

Investigation on Response Strategies for the Impact of ChatGPT Technology Application on College Chinese Language Education

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Abstract: With the rapid development of artificial intelligence, ChatGPT technology, as an important technology in the field of Natural language processing, has also begun to be widely used in the field of education. This article aimed to study the impact of ChatGPT technology application on college Chinese language education, explored the coping strategies for the impact of ChatGPT technology application on college Chinese language education, and analyzed the impact of ChatGPT technology on current college education. This article analyzed the impact of the application of ChatGPT technology on college Chinese language education, and proposed to use ChatGPT technology to strengthen college Chinese language education and students' learning abilities. The application of ChatGPT technology provided personalized learning support and strengthens students' ability to learn Chinese independently. At the same time, the application utilized ChatGPT technology to stimulate students' interest in learning. To propose strategies to address the impact of ChatGPT technology on college Chinese education, it was necessary to identify suitable application scenarios for ChatGPT technology, use ChatGPT technology to monitor and evaluate students' learning processes, and apply ChatGPT technology to update teachers' professional literacy. ChatGPT technology, as a new educational tool, brought positive impacts and challenges to college Chinese language education. By making reasonable use of ChatGPT technology, the quality and efficiency of Chinese language education could be improved, and students' comprehensive abilities and creativity could be cultivated.

1. Introduction

In the education industry, the current research on ChatGPT is not only due to the educational innovation it can bring, but also because it has an impact on the role positioning of teachers, promoting changes in talent cultivation goals, and forcing teachers and students to step out of their “comfort zone”. The emergence of ChatGPT technology has brought new possibilities to Chinese language education. It can simulate human conversations and provide personalized learning support and feedback. However, this emerging technology has also brought many problems to network security, and it is urgent to study corresponding countermeasures.

Chinese language education has always been regarded as an important link in cultivating students' language expression ability, thinking ability, and cultural literacy. However, traditional Chinese language education faces some challenges, such as low student interest and insufficient teaching resources. Li Zhongxin analyzed how to position college Chinese language education in vocational colleges and summarized the difficulties faced by college Chinese language education in vocational colleges. On this basis, reform strategies were proposed for college Chinese language teaching in vocational colleges, hoping to provide some help in improving the effectiveness of college Chinese language teaching in vocational colleges [1]. Kang Bihua's research found that college Chinese, as a public compulsory course for non Chinese majors offered by higher education institutions, occupied a very important position in university education. College Chinese education could not only guide students to form positive social values, but also build noble life ideals and enhance humanistic spirit for students [2]. Xue Xiaoxia analyzed the current situation of college Chinese language teaching and the necessity of carrying out teaching reform, proposed several thoughts on the reform of college Chinese language teaching mode, and finally elaborated on the strategies for the reform of Chinese language teaching mode [3]. Although college Chinese language education can enhance students' thinking ability and literary literacy, Chinese language courses have not received sufficient attention in universities, and there are problems such as insufficient curriculum design.

ChatGPT continuously triggers issues such as technological dependence, academic abuse, and intellectual discrimination in college Chinese education, and would to some extent disrupt traditional school order. FX. Risang Baskara explored the impact of ChatGPT on language learning in higher education. Firstly, he outlined the specific application scope of ChatGPT, discussed its functions and limitations, and considered how to integrate ChatGPT into language courses and programs in higher education, as well as the benefits and challenges of doing so [4]. Nigar M. Shafiq Suramer discussed the characteristics of chat GPT, analyzed the use of chat GPT in solving educational limitations, and used other debugger and technologies to verify the importance of its prediction and interpretation [5]. Radha Ferrarina pointed out that using ChatGPT in learning might be an interesting and effective alternative. Although ChatGPT had limitations, students believed it could be used to improve productivity and learning efficiency. Therefore, using ChatGPT could be considered an attractive alternative to learning [6]. Jeromie Whalen believed that in the past few years, technological advancements in artificial intelligence led to the widespread adoption and use of ChatGPT in the field of education, posing new challenges and opportunities for teacher education [7]. John V. Pavlik believed that the emergence of ChatGPT had a significant impact on news and media content, demonstrating its capabilities and limitations, and reflecting on the impact of generative artificial intelligence on news and media education [8]. ChatGPT technology makes it easier for learners to access various teaching resources, but there are also some shortcomings, that is, learners must learn some knowledge that artificial intelligence cannot master in order to gain greater advantages in future teaching.

This article aimed to explore the response strategies to the impact of the application of ChatGPT

technology on college Chinese language education. By analyzing the current impact of ChatGPT technology on university education, analyzing the application of ChatGPT technology to talent cultivation and curriculum system, and further elaborating on the impact of ChatGPT technology on university Chinese education, it was proposed to use ChatGPT technology to strengthen university Chinese education and students' learning ability. By applying ChatGPT technology to provide personalized learning support, enhance students' self-directed learning ability, and stimulate their interest in learning, coping strategies were also proposed. ChatGPT technology was used to help schools and educational institutions accurately understand the problems existing in students' Chinese learning, and provide solutions for them. It helped schools and educational institutions use ChatGPT technology to analyze learners' Chinese learning behavior, and made timely improvements to teaching according to the results.

2. Impact of ChatGPT Technology on Current University Education

2.1 Talent Cultivation

With the continuous progress of artificial intelligence technology, its application fields are also becoming more and more extensive. In many fields, it has achieved effects beyond the reach of ordinary people [9]. ChatGPT technology is the latest achievement of artificial intelligence, which can quickly respond to users' input requests in chat boxes. In just a few seconds, a unique and clear thinking article that integrates a lot of information would be presented to users. If the user is not satisfied with this content, they can put forward their specific requirements in the dialog box and would make every effort to modify, improve, and update according to the user's requirements. In the future, ChatGPT technology may replace many routine jobs, so education must clarify the direction of talent cultivation in order to ensure that it has sufficient competitiveness and development potential.

2.2 Curriculum System

The emergence of ChatGPT not only greatly reduced the employment rate of students, but also had a profound impact on the teaching content and ideas of education [10]. With the continuous improvement of the requirements for talents in the digital era, colleges and universities also pay more attention to the cultivation of students' Chinese learning ability, comprehensive quality and other aspects [11-12]. How to better adapt learners to the development of artificial intelligence technology and meet future challenges is the focus of current Chinese language education planning. In future curriculum design, it should adapt to continuously improving educational quality requirements.

2.3 Teaching System

ChatGPT technology can provide an intelligent and comprehensive solution that effectively guides students' learning, thereby weakening the role of traditional teachers to some extent. Educators should arrange teaching reasonably to improve the timely knowledge feedback that ChatGPT technology can reflect, thereby bringing learners a higher quality classroom experience and learning outcomes. At the same time, due to the rapid development of artificial intelligence technology, many difficult to solve technical problems have emerged in the field of education. Teachers should seize the opportunity to use modular ChatGPT technology and combine it with other artificial intelligence technologies to improve teaching methods, enhance teaching experience, and enhance teaching quality.

3. Impact of the Application of ChatGPT Technology on College Chinese Language Education

3.1 Impact on Teachers

Artificial intelligence application products like ChatCPT have better advantages in data processing than humans [13]. However, as it is a technical science based on data training, although they have a knowledge foundation, reasoning ability, and expression ability, they do not have their own consciousness. In the face of non predetermined issues such as emotional communication and humanistic care, artificial intelligence has not yet demonstrated creativity and uniqueness beyond human teachers, so it can never truly replace teachers. However, this does not necessarily mean that the teacher industry is still safe, and attention needs to be paid to the impact of artificial intelligence on teachers.

The introduction of artificial intelligence would undoubtedly create new short-term needs in teacher skills. They use products such as ChatGPT to manage work, improve teaching design, develop learning and research results, and can easily complete teaching plans and write work reports. This technology should also be able to confirm whether students have copied and pasted answers from artificial intelligence platforms, or conduct critical analysis of existing information. The characteristics of the artificial intelligence era may also change the way teachers and students interact, which also puts forward higher reflective requirements for teachers' communication skills and practical skills.

3.2 Causing Students to Develop Technological Dependence

The deep application of artificial intelligence technology has made people wary of whether learners would lead to technological dependence, or even reach a level of dependence, just like when using computers or mobile phones, resulting in educational goals that are contrary to the original intention, and students' physical and mental development is not complete. The teaching of college Chinese language education is closely related to the cultivation of students' humanistic qualities, which helps to cultivate and improve the humanistic spirit of college students, shape their perfect personality, develop their creative thinking, and enhance their temperament, cultivation, personality, and other aspects, thus forming relatively stable internal qualities [14-15]. However, ChatGPT's intelligent knowledge discovery, logical analysis, content generation and other functions can help students easily obtain learning materials, solve learning problems, and even complete learning tasks, which directly damages the trust relationship between teachers and students based on their own growth.

At the same time, artificial intelligence improves students' learning efficiency while reducing opportunities for deep thinking and weakening their ability to transfer learning. However, it still remains at a relatively low level of cognition and cannot be applied to specific scenarios, making it difficult for scattered external knowledge to be internalized into systematic personal knowledge and forming a systematic knowledge structure.

3.3 Causing Academic Paper Proliferation and Chaos

For the academic community, addressing the intellectual property issues involved in ChatGPT is undoubtedly a very urgent issue, including how to prevent researchers from using the technology to fabricate, resubmit, plagiarize, and so on. In addition, whether researchers rely on artificial intelligence technology to produce papers, and whether they or their affiliated units own the intellectual property rights of the results, has always been a focus of debate. Although many people initially published their articles under the name ChatGPT, in recent times, mainstream international

journals have expressed opposition. Of course, it cannot be denied that ChatGPT has brought many conveniences to researchers, such as being used to revise academic papers, enhance their readability, perform academic translation work for researchers without an English background, and also be used to review papers, brainstorm topics, and so on.

In addition to the abuse of academic knowledge, ChatGPT has also caused problems such as plagiarism, exam fraud, and teachers rushing to fill out course plans while preparing, which inevitably undermines traditional school rules. To determine these issues, the basic basis is how to view the results integrated based on databases, especially whether these results have independence and innovation, whether there is a lack of respect and protection for the original authors of the data, and whether users would unconsciously copy and plagiarize information without identifying the information source.

4. Utilizing ChatGPT Technology to Strengthen College Chinese Language Education and Students' Learning Abilities

4.1 Chatgpt Technology Provides Personalized Learning Support

Supporting personalized learning is an important application of ChatGPT technology in college Chinese education. Traditional language teaching is usually based on unique learning modes and cannot meet the individual needs of each student. ChatGPT technology realizes personalized learning according to students' needs and levels through Natural language processing and machine learning technology. ChatGPT is not only a Chatbot, but also can perform tasks such as writing emails, video scripts, copywriting, translation, code, etc., and can provide learning materials and suggestions [16]. ChatGPT technology can provide different learning content for different students according to their learning objectives and interests. Through dialogue and interaction with students, ChatGPT can understand students' learning needs, analyze their knowledge level and Learning styles, and then provide them with relevant learning resources, including text, video, audio and other forms of content. This personalized learning helps students understand and absorb the content they have learned, thereby improving learning efficiency.

ChatGPT technology also provides personalized tutorials for students to ask questions or seek help from ChatGPT. ChatGPT is based on internal knowledge bases and algorithms, and would also provide answers and explanations [17-18]. Such timely feedback and guidance can help students answer questions, clarify their thinking, and thus improve their language proficiency. The advantage of personalized learning support is that it can provide targeted learning experiences for each student based on their characteristics and needs.

4.2 Chatgpt Technology Enhances the Cultivation of Students' Autonomous Learning Ability

In college Chinese language teaching, "autonomy" is a very important teaching goal, and the use of "autonomy" teaching method can help improve students' autonomy. In the process of interacting with ChatGPT, students can actively participate in learning, actively ask questions, and find answers. They can find answers to questions in conversations with ChatGPT, which can improve students' autonomous learning ability.

By interacting with ChatGPT, students' awareness of questions can be enhanced, and their autonomous learning ability can be enhanced. They can actively ask questions during the learning process and seek answers in conversations with ChatGPT. This proactive learning method can help students develop the habit of active thinking and learning, allowing them to explore new knowledge more. The development of artificial intelligence language models such as ChatGPT provides possibilities for new learning and redefining teaching methods. The key to solving this problem lies

in using ChatGPT technology to jointly improve education and teaching methods rather than adopting an evasive or fearful attitude.

4.3 Using ChatGPT Technology to Stimulate Students' Interest in Learning

In the process of Chinese language education, how to stimulate students' interest in learning is a very important issue. By using ChatGPT technology, knowledge can be presented in a vivid and interesting form, thereby stimulating students' interest in learning and enhancing their love for Chinese language. ChatGPT technology can express various information such as text, images, sound, video, etc. in a multimedia manner. Compared with traditional textbooks, it can provide more vivid and diverse learning content, and better attract students' attention. For example, through conversations with ChatGPT, students can see interesting video clips, hear exciting audio clips, or browse creative images. This presentation can make the learning process more interesting and interactive.

ChatGPT technology can also provide personalized learning experiences, recommending and customizing according to students' interests and preferences. By analyzing students' learning data and interaction records, ChatGPT can understand their areas of interest and recommend relevant learning resources and activities to them.

5. Strategies for Responding to the Impact of ChatGPT Technology on College Chinese Language Education

5.1 Determining Suitable Application Scenarios for ChatGPT Technology

In the era of artificial intelligence, education should break through traditional knowledge-based teaching and focus more on cultivating students' autonomy. High quality learning should focus on details rather than achieving them overnight. Only by slowing down can one's thinking become more profound [19-20]. High quality learning cannot rely solely on simple knowledge, but should guide students to explore and challenge. Therefore, it is crucial to determine appropriate application scenarios when dealing with the impact of ChatGPT technology on college Chinese education. By introducing ChatGPT technology in appropriate scenarios, learning effectiveness and efficiency can be improved, while reducing the workload of teachers.

ChatGPT can serve as an assistant to teachers in the classroom, providing timely answers to students' questions. Teachers can guide students in using ChatGPT to actively participate in classroom discussions. ChatGPT can help students answer homework questions and provide reference answers and explanations. At the same time, it can also help teachers do a good job of correcting homework and provide some opinions and suggestions. ChatGPT saves teachers a lot of time and energy, allowing them to focus on students' learning progress and personalized guidance.

5.2 Utilizing ChatGPT Technology to Monitor and Evaluate the Learning Process

How to effectively monitor and evaluate students' learning progress in response to the impact of ChatGPT technology on college Chinese education is an important issue faced by current English teaching in universities. By regularly monitoring the interaction process between students and ChatGPT, teachers can better understand students' learning status, identify problems in a timely manner, and provide guidance. Teachers can set evaluation criteria that include students' level of participation, the quality of questioning, and how to evaluate these criteria. Through the evaluation system, teachers can have an overall understanding of students' learning progress and grades.

Teachers can observe the interaction process between students and ChatGPT, including questions

raised by students, reactions to ChatGPT responses, and feedback. By observing student interaction, teachers can obtain information about students' understanding level, thinking style, and learning attitude. ChatGPT technology can generate interactive data records between students and ChatGPT, including records of questions and answers. Teachers can analyze data to determine students' learning preferences, types of problems, frequency of occurrence, etc., and use this to evaluate students' academic performance. On this basis, teachers can also provide timely feedback and guidance to students.

5.3 Applying ChatGPT Technology to Update Teachers' Professional Literacy

ChatGPT can to some extent achieve intelligent and personalized knowledge push for student questioning, but it is not an ideal teaching method. Teachers should start from the actual situation of students, teach according to their aptitude, cultivate their abilities, and be good at grasping the characteristics and personalities of each student. In classroom and after class practice, they should be the "guide" for students' learning, playing a role that machines cannot replace.

If the education in the 21st century wants to go through the negative effects brought about by the Educational assessment system, it must comprehensively reflect on the values, thinking mode, compassion, creativity, team cooperation, etc., of the educated. Future education should examine the potential of students in a more advanced way, including creativity, critical thinking, teamwork, ability to deal with complex situations, and social cognition and value. In response to the impact of ChatGPT technology on college Chinese education, teachers must keep up with the pace of the times, and learn and update their teaching concepts and methods in a timely manner. In teaching practice, teachers should actively learn and understand the basic principles, applications, and potential effects of ChatGPT technology. Teachers can learn by attending training classes, seminars, or online materials. Understanding the operation and limitations of ChatGPT technology can help teachers better guide students. Teachers should actively participate in professional development activities such as educational seminars, academic conferences, and educational training. Through these activities, the current trends in education development can be understood, the current state of education development can be understood, and educational concepts and teaching strategies can be updated.

6. Conclusions

Under the influence of ChatGPT technology, artificial intelligence has not only brought problems and challenges to the education industry, but also opportunities. ChatGPT can effectively improve the quality of education, improve teaching quality, and increase students' learning efficiency, so as to increase students' learning experience and improve their learning effectiveness. It can help educators better understand students' real needs, thus providing accurate teaching to students. ChatGPT technology, as a new educational tool, has brought positive impacts and challenges to college Chinese language education. The advantages of ChatGPT technology can be fully utilized to improve the quality and efficiency of Chinese language education, and enhance students' overall ability and innovation ability. However, at the same time, the limitations of technology should also be paid attention to, and attention should be paid to training students in critical thinking and innovation ability, so that science and technology can play a better auxiliary role in education, rather than replace it. Only with the joint efforts of teachers and students can the long-term development of Chinese language education in universities based on ChatGPT technology be achieved.

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Data Availability

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Conflict of Interest

The author states that this article has no conflict of interest.

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