity, reasoning, and coherence.

Student Performance was tracked through attendance (30%), classroom participation (30%), and homework completion (40%). The control group's performance was recorded manually, while the experimental group's data was also logged via the Superstar Learning Platform.

The Total Score was computed as the sum of reading competence (50%), literary appreciation (25%), and student performance (25%).

This quantitative analysis provided robust evidence of the impact of the Superstar Learning Platform on student learning outcomes.

In the qualitative phase, during the eighth week of the post-test stage, an open-ended questionnaire was administered to the 50 participants in the experimental group to assess their attitudes toward the Superstar Learning Platform, their engagement levels, and their overall satisfaction with the learning experience.

The questions are as follows.

Question 1: What is your attitude toward the quality of the application of the Superstar Learning Platform in teaching MCL? (Georgieva, 2022; Sun et al., 2023)

Question 2: Would you like to use the Superstar Learning Platform to assist in the study of MCL? Why or why not? (Sun et al., 2023; Wang et al., 2019)

Question 3: What do you think of the current teaching mode? Are you satisfied? (Zhan, 2020; Huang & Yu, 2019)

Anonymous responses were collected from 50 students through Wenjuanxing (a professional online survey platform), and their answers were organized into a text format. A sentence-by-sentence analysis was conducted for each question, and based on the content of the responses, initial codes were created. Similar codes were categorized into broader themes, which were then interpreted and summarized.

Quantitative Data Analysis

H₀₁: There is no difference between the experimental group and the control group in the improvement of reading competence.

H₀₂: There is no difference between the experimental group and the control group in the improvement of literary appreciation.

H₀₃: There is no difference between the experimental group and the control group in the improvement of student performance.

H₀₄: There is no difference between the experimental group and the control group in the improvement of the total score.

To test the hypothesis, the study first described four key variables: reading competence, literary appreciation, student performance, and total score. The descriptive statistics for these variables in the pre-test were presented in Table 1, while Table 2 provided the descriptive statistics for the post-test. The



improvement scores for all four variables were summarized in Table 3. Secondly, an Independent Samples T-Test was conducted to analyze differences across the four variables.

Table 1 Descriptives of reading competence, literary appreciation, student performance, and total scores in pre-test

	Class	Reading competence in the pre-test	Literary appreciation in pre-test	Student Performance in Pre-test	Total score in pre-test
Mean	A	73.7	82.2	89.2	79.7
	B	74.6	78.9	88.9	79.2
Median	A	74.5	80	89.2	80.7
	B	76	80	89.5	79.6
Standard deviation	A	8.59	3.72	2.92	4.25
	B	8.56	6.5	3.84	5.03

Table 2 Descriptives of reading competence, literary appreciation, student performance, and total scores in post-test

	Class	Reading competence in the post-test	Literary appreciation in post-test	Student performance in the post-test	Total score in post-test
Mean	A	85.2	86.6	93.2	87.6
	B	77.1	81.2	90	81.3
Median	A	86	87	93	87.8
	B	80	80	90	81.9
Standard deviation	A	6	3.45	2.55	3.13
	B	7.53	5.7	3.16	4.24

The descriptive statistics in Tables 1 and 2 illustrate the differences in reading competence, literary appreciation, student performance, and total scores between the experimental group (Class A) and the control group (Class B) in both the pre-test and post-test. In the pre-test, the mean scores for both groups were relatively similar across all variables, with minor differences. Class A had slightly higher scores in literary appreciation (82.2 vs. 78.9) and student performance (89.2 vs. 88.9), while Class B had a marginally higher median reading competence score (76 vs. 74.5). Standard deviations varied, with Class B showing greater variability in literary appreciation (6.5 vs. 3.72). In the post-test, Class A demonstrated substantial improvements across all variables, with notable increases in reading competence (85.2 vs. 77.1), literary appreciation (86.6 vs. 81.2), and total scores (87.6 vs. 81.3). Class A also exhibited reduced variability, suggesting more consistent performance gains compared to Class B.

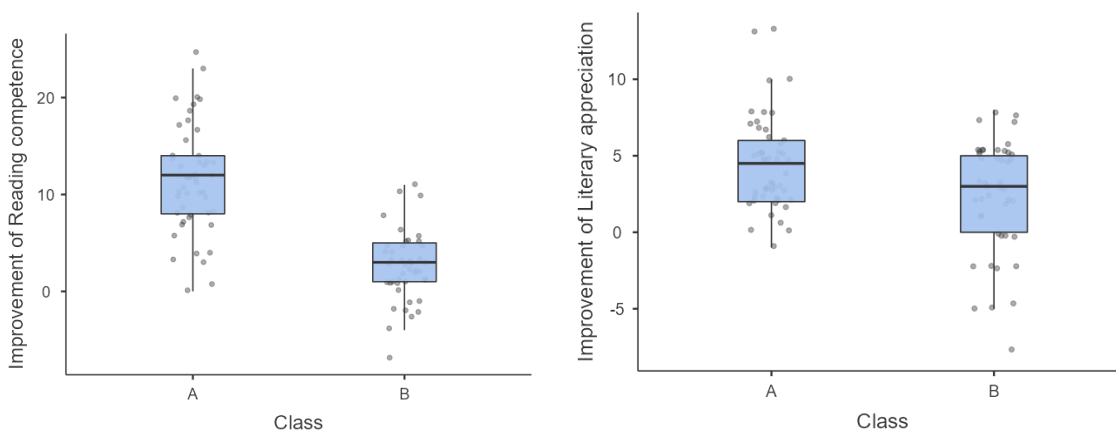
Table 3 Descriptives of improvement of reading competence, literary appreciation, student performance, and total scores

	Class	Improvement of Reading Competence	Improvement of Literary Appreciation	Improvement of Student Performance	Improvement of the Total score
Mean	A	11.6	4.48	4.02	7.9
	B	2.49	2.38	1.12	2.12
Median	A	12	4.5	4	8.04
	B	3	3	1	2.25
Standard deviation	A	5.48	3.03	2.3	2.64
	B	3.56	3.67	2.57	2.31

Table 3 provides a summary of the improvement score across all four variables. The experimental group (Class A) demonstrated significantly greater mean improvements compared to the control group (Class B) in reading competence (11.6 vs. 2.49), literary appreciation (4.48 vs. 2.38), student performance (4.02 vs. 1.12), and total scores (7.9 vs. 2.12). The median improvement scores in Class A were also consistently higher, indicating that most students experienced significant progress. Standard deviations for Class A remained relatively low, suggesting stable progress across students, whereas Class B exhibited greater variability in literary appreciation (3.67) and student performance (2.57). These findings reinforced the effectiveness of the Superstar Learning Platform in facilitating substantial and consistent academic improvements in the experimental group.

Overall, the experimental group demonstrated significantly greater improvement across all variables compared to the control group, as illustrated in Figure 2. The higher mean and median scores, along with reduced variability, confirmed the effectiveness of the Superstar Learning Platform in promoting consistent and substantial academic progress. In contrast, the control group showed only modest gains with higher variability, underscoring the limitations of traditional teaching methods in achieving significant learning advancements.

The plots of improvement of reading competence, and the plots of improvement of literary appreciation



The plots of improvement of student performance, and the plots of improvement of total scores

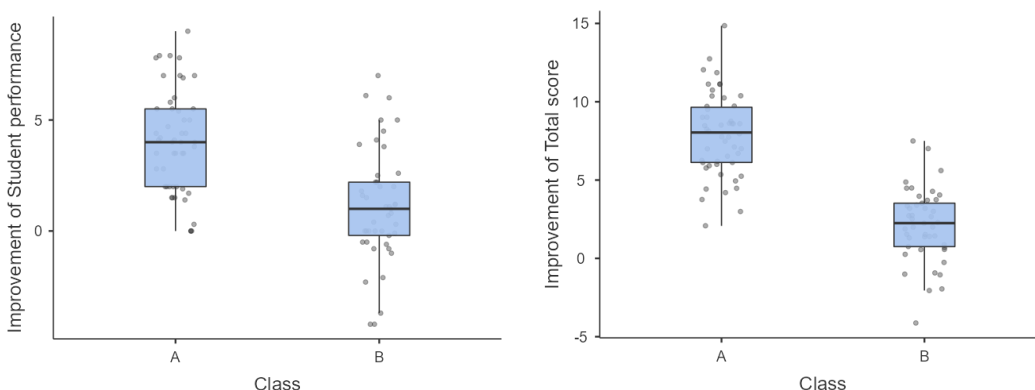


Figure 2 The plots of the improvement of 4 variables

To verify the improvement of the four variables in the experimental group compared to the control group, an independent samples t-test was conducted. Table 4 presents the results of the test across four variables: student performance, literary appreciation, reading competence, and total score. These results provided insights into the effectiveness of the Superstar Learning Platform in enhancing student outcomes in Modern Chinese Literature.

Table 4 Independent Samples T-Test

		Statistic	df	p
Improvement of Reading Competence	Student's t		93	< .001
Improvement of Literary appreciation	Student's t	3.05	93	0.003
Improvement of Student Performance	Student's t	5.79	93	< .001
Improvement of Total score	Student's t	11.31	93	< .001

Note. $H_a: \mu_A \neq \mu_B$

^a Levene's test is significant ($p < .05$), suggesting a violation of the assumption of equal variances

In terms of reading competence, the t-statistic was 9.45 with a p-value of $< .001$, showcasing a highly significant difference in improvement, favoring the experimental group. Similarly, literary appreciation showed significant improvement, with a t-statistic of 3.05 and a p-value of 0.003, highlighting the platform's impact on students' ability to appreciate literary works. For student performance, the t-statistic was 5.79 with a p-value of $< .001$, indicating a statistically significant improvement in the experimental group compared to the control group. The total score demonstrated the most substantial improvement, with a t-statistic of 11.31 and a p-value of $< .001$, emphasizing the platform's comprehensive effectiveness in enhancing multiple learning dimensions.

In general, the findings confirm that the integration of the Superstar Learning Platform has significantly improved student outcomes compared to traditional teaching methods. Table 3 shows the summary of the results of the hypothesis testing in the study. The results indicate that there are significant differences between the experimental and control groups in terms of improvement in reading competence,



literary appreciation, student performance, and total score. This rejection suggests that the Superstar Learning Platform implemented in the experimental group led to statistically significant positive changes compared to the control group, as shown in Table 5.

Table 5 Summary of Hypothesis testing and results

Hypotheses	Statement	Result
H ₀₁	There is no difference between the experimental group and the control group in the improvement of reading competence.	Reject
H ₀₂	There is no difference between the experimental group and the control group in the improvement of literary appreciation.	Reject
H ₀₃	There is no difference between the experimental group and the control group in the improvement of student performance.	Reject
H ₀₄	There is no difference between the experimental group and the control group in the improvement of students' total scores.	Reject

Qualitative Data Analysis

Based on the responses from 50 students in the experimental group, the majority expressed a positive attitude toward the application of the Superstar Learning Platform in teaching MCL. The thematic analysis of the responses from the experimental group revealed an overall positive attitude toward the Superstar Learning Platform in teaching MCL. Students highlighted its enhanced learning efficiency, positive engagement and interaction features, and minimal technical challenges. The majority expressed a strong willingness to continue using the platform as a supplementary tool, preferring a blended learning approach that combines digital and traditional methods. While most were satisfied with the current teaching mode, some suggested further digital integration and noted minor technical issues that could be addressed to improve the learning experience, as shown in Table 6.

Table 6 Thematic Analysis of Students' Responses Toward Superstar Learning Platform

Question	Code	Percentage of Responses	Key Insights	Key Theme	Positive/Negative view (Percentage)
The attitude toward the quality of the application of the Superstar Learning Platform in teaching MCL	Enhanced Learning Efficiency	80%	Students appreciated structured content, diverse resources, and multimedia tools, which improved their learning efficiency.	Platform Advantages	Positive view (95%)
	Positive Engagement and Interaction	15%	Interactive features like discussion forums and real-time feedback enhanced collaboration and engagement.		
	Minimal Technical Challenges	5% (acknowledged minor issues)	Occasional connectivity or loading issues were noted, but they did not significantly disrupt learning.	Technical Challenges	Negative view (5%)



Question	Code	Percentage of Responses	Key Insights	Key Theme	Positive/Negative view (Percentage)
The attitude toward the quality of the application of the Superstar Learning Platform in teaching MCL	Strong Willingness to Adopt	70%	Students appreciated the platform's flexibility, accessibility, and usefulness for self-directed learning and reviewing lessons.	Willingness to Use	Positive view (95%)
	Preference for Blended Learning	25%	Students valued combining the platform with traditional teaching for deeper understanding and meaningful interactions.		
	Concerns About Overdependence	5%	A small group preferred direct teacher interaction and viewed the platform as a supplementary tool, not a replacement.	Barriers to Use	Negative view (5%)
The attitude toward the quality of the application of the Superstar Learning Platform in teaching MCL	High Satisfaction with the Blended Approach	70%	Students appreciated the balance of self-paced learning and guided instruction, finding it engaging and effective.	Satisfaction with the platform	Positive view (90%)
	Suggestions for More Digital Integration	20%	Students recommended adding gamified activities, multimedia elements, and collaborative features to enhance interactivity.		
	Limited Dissatisfaction	10%	Some students preferred traditional methods or cited technical issues as barriers to learning.	Suggestions for Improvement	Negative view (10%)

The thematic analysis indicated that over 90% of the students in the experimental group held a positive view of the Superstar Learning Platform and its application in teaching MCL. Key themes included its efficiency, interactivity, and potential as a supplementary learning tool. While most students were satisfied with the blended teaching mode, there was room for further digital integration and addressing minor technical challenges to enhance the learning experience.

Discussion

This study examined the impact of the Superstar Learning Platform on teaching Modern Chinese Literature (MCL) by comparing an experimental group using the platform with a control group following traditional teaching methods. The findings revealed that the Superstar Learning Platform effectively enhances reading competence. The experimental group demonstrated a significantly higher mean improvement compared to the control group, suggesting that the platform's interactive features and digital resources facilitated deeper comprehension and engagement with literary texts. The results strongly demonstrate that the Superstar Learning Platform is an effective tool for enhancing students' reading and writing abilities (Huang & Yu, 2019; Ty, 2018). However, their findings only partially coincide with Wang (2018), which indicates that while the platform can enhance reading comprehension of literary works, its effectiveness may vary in the context of a Chinese literature course. Specifically, although the technology



demonstrated a statistically significant improvement in reading abilities compared to traditional teaching methods, it has not been widely adopted in Chinese literature teaching.

Similarly, the enhancement in literary appreciation within the experimental group underscored the value of digital platforms in literature education. The platform's ability to simulate literary settings, provide rich textual analysis tools, and foster interactive discussions enabled students to engage more critically with texts. These findings are consistent with prior research conducted by Al-Jarf (2022) and Chen (2017), who emphasized that digital tools contribute to deeper literary engagement by providing diverse interpretative frameworks and multimedia resources. Fan (2017) also highlighted the role of the Superstar Learning Platform in facilitating textual appreciation. However, their study focused on English courses. While their findings suggest that digital platforms enhance students' analytical and interpretative skills in literature, further research is needed to determine whether similar benefits apply equally to MCL courses, given the differences in linguistic structures and literary traditions.

Student performance also improved significantly in the experimental group. The platform's real-time feedback mechanisms, automated assessments, and interactive classroom activities contributed to better engagement and academic achievement. These results align with the findings of Momani (2021) and Yu (2022), who reported that students were more inclined to use the Superstar Learning System when they perceived it as helpful for their tasks. This correlation is further reinforced by the significant and positive impact of enjoyment expectancy on their behavioral intentions. The results of this study align closely with Yan et al. (2022), Li et al. (2021), and Wu & Guo (2019), who confirmed Superstar Learning Platform's benefits by solving issues like low student interest, inadequate mastery, and poor theory-practice integration. Notably, the platform's focus on practical applications significantly enhances students' comprehensive quality, meriting further exploration.

Finally, the improvement in total scores suggested that the integrated approach of the Superstar Learning Platform effectively supports student learning comprehensively. By combining reading competence, literary appreciation, and student performance into a single framework, the platform addresses multiple dimensions of literary education, reinforcing the holistic benefits of digital learning tools in humanities education. The results are in line with those of Liu & Huang (2019) and Yu (2022), who demonstrated significantly better academic achievements among students using the platform compared to those in the control group. This further underscores the efficacy and potential of the Superstar Learning Platform in enhancing educational outcomes.

Limitations

Despite the positive findings, several limitations must be acknowledged. First, the study employed a quasi-experimental design rather than a fully randomized controlled trial (RCT). While quasi-experiments provide valuable insights, they lack the rigorous control over external variables that RCTs offer. Future research could adopt an RCT methodology to establish stronger causal relationships between the intervention and learning outcomes.

Second, the generalizability of the findings is limited due to the purposive sampling method and the specific nature of the MCL course. The study was conducted at a single private university in China, which may not reflect the experiences of students in different academic or cultural contexts. Future studies should consider expanding the sample to include diverse institutions and student populations to validate the broader applicability of the results.

Third, while qualitative feedback confirmed that most students had a positive perception of the platform, some reported minor technical issues, such as connectivity problems and system navigation challenges. These factors may have affected engagement levels and learning efficiency. Future research should explore ways to optimize the platform's usability and address technological barriers that could hinder student learning.

This study highlights the effectiveness of digital platforms in literature education, with the Superstar Learning Platform improving reading competence, literary appreciation, and overall student performance.



Despite some limitations, integrating technology into MCL instruction offers significant pedagogical benefits. Future research should further explore digital learning innovations to enhance literary education.

Conclusion

This study highlights the significant positive impact of integrating the Superstar Learning Platform into teaching Modern Chinese Literature. The findings demonstrate that students in the experimental group experienced substantial improvements across key learning variables, including reading competence, literary appreciation, student performance, and total scores. Statistical analyses consistently confirmed that the differences between the experimental and control groups were significant, validating the effectiveness of the digital intervention in enhancing learning outcomes.

In terms of reading competence, the experimental group achieved a mean improvement of 11.6, compared to 2.49 in the control group. This substantial difference underscores the platform's ability to engage students more deeply in the material and develop their critical reading skills. The interactive features of the platform, such as discussion forums and real-time Q&A, provided students with opportunities to analyze texts collaboratively, leading to more meaningful learning experiences.

Similarly, the study found notable gains in literary appreciation among the experimental group, with a mean improvement of 4.48 compared to 2.38 in the control group. This demonstrates that the platform's multimedia resources and personalized guidance enhanced students' understanding and appreciation of literary themes and styles. Students were able to engage more critically with texts, benefiting from access to diverse perspectives and additional interpretive tools available through the platform.

The study also revealed significant improvements in overall student performance and total scores in the experimental group. The mean improvement in total scores was 7.67 for the experimental group, compared to 2.28 for the control group. These results indicate that the platform not only facilitated deeper comprehension of individual literary works but also strengthened overall academic performance. The reduced variability in the experimental group's results highlights the platform's capacity to standardize learning outcomes across a diverse student population.

In contrast, the control group exhibited smaller gains, with some students showing declines in performance. These findings underscore the limitations of traditional teaching methods in addressing the diverse needs of students. Without the dynamic resources and adaptive tools provided by the platform, the control group faced greater challenges in achieving consistent academic growth.

Overall, this research demonstrates the transformative potential of digital platforms like the Superstar Learning Platform in literature education. By providing rich multimedia resources, fostering interactive learning environments, and supporting personalized teaching strategies, the platform addresses key challenges in traditional MCL instruction. These findings serve as a valuable reference for future efforts to integrate technology into literature education, encouraging more engaging and effective pedagogical practices while setting a benchmark for educational innovation in humanities disciplines.

Recommendation

Recommendation for implication

The Superstar Learning Platform significantly enhances students' reading, literary appreciation, student performance, and total scores in MCL. It addresses traditional teaching challenges by integrating multimedia resources and interactive tools, offering personalized learning, promoting collaboration, and providing real-time analytics. This platform breaks geographical and temporal barriers, supports active learning, and fosters creativity. Its success in MCL serves as a model for other literature courses, highlighting the importance of investing in educational technology and teacher training for future educational reform.

Recommendation for further research

Future research will address the limitations of current studies and further explore the potential of technology-assisted learning in literature courses by expanding the scope and diversity of the sample,



investigating cross-cultural applicability, and addressing technical challenges. Specifically, it will include students from various disciplines to understand how different backgrounds and learning preferences impact their experiences with platforms like the Superstar Learning Platform. It will also explore the platform's effectiveness in diverse cultural contexts to assess its universality and identify necessary adaptations. Lastly, it will focus on minimizing technical disruptions and developing guidelines for responsible technology use to create an optimal learning environment.

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