

Exploring the Practical Pathways of AI-Enabled Courses for English Majors: A Case Study of “Extensive English Reading II”

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Abstract

Under the backdrop of Educational Informatization 2.0, AI technology provides new support for the reform of teaching and learning, especially in higher education institutions. As a basic course of the discipline, “Extensive English Reading II”, opening for English majors in a practice-oriented university in China, faces issues such as insufficient personalized guidance and weak resource adaptability. However, with AI empowerment, the instructor and also the author of the paper manages to address those problems she identifies in the course in previous teaching experience, and has achieved satisfactory outcomes. This paper aims to show the practical experience of the author in her latest pedagogical experimentation and instructional reform by integrating AI in all links of her teaching, including pre-class preparation, classroom teaching and post-class evaluation. Multifaceted results demonstrate that this pathway effectively addresses the course’s pain points, significantly enhances students’ reading proficiency and AI literacy, and strengthens academic integrity awareness, which will be elaborated in another paper. The practical pathway developed in this study is both actionable and replicable, highlighting the importance of AI tool-assisted positioning and academic integrity guidance. It offers practical reference and insights for intelligent empowerment in similar Extensive English extensive reading courses.

Keywords

AI, foreign language curriculum, practical path, “extensive English reading”

1. Introduction

Under the advancement of Education Informatization 2.0, AI technologies such as large language models (LLMs) and natural language processing (NLP) provide support for teaching innovation of courses for English Majors. “Extensive English Reading II”, as a core basic course of the discipline, covers six unit themes and is designed to broaden students’ exposure to authentic English texts, enhance reading fluency and speed, and strengthen vocabulary and comprehension skills through diverse genres and sustained independent reading. However, current courses face challenges such as insufficient personalized guidance, lack of instant solutions for materials preview, and delayed post-class feedback, which hinder the improvement of teaching quality. While domestic and international research primarily focuses on the application of AI in intensive reading and writing courses, studies on AI-enabled comprehensive support for

extensive reading courses are scarce, lacking specific textbook adaptability and practical validation. Based on this, this study uses the course as a platform to integrate various AI tools, construct a full-cycle empowerment framework from pre-class to post-class, and validate its effectiveness through teaching trials, offering insights for intelligent teaching reforms in similar courses.

2. Related Concepts and Theoretical Foundations

2.1 Core Concepts

The core related concepts of this study are as follows: AI empowerment is the deep integration of artificial intelligence technology and teaching, relying on LLM, NLP technology and related tool platforms, applied to the entire course process; The Extensive English extensive reading course focuses on enhancing students' reading abilities and perspectives through designated textbooks; LLM can achieve natural language understanding and generation, while NLP focuses on language processing and optimization. The related tools of the two are adapted to scenarios such as preview and post class consolidation; Student AI literacy is a comprehensive competency that encompasses four-dimensional abilities such as technical understanding and tool application, as well as academic integrity awareness.

2.2 Theoretical Basis

Constructivist learning theory holds that learning is a process in which students actively construct knowledge, rather than passively receiving knowledge. Students combine new knowledge with existing knowledge systems through their own learning experiences and interactive communication, forming personalized knowledge cognition. This theory provides core support for the design of AI empowerment paths. AI tools provide personalized learning support and interactive scenarios for students, helping them actively solve learning questions, participate in classroom interaction and self-directed learning, and achieve active knowledge construction, which is in line with the core goal of cultivating self-directed learning ability in the extensive reading course of "Extensive English Reading II" [1].

Humanistic education theory emphasizes student-centered approach, focusing on students' personalized needs and comprehensive literacy cultivation, advocating for providing students with a relaxed and autonomous learning environment, and stimulating their learning initiative and enthusiasm. The design of the AI empowerment path in this study fully embodies the humanistic education concept. Through the functions of AI reading circle intelligent agents, personalized resource push, targeted feedback, etc., it meets the learning foundations and needs of different students, highlights the subject status of students in the teaching process, and pays attention to the cultivation of students' AI literacy and academic integrity awareness, achieving comprehensive improvement of students' comprehensive literacy.

The framework of AI empowering foreign language learning literacy provides specific guidance for the cultivation of students' AI literacy. The framework clarifies the four dimensions of technical understanding, tool application, result evaluation, and critical thinking that students need to possess in the process of AI empowering foreign language learning, while emphasizing the importance of academic integrity and ethical awareness. The AI empowerment path design of this study strictly follows the framework requirements, integrates AI literacy cultivation into the entire teaching process, guides students to correctly use AI tools, rationally evaluate AI results, cultivate critical thinking, and comply with academic integrity.

3. Practical Path Design for AI Empowering the Course of "Extensive English Reading II"

3.1 Pre Class Module: AI Assisted Preview to Solidify Learning Foundation

Pre class preparation is an important part of the "Extensive English Reading II" course, with the core goal of helping students familiarize themselves with unit topics, master basic vocabulary and sentence structures, understand text background knowledge, focus on key reading points, and prepare for classroom learning and discussion. Based on the characteristics of the themes in each unit of the textbook, the pre class module integrates LLM AI tools and Chaoxing AI resource library to build a comprehensive preview support system, solve various questions in the preview process for students, and improve the preview effect.

In response to common vocabulary, sentence structures, and background knowledge questions that students may encounter during the preview process, the author collaborates with three LLM AI tools, Deepseek R1, Mita AI, and Asksia, to provide students with real-time answer support. The core advantage of Deepseek R1 is the explicitization of question answering logic, which can not only answer students' questions but also demonstrate the thinking process and logical chain, helping students understand the essence of the problem rather than simply obtaining answers. For example, in the preview of the "Family and Marriage" unit, when students ask about the meaning and cultural background of "arranged marriage", Deepseek R1 not only provides a Chinese definition, but also sorts out the origin, main distribution areas, cultural connotations, and other related information of the concept, demonstrating the logical process of information collection and organization, and helping students to gain a deeper understanding.

The core feature of Mita AI is to provide clear information sources, which can annotate the sources of information when answering questions, including authoritative dictionaries, academic literature, news reports, etc., to ensure the authenticity and reliability of information, while cultivating students' information literacy. In the preview of the "Technology and Our Lives" unit, when students ask about "artificial intelligence in daily life" related cases, Mita AI will provide specific cases and indicate the sources of the cases, such as scientific journals, authoritative media reports, etc., to facilitate students' further research and development.

As a subject AI teaching assistant, Asksia is able to accurately connect with the needs of English reading subjects, provide targeted answers to the difficulties and key points of textbook texts, and provide personalized preview suggestions. For example, in the preview of the "Cash or Cashless (Mobile Payment)" unit, Asksia will combine the unit text to sort out the relevant vocabulary and sentence structures of mobile payment for students, remind them to pay attention to the advantages and controversial points of mobile payment in the text when previewing, and help students clarify the focus of previewing.

Collaborative Chaoxing AI resource library provides students with expanded resources related to unit themes and enriches preview content. The Chaoxing AI resource library contains a large amount of English reading materials, videos, audios, and other resources, which can be intelligently pushed according to the theme of the textbook unit, adapting to the level of intermediate English learners. For example, in the preview of the "Clear Waters and Green Mountains" unit, the Chaoxing AI resource library will push English short articles, news reports, documentary clips, and other resources related to environmental protection to help students understand relevant background knowledge and expand their language horizons; In the preview of the "School and Education" unit, relevant reading materials from different countries' education systems are pushed to help students compare and understand the content of the unit text.

3.2 In Class Module: AI Supports Interaction and Enhances Classroom Efficiency

In class teaching is the core part of the "Extensive English ReadingII" course, with the core goal of guiding students to deeply understand the text content, enhance their text analysis and collaborative learning abilities, and implement personalized guidance. This module mainly adopts the teaching forms of reading circle group cooperation and project-based learning. It relies on the Coze platform to build an Feishu-compatible AI reading circle agent, collaborates with a learning behavior analysis tool on the Chaoxing AI platform, and constructs a classroom teaching mode of "student centeredness, AI support, and teacher guidance" to improve classroom teaching efficiency.

Reading circle group cooperation is a student-centered teaching form that divides students into several small groups, with each group member playing a different role, such as summarizer, predictor, questioner, etc. Through division of labor and cooperation, in-depth analysis of text content is conducted, and discussions and exchanges are carried out. The core difficulty of this teaching format is the lack of personalized guidance, making it difficult for teachers to track the learning progress and individual performance of each group in real time, and unable to provide targeted support to students in a timely manner. When it comes to the AI age, most AI learning assistants only allow single user communication. Students in collaborative teamwork like the reading circle are not able to share their research results on AI effectively and conveniently in their groups. The introduction of group-chat-compatible AI reading circle agents has effectively solved this problem.

Based on the Coze platform, the author has built an AI reading circle agent that adapts to the text of each unit of the textbook and can be added to the group chats of studnets on the Feishu platform. As a virtual

member of each reading circle group, the agent robot assumes specific roles and provide personalized learning support. The instructor use natural language programming to set the parameters of the agent, including personas, workflows, databases, etc., to adapt to the characteristics and learning needs of specific unit texts, making it virtual members who master specific skills and hold specific positions. For example, in the reading circle activity of the “Family and Marriage” unit, the AI agent is set as a “viewpoint supporter” role, focusing on the theme of “changes in modern marriage concepts” in the text, providing relevant viewpoint support and case supplements, and guiding students to have in-depth discussions; In the “Technology and Our Lives” unit, the AI agent is set up as a “skeptics” role to raise reasonable questions about the impact of technology on life in the text, and stimulate students’ critical thinking.

AI reading circle agent can respond to students’ questions in real time, providing targeted guidance and support for students. During group discussions, when students encounter difficulties in understanding texts or differences in viewpoints, they can consult with AI agents. The agents can combine the text content with their own set roles to provide accurate answers and suggestions. For example, when students have doubts about their understanding of a complex sentence structure in a text, AI agents can break down the sentence structure and provide translation and analysis; When students lack relevant case studies to support their discussions, AI agents can supplement cases related to the unit topic to help students improve their viewpoints. And these responses are shared in the group chat, making sure that all members of the group are accessible and exposed to the same message.

The learning behavior analysis tool on the Chaoxing AI platform tracks students’ learning performance, and establish students’ personal learning profiles. It can record relevant data such as students’ task completion rate, discussion participation, individual scores and its placement in the big class, etc. in the classroom. Through data statistics and analysis, it can accurately grasp each student’s learning status and weak links, providing data support for personalized guidance.

3.3 After Class Module: AI Extension Consolidation, Optimizing Learning Outcomes

After class consolidation is an important extension of the “Extensive English Reading II” course, with the core goal of helping students consolidate the knowledge learned in class, expand their reading horizons, and enhance their language expression abilities. This module integrates LLM resources, academic paper platforms such as Scite, and NLP AI tools to build a comprehensive post class consolidation system, achieving the dual goals of reading expansion and expression improvement, and optimizing learning outcomes.

The above mentioned tools are utilized to help quickly search of extracurricular reading materials related to unit topics, providing students with abundant resources for expansion. LLM resources can intelligently screen out reading materials that are suitable for intermediate English learners based on unit themes, including news reports, academic papers, essays, etc., covering different perspectives and viewpoints, helping students expand their reading horizons and deepen their understanding of unit themes. As an academic paper platform, Scite can provide authoritative academic paper abstracts and citation information related to unit topics, helping students understand research results in related fields and enhance academic literacy.

To address the differences in English proficiency among different students, LLM and intelligent slicing tools are used to adjust the difficulty of extracurricular reading materials, ensuring their adaptability. Intelligent slicing tools can split longer reading materials, simplify complex sentence structures and vocabulary, reduce reading difficulty, and adapt to students with weak foundations; For students with a good foundation, LLM tools can be used to increase the difficulty of materials, supplement complex sentence structures and advanced vocabulary, and enhance reading challenges. For example, after the “Clear Waters and Green Mountains” unit, a simplified version of environmental protection news articles would be provided to students with weak foundations, removing complex sentence structures and rare vocabulary; Relevant academic paper abstracts would provided to students with good foundations, increasing reading difficulty and depth.

The instructor also uses NLP based AI tools to help students improve their language expression skills and solve grammar and style problems in homework after class. Grammarly can accurately detect grammar errors, spelling errors, punctuation errors, etc. in students’ homework, and provide modification suggestions to help

students standardize their language expression; Wordtune can optimize students' sentence structure, improve the fluency and logic of text, and help students master the expression integrity of different literary genres; Intelligent grading tools can comprehensively grade students' reading summaries, short essay writing, and other assignments, analyze their expression shortcomings, and provide targeted improvement suggestions.

During the process of completing homework, students can use the above AI tools for self inspection and modification to improve the quality of homework. For example, after completing the short essay writing for the "Cash or Cashless (Mobile Payment)" unit, students can first use Grammarly to detect grammar errors, make corrections and improvements, and then use Wordtune to optimize sentence structure and improve text fluency; Finally, comprehensive feedback is obtained through intelligent grading tools to address any shortcomings in one's expression. The application of AI tools enables students to receive timely feedback and guidance, avoid repeated errors, and gradually improve their language expression ability.

3.4 Academic Integrity Guidance in AI Empowerment

In the process of AI enabled teaching, it is necessary to clarify the positioning of AI tools, guide students to use AI tools correctly, avoid relying on AI and replacing them to complete learning tasks, and strengthen academic integrity guidance to cultivate students' academic integrity awareness. This stage runs through the entire process before, during, and after class, and is an important component of cultivating students' AI literacy.

The instructor pays attention to clarify the auxiliary positioning of AI tools and emphasize that AI is an auxiliary tool for students' learning, rather than a substitute tool, throughout the whole course. In the pre class preview, students are guided to use AI tools to solve questions, but they need to independently sort out the key points of the preview and can not directly copy the answers given by AI; In classroom discussions, AI agents provide viewpoint support and case supplements, but students need to think independently and express themselves actively, and can not rely on AI to complete discussion tasks; In homework, AI tools are used for grammar checking and text optimization, but students need to independently complete homework writing and can not directly generate homework content using AI.

Through the introduction of AIGC detection tools such as GPTZero, the instructor requires students to conduct self-examination after completing homework, classroom presentations, and other results to check for the presence of AI generated content in the results and ensure their originality. GPTZero can help to warn potential AI generated content through text feature analysis and provide detection reports. Students are alerted that their assignments, if not fully done by themselves, can be detected and even withdrawn with self-detection on GPTZero, ensuring their own originality. At the same time, teachers will also use this tool for checking homework and evaluating results, guiding and educating students who have AI substitutes to complete tasks, and strengthening academic integrity awareness.

In the teaching process, combining specific cases, the instructor explains to students the importance of academic integrity and clarifies academic taboos on the use of AI. For example, it has been explained at the beginning of the course how to correctly cite information provided by AI tools and label the source of the information, how to avoid excessive reliance on AI and cultivate independent thinking ability, and how to deal with the risks of AI generated content and ensure original results. Through normalized academic integrity guidance, students are encouraged to develop a correct awareness of AI usage, abide by academic integrity, and cultivate academic integrity.

4. Conclusion

This instructional reform takes "Extensive English Reading" as the carrier, integrates LLM and NLP AI tools, and constructs and verifies a full process AI empowerment practice path from pre class to in class to post class. Research has confirmed that this path can effectively address the pain points in curriculum teaching, achieve dual improvement of students' reading ability and AI literacy, and has strong operability and replicability, clarifying the core value of AI tool assisted positioning and academic standard guidance. Due to the limitations of a single paper, validated results will be included in another empirical research paper. With a mono-scope of course practice, this study still has shortcomings. In the future, the author will optimize the compatibility between AI tools and textbooks, deepen the cultivation of students' AI literacy,

expand the application scope and practical scenarios of tools, and provide more comprehensive support for the intelligent teaching reform of similar foreign language courses.

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Conflicts of Interest

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