

Artificial Intelligence Generated Content for Language Teaching and Learning Reform

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Abstract: Artificial Intelligence Generated Content (AIGC) is a generative method that matches language patterns with existing data and thus provides relevant content with appropriate generalization capabilities. The educational demand is to combine AIGC with teaching resources, expanding traditional monomodal language teaching modes with Digital Multimodal Composing(DMC), so as to carry out language teaching and learning reform. As a new Artificial Intelligence involved practice, language teachers lack technological experiences to ensure class performance. In the process of creating DMC, learners pay more attention to entertainment rather than the practicability of its content. AIGC can facilitate teaching with feasible methods to improve learning efficiency and promote outcome.

Key words: Artificial Intelligence Generated Content, Digital Multimodal Composing, Teaching and Learning Reform

1. Introduction

Artificial intelligence (AI) has the potential to revolutionize language teaching and learning by providing innovative and personalized content to meet the diverse needs of learners. These AI-generated content can contribute to language teaching and learning reform in adaptive learning, authentic language input, interactive conversational practice, automated assessment and feedback, language resources construction, cross-cultural communication, language translation, speech recognition and pronunciation check, learning analytics and writing aids etc. Currently, the integration of ChatGPT, notion AI and many more native language model applications in China have yielded discussion on reasonable ways to use AI generated contents in both teaching and learning, yet information technology do facilitate language acquisition with teaching display methods such as word clouds, knowledge maps, VR/AR classrooms. Notably, digital multimodal composing has been adopted in output focused presentations in classroom setting.

2. DMC Teaching Problems

Current situation of digital multimodal composing in teaching and learning English as a second foreign language has the following disadvantages.

(1) Lack of teacher experience and skills

Digital Multimodal Composing has certain technical requirements, and at the same time, it needs to be effectively combined with course contents, which greatly tests teachers' technical mastery and practical application of DMC. Due to the lack of practical teaching experience, it is difficult to meet the diverse demands of students, which greatly reduces their concentration and interest in class and increases learning difficulties.

(2) Weak practical consciousness of students

Artificial Intelligence Generated Content, in second language (L2) learners' opinion, is more a way to entertainment than giving hints to pathways, thinking direction and practical operation methods. In the teaching process, L2 learners use digital multimodal composing (such as text, pictures and videos etc.) to display their learning results. However, teachers consider entertaining DMC contents not highly relevant to academic achievement. Although this form of presentation greatly attracts students' attention in class, the efficiency of students' mastery of language skills is still in question.

3. AI Focus on Multimodal Reform

Digital multimodal reform refers to the integration of different modes of communication and interaction, such as texts, images, videos, and audio, in digital platforms and systems to enhance communication, learners' experience, and information sharing. It combines both teaching and learning procedures, thus reform can follow these rules:

(1) Strengthen L2 classroom teaching reform

Faced with the shortage of teachers' teaching experience and skills in digital multimodal composing, educational institutions should invest funds in systematic training of teachers and organize regular seminars to improve the effectiveness of their teaching. As for teachers, integrating DMC into the daily teaching content can be effectively presented in a variety of ways, so as to enhance the initiative and enthusiasm of students.

(2) Cultivate students' practical awareness

Some studies collected multimodal text data of students through observation and interview, and found that although DMC expanded the scope of identity, their investment (involvement) in L2 was different due to different stance responses. Students learn to make DMC to convey their inner thoughts, visualizing the abstract. Under the premise of having certain technical experience, teachers should engage guiding roles to make DMC meet teaching requirements with certain practical significance, and meanwhile have fun in teaching. In this way, students change their roles from passive to active learners, making full use of AIGC resources.

4. AIGC Integration Methods

AIGC integration can have a significant impact on language teaching and learning. Here are some practices where AIGC can be effectively incorporated into language education:

Adaptive Learning: AIGC can adapt language learning materials to suit individual learners' needs, strengths, and weaknesses. Through machine learning algorithms, the generated content can analyze learners' performance and provide personalized feedback. This helps learners progress at their own pace.

Gamified Language Learning: AIGC can be used to develop language learning games and simulations that immerse learners in real-world language use scenarios, enhancing writing and speaking in a fun and interactive way.

Virtual Language Tutors: AIGC-powered virtual language tutors can provide learners with on-demand language support and practice by simulating real-life conversations and interactions, thus allow learners to practice their language skills in a safe and controlled environment.

Language Assessment: AIGC can be used to develop automated language assessment tools that can accurately evaluate proficiency. These tools can use NLP to analyze learners' writing, speaking, or listening samples and provide objective feedback. Automated language assessment can save time and resources.

Data-Driven Instruction: AIGC can analyze vast amounts of data generated by learners' interactions with language learning materials, activities, and assessments. This data can provide valuable insights into learners' strengths, weaknesses, and progress, thus support individual language development.

Collaborative Language Learning: AIGC can facilitate collaborative language learning by providing learners with opportunities to engage in interactive language activities with peers. This fosters authentic language use, cultural exchange, and social interaction, which are essential for developing communicative competence.

Teaching labor sharing: AIGC can empower educators, reduce some complicated and repetitive contents in teaching activities, and save teachers' time and energy in repeated labor in foreign language teaching. Teachers are better able to carry out creative and challenging work and effectively improve the quality of teaching.

Teaccording to students' ability: AIGC analyzes the problems in the learning process of learners, sorts out algorithms and analyzes point-to-point data, provides data reference for teachers, generates visual reports, and helps teachers adjust teaching methods and contents accordingly. As far as possible to achieve the purpose of individualized teaching.

Real-time update: AIGC updates the teaching content according to the development of contemporary society and science to ensure the timeliness of knowledge and avoid backward teaching. For the teacher in the latest foreign language related knowledge collection, reduce the time

5. Conclusion

The reform of integrating AI-generated content into language teaching has been irresistible. In L2 acquisition, teachers should make use of the existing DMC resources to guide students' attention to practicability, and treat DMC as a tool rather than an entertainment. AI-generated content has the potential to transform language teaching and learning by providing personalized, interactive, and efficient learning experiences.

In conclusion, AIGC integration can revolutionize language teaching and learning by providing adaptive procedures, gamified language learning, virtual language tutors, automated language assessments, data-driven instructions, and collaborative language learning opportunities. These practices can enhance learners' engagement, motivation, and language proficiency, and empower language teachers with data-driven insights to better support their students. With the use of AI technology, language teaching and learning can be reformed to meet the diverse demands of learners, enhance their language proficiency, and promote more effective and efficient language learning outcomes.

References:

[1]Jiang Lianjiang, Yu Shulin, Zhao Yi. Teacher engagement with digital multimodal composing in a Chinese tertiary EFL curriculum[J]. Language Teaching Research,2019,25(4).

- [2]Trisanti Novia,Sukyadi Didi,Suherdi Didi. Digital Multimodal Composing Usage in EFL Secondary Classroom:A Study of In-Service EFL Teachers' Perception[P]. Sixth International Conference on Language, Literature, Culture, and Education (ICOLLITE 2022),2022.
- [3]Kim YouJin,Kang Sanghee,Nam Eunice Yunjung & Skalicky Stephen.Peer interaction, writing proficiency, and the quality of collaborative digital multimodal composing task: Comparing guided and unguided planning. System(prepublish). doi:10.1016/J.SYSTEM.2022.102722.,2022.
- [4]Christoph A. Hafner, Wing Yee Jenifer Ho. Assessing digital multimodal composing in second language writing: Towards a process-based model[J]. Journal of Second Language Writing,2020,47.
- [5]Lianjiang Jiang. Digital multimodal composing and investment change in learners' writing in English as a foreign language[J]. Journal of Second Language Writing,2018,40.
- [6]Li Mimi, Akoto Miriam. Review of Recent Research on L2 Digital Multimodal Composing[J]. International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT),2021,11(3).
- [7]Li Mimi, Dell-Jones Julie. The same topic, different products: Pre-/in-service teachers' linguistic knowledge representation in a multimodal project[J]. Computers and Composition,2023,67.

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