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Exploration and Research on the Application of Generative AI in Selecting and Matching Teaching Content for College Chinese Classes——A Case Study of Selecting and Matching Examples and Exercises for College Chinese

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Abstract: With the rapid development of generative artificial intelligence (AI), its application in education has attracted increasing attention. This study explores the feasibility and effectiveness of applying generative AI to the selection and matching of teaching content in college Chinese classes, with a particular focus on the intelligent generation of examples and exercises. Using a case-based research method, this study integrates AI tools into the teaching practice of College Chinese and examines their performance in aligning instructional content with curricular goals, language levels, and learning needs. The findings indicate that generative AI can improve the relevance, diversity, and efficiency of content selection and matching, enhancing both teaching effectiveness and student engagement. However, the study also identifies certain limitations, such as content accuracy and contextual appropriateness, which require further refinement and human oversight. This research provides valuable insights and practical strategies for the integration

of AI in language education and supports the intelligent upgrading of college Chinese teaching models.

Keywords: generative AI, college Chinese, content selection, exercise matching, intelligent education

1. INTRODUCTION

In the era where the wave of informatization is sweeping across the globe, generative artificial intelligence (AI) technology, with its rapid development, is exerting a profound impact on various industries, and the education sector is no exception. College Chinese, as a fundamental discipline in the higher education system, not only shoulders the historical mission of inheriting and promoting China's excellent traditional culture, but also bears the important responsibility of cultivating students' language proficiency, literary aesthetic literacy, and innovative thinking ability. However, the traditional model of selecting and arranging teaching content is often constrained by the static nature of textbook resources, the subjectivity of teachers' personal experience or preferences, and the challenge of diverse student needs, making it difficult to achieve dynamic adjustment and personalized matching of teaching content. In light of this, the present study has selected "Generative AI Empowering the Selection and Arrangement of Teaching Content in College Chinese Language Classrooms: An Empirical Case Study on the Selection of Examples and Exercises in College Chinese" as its research topic for in-depth exploration and analysis. The selection of this topic is based on the following considerations:

Firstly, generative AI technology, with its powerful content generation and innovation capabilities, can automatically generate rich and diverse teaching resources and examples/exercises based on specific teaching needs and objectives, providing a novel approach and means for the selection and arrangement of teaching content in college Chinese courses. This technological feature is expected to break the limitations of traditional teaching content selection and arrangement, achieving dynamic optimization and personalized customization of teaching content.

Secondly, as a crucial part of the teaching process, examples and exercises in

college Chinese play a significant role in consolidating students' knowledge foundation, enhancing problem-solving skills, and fostering innovative thinking abilities. By optimizing the selection and arrangement of examples and exercises through generative AI technology, we can more precisely meet the individualized needs of students in the learning process, thereby improving teaching effectiveness and quality.

Lastly, exploring the application of generative AI in the selection and arrangement of teaching content in college Chinese classrooms not only helps to promote the deep integration of educational technology and subject teaching, but also opens up new exploratory directions and practical paths for the development of education informatization. This study aims to deeply analyze the specific application of generative AI technology in the selection and arrangement of examples and exercises in college Chinese, explore the possibility and effectiveness of its empowerment in teaching content selection, and provide useful references and insights for the reform and innovation of college Chinese teaching, thereby assisting in improving teachers' teaching abilities and promoting the overall enhancement of teaching quality.

2. LITERATURE REVIEW

With the rapid advancements in artificial intelligence technology, generative AI, as a key branch of it, is increasingly highlighting its importance in the field of education, attracting widespread attention. Through searches on authoritative academic platforms such as CNKI, Wanfang Data, and VIPC, it is not difficult to find that the continuous improvement and widespread application of generative AI technology in recent years has given rise to a plethora of high-quality research outcomes in the field of education empowered by artificial intelligence, with a diverse range of research types. Many studies, such as "The Value, Challenges, and Paths of Generative Artificial Intelligence in Empowering Formative Assessment in Higher Education" by Lu et al. (2024), have deeply explored the value and potential of generative AI in different types of assessment in higher education, including formative and summative assessment. Yang et al. (2024) studied the application of generative artificial intelligence in specific discipline education in their article "The Value Potential, Realistic Challenges, and Path Optimization of Generative Artificial Intelligence Empowering the Aesthetic Narrative

of Ideological and Political Education in Higher Education." "A Study on the Evaluation and Optimization of New Classroom Teaching Empowered by Generative Artificial Intelligence" by Song et al. (2024). points out that generative AI has powerful processing capabilities for the diverse characteristics presented by the current new classroom. The classroom is the main battlefield for talent cultivation. New classroom teaching is grounded in constructivist theory, emphasizing that teachers, centering around classroom teaching objectives, engage in knowledge exploration, thinking inspiration, and innovative application together with students through dialogue and communication.

Through a systematic review of relevant literature, this study finds that as artificial intelligence becomes increasingly powerful and refined, its role in the field of education is becoming increasingly significant (Song et al., 2023). A consensus is emerging: more and more researchers are beginning to focus on integrating generative AI into classroom teaching, whether it be in high school or university education. In September 2024, the official release of the "2024 Blue Book on Intelligent Education - Educational Applications of Generative Artificial Intelligence" at the 6th Intelligent Education Forum provided frontline teachers with valuable resources for systematically understanding the conditions, scenarios, and cases of educational applications of generative AI (Liu et al., 2024). This marks that generative AI is reshaping various aspects of education and teaching, including the relationship between teaching subjects, teaching environment, teaching resources, teaching methods, teaching evaluation, educational ethics, and governance. Meanwhile, I found that existing research mainly focuses on three aspects: the application of generative AI in classroom teaching, teaching evaluation, and teaching modes.

In terms of classroom teaching applications, research primarily focuses on the generation of educational content. Generative AI can generate various forms of educational content, such as example exercises and simulated experiments, based on teachers' instructions, which not only improves classroom efficiency but also stimulates students' interest in learning. For example, studies such as "Exploration and Research on the Selection and Matching of Classroom Teaching Content Empowered by Generative Artificial Intelligence: A Case Study of Selecting and Matching Example

Exercises in High School Mathematics" (Cao et al., 2024), and "Application of Generative Artificial Intelligence in Empowering Information Technology Classroom Teaching" (Gu et al., 2024), both demonstrate the potential of generative AI in the selection and matching of classroom teaching content.

In terms of teaching evaluation, research primarily focuses on quantitative assessment of learning outcomes and personalized learning feedback. In terms of teaching evaluation, research primarily focuses on comprehensive, in-depth, and fair assessment tools for learning outcomes provided by generative AI to teachers. Studies such as the one by Song Yu et al. and "The Transformation and Coping Strategies of Higher Education Evaluation Driven by Generative AI" (Yang et al., 2024). have explored the applications of generative AI in teaching evaluation. In terms of teaching modes, research primarily focuses on the exploration of personalized teaching modes, the development of intelligent assistant teaching systems, and the innovation of interdisciplinary teaching modes. These studies provide new ideas for the development of the education sector. For example, studies such as "Innovation in Educational Teaching Modes Empowered by Generative Artificial Intelligence: A Case Study on Cultivating Computational Thinking in Primary and Secondary Students"(Liu & Chen, 2024), and "Analysis of Integrating Generative Artificial Intelligence into the English Writing Classroom Teaching Mode in Colleges and Universities" (Yang,2024), both demonstrate the potential of generative AI in innovating teaching modes. Specifically, the application of generative AI in college Chinese language classroom teaching is gradually maturing, bringing unprecedented innovation to the selection and configuration of teaching content. Some scholars have already explored the application effects of generative AI in essay grading, teaching resource generation, and other aspects, and have achieved positive research results. For example, Kong (2024)"The Application of Generative Artificial Intelligence in Foreign Language Major Teaching: A Case Study of Teaching 'College Critical Thinking English Course · Intensive Reading'". Meanwhile, studies have also proposed methods for using generative AI to plan personalized learning paths, providing a new direction for the selection and configuration of teaching content. For example, Chen (2024)"The Application of Generative Artificial Intelligence in Personalized Teaching of High School Geography:

A Case Study of Using ChatGPT in Teaching 'Land Water Bodies and Their Interactions'.

However, there are still some weaknesses in the current research. Firstly, the application of generative AI in the selection and matching of classroom teaching content and other related aspects is mainly limited to young teachers. Their acceptance of modern science and technology is much higher than that of senior teachers with more experience, which results in a low level of testing in the research and makes it difficult to accurately assess the effectiveness of generative AI in empowering classroom teaching. Secondly, many studies on generative AI in the field of education still remain at the surface exploration stage, with little research on deeper issues in the field. Therefore, its feasibility in the education sector still needs further verification.

In summary, the application of generative AI in the field of education has greatly benefited both students and teachers, not only improving the quality and efficiency of teaching, but also promoting the professional development of teachers and the learning progress of students. It should be noted that when teachers use generative AI for the selection and matching of teaching content, they should adhere to the principle of teachers being the primary and generative AI being the supplementary. On the one hand, teachers should carefully select and match examples and exercises under the guidance of existing research theories; on the other hand, teachers should interact with generative AI through dialogue to achieve the goal of information sharing and co-creation between humans and machines. Information sharing between humans and machines helps teachers obtain reference information more efficiently, allowing for more comprehensive and in-depth lesson preparation; while generative AI can more fully understand the needs for selecting and matching examples and exercises, becoming more intelligent as a result. Human-machine co-creation of information facilitates the continuous generation of new ideas and methods during the process of human-machine collaboration, promoting the re-creation of teaching content. Therefore, under the guidance of existing research theories, we should further explore the possibility and effectiveness of generative AI empowering the selection and matching of teaching content in college Chinese language classroom teaching. This research field is both promising and challenging, and future studies will continue to explore more application

possibilities in the field of education, providing strong support for the reform and innovation of college Chinese language teaching.

3. METHOD

Only by delving deeply into the discipline can the true value of generative AI be realized. In the initial stage of the research, we selected a series of representative example exercises from college Chinese courses as materials for dialogue testing. To determine the most suitable generative AI platform for this study, we conducted an in-depth investigation and comparison of currently mainstream and discipline-specific generative AI platforms, including ChatGPT, ERNIE Bot, DeepSeek, and others. Through comprehensive evaluation of the performance of each platform in the dialogue testing, we ultimately selected the most ideal platform and formulated a corresponding implementation plan accordingly. Of course, it is worth noting that as technology continues to progress and develop, this choice may change over time, so we need to maintain continuous attention and evaluation of the latest technological developments.

3.1 Comparative Testing to Determine the Best Platform

Firstly, this study conducted a detailed comparative analysis of the output effects of the three generative AI platforms, ChatGPT, ERNIE Bot, and DeepSeek, by inputting typical example exercises and corresponding instructions. Specifically, we selected a typical question that is often tested in college Chinese exercises: “Please briefly describe the artistic achievements of the work ‘Dream of the Red Mansions’ (also known as ‘A Dream of Red Mansions’), answer the question, and analyze its design intent.” During the testing process for this question, we observed the following results: The GPT model was able to roughly answer the main points and key aspects of the question, and provided some comments on the test question. However, there were errors in its problem-solving process, and its grasp of the article’s knowledge points covered in the question was not comprehensive enough, sometimes confusing related knowledge. The ERNIE Bot model, on the other hand, was able to provide a complete and accurate analysis and answer, and could also generate a template for answering the question as well as a mind map for use during the answering process. However, it should

be noted that the output of its mind map was unstable and could not guarantee that a mind map would be accurately provided for every question. In comparison, the DeepSeek model, through multiple rounds of dialogue, was able to sort out the character relationships between articles and demonstrated a strong understanding of the output example questions. It could accurately grasp the meaning of complex sentences, allowing readers to understand clearly. At the same time, the DeepSeek model could accurately provide an analysis of the question's thought process, a detailed answer, and an evaluation of the question. After comprehensively evaluating the performance of each model, we found that the DeepSeek model has a stronger understanding of the article.

Therefore, this study decided to use DeepSeek as the generative AI platform. Of course, if another platform is chosen, the approach used by DeepSeek can also be followed. However, it should be pointed out that under the current instructions, the DeepSeek model, as well as the other two platforms, share a common problem: their evaluation of a single question is too broad and not detailed enough. This provides limited reference value for teachers when selecting questions. Therefore, in future research, we need to further explore how to optimize the evaluation function of generative AI platforms so that they can evaluate questions more precisely and accurately, thereby better serving educational teaching practices.

3.2 Model Instruction Refinement and Implementation Plan Construction

In response to the overly broad evaluations produced by DeepSeek, this study attempts to optimize its evaluation output by introducing specific criteria for judgment. Specifically, we selected the SOLO taxonomy as the basic evaluation framework. The SOLO taxonomy is a method of student learning evaluation proposed by Australian educational psychologist John Biggs. This theory has been widely used domestically and internationally to evaluate students' performance in solving open-ended problems, particularly statistical open-ended questions (Ye, 2024). This theory divides students' performance into five levels based on the level at which they combine and apply knowledge when solving problems: pre-structural level, uni-structural level, multi-structural level, relational level, and extended abstract level. DeepSeek can answer

correctly, which means it successfully triggers the evaluation criteria. Then, input three questions created by students that cover different levels of SOLO, mainly focusing on Ancient Chinese Literature in college Chinese courses (including the students' own answers). The questions are as follows:

Question 1: What are the characteristics of ancient myths?

Question 2: What is the character image of Jia Baoyu in "Dream of the Red Mansions"?

Question 3: Please use your imagination to rewrite the following lines into a short prose of about 200 words: "The spring river's tides connect with the sea, and the bright moon on the sea shares the sound of the tides. Glittering and following the waves for thousands of miles, where is there a spring river without moonlight?" The results showed that DeepSeek could grade the questions created by students according to the SOLO taxonomy and provide corresponding reasons (as shown in Table 1).

Table 1. DeepSeek test results based on the SOLO taxonomy evaluation method

Student	**SOLO evaluation level**	**Reason**
Student 1	Uni-structural level	This student has a solid foundation and a good grasp of the basic overview of ancient myths and legends, able to give the correct answer. However, this question is relatively simple and only requires memorization and understanding of the knowledge point to answer.
Student 2	Relational level	The question designed by Student 2 involves complex scenarios in the novel and the student's ability to summarize in language. It can relate the key points mentioned in the question to the character's performance in the novel, forming systematic thinking, and can comprehensively and deeply understand the problem and give a structured answer.

Student 3	Extended abstract level	The question designed by Student 3 involves multiple aspects of Chinese language knowledge. It not only requires a deep understanding of the poem, but also rich imagination, and the ability to connect different scenarios to form a picture in the mind.

As shown above, by first setting the evaluation theory for DeepSeek and then inputting the materials to be evaluated, using the "theoretical method + material evaluation" instruction, DeepSeek can output corresponding evaluations of the materials based on the set theory, basically meeting expectations. In order for generative AI to quickly and accurately evaluate the example exercises selected and assigned by Chinese language teachers, we first need to establish a clear set of evaluation criteria for the large model. This indicator system can be derived from relevant educational evaluation theories or authoritative bases such as evaluation standards in university course standards. Based on the selection and understanding of the research flowchart, DeepSeek was chosen as the tool for the study, and a preliminary implementation process for empowering teachers in selecting and assigning example exercises through generative AI was proposed, thereby determining the implementation plan for conducting the research, as shown in Figure 1.

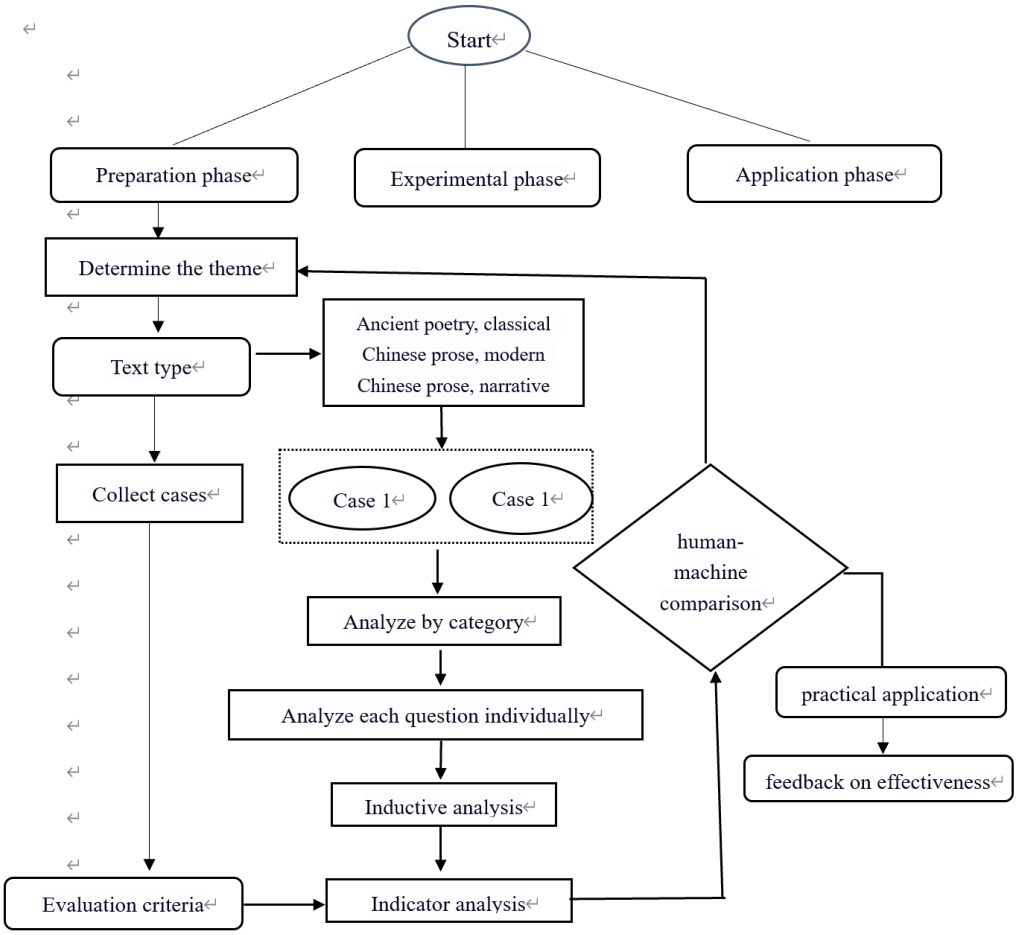

Figure 1. Implementation of empowering university Chinese language teachers in selecting and assigning example exercises through generative AI

The implementation plan is designed to leverage the DeepSeek platform for a comprehensive evaluation of example and exercise designs within specific chapters or class periods, with the objective of enhancing Chinese teachers' practices in selecting and assigning these examples and exercises. This implementation plan is specifically divided into the following three phases:

Phase One: Determine the theme and collect cases The teaching theme can focus on a specific teaching unit or class session, ensuring the relevance and effectiveness of the research. The selection of cases should be closely aligned with current new curriculum standards and actual lesson examples from new textbooks, ensuring the timeliness and practicality of the research. Phase Two: Selection of text types and case analysis. Given the diversity of text types in the "College Chinese" course, which

covers various literary genres and article styles, the design of examples and exercises for different text types naturally has its own emphasis. Therefore, in this phase, text types will be carefully categorized, and representative examples and exercises for each type of text will be selected for in-depth analysis. Meanwhile, a combination of manual analysis and DeepSeek evaluation will be employed to conduct a comprehensive analysis of the cases. By comparing the evaluation results of the two methods, the advantages and disadvantages of DeepSeek in the evaluation of examples and exercises will be revealed, providing directions for improvement in subsequent applications. Phase Three: Daily application and human-machine collaboration. Based on the evaluation indicators determined in the second phase, this phase will follow a "theoretical method + material evaluation" instruction mode. Through multiple rounds of dialogue with the DeepSeek platform, real-time evaluation of teachers' selection and matching of examples and exercises in daily teaching will be conducted. On this basis, targeted reference suggestions will be provided to help teachers promptly adjust and optimize their strategies for selecting and matching examples and exercises. It is worth noting that the research focus of the first two phases lies in case testing and feasibility analysis, while this phase emphasizes practical application and effect evaluation, aiming to comprehensively verify the effectiveness and practicality of the DeepSeek platform in the evaluation of examples and exercises.

4. RESULT

To test the effectiveness and feasibility of the above operational plan, we will now take the selection and matching of examples and exercises from a unit in the University Chinese course as an example, and carry out the operations in accordance with the implemented plan. Now, let's proceed with the example exercises from the first part of "College Chinese" on Ancient Chinese Literature, and derive the results through a question-by-question analysis. The question number is A1: What are the main categories of ancient Chinese mythology? The question number is A2: What are the seven major myths of ancient China? How many of them do you know? The question

number is A3: What are the specific meanings of the "Six Classics" in the Book of Songs? The question number is A4: Who are the representative figures among the "various schools of thought" in the Hundred Schools of Thought? For DeepSeek, in order to analyze the connections between each question, you can refer to the prompt instruction: "You are a teacher of College Chinese. The topic of this lesson is XXX. The academic requirements of the new curriculum standard are XXX. The teaching objectives of this lesson are XXX. The student's learning situation is XXX. Based on the above situation, the teacher has designed the following questions: Question 1: XXX, Question 2: XXX... Please present the design intent of each question in a list format, where the first column is the question number and the second column is the teacher's design intent." There are two points to note: Firstly, to enable DeepSeek to better grasp the content of the entire lesson, it is best to input all the examples and exercises at once, and DeepSeek will quickly provide the design intent for each question in the case in a list format. If the content is too long, it can also be input in segments through multiple rounds of dialogue. Secondly, the results output by DeepSeek may vary slightly each time, so you can create a new dialog box and repeat the operation multiple times for comprehensive consideration. Below is the output of the example exercises (with question numbers A1, A2, A3, A4) for Chapter 1: Ancient Chinese Literature of the "College Chinese" course, as shown in Table 2.

Table 2. Presents the output results of DeepSeek's item-by-item analysis for the first chapter of "College Chinese"

Question number	The teacher's design intent
A1	Guide students to understand the basic classifications of ancient Chinese mythology, cultivate their aesthetic appreciation and interest in mythological literature, and lay the foundation for inheriting the national spirit.
A2	By enumerating the seven great myths of ancient China, students' memory and understanding of mythological stories can be deepened, further cultivating

	their aesthetic sensibilities and creative thinking.
A3	Help students understand the Six Classics of The Book of Songs, accumulate literary knowledge, enhance their appreciation of ancient poetry, and cultivate a love for traditional culture.
A4	Guide students to recognize the representative figures among the "Hundred Schools of Thought," understand the basic overview of pre-Qin prose, and cultivate an exploratory spirit and critical thinking skills towards ancient ideas.

In comparison, the output results of DeepSeek show a high level of consistency with those of teachers at a macro level, and are efficient and convenient, which can enhance the efficiency of teachers in selecting and matching examples and exercises.

5. Model Validation

To make the research more scientific, comprehensive, and feasible, we now proceed to validate the implementation plan. Based on the aforementioned results, the following example exercises for college Chinese will be analyzed by category, summarized, and evaluated against indicators.

(1) Analyzed by category

Firstly, the problems are classified according to their difficulty levels. Secondly, in this study, they are divided into three categories: "basic problems," "enhancement problems," and "extension problems." The specific classification method can be designed based on the teaching content and the actual needs of the students. Then, a holistic analysis is conducted on the design intent of each type of problem.

The operation of DeepSeek involves supplementing explanations for each type of question in the reference prompts for the aforementioned question-by-question analysis. The prompt instruction is: "You are a teacher of college Chinese. The topic of this lesson is XXX. The academic requirements of the new curriculum standard are XXX. The teaching objectives of this lesson are XXX. The students' learning situation is XXX. Based on the above, the teacher has designed three types of questions for this lesson. These three types of questions are XXX. The first type, namely basic questions, includes Question 1: XXX, Question 2: XXX, and so on; the second type, namely

advanced questions, includes Question 4: XXX, Question 5: XXX, and so on; the third type, namely extension questions, includes Question 7: XXX, Question 8: XXX, and so on. Please present the design intent of each type of question in a table format, with the first column being the question category and the second column being the teacher's design intent." The operational considerations remain the same as before. Below are the output results for the basic questions section on modern literature examples and exercises from Part 2 of "College Chinese", compared with manual analysis (as shown in Table 3).

Table 3. Human-machine comparison of DeepSeek's categorized analysis output results for the second part of "College Chinese"

Question category	The design intention of DeepSeek	The design intent of manual analysis
Basic questions.B1：B2：B3：	The purpose of selecting these example problems is to help students lay a solid foundation in Chinese language, paving the way for their subsequent learning, so that they can "reach a higher level of knowledge with a little effort" in their future Chinese studies. This aims to develop students' "zone of proximal development." At the same time, it also cultivates students' aesthetic appreciation and analytical skills.	The reason why teachers design these example problems is to guide students to review and consolidate methods for appreciating modern poetry, assess students' grasp of fundamental language knowledge, and direct their attention to the ideological connotations in modern literary works.

As can be seen from the comparison in Table 2, although DeepSeek's analysis does not involve specific knowledge of Chinese language, it demonstrates stronger summarization capabilities on a macro level compared to manual analysis. Therefore, in empowering teachers to select and match examples and exercises, DeepSeek should leverage its functions for macro-level rather than micro-level analysis. At the same time, it can also remind teachers to not only pay attention to AI analysis when selecting and

matching examples and exercises, but also to integrate it with their own teaching content and student situation.

(2) Inductive analysis

To fully leverage DeepSeek's macro-analytical capabilities, after conducting a detailed analysis of two cases either on a question-by-question basis or by category, the following instruction is input into DeepSeek: "Summarize and analyze the common features of the above two cases of example and exercise selection for 'College Chinese'.' DeepSeek can quickly identify several common characteristics in the example and exercise selection practices of the two teachers: (1) Both teachers encourage students to learn autonomously, attach great importance to basic language knowledge, and provide timely guidance and feedback in the classroom to ensure that students understand and master key concepts. (2) Their question designs incorporate a certain degree of openness and innovation, serving to stimulate students' thinking and promote self-reflection. (3) When designing questions, both teachers emphasized the accumulation of knowledge, delving deeper layer by layer, proceeding step by step, and centering on the students. When analyzing manually, Chinese language teachers tend to pay close attention to the minute details of example exercises and their sources. Some examples come from textbooks, while others are derived from teaching cases by renowned professors. This information is difficult for DeepSeek to discern due to the lack of relevant data. However, in terms of inductive analysis, AI has a significant advantage. It can quickly summarize from both the teacher's teaching and the student's learning perspectives, covering all key points comprehensively. Therefore, leveraging DeepSeek's summarization capabilities for comparisons between example exercises may provide teachers with new insights and innovations from certain perspectives.

(3) Indicator analysis

In the preliminary testing phase, according to the requirements of combining "theoretical methods" with "material evaluation," DeepSeek is capable of evaluating text materials using specified theoretical methods and providing corresponding justifications. To make DeepSeek's analysis of example and exercise selection more specific and provide valuable and constructive evaluations, it is necessary to establish a set of criteria for example and exercise selection.

Firstly, the commonly used criteria for selecting and matching college Chinese language test questions include, firstly, content coverage, which means that the test questions should cover the main knowledge points and teaching content of the college Chinese language course to ensure the comprehensiveness of the test. The second is the diversity of question types, which comprehensively assesses students' memory, comprehension, application, and analysis skills through various question types such as multiple-choice questions, fill-in-the-blank questions, short-answer questions, and essay questions. The third is the moderate level of difficulty. The questions should be of moderate difficulty, neither too simple nor too complex, so as to accurately reflect the true level of students. Fourthly, validity and discrimination. The test questions should have good validity, effectively measuring students' language abilities, and at the same time possess a certain degree of discrimination to distinguish between students of different learning levels. These indicators collectively ensure the scientificity, rationality, and effectiveness of college Chinese language test questions.

Follow the instruction of "Theoretical Method + Material Evaluation". First, start with the prompt: "You are a teacher of college Chinese. Please use the following basic indicators for selecting and matching examples and exercises in college Chinese classroom teaching: 1. XXX, 2. XXX, 3. XXX, 4. XXX, to provide an evaluation and analysis or categorical analysis of the example and exercise selection for the following lesson. Input the case study. Finally, continue with the prompt: "Please present it in a list format. The first column should be the problem number (or problem category), and the second column should list the corresponding basic indicator number that strictly matches." The prompt is shown in Figure 2.

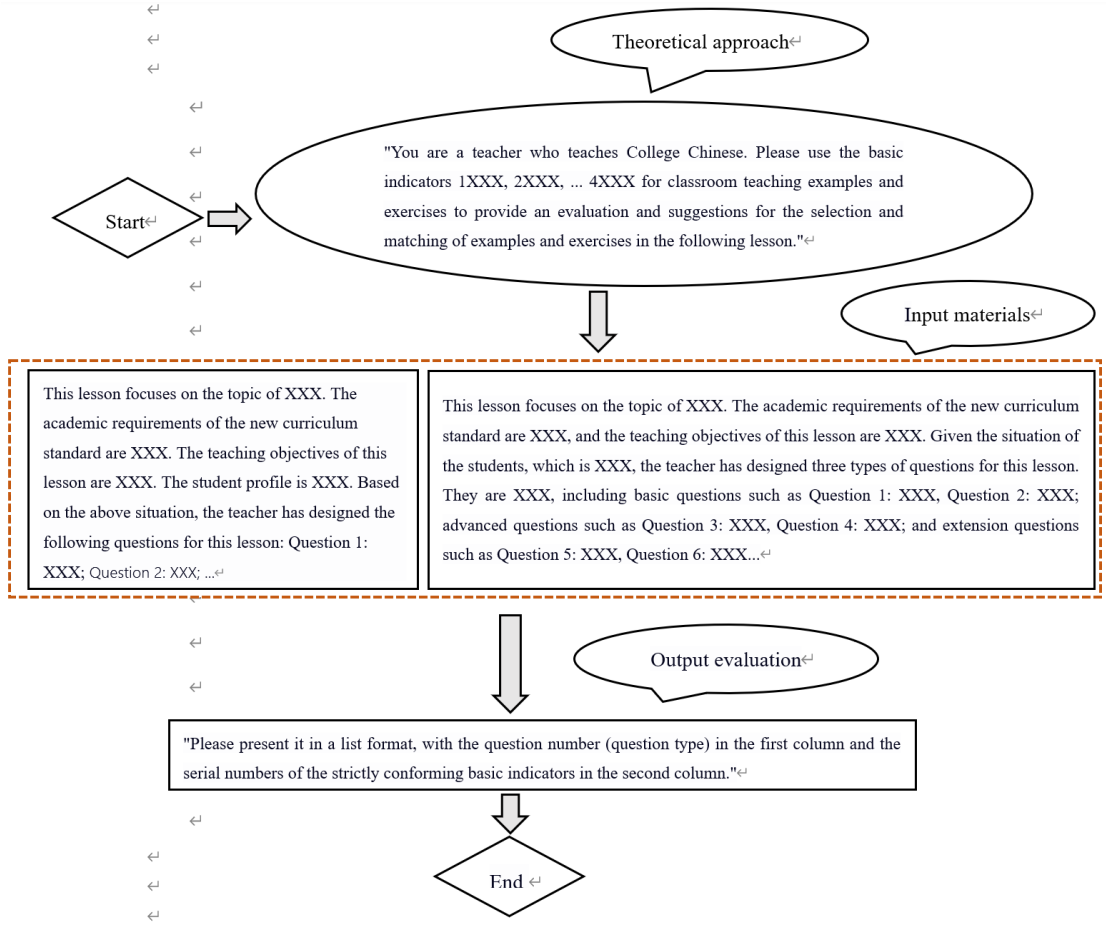

Figure 2. Prompt template for DeepSeek indicator analysis

In the analysis of the above four methods for selecting and matching exam questions, the first three tend to consider from a macro perspective, while the fourth method integrates both macro and micro levels of analysis. It not only evaluates the overall configuration but also provides specific evaluations and teaching suggestions for the performance of each example and exercise across various indicators. This approach grants teacher's greater flexibility, allowing them to operate based on actual needs and make timely adjustments to the indicators. What is particularly important is that teachers play a leading role and are the core of decision-making throughout the entire process of selecting and matching exercises, with DeepSeek serving merely as an auxiliary tool. However, it must also be clearly recognized that the DeepSeek platform still has significant limitations in terms of problem-solving methods, logical construction, selection of exercise sources, and in-depth understanding of students'

situations. These aspects are important manifestations of teachers' professionalism and cannot be fully replaced by the DeepSeek platform. Therefore, when using the DeepSeek platform, teachers still need to maintain a cautious and critical attitude, delving into and refining these key links to ensure the scientificity and rationality of question selection and matching.

6. IMPLICATIONS

In the era of booming information technology in science and technology, the assistance of generative artificial intelligence in the field of education has become increasingly prominent. Whether it is in the evaluation of intelligent teaching or the optimization of classroom instruction, it has undoubtedly played a catalytic role in China's education sector, breaking the traditional teaching mindset and enabling China's education to gradually align with international standards. This article takes the empowerment of college Chinese classroom teaching by generative AI as its starting point and, through a case study of examples and exercises in college Chinese, profoundly reveals that although generative AI can provide us with highly valuable judgments, the soul and guiding force of teaching remain the Chinese language teachers. The shortcomings of generative AI need to be compensated for and improved upon by teachers with their profound professional knowledge and rich teaching experience. In order for artificial intelligence to shine more brilliantly in the field of education, all parties need to continue learning and constantly improving, achieving a deep integration of technology and education. Therefore, this article puts forward the following suggestions.

(1) Strengthen teacher training and promotion.

To enhance teachers' awareness and proficiency in using generative AI technology, schools should strengthen professional training and promotional efforts targeted at teachers. The training content should cover multiple dimensions including the basic principles of generative AI, typical application scenarios, and practical operation skills, aiming to deepen teachers' understanding of artificial intelligence technology and enable them to better benefit student groups with this technology. At the same time, schools should actively carry out promotional activities within the institution to inform teachers and students about the functions and feasibility of generative AI. Specifically,

teachers with a deep understanding of artificial intelligence can be invited to give open classes or lectures to introduce the potential advantages and application value of generative AI in education and teaching to the general faculty and students, thereby stimulating their interest and desire to explore this technology. Through systematic training, teachers can not only master the core elements of generative AI technology but also effectively integrate it into the teaching practice of college Chinese courses, thereby enhancing teaching effectiveness and efficiency. Meanwhile, extensive promotional activities help expand the influence of generative AI technology, making it more widely recognized and accepted within schools, and laying a solid foundation for the innovative development of education and teaching.

(2) Strengthen the improvement and construction of the school's exercise bank.

The construction of an exercise bank is an important indicator of a school's academic level, and its completeness relies on the joint efforts and wisdom of the entire school community. In the current era, with the deep integration of artificial intelligence technology into campuses, its role in the construction of exercise banks has become increasingly indispensable. A well-established and rich exercise bank not only provides a valuable teaching resource library for generative AI but also enables AI to make more precise decisions based on specific needs, thereby effectively meeting the diversified needs of the entire school community. In addition, the content design of the exercise bank should comprehensively cover the knowledge points of various disciplines and encompass different levels of difficulty to ensure its applicability and breadth. At the same time, schools should establish a mechanism for regular updating and maintenance of the exercise bank to ensure the timeliness and accuracy of the exercise content, keeping pace with academic frontiers and teaching realities, and providing strong support for the continuous improvement of teaching quality.

(3) Focus on the ethics and privacy protection of AI technology.

Science and technology are a double-edged sword, bringing convenience to you while also accompanied by risks, especially the issue of information leakage in the context of widespread internet usage. Therefore, in the process of promoting generative AI in schools, it is essential to strengthen ethical education, guide teachers and students to use generative AI technology reasonably, and remind them to pay attention to the

ethical issues that AI technology may bring, such as data bias and privacy breaches. In terms of privacy protection, schools should establish and improve student data protection mechanisms, such as encrypting data to prevent it from being stolen or tampered with. At the same time, supervision of AI service providers should also be strengthened to prevent them from selling or leaking data.

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

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