
Digital Teaching for English Reading: A Case Study

Jiemin Han*

Taiyuan Open University, Taiyuan 030024, Shanxi, China

**Author to whom correspondence should be addressed.*

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Abstract: With the digital transformation and foreign language core competency cultivation, traditional English reading teaching faces dilemmas like superficial reading and inadequate personalized instruction. This study proposes a digital teaching approach rooted in POA, integrating LLMs and digital tools to build a closed-loop teaching system. Taking “How to Adapt to Change in the Workplace?” from *Management English 4* as a case, the study verifies that this approach significantly improves students’ language and thinking abilities, and provides a practical framework for digital English reading teaching.

Keywords: Digital Teaching; English Reading; Case Study; POA; LLMs

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1. Introduction

English reading serves as a core carrier for language input and thinking training, yet traditional teaching relies on rigid sentence-by-sentence translation and exercise-based training. This approach leads to superficial reading and hinders the achievement of deep text construction and high-quality language output. With the rapid advancement of Artificial Intelligence (AI) technology, Large Language Models (LLMs) and digital teaching tools offer new opportunities to overcome these bottlenecks and empower the cultivation of deep reading and critical thinking abilities^[1]. Existing research confirms the positive role of digital technology in optimizing English reading teaching. Focusing on adult workplace English learners in open universities, this study designs an AI-driven digital teaching model for English reading. It aims to explore its practical operational pathway, verify its effectiveness in enhancing deep reading ability and digital literacy, and provide actionable insights for the innovation of digital English reading teaching.

2. Literature review

Scholarly exploration of deep reading teaching has long been a focus in foreign language education research. The core connotation of deep reading lies in guiding students to move beyond surface-level text decoding and realize the construction of semantic meaning, logical analysis, and critical reflection. Jiang & Yang (2025) pointed out that the artificial intelligence era has put forward new requirements for human higher-order cognitive abilities^[2], and deep reading teaching should focus on the cultivation of students’ critical thinking and argumentation abilities. However, in actual teaching practice, deep reading teaching is often limited by the lack of effective teaching tools and practical models,

and the cultivation of students' higher-order thinking abilities is in a recessive state, which is difficult to be effectively implemented.

The Production-Oriented Approach (POA) proposed by Chinese foreign language educators has become an important theoretical framework for optimizing foreign language teaching, with the core tenets of “output-driven, input-enabled, and assessment-as-promotion”. Gong (2025) verified that the POA-based digital teaching model can effectively guide students to achieve deep learning and critical thinking in the reading process by clarifying output objectives, and solve the problem of the disconnection between input and output in traditional reading teaching^[3]. However, existing research on the integration of POA and English reading teaching lacks in-depth exploration of the personalized design of output tasks and the organic combination with digital tools, which limits the scalability and practicality of the model in actual teaching.

In recent years, research on the application of AI technology in foreign language reading teaching has developed rapidly. LLMs, as a representative of AI technology, have powerful language understanding, information processing and logical reasoning capabilities, and are widely used in the design of teaching resources, personalized feedback, and thinking training. Lai (2023) pointed out that AI technology is driving the transformation of foreign language teaching from “empirical interpretation” to “cognitive visualization”, and digital tools such as mind mapping and online collaboration platforms have further optimized the teaching interaction mode^[4]. Despite these advances, the practical application of AI tools in reading teaching still has problems such as insufficient integration with teaching theories, formalized application of tools, and lack of a closed-loop teaching system covering the whole teaching process, leaving a research gap that this study intends to fill.

3. Digital teaching process for English reading

Taking the core reading text “How to Adapt to Change in the Workplace?” from *Management English 4* of the Open University of China as the teaching material, this study designs a complete AI-driven digital teaching process for English reading, which is suitable for the characteristics of adult workplace English learners and covers pre-class preparation, in-class core teaching and post-class practice and evaluation. The teaching process adheres to the student-centered principle, gives full play to the advantages of AI tools and digital platforms, and realizes the organic integration of semantic decoding, logical construction, critical thinking training and ideological and political education.

3.1. Pre-class preparation

The pre-class preparation stage is the foundation of AI-driven digital reading teaching, with the core objectives of precise knowledge foreshadowing, personalized task adaptation and ideological and political education pre-positioning. This stage relies on AI tools to break down the core difficulties of the text and design hierarchical tasks, laying a solid foundation for in-class deep reading and cultivating students' digital autonomous learning ability. The core operations can refer to **Table 1**.

Table 1. Core operations of Pre-class preparation

Dimension	Teachers' Core Operations	Students' Core Operations
Core Tools	Large Language Models	<ul style="list-style-type: none"> • Online Reading Platform • AI Resource Package • ProcessOn
Primary Tasks	Generate customized preview resource packages	Conduct multimodal preview activities
Specific Content	<ul style="list-style-type: none"> • Core vocabulary • Logical sentence patterns • Extended cases • Digital adaptation strategies 	<ul style="list-style-type: none"> • Memorize core vocabulary and sentence patterns • Correct pronunciation through audio/video resources • Resolve semantic doubts in real time

3.2. While-class teaching

The in-class core teaching stage is the key link of AI-driven digital reading teaching, which is designed to realize the deep construction of text meaning and the cultivation of students' higher-order thinking ability through five interrelated teaching links. With the real-time data feedback of AI tools, teachers adjust the teaching rhythm and optimize the teaching interaction effect^[5], and the whole process highlights the human-computer collaboration and student participation.

3.2.1. Multimodal Semantic Decoding

Focusing on the core vocabulary (e.g., adapt to change, workplace resilience, digital adaptation) and logical sentence patterns (e.g., conditional clauses for coping strategies) in the case text, teachers use LLMs to generate contextual examples related to workplace scenarios (e.g., "When facing new office software, we should actively adapt to changes by participating in training") and error analysis of common misuses (e.g., confusing "adapt to" with "adjust to"). They push real-time exercises based on the text (e.g., filling in the blanks with core vocabulary in the text's key sentences) through the collaborative platform to collect students' answering data and locate common weak points; students correct their memory deviations of the text's vocabulary and sentence patterns, complete real-time exercises, and view AI-generated personalized error analysis to strengthen semantic decoding ability for the case text.

3.2.2. Visual Logical Construction

Teachers invite students of different levels to display the pre-class drawn logical structure maps of the case text (focusing on the text's core framework: challenges of workplace change → four coping strategies → practical cases). They comment on and guide students to improve the maps, and explain advanced operation skills of ProcessOn to present the logical relationship between "coping strategies" and "specific workplace cases" in the text. Students optimize the logical structure map in groups, share and comment on each other's works, and clarify the internal logical relationship of the text's four coping strategies (proactive learning, flexible adjustment, team collaboration, digital empowerment), realizing the deep understanding and visual presentation of the case text's logic.

3.2.3. AI-Assisted Critical Thinking Exploration

Taking the case text's core viewpoint "adapting to workplace change requires both subjective initiative and digital literacy" as the starting point, teachers use LLMs to generate hierarchical thinking questions (e.g., "Do you think the four coping strategies in the text are equally applicable to different workplace groups? Why?"; "How can we combine the text's strategies with our own workplace experience?"). They guide students to sort out their viewpoints and argumentation ideas based on the text's content, and input them into the LLMs to obtain optimization suggestions from three dimensions: argument authenticity (combining the text's cases), reasoning logic (linking strategies and effects), and expression rigor. Students improve their argumentation logic according to AI suggestions, carry out group discussions and mutual questioning around the text's viewpoints, and realize the progressive improvement of critical thinking ability based on the case study.

3.2.4. Digital Output Practice

Combined with the case text and real workplace needs, teachers design hierarchical output tasks: basic task (writing 3-5 workplace coping tips based on the text's strategies), intermediate task (writing a short paragraph about personal workplace change adaptation experience with reference to the text's logical structure), and advanced task (designing a simple digital adaptation scheme for workplace changes with the text's strategies as the core). They guide students to use LLMs to optimize their expression and supplement content related to the case text; students carry out group collaboration through the online platform, complete output tasks with the help of AI-generated materials and the text's core content, and realize the transformation of the case text's reading input into language output.

3.2.5. Ideological and Political Sublimation and Summary

Teachers interpret the core connotation of the case text in combination with students' thinking sharing and output results, integrate the educational concept of lifelong learning and progressive growth (consistent with the text's emphasis on "continuous learning to adapt to workplace changes"), and share AI-generated digital empowerment cases suitable for adult open university learners (e.g., a learner who applied the text's "digital adaptation" strategy to master new office tools and improve work efficiency). Students sort out their learning gains from the case text, participate in ideological and political discussions, and clarify the important role of digital literacy and proactive learning (highlighted in the text) in coping with workplace changes.

3.3. Post-class practice and evaluation

The post-class practice and evaluation stage is the key link to consolidate the teaching effect and realize the personalized improvement of students, which constructs a completed teaching process by means of AI-generated hierarchical tasks and a diversified evaluation system. It can be divided into two parts: personalized hierarchical homework and diversified evaluation system (refer **Table 2**).

Table 2. Homework and evaluation system

Category	Level/Type	Case-Related Specific Content
Personalized Hierarchical Homework	Basic	<ul style="list-style-type: none"> • Consolidate vocabulary/sentences • optimize the text's logical map
	Intermediate	Write viewpoint comments combined with the case text's coping strategies
	Advanced	<ul style="list-style-type: none"> • Analyze workplace digital cases • Improve schemes based on the text's strategies
Diversified Evaluation System	Formative (60%)	Covers pre-class preview, in-class participation, and case-related homework/output
	Summative (40%)	<ul style="list-style-type: none"> • Extended reading task related to the case text • Examines comprehensive reading ability

4. Conclusion

This study provides a practical path for the digital transformation of English reading teaching, especially for the workplace English reading teaching in open universities. In the future, the research can further refine the optimization strategies of the teaching model, focus on the deep integration of AI technology and ideological and political education in reading teaching, and explore the personalized teaching model adapted to more diverse learner groups, so as to continuously promote the high-quality development of AI-driven foreign language reading teaching. The core of digital reading teaching is to realize the organic integration of technical empowerment and the essence of reading teaching, adhere to the student-centered principle, and avoid the formalization and homogenization of technical application, so as to truly realize the cultivation of students' core foreign language competencies and digital literacy.

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Disclosure statement

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