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Artificial Intelligence Generated Content (AIGC) in Empowering Vocational English Teaching Evaluation Systems

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Abstract: ***The integration of Artificial Intelligence Generated Content (AIGC) into vocational English teaching has the potential to revolutionize the evaluation process, making it more efficient, personalized, and insightful. This paper explores the current landscape of AIGC in education, with a focus on its application in vocational English teaching evaluation systems. Through a systematic literature review, we analyze how AIGC can enhance existing evaluation frameworks, the challenges it poses, and the future direction of its integration into educational practices.***

Keywords: AIGC; Vocational English teaching; Evaluation system.

1. INTRODUCTION

In 2022, the Chat Generative Pre-trained Transformer (ChatGPT) was developed and launched by the American artificial intelligence research company OpenAI. As soon as this project was released, it immediately attracted the attention and discussion of all sectors of the global community. Subsequently, ChatGPT, with its strong artificial intelligence capabilities, human-computer interaction modes, language processing abilities, and logical analysis capabilities, was rapidly applied to various fields such as healthcare, finance, law, and media. The profound impact of ChatGPT in various fields is a sign of the arrival of the AIGC era.

The advent of AIGC has introduced a new dimension to educational technology. AIGC refers to content generated by artificial intelligence algorithms, which can be used to create educational materials, facilitate learning processes, and evaluate student performance. AIGC can be illustrated in the following three ways. First, from the perspective of content producers, it refers to content generated by AI. Second, from the perspective of content production methods, it refers to the production methods of content generated by AI. Third, from the perspective of technical elements, it is mainly used to refer to a series of technologies related to content generation, such as artificial intelligence and automation [1].

The advent and large-scale application of AI-generated content (AIGC) technology, represented by ChatGPT, have not only changed the logic of human-computer interaction but also brought revolutionary impacts on the field of education.

On the one hand, AIGC has the potential value to empower English teaching in higher vocational colleges, and its technical characteristics can give rise to the construction of new learning spaces, forms, and evaluation mechanisms in this field. On the other hand, there are risks and challenges when AIGC empowers it, such as the difficulty of ensuring the quality of generated answers, privacy data leaks, and educational inequity. Therefore, when introducing AIGC technology in the field of English teaching evaluation, it is necessary to correctly understand the opportunities and challenges it brings, to comprehensively improve the digital literacy of educational personnel, to promote intelligent education, and to create a good intelligent evaluation ecosystem.

2. LITERATURE REVIEW

The literature on AIGC in education is burgeoning, with a significant focus on its potential to transform teaching and learning experiences. AIGC, through advanced natural language processing and machine learning, offers innovative ways to assess student performance, provide personalized feedback, and enhance learning outcomes. Studies have shown that AIGC can automate grading, giving educators more time to focus on lesson planning and student interaction. Furthermore, AIGC tools can provide immediate feedback, enabling students to learn and adjust their approaches in real-time.

Studies have shown that AIGC can be utilized to create personalized learning experiences, enhance content delivery through adaptive learning systems, and provide automated feedback to students. AIGC has also been explored for its potential to support language learning, with studies indicating improved engagement and outcomes in mobile English learning. Furthermore, AIGC's application in higher education has been a subject of interest, with a focus on its potential to revolutionize teaching evaluation systems.

AIGC's application in education is multifaceted. It includes the development of virtual teaching assistants, automated grading systems, and interactive learning modules. AIGC has been found to be particularly effective in facilitating asynchronous learning, where students can receive immediate feedback and tailored content outside of traditional classroom settings.

Despite its potential, the integration of AIGC in education is not without challenges. Concerns regarding the ethical use of AI, data privacy, and the potential for increased student reliance on technology have been raised. Additionally, there is a need to ensure that AIGC tools are accessible to all students, regardless of their socioeconomic background [2].

Future research should focus on evaluating the long-term impact of AIGC on student learning outcomes, exploring the potential of AIGC to support diverse learning needs, and investigating the most effective strategies for integrating AIGC into existing educational frameworks.

AIGC presents a significant opportunity to enhance educational practices. Its potential to provide personalized, adaptive, and engaging learning experiences is well-documented. However, as the field progresses, it is crucial to address the challenges and ethical considerations associated with AIGC's use in vocational English teaching evaluation.

3. AIGC EMPOWERMENT OF VOCATIONAL ENGLISH TEACHING EVALUATION SYSTEMS

3.1 AIGC in Listening and Speaking Evaluation

It is known that listening and speaking skills have been the "two major challenges" for English learners, and many students are deeply troubled by this. The robust development of AIGC technology makes possible the reasonable use of these resources to improve our weaknesses in the following ways. by using the speech models generated by AIGC to improve pronunciation and intonation; by practicing oral conversations through the dialogue models generated by AIGC; and by perfecting audio-visual speaking assignments with the video models generated by AIGC. Combining technology with learning life in an appropriate way will enhance learners' learning efficiency and enthusiasm and prepare them well for future positions [3].

AIGC can analyze student responses to listening exercises and provide immediate feedback, helping students to improve their comprehension and pronunciation in real-time. Virtual assistants can simulate conversations, offering students the opportunity to practice speaking in a risk-free environment.

3.2 AIGC in Reading Evaluation

AIGC can generate personalized reading materials based on a student's proficiency level, facilitating an adaptive learning experience. Furthermore, AIGC can assess students' reading comprehension through interactive exercises, identifying areas for improvement and providing targeted feedback.

Using Artificial Intelligence Generated Content (AIGC) in English reading evaluation can enhance the assessment process by providing personalized feedback, automating scoring, and offering data-driven insights [4]. Here's how AIGC can be utilized in English reading evaluation:

AIGC systems can be trained to evaluate students' responses to reading comprehension questions. They can automatically score multiple-choice questions, fill-in-the-blank exercises, and even short answer responses based on predefined criteria. It can analyze the text for difficulty level, vocabulary usage, and complexity. It can then match the text with the student's reading level to provide appropriate feedback and suggestions for improvement. By analyzing a student's reading patterns and performance, AIGC can provide personalized feedback. It can identify areas of strength and weakness and suggest targeted exercises to improve reading skills.

AIGC can generate or select reading materials tailored to a student's current abilities and progress. This ensures that the student is always reading material that is challenging but not frustratingly difficult. AIGC tools can create flashcards, quizzes, and other learning aids to help students expand their vocabulary. They can also provide definitions, synonyms, and usage examples in context.

To make reading practice more engaging, AIGC can create game-like assessments that reward students for correct answers and progress made. This can increase student motivation and enjoyment of reading.

AIGC systems can track student progress over time, providing insights into their reading development. This historical data can help teachers identify trends and adjust teaching strategies accordingly. It can assist in creating summative assessments that measure a student's overall reading ability at the end of a course or learning unit.

When implementing AIGC in English reading evaluation, it's essential to ensure that the technology is user-friendly, accessible, and complements traditional teaching methods to enhance the learning experience.

3.3 AIGC in Writing Evaluation

The traditional paper grading requires teachers to spend a lot of time and energy, and is subject to subjective factors. AIGC, with the aid of artificial intelligence technology, can design an intelligent paper grading system. This system can automatically recognize key information in students' answers, grade accurately, and generate feedback reports [5]. At the same time, the system can also provide teachers with statistical information on students' learning conditions by analyzing their answer data, which helps to better guide teaching.

AIGC tools can evaluate written assignments, offering grammatical corrections and suggestions for improvement. They can also generate writing prompts and provide constructive feedback, helping students to enhance their writing skills.

Incorporating AIGC into English writing evaluation can streamline the process and enhance the quality of feedback provided to students. Here's how AIGC can be utilized in this context:

AIGC tools can score essays based on predefined criteria such as grammar, punctuation, and vocabulary usage. They can also provide instant feedback, which allows students to learn and improve their writing skills in real-time. AIGC can be used to detect plagiarism by comparing student submissions against a vast database of existing texts on the internet and in academic repositories. AIGC can evaluate the content of essays for coherence, relevance, and depth of analysis. It can assess whether the student's arguments are well-structured and supported by evidence. AIGC tools can check for grammatical errors, suggest style improvements, and even provide corrections to enhance the overall quality of writing. In large classrooms or online courses, AIGC can provide rapid feedback that might otherwise be time-consuming for a human instructor to deliver. AIGC can facilitate formative assessments by giving students continuous feedback throughout their writing process, helping them to improve their drafts before submitting final versions. There's a need for tools to detect AI-generated content to maintain academic integrity. AIGC can be used to create detectors that can distinguish between student-written and AI-generated essays. By leveraging these capabilities, educational institutions can foster a more effective and engaging learning environment for students while also reducing the burden on instructors.

4. CHALLENGES AND CONSIDERATIONS:

While AIGC presents numerous opportunities, it also poses challenges that need to be addressed and the following are the challenges and considerations that should be given due attention.

4.1 Ethical Concerns

The advent of Artificial Intelligence Generated Content (AIGC) has introduced a myriad of ethical concerns that warrant attention. As AIGC becomes more integrated into various sectors, including education, finance, media, and healthcare, the implications of its use extend beyond mere convenience and efficiency. AIGC technologies, trained on vast datasets, may inadvertently learn and perpetuate existing biases present in the data. This can lead to unfair treatment or discrimination against certain groups or individuals, which is a significant ethical concern. There is often a lack of transparency in how AIGC technologies operate, which can obscure accountability for the content they generate. Users and consumers may not always be aware that AI is being used, let alone understand

how it arrived at a particular output. The use of personal data to train and refine AIGC systems raises serious privacy concerns. There is a risk that sensitive information could be exposed or misused, which has far-reaching ethical implications. AIGC blurs the lines regarding ownership and copyright of generated content. If an AI generates a piece of content, who owns it—the AI, the company that created the AI, or the user? This issue is particularly pronounced in creative industries. Determining moral and legal responsibility in cases where AIGC causes harm is challenging. Is the AI developer, the user, or the system itself responsible? This is an open question with significant ethical and legal ramifications.

The ethical concerns surrounding AIGC are multifaceted and complex. As this technology continues to evolve, it is crucial to address these issues proactively to ensure that AIGC is developed and used in a manner that is fair, transparent, and respectful of human rights and dignity.

4.2 Dependency on Technology

In the educational context, the dependency on AIGC is evident in its use for creating educational content, automating administrative tasks, and facilitating personalized learning experiences. AIGC technologies can analyze student performance data to provide tailored educational content, thus enhancing the learning process. However, this also means that educational institutions become reliant on these technologies for effective teaching and evaluation. The dependency on AIGC in education carries several risks. Firstly, there is the risk of over-reliance on technology for learning outcomes, which might undermine the development of critical thinking and problem-solving skills that do not rely on technology. Secondly, there is the potential for data privacy breaches and the misuse of student information. Lastly, there is a risk of increased inequality if not all students have equal access to AIGC technologies. Over-reliance on AIGC might hinder the development of critical thinking and human interaction skills among students.

4.3 Accessibility and Equity

There is a risk that not all students have equal access to AIGC tools, which could exacerbate existing educational inequalities. Educational equity is a challenge that cannot be underestimated in any era. In today's society, there are significant educational differences between different regions and groups, such as the quality gap between urban and rural areas, regions, and schools. With the development of artificial intelligence technology, this gap has evolved from a knowledge gap to an AI gap. The reasons for the issue of educational equity mainly focus on the willingness of educational leaders to recognize and introduce new technologies, the financial ability of educational institutions to purchase new technologies, and the digital literacy, knowledge acceptance ability, and learning ability of educators.

5. CONCLUSION:

The integration of AIGC into vocational English teaching evaluation systems holds great promise. It can enhance the efficiency and effectiveness of assessments while providing personalized learning experiences. However, careful consideration must be given to the ethical implications, potential over-reliance on technology, and ensuring equitable access to these tools.

Traditional education and teaching evaluation often assess students' learning outcomes based on their exam scores, which is particularly prominent during the primary and secondary school stages. Although the final evaluation results at the university stage vary according to the different requirements of schools or courses, combining several or all elements such as daily grades, project grades, midterm grades, and final grades, teachers in a big class cannot fully consider the actual learning progress of all students. They still need to rely on various assessment methods to uniformly judge all students, so the final evaluation results still do not reflect the students' true process performance. For example, some students may not score high in the final written exam, but they may perform excellently in actual operations.

In addition, as the final decision-makers in assessment and judgment, teachers' personal subjectivity may affect students' grades. Based on the limitations and unfairness of the traditional evaluation system, AIGC technology should be fully utilized to participate in the comprehensive assessment of students' full-process performance, evaluate students' learning comprehensively according to their performance in the actual learning process, and more comprehensively and objectively reflect the overall learning situation of students.

The AIGC technology enhances and empowers new breakthroughs in the learning spaces, forms, and evaluation mechanisms of the education field, but it also poses risks such as the difficulty of ensuring the quality of generated answers, privacy data leaks, lack of value guidance, and educational equity tilt. Therefore, when introducing AIGC technology in the education field, it is necessary to correctly understand the opportunities and challenges it brings to ensure the rationality of technology integration and educational effectiveness, comprehensively improve the digital literacy of educational personnel, promote intelligent education, and create a good intelligent educational ecosystem.

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