

# The Construction of College English Multiliteracies Teaching Model Empowered by Intelligent Technology

LIU Jing

Zhoukou Normal University, Zhoukou, China

In the intelligent environment, the cultivation of students' multiliteracies has become the core of college English teaching. Against the backdrop of both opportunities and challenges brought by intelligent technologies empowering foreign language education, this paper analyzes the main issues of multiliteracies in college English teaching. On this basis, the study proposes a refined multiliteracies teaching model encompassing five dimensions, namely multimodal environment construction, situated practice, overt instruction, critical framing, transformed practice, as well as reconstructs a multimodal assessment system, with intelligent technology empowerment as its feature.

*Keywords:* multiliteracies, college English teaching, intelligent technology empowerment

## Introduction

With the rapid development of artificial intelligence and its technologies, the models of education, teaching, and language acquisition have been reshaped. It has also broken the linear limitations of traditional college English teaching and promoted the transformation of college English teaching towards a multi-dimensional, dynamic, diverse, and intelligent direction. At the same time, the multiliteracies pedagogy proposed by the New London Group explores how to change traditional teaching methods, effectively utilize digital resources and intelligent technologies, cultivate students' multiliteracies, and open a door for English teaching. In the intelligent environment, this study integrates multiliteracies pedagogy to explore the college English multiliteracies teaching model, addresses the deficiencies of traditional college English teaching and provides theoretical support for the intelligent, personalized, and localized English teaching. Based on the core issues of college English teaching and supported by intelligent technologies, this study constructs a multiliteracies teaching model including a multimodal intelligent environment, situated practice, overt instruction, critical framing, transformed practice as well as a multimodal assessment system. Therefore, it is hoped that this study can help students enhance their autonomous learning ability, comprehensive competence, and multiliteracies.

---

**Acknowledgements:** The paper is funded by the Research Project on Education and Teaching Reform, Zhoukou Normal University—Research on the Reform of College English Multiliteracies Teaching Model in Local Universities under the Intelligent Environment (Fund No. J2023016); the Teacher Education and Teaching Reform Project of Zhoukou Normal University, Henan Provincial Teacher Education Linkage Development Community (Eastern Henan Area)—A Study on the Construction of a Training Model for Developing Digital Teaching Competence in Pre-service English Teachers at Local Universities (Fund No. JYLD2025007).

LIU Jing, M.A., lecturer, College of Foreign Languages, Zhoukou Normal University, Zhoukou, China.

### **Status Quo of Multiliteracies in College English Teaching Under the Intelligent Environment**

GenAI is reshaping English Language Teaching (ELT) by enhancing both teaching methodologies and student engagement, but it requires careful integration into the language classroom (Lee, Jeon, McKinley, & Rose, 2025, p. 85). Based on investigations and research, the author finds that although the intelligent environment has initially taken shape, there are still many prominent issues in the integration of multiliteracies pedagogy into college English teaching. It has failed to fully leverage the advantages of the intelligent environment to achieve the goal of cultivating students' multiliteracies, exhibiting a significant gap between college English teaching and the core requirements of multiliteracies teaching as well as the demand for enhancing students' comprehensive ability.

Specifically, the main problems lie in five aspects:

First, the teaching environment is backward, where the effective integration of intelligent technologies and multimodal teaching has not been realized, making it difficult to meet the core needs of multiliteracies teaching and multi-sensory participation. Although the author's university is equipped with basic intelligent equipment, the utilization rate of the equipment is relatively low, and intelligent technologies have not been deeply integrated with multimodal teaching, leading to multiliteracies pedagogy still being confined to traditional teaching model.

Second, there is a lack of situated practice, as most teaching focuses on theoretical explanation rather than practical application scenarios, failing to connect multiliteracies with real-life contexts and cross-cultural communication. This renders it difficult for students to apply the knowledge they acquired to situated practice, as their reading and writing exercises are mostly limited to textbook content, lacking practical experience in real or simulated scenarios.

Third, the overt instruction is insufficient, and teachers lack effective and personalized guidance tailored to students' differences in multiliteracies based on intelligent technologies. Some teachers possess limited proficiency in using intelligent tools and thus cannot guide students to utilize such tools for autonomous learning, text interpretation, and practical exercises in alignment with teaching objectives of multiliteracies pedagogy. It fails to realize hierarchical guidance and precise empowerment with the assistance of intelligent technologies.

Fourth, the cultivation of critical thinking is inadequate, with insufficient targeted training on students' independent thinking and analytical abilities. They also fail to make use of the abundant resources provided by the intelligent environment to guide students in analyzing, questioning, evaluating, and innovating multimodal texts. Consequently, students lack the awareness and ability of independent thinking and critical interpretation.

Fifth, there is a shortage of transformed practice, and the lack of practical activities that can deepen students' understanding and application of multiliteracies. This fails to stimulate students' learning initiative and creativity, leaving them mostly in a state of passively accepting knowledge.

The cultivation of students' multiliteracies is an important part of college English teaching. However, in the intelligent environment, the integration of multiliteracies pedagogy still faces prominent problems in five aspects. To give full play to the supporting role of intelligent technologies, this paper aims to propose an effective college English multiliteracies teaching model, so as to better cultivate students' multiliteracies and language competence.

### **Design Framework of Multiliteracies Pedagogy**

The essential philosophy of multiliteracies pedagogy can be traced back to the New London Group (NLG, 1996). It includes four steps: situated practice, overt instruction, critical framing, and transformed practice. Cope

and Kalantzis (2015) identified the four steps grounded in epistemology and align them with four knowledge processes: experiencing, conceptualizing, analyzing, and applying (p. 4). Specifically, situated practice involves learners immersing in practical or simulated communication scenarios to conduct language learning and develop practical communication abilities. Overt instruction guides learners to systematically master multimodal literacy through explicit guidance with metalanguage. Timely and overt instruction is given when students need it according to the actual situation, and then gradually reduced, so that students can construct meaning independently (Mills, 2011). Critical framing enables learners to critically analyze and evaluate knowledge in combination with social and cultural contexts to cultivate independent thinking. Transformed practice allows learners to apply the knowledge and abilities gained from the previous three steps to new contexts, consolidate learning experience, and form a circular learning model together with the other three steps.

The design framework of multiliteracies pedagogy under the intelligent environment is constructed based on the four-step model of multiliteracies pedagogy proposed by the New London Group, as well as the actual needs of college English teaching in Zhoukou Normal University. Centered on cultivating students' multiliteracies competence, the framework takes intelligent technologies as technical support and takes situated practice, overt instruction, critical framing, and transformed practice as the main steps. It forms an integrated, circular, and dynamic system, covering three core parts, namely, theoretical basis, design principles, and implementation strategies. The theoretical basis provides support for the framework, while the design principles guide the teaching practice. The implementation strategies focus on the specific integration of the five-step model as well as a diversified multimodal assessment system, ensuring the framework is practical and operable, and providing effective guidance for the reform of college English teaching.

### **Strategies for Constructing Multiliteracies Teaching Model**

Based on the multiliteracies pedagogy, this study explores an effective college English teaching model empowered by intelligent technology, particularly in light of emerging artificial technologies, such as Artificial General Intelligence (AGI) and Artificial Intelligence Generated Content (AIGC). To transcend traditional monomodal teaching limitations, the research establishes a comprehensive online-intelligent and offline-situational multiliteracies teaching model, integrating intelligent technology with pedagogical resources to enhance students' multiliteracies, intercultural communicative competence, and autonomous learning abilities in intelligent environments.

#### **Constructing a Multimodal Environment Adapted to Intelligent Scenarios**

According to Li, Deng, and Feng (2024), the two core elements of the multiliteracies theory are multimodal teaching and design-based learning, which require teachers to create a multimodal environment, promote students' cognitive transformation in interaction, and develop their metacognition and innovative thinking (p. 43). Based on the key elements of multiliteracies and the current situation of college English teaching, the first step is to create a multimodal environment for teaching and learning. This is not a mere accumulation of intelligent technology. Rather, it requires the deep integration and precise empowerment of intelligent tools to ensure that multimodality helps students improve their multiliteracies. The core of this environment lies in breaking the constraints of traditional text-centered methods and integrating diverse semiotic systems and intelligent tools to build a teaching ecosystem that stimulates students' learning initiative and adapts to intelligent learning scenarios. It also focuses on improving teachers' multimodal teaching ability and cultivating students' autonomous learning ability under the intelligent environment.

The multimodal teaching provides standardized references and resources for students to construct meaning. Teachers must internalize multimodal awareness and strengthen their ability to interpret and construct meaning across multiple semiotic systems. Within the design process, teachers should systematically advance the “design” and “redesign” of meaning, scientifically integrating symbolic resources while managing the relationships between foregrounded and backgrounded elements. By using intelligent tools, teachers can create an immersive, multi-dimensional classroom environment. At the same time, teachers should act as facilitators, using intelligent tools to bridge interactions and extend learning scenarios beyond the classroom. Crucially, students must be guided to master intelligent tools for multimodal content creation, resource retrieval, and knowledge interpretation. This fosters their ability to autonomously acquire, integrate, and analyze information, aligning with the objective of developing comprehensive English proficiency in the digital age.

### **Conducting Situated Practice Empowered by Intelligent Technology**

Under the intelligent environment, the cultivation of students’ multiliteracies in college English teaching should not only focus on the systematic construction of students’ multiliteracies, consolidate their language foundation and multimodal interpretation ability, but also promote students to transform the acquired knowledge into practical application. This is also a specific embodiment of the key of multiliteracies theory. Compared with top universities, local universities are limited by regional and resource factors, resulting in relatively insufficient English social practice scenarios, which are difficult to fully meet the needs of students’ situated practice. Relying on intelligent technology to carry out simulated real-scene practice can effectively make up for this shortcoming.

The core of situated practice is to use the advantages of intelligent technology to build a practical environment that is close to real communication scenarios. This could meet students’ needs of learning, enable them to complete the interpretation and creation of multimodal discourses in the simulated scenarios, and at the same time, cultivate their communicative ability, so as to promote the comprehensive improvement of their multiliteracies (Zhang, 2015). In addition, teachers should make full use of the advantages of intelligent means to build a realistic, targeted and adaptive simulated real-scene practice environment based on the objectives of multiliteracies teaching. The intelligent tools can enhance the sense of immersion and authenticity of the scenes, enable students to better integrate into the practical environment, actively participate in the construction and interpretation of multimodal discourses, and continuously enrich their own “design resources.” In the process of situated practice, it is necessary for teachers to highlight the dominant position of students, guide students to actively participate in practice activities as “designers,” and independently use various semiotic systems to construct discourse meaning.

### **Providing Overt Instruction Empowered by Intelligent Technologies**

Under the intelligent environment, the role of teachers has gradually shifted from traditional classroom dominators to designers, facilitators, and organizers. The shift of the role is an inevitable requirement for adapting to intelligent teaching scenarios and multiliteracies theory. At the same time, it is particularly crucial for teachers to provide overt instruction that is adapted to intelligent teaching environments. Such instruction helps students clarify learning objectives, resolve learning difficulties, and regulate their learning processes. It helps students independently construct multimodal discourse, acquire new knowledge, and improve their competency. However, the instruction should not be a one-way transmission of knowledge, but rather a bidirectional interactive facilitation. It must permeate the entire process of situated practice in pre-class, in-class, and post-class stages. It

should integrate whole-class instruction with individualized support to meet both the fundamental learning needs of all students and the diverse developmental needs of students at different levels.

The focus of overt instruction lies in providing adequate preparation to help students learn effectively. Teachers may utilize intelligent tools to deliver theoretical knowledge, concepts, and requirements related to multiliteracies. They should clarify the key and difficult points of the content, as well as the principles, procedures, and methods of situated practice. At the same time, teachers can offer personalized pre-class instruction tailored to students of different levels by adopting intelligent tools, specifically addressing potential difficulties encountered during preview and improving the effectiveness of pre-class preparation. Following the implementation of situated practice, the focus of overt instruction shifts to consolidation, enhancement, and feedback, helping students in deepening their understanding and language use. Teachers can adopt intelligent assessment tools and multimodal evaluation methods to conduct precise analysis and feedback on students' practical outcomes. Teachers must fully employ multimodal means and integrate the intelligent teaching resources available in the classroom to diversify the forms of guidance, stimulate students' participation enthusiasm and self-confidence, and provide active and effective instruction.

### **Strengthening Critical Framing Empowered by Intelligent Technologies**

Critical framing is the key element of multiliteracies pedagogy. In the intelligent environment, the vast array of multimodal digital resources available online varies significantly in quality, with diverse and often overlapping information that includes both high-quality learning materials and false or low-quality content. This situation imposes higher demands on students' critical thinking.

The cultivation of critical thinking enables students to selectively and critically analyze and evaluate information within the massive volume of multimodal resources, avoid the influence of misleading content, and make judgments (Zhang, 2015, pp. 138-139). The development of critical framing not only enhances students' multiliteracies, but also helps them form rational thinking patterns, and improves their intercultural communicative competence. Teachers should integrate the cultivation of critical thinking into the entire process of multiliteracies teaching. By adopting intelligent tools, teachers should design targeted and systematic instructional activities to develop students' critical awareness and critical thinking. In addition, teachers can fully utilize the resource integration and recommendation functions of intelligent tools to provide students with diverse, multi-perspective multimodal texts. This approach guides students to move beyond singular viewpoints and interpret and analyze texts from multiple dimensions and angles, thereby fostering their multi-perspective thinking patterns. At the same time, through well-designed situated practice, teachers should guide students to actively explore the deeper meanings embedded in multimodal texts, including cultural, political, economic, and other dimensions. During the teaching process, teachers should emphasize guiding students to express their own views and insights, encourage them to question boldly, and cultivate independent thinking skills. Through diverse critical framing, students can integrate multimodal resources and innovate their thinking patterns within intelligent environments.

### **Conducting Transformed Practice Empowered by Intelligent Technology**

Transformed practice emphasizes that students are not passive recipients of knowledge. Rather, they actively construct their knowledge systems through the interaction between new and prior knowledge and experience (Zhang, 2015). In the intelligent environment, transformed practice can enable students to systematically integrate and creatively apply the multimodal knowledge and critical thinking developed in earlier stages. The objective of transformed practice is to guide students to creatively transform and apply the acquired knowledge.

Students are encouraged to integrate the acquired knowledge into new contexts, form their own knowledge systems and competence frameworks, further strengthen their multiliteracies, as well as simultaneously cultivate their comprehensive ability. Compared with conventional teaching activities, transformed practice place greater emphasis on students' creativity, highlighting the enhancement of capabilities through autonomous learning. Supported by intelligent scenarios, students can utilize various intelligent tools to accomplish the integration and reconstruction of knowledge. In doing so, students can not only gradually improve their autonomous learning ability, but also cultivate their critical thinking, ultimately achieving comprehensive advancement in their multiliteracies.

### **Constructing a Multiliteracies Assessment System**

Constructing a multiliteracies assessment system for college English multimodal design is a key to the implementation of multiliteracies teaching. The core dimensions of the assessment system must integrate moral multiliteracies, technological multiliteracies, and social communicative multiliteracies (Li, Deng, & Feng, 2024, p. 44). In recent years, the rapid development of AI technology has brought new media and digital tools to foreign language education, which has been proven to be an effective way to promote learning in the digital age (Deng, Liu, & Feng, 2023, p. 1254). Therefore, the multiliteracies assessment system adheres to the principle of promoting learning and teaching through assessment, thereby achieving deep integration between assessment and teaching.

This evaluation system is carried out around five dimensions by integrating moral multiliteracies, technological multiliteracies, and social communicative multiliteracies into each step of evaluation.

First, it examines the multiliteracies teaching environment tailored to intelligent scenarios, with a particular focus on the degree of integration between intelligent technologies and college English teaching, while simultaneously assessing students' multiliteracies.

Second, it evaluates the implementation effectiveness of situated practice empowered by intelligent technologies, assessing students' ability to utilize intelligent tools, interpret and create multimodal discourses, as well as their scene-adaptive communicative ability.

Third, it assesses the effectiveness of overt instruction, verifying the relevance of the instruction content and its capacity to stimulate students' learning initiative and multiliteracies.

Fourth, it investigates the outcomes of cultivating students' critical thinking within intelligent scenarios, emphasizing their ability to analyze and make rational judgments embedded in moral multiliteracies.

Fifth, it evaluates students' performance in transformed practice driven by intelligent technologies, examining their ability to create multimodal works as well as integrate and apply information, comprehensively testing technological multiliteracies and social communicative multiliteracies, and then comprehensively evaluating multiliteracies teaching.

### **Conclusion**

Under the intelligent environment, the cultivation of students' multiliteracies has become the core of college English teaching. This study systematically constructs a college English multiliteracies teaching model empowered by intelligent technology. Through analyzing the current situation of multiliteracies in college English teaching in the intelligent environment, this study clarifies the existing problems and provides solutions for college English teaching, covering the construction of a multimodal environment, situated practice, overt

instruction, critical framing, transformed practice, as well as the multiliteracies assessment system. Compared with traditional college English teaching method, this research reveals remarkable benefits. It not only integrates multiple modes of meaning and creates a relaxed and enjoyable classroom environment, but also adopts intelligent tools to involve students in multi-sensory participation in learning. This effectively stimulates their learning interest, enhances their comprehensive abilities, promotes the improvement of students' multiliteracies, and further improves the quality of English teaching. At the same time, this model provides a practical reference for the reform and development of college English teaching in the intelligent era, realizing the integration of technological empowerment and multiliteracies cultivation.

### References

- Cope, B., & Kalantzis, M. (2015). Sources of evidence-of-learning: Learning and assessment in the era of big data. *Open Review of Educational Research*, 2(1), 194-217.
- Deng, Y., Liu, D., & Feng, D. (2023). Students' perceptions of peer review for assessing digital multimodal composing: The case of a discipline-specific English course. *Assessment & Evaluation in Higher Education*, 48(8), 1254-1267.
- Lee, S., Jeon, J., McKinley, J., & Rose, H. (2025). Generative AI and English language teaching: A global Englishes perspective. *Annual Review of Applied Linguistics*, 45, 85-108.
- Li, X., Deng, Y., & Feng, D. (2024). Exploration of a multimodal formative assessment system for EMI courses based on multiliteracies pedagogy theory. *Linguistic Research*, 37(2), 41-51.
- Mills, K. A. (2011). *The multiliteracies classroom*. Bristol: Multilingual Matters.
- New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1), 60-92.
- Zhang, D. (2015). *Multimodal discourse analysis and foreign language teaching*. Beijing: Higher Education Press.