Analyzing The Problems of Chatgpt in Chinese International Education Based on The Classification of Educational Objectives

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Abstract. With the continuous development of generative artificial intelligence technology, ChatGPT has also had a significant impact on the education sector. ChatGPT can assist in the teaching practice of Chinese international education and has shown positive effects in empirical research. However, there is still insufficient research on the challenges and response measures of ChatGPT for the formation of international Chinese language education. Therefore, based on the teaching practice cases of ChatGPT in Chinese international education, this article selects qualitative research methods in methodology, summarizes the current application status and existing problems of ChatGPT in Chinese international education, and provides targeted suggestions in combination with Bloom's educational goal classification method. Research has found that, In the process of assisting Chinese international education, ChatGPT may lead to the subversion of ethical relationships between teachers and students, difficulty in ensuring the accuracy of generative artificial intelligence, or inability to meet the requirements of the artificial intelligence era. Teachers need to further improve their professional qualities, actively promote changes in educational concepts, and avoid technological dependence.

Keywords: ChatGPT; Chinese International Education; Artificial Intelligence Education.

1. Introduction

In recent years, with the rapid development of artificial intelligence technology, the education field has ushered in unprecedented changes. Especially since the emergence of ChatGPT, its powerful functions and potential in the field of Chinese language teaching have attracted widespread attention and discussion. ChatGPT, an artificial intelligence chatbot meticulously crafted by the OpenAI team in the United States, its foundation comes from two major language models, GPT-3.5 and GPT-4.

ChatGPT has multiple remarkable capabilities. It can generate diverse text content based on user input, such as dialogues, articles, and even design teaching plans. It can also generate reasonable responses based on contextual correlations. Currently, ChatGPT supports 67 languages worldwide, allowing it to communicate with users from all over the world without barriers [1]. With the improvement of China's international status and the expansion of its influence, the importance of the Chinese language in international communication is becoming increasingly prominent. More and more people are beginning to realize the importance of Chinese in international communication, which has led to the rapid development of the discipline of Chinese international education. Currently, many scholars have begun to explore whether artificial intelligence technology can be integrated into the field of Chinese international education. Practice has proven that ChatGPT, as a new tool, can play an important role in international Chinese education. It can provide personalized learning paths and resources for learners through intelligent teaching methods, helping them to master Chinese language knowledge more efficiently and conveniently.

At the same time, it also provides teachers with a more convenient way of working. However, some scholars have put forward different views, as a type of generative artificial intelligence, ChatGPT has inevitable shortcomings, such as difficulty in ensuring accuracy when answering professional questions.

This article is based on the teaching practice of ChatGPT in Chinese international education. Qualitative research methods are used to analyze the current application status of ChatGPT in Chinese international education, summarize the problems existing in ChatGPT in Chinese international education practice, and propose feasible solutions using Bloom's educational goal classification method. It is very meaningful for how to deepen the reasonable application of ChatGPT.

2. Application Status and Advantages

2.1. Application Status

Since 2023, numerous scholars have conducted in-depth discussions on the practical application of ChatGPT in international Chinese education. After research, they generally agree that ChatGPT has significant advantages and a series of issues that need attention in the field of Chinese international education. As a teaching aid tool, ChatGPT not only effectively assists teachers in the construction of teaching resources, but also enriches classroom teaching forms and plays a positive role in improving student learning outcomes [2]. However, some challenges need to be faced and addressed, such as cultural differences in handling, dialect recognition ability, answer accuracy, and the gap between interactive experience and real teachers [3]. Especially in the case of "ChatGPT's Personalized Teaching Practice in Chinese International Education" in 2023, researchers used personalized writing teaching as an example to demonstrate the specific methods and operational steps of using ChatGPT to assist personalized learning. Then, the effectiveness of teaching was quantitatively evaluated by investigating exam results and student experiences. This case study found that the group using ChatGPT for assisted teaching achieved higher scores, and students generally had a more positive attitude towards using ChatGPT, confirming the effectiveness of ChatGPT in personalized teaching [4]. However, according to the classification method of educational objectives, only higher-level cognitive objectives such as "analysis", "evaluation", "creation", and corresponding teaching activities can guide students to use the knowledge they have mastered to create and invent, further improving their language skills and practical application abilities [5]. In the case of ChatGPT-assisted personalized writing teaching, the article is written by ChatGPT-assisted students from the beginning of the outline, and the revision suggestions for the outline are also provided by ChatGPT, rather than independent thinking by students or teachers. Although ChatGPT can help students achieve better performance, it lacks opportunities for students to think independently and communicate with teachers. During the final questionnaire survey on the experience of students using ChatGPT, some students believed that they had developed a dependency on ChatGPT. This goes against the original intention of using ChatGPT to assist teaching.

2.2. ChatGPT Assists Grammar Teaching

The significant advantages of ChatGPT in international Chinese education are reflected in its personalized teaching services and instant feedback mechanism. Specifically, in the field of grammar teaching, ChatGPT can accurately identify and correct students' grammatical errors, and intelligently generate relevant example sentences to help students better understand and master grammar rules. ChatGPT, with its vast language model foundation, can not only judge the correctness of student expression based on language norms but also further evaluate its appropriateness and suitability for specific contexts. It is worth mentioning that when students make grammar errors, ChatGPT can quickly make corrections and provide the correct form of expression. This real-time feedback mechanism greatly improves the learning efficiency of students, enabling them to correct errors promptly and deepen their understanding during the learning process. In addition, ChatGPT can also provide students with rich example sentence resources. These example sentences not only help students deepen their understanding of grammar rules but also help them master the pragmatic characteristics of sentences and learn to use appropriate expressions in appropriate situations.

2.3. ChatGPT Assists Chinese Character Teaching

In the aspect of Chinese character teaching, compared with phonetic characters such as English, which uses alphabetic recording languages, Chinese characters as ideographic system characters have a complex structure and many strokes, which is undoubtedly a big challenge for foreign students who come into contact with Chinese characters for the first time. They may face many learning difficulties, such as difficulty in distinguishing between similar and homophonic characters, and confusion between Chinese character components and stroke positions. ChatGPT can conduct in-depth analysis from multiple dimensions such as the basic structure of Chinese characters, stroke order, writing skills, meaning and usage, as well as the cultural background behind them, to comprehensively enhance students' ability to recognize and read Chinese characters, and help them better master and apply Chinese characters. Specifically, ChatGPT can intelligently analyze the subtle differences between similar characters and annotate their accurate pronunciations based on the needs of students, helping them avoid confusion. At the same time, it can also recommend suitable Chinese characters for practice based on students' Chinese proficiency, ensuring targeted and effective learning. In short, ChatGPT has shown strong potential and value in the teaching of reading and writing in international Chinese education, providing a more convenient and efficient learning path for foreign students.

2.4. ChatGPT Assists Oral Teaching

The oral teaching of Chinese international education aims to enhance students' ability to communicate in Chinese, enabling them to express their personal opinions and opinions accurately using standardized and appropriate Chinese. ChatGPT, as a powerful language model, can provide learners with a simulated Chinese expression environment. For example, as a speaking practice partner for students. Under the guidance of the teacher, students can set dialogue scenarios based on ChatGPT and engage in dialogue and communication around specific topics. ChatGPT can also provide feedback on students' oral performance, pointing out errors or inappropriate expressions that occur during the dialogue process, and proposing improvement suggestions. This immersive learning experience helps students develop their oral skills in practical contexts, thereby enhancing their oral expression abilities.

3. Existing Problems

3.1. Inadaptation of Course Design

In today's era, the rise of generative artificial intelligence such as ChatGPT has shown significant job advantages compared to ordinary workers, which undoubtedly poses great challenges to the work that was originally undertaken by humans and has triggered a wave of technological unemployment [6]. With the emergence of ChatGPT, ordinary workers need to constantly improve their work skills to meet new needs, which also requires schools to adjust and update their educational goals accordingly. However, from the case study of the personalized teaching practice of ChatGPT in Chinese international education, it can be seen that the curriculum design of Chinese international education has not made corresponding adjustments to the emergence of generative artificial intelligence such as ChatGPT. Even in some teaching processes, excessive reliance on tools such as ChatGPT has replaced students' independent thinking and exploration, which may lead to insufficient development of their thinking and writing abilities, making it difficult for them to adapt to higher-level job skill requirements in the future. Therefore, teachers and schools need to re-examine and adjust educational goals to ensure that students can fully master the necessary skills and knowledge, while also cultivating their innovative thinking and critical thinking abilities, to better cope with the challenges brought by generative artificial intelligence such as ChatGPT.

3.2. Reduced Student Identification with Teachers

ChatGPT, with its vast and innovative knowledge reserves, presents a language resource library that is closely connected to life and full of vitality for teachers and students. Both students and teachers can obtain rich language materials from it, providing great assistance for international teaching and learning of Chinese. ChatGPT has demonstrated remarkable strength in correcting language errors, and sometimes even provides better and more authentic answers than teachers in language teaching. However, the convenience of obtaining information through ChatGPT also poses certain challenges. Teachers are no longer the only source of knowledge for students, ChatGPT can also help them with grammar editing and Chinese dialogue practice. While students are exposed to rich knowledge and information, they may develop new understandings of the role and role of teachers. This situation poses a challenge to the traditional ethical relationship between teachers and students, which may lead to a decrease in students' sense of identification with teachers. In addition, it is also necessary to be wary of the situation where students overly rely on artificial intelligence tools such as ChatGPT. Although these tools can provide convenience and assistance for students to learn Chinese, excessive reliance on them may lead to students not paying attention in class and relying on these tools to solve after-school tasks. Therefore, teachers need to guide students to use these tools correctly, using them as auxiliary rather than alternative means, to fully leverage the positive role of students in teaching and learning.

3.3. Difficulty in Ensuring Accuracy

The powerful features demonstrated by ChatGPT can provide learners with a lot of assistance in Chinese international education. For example, it can simulate dialogue scenarios and help students improve their oral expression skills in Chinese during practice. It can also assist second language learners in correcting Chinese pronunciation and grammar errors, helping learners use Chinese more accurately. In addition, ChatGPT can develop personalized learning plans based on the needs of learners and expand their interest in extracurricular knowledge, thereby broadening their horizons. However, although intelligent tools such as ChatGPT have made significant progress in knowledge storage, there are still certain limitations and knowledge blind spots. Since the data of ChatGPT mainly comes from public information on the Internet and lacks the verification of specialized personnel, this may lead to errors or inaccuracies in the information provided by ChatGPT. In practical use, ChatGPT has exposed some informative errors that may mislead students [7]. Therefore, when using ChatGPT for Chinese language learning, students need to remain vigilant and combine other reliable resources to verify the accuracy and authenticity of the information they provide. At the same time, teachers should also strengthen their guidance to students, help them use intelligent tools such as ChatGPT correctly, and avoid being misled by incorrect information.

4. Suggestions

4.1. Promoting the Transformation of Educational Concepts

With the flourishing development of intelligent tools such as ChatGPT, they are gradually replacing simple and repetitive work in various fields, which undoubtedly brings new challenges to the current talent cultivation goals. To ensure that students can cope with this change in the future and avoid being replaced by artificial intelligence, Chinese international education teachers need to use the classification system of educational objectives as the basis to comprehensively promote the transformation of teaching towards a learner-centered direction. Specifically, teachers should help students set more challenging learning goals and stimulate their learning motivation and creativity. This requires teachers to not only focus on imparting knowledge but also on developing students' higher-order thinking abilities, such as creative thinking and critical thinking, in their teaching. Through the training of these thinking abilities, students can better adapt to the complexity and uncertainty of future society, and thus better cope with the challenges brought by artificial intelligence.

ChatGPT can communicate with students through natural language, with strong interactivity, fast responsiveness, and high accuracy [8]. Teachers can preset teaching tasks, and then use ChatGPT to analyze students' answers, providing personalized explanations of vocabulary, grammar, syntax, and other knowledge points for students. Grammar or sentence revision can also be carried out through independent thinking and repeated analysis and verification using ChatGPT, cultivating students' creative and critical thinking in Chinese international education. At the same time, teachers should also attach importance to cultivating students' ability to make correct value judgments. Faced with the rapid development of artificial intelligence technology, teachers need to guide students to form correct moral concepts and ethical awareness, so that students can use these technologies wisely and assume corresponding social responsibilities.

In summary, with the rise of intelligent tools such as ChatGPT, teachers and schools need to re-examine and adjust their talent cultivation goals to better adapt to the needs and development trends of future society. By promoting student-centered teaching, students can develop higher-order thinking abilities and correct value judgment abilities, thus facing the ever-changing world and life.

4.2. Overcoming the Lack of Occupational Security

Teachers need to recognize that, ChatGPT is not a competitor or potential threat, but a powerful assistant that can help teachers improve their professional competence and teaching level. At present, although artificial intelligence technology has made significant progress, it still cannot fully understand the complex context and deep goals of international Chinese language teaching, let alone demonstrate the same empathy and emotional resonance as human teachers [9]. However, ChatGPT, as an artificial intelligence technology, has brought unprecedented teaching innovation to international Chinese language teachers. It not only provides teachers with higher quality and more accurate teaching plans but also creates a more convenient and personalized learning experience for Chinese language learners. In teaching stages such as lesson preparation, homework assignments, and grading, ChatGPT can play a huge auxiliary role, greatly reducing the workload of teachers. Meanwhile, ChatGPT also promotes the improvement of teachers' professional competence and teaching ability. Through interaction and learning with artificial intelligence technology, teachers can continuously broaden their knowledge horizons, improve their teaching skills, and better adapt to the development trend of educational modernization. Therefore, teachers who conduct international Chinese language education should fully utilize the advantages of artificial intelligence technology, deeply integrate it with education and teaching, and provide learners with richer and more diverse teaching resources. At the same time, teachers should also maintain keen insight and creativity, and design more targeted and attractive teaching activities and courses based on the actual needs and interests of students.

In addition, teachers should actively guide students to use artificial intelligence technologies such as ChatGPT correctly, avoiding excessive reliance or abuse. ChatGPT should be used as an auxiliary tool, combined with other teaching resources such as textbooks, videos, etc., to enable students to have a comprehensive and in-depth learning experience in all aspects of listening, speaking, reading, and writing. In short, facing the rapid development of artificial intelligence technologies such as ChatGPT, teachers should adopt an open and inclusive attitude, utilize their advantages to serve education and teaching work, and jointly promote the prosperity and development of international Chinese education.

4.3. Avoiding Technological Dependency

Intelligent tools such as ChatGPT can quickly analyze and integrate the content users need, making it easy for teachers and students to apply it to teaching and learning directly. However, long-term excessive reliance on such technologies may lead to a decline in the thinking ability of teachers and students and may even lead to academic misconduct. For example, in writing teaching, ChatGPT can be used for essay correction to quickly provide feedback, save a lot of manual review time, and enable teachers to devote more energy to actual teaching. At the same time, by reviewing feedback, teachers

can have a more intuitive understanding of students' weak points in grammar learning, thereby adjusting teaching strategies and improving teaching effectiveness. However, teachers cannot rely solely on ChatGPT-generated instructional designs without engaging in independent reflection and refinement. In grammar teaching, students can use ChatGPT to verify and correct their grammar, but they cannot directly use ChatGPT for writing or organizing sentences. For both teachers and students, it is necessary to adhere to human subjectivity in the teaching process, avoiding excessive reliance on technology and neglecting their thinking and judgment abilities [10]. Therefore, tools such as ChatGPT are more suitable as auxiliary tools for teachers or advanced learners in the teaching process and should not completely replace human thinking and judgment.

5. Conclusion

The advantages of ChatGPT in international Chinese language education are reflected in its excellent data processing capabilities, cross-language support, real-time feedback, and diverse application scenarios. This article explores the advantages and current application status of ChatGPT in teaching grammar, writing, and oral English in Chinese international education, and finds that using ChatGPT to assist Chinese international education also comes with a series of potential risks and challenges. On the one hand, excessive reliance on ChatGPT may lead to a lack of professional security for teachers, as it possesses efficient knowledge processing capabilities, which may to some extent replace the traditional teaching role of teachers. In addition, knowledge errors are also a potential risk. If the answers or suggestions provided by ChatGPT are not accurate, it is easy to mislead students and thus affect learning outcomes. Furthermore, excessive reliance on technology may lead to teachers and students losing their ability to think independently and solve problems, resulting in technological dependence. Therefore, in the face of these challenges and risks, teachers and schools need to actively respond, promote changes in educational concepts, and adapt to the development of society and technological progress. This is conducive to helping students and teachers maintain a clear mind when using ChatGPT, and apply it reasonably based on their professional knowledge and actual situation, to better achieve teaching objectives. In the future, more practical teaching can be conducted to facilitate in-depth research on the rational application of ChatGPT.

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