

Research on the Practical Path of Empowering College English Courses with Digital Intelligence to Effectively Tell the Story of Chinese Modernization under the Framework of Multimodal Interaction Analysis

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Abstract: Based on the framework of multimodal interactive analysis, this study centers on the theme of "telling the story of Chinese modernization well" in college English courses, employing a multimodal interaction analysis framework. It systematically explores, from five perspectives: cultural context, situational context, interactive discourse, modality, and media, how to "tell the story of Chinese modernization well" in college English teaching under the background of digital and intelligent empowerment. The purpose of this research is to enhance teaching quality, cultivate students' ability to find answers to interpret problems from different perspectives of the East and the West, analyze China's practices from a cross-cultural perspective, explore Chinese theories, tell Chinese stories well, spread Chinese voices, present a true, three-dimensional, and comprehensive image of China, better serve the opening-up strategy and international communication capacity building in the new era, fulfill the fundamental task of cultivating virtue and fostering talents, and cultivate high-quality innovative applied talents.

Keywords: Multimodal Interaction Analysis Framework, Digital and Intelligent Empowerment, Chinese Modernization Story

1. Introduction

In the context of the deepening development of globalization and the profound adjustment of the international pattern, telling a good story of Chinese path to modernization has become a strategic measure to break the hegemony of western discourse and build a new order of international discourse. As a new form of human civilization, Chinese path to modernization's unique development path and practical experience need to be understood by the international community through accurate cross-cultural communication. This task puts forward new requirements for language teaching in higher education.

As the core position of cultivating students' cross-cultural communication skills, university English courses have long had a tendency to "emphasize language skills and neglect cultural communication". The compilation of college English textbooks generally tends to introduce and interpret Western language and culture, so the content of Western language and culture is mostly Western, while the content of traditional Chinese culture is lacking, the concept of education is insufficient, and the ideological and political elements of the curriculum are lacking [1]. The guiding ideology of the compilation of university English textbooks should reflect the requirements of the new era, the basic requirements of the party and the state for education, and serve the teaching reform of higher education and talent training [2]. Under the traditional teaching mode, cultural content is mostly attached to the text, and the interpretation of Chinese modernization stays at the level of fragmented vocabulary. The interactive scene is limited to classroom, and students lack practical opportunities to tell Chinese stories in English. The teaching mode is mainly text and audio, which is difficult to adapt to the diverse needs of cross-cultural communication in the digital age. These problems lead to the fact that although students have English expression skills, they often fall into the dilemma of "not being able to say what

is reasonable, and what is said cannot be spread" in international situations.

"Telling China story well" is to let the world fully understand China, correctly understand and identify with China's development path, which provides a path choice for enhancing national cultural soft power and enhancing cultural confidence.[3]. At the same time, the breakthrough development of digital intelligence technology provides technical support for teaching reform. With the maturity of 5G, artificial intelligence, virtual reality and other technologies, multi-modal teaching can be transformed from theoretical conception to practical possibility. AI semantic analysis can realize deep decoding of cultural connotation, VR scene can construct immersive cross-cultural interaction space, and big data technology can accurately track communication effect.

Therefore, telling China stories in college English teaching should not only cultivate college students' English language level and cultural accomplishment, but also help them understand western civilization and culture. At the same time, it should also help them examine western values with critical thinking, promote them to carefully examine the similarities and differences between Chinese and western cultures, improve their thinking ability, and at the same time deeply understand the differences between Chinese and western cultures, strengthen their ideal belief in socialism with China characteristics, realize the all-round education of all staff and the whole process. So as to realize the ideological and political course of college English. [4]

Although some scholars in China have studied how to tell China modern stories well in English class, there are some problems such as lack of systematic research, lack of theoretical support and practical basis, and focus on students' factors. Foreign studies focus on the application of stories in foreign language teaching and education. The research on its value, teaching methods and teaching models not only proves the feasibility of story teaching in foreign language teaching, but also provides reference for researchers to further study how to apply stories to English teaching.

2. Research significance

The rapid development of digital technology, such as big data, artificial intelligence, virtual reality, etc., has brought revolutionary changes to the field of education. These technologies provide abundant resources and diverse teaching methods for college English teaching, greatly expanding the boundaries of teaching. As an emerging research perspective, multimodal interaction analysis focuses on the interaction of multiple modalities such as language, images, sound, and action in the teaching process, which helps to deepen the understanding of the essence and laws of teaching interaction and optimize teaching effectiveness. Relying on a multimodal interactive analysis framework, exploring the integration path of digital intelligence technology and college English courses is not only a practical need to solve the current teaching bottleneck, but also an inevitable choice to implement the fundamental task of cultivating morality and talents with global competence, and an important measure to serve the national cultural soft power enhancement strategy.

2.1 Necessity

At present, the international situation is constantly changing, the trend of globalization has become the overall situation, technology is developing rapidly, and China has also entered the era of digitization and intelligence. In the era of digital intelligence, technologies such as digitization, informatization, and intelligence provide strong support for the development and construction of higher education. Driven by digital technologies such as ChatGPT, the digital transformation of education is imperative. The digital transformation of education not only involves the transformation of educational methods, but also relates to the updating of teachers' educational concepts and practical models. What kind of people to cultivate, how to cultivate them, and for whom to cultivate them "and" what kind of university to establish and how to run it well "are two fundamental questions that universities must answer in their work. Cultivating moral character is the fundamental task of education and the foundation of universities.

2.2 Urgency

The Chinese government also clearly put forward the mission and task of "comprehensively promoting the great rejuvenation of the Chinese nation with Chinese modernization", and profoundly expounded the basic characteristics, essential requirements, strategic arrangements, and other basic issues of "Chinese modernization". It has initially constructed a theoretical system of Chinese

modernization and become an important theoretical material for ideological and political courses in universities. In the complex international situation, it is the urgent responsibility and mission of college teachers to "tell a good story of Chinese path to modernization".

The "Guidelines for College English Teaching" (2020 edition) explicitly put forward the requirements for ideological and political education in college English courses for the first time, pointing out that the nature of college English courses is to "cultivate students' understanding and interpretation ability of Chinese culture, and serve the external dissemination of Chinese culture" [5], and make requirements and explanations related to ideological and political education in the selection of teaching content, teaching methods and means, and teacher development. English, as a necessary means of foreign exchange, should be given more attention. English education should be one of the most effective ways to spread Chinese culture and "tell a good story of Chinese path to modernization". As a compulsory public basic course and core general education course for non English major students in undergraduate education, college English courses have a wide audience and shoulder the fundamental task of cultivating students' moral character. Integrating the story of Chinese path to modernization into college English teaching is a necessary measure to realize the cultivation of morality in English courses, improve the status quo of cultural aphasia in college English teaching, "tell a good story of Chinese path to modernization" to the outside world, and realize the great rejuvenation of the Chinese nation.

2.3 Feasibility

The story of Chinese path to modernization is the best story of Chinese path to modernization with cohesive and outward looking image, bearing the great dream of national prosperity and national rejuvenation. As China moves towards a new journey to build itself into a modern power, Chinese path to modernization has a richer meaning of the times. To give full play to the advantages of digital intelligence enabling higher education, to tell a good story of Chinese path to modernization, and to guide college students in the new era to actively participate in the irreversible great historical process of national rejuvenation is an important issue that needs to be solved in the research of ideological and political teaching of college courses in the new era. Therefore, this study is feasible in terms of research content.

3. Theoretical framework

3.1 Constructivist Learning Theory

Constructivist learning theory emphasizes that learning is the process in which students actively construct the meaning of knowledge through interaction with the environment, based on their existing knowledge and experience. In the teaching environment of multimodal interaction and digital intelligence empowerment, students can use the rich resources and tools provided by digital intelligence technology to explore the connotation and significance of Chinese path to modernization stories independently. For example, students actively participate in the process of knowledge construction by searching for relevant information online and participating in virtual discussion communities. Meanwhile, the creation of multimodal teaching scenarios can stimulate students' interest and initiative in learning, promote collaborative learning and communication among students, and further optimize the process of knowledge construction.

3.2 Cross cultural Communication Theory

Cross cultural communication theory focuses on the communication and interaction between people from different cultural backgrounds. To tell the story of Chinese path to modernization well in college English course is essentially a cross-cultural communication behavior. Digital intelligence technology and multimodal interaction provide students with rich cross-cultural communication materials and practical platforms, such as online international exchange projects, cross-cultural case analysis, etc. By participating in these activities, students can understand the characteristics and differences of different cultures, master cross-cultural communication skills and strategies, improve their ability to tell stories of Chinese path to modernization in the international context, avoid cultural misunderstanding, and achieve effective cultural communication.

4. The Practical Path of Teaching Chinese path to modernization Stories Well in College English Curriculum under the Framework of Multimodal Interactive Analysis

4.1 Multimodal Interaction Analysis Framework

Scholars such as Zhang Delu integrated the elements of the Norris multimodal interaction analysis framework (Norris, 2004) and incorporate the socio-cultural and situational contexts into it, and propose a more applied comprehensive framework for multi-level and multi-modal interaction analysis [6]. This analytical framework analyzes interactive activities from five levels: cultural context, situational context, interactive discourse, modality, and media. Cultural context is a key dimension that enables social communication activities. The tradition, form and technique of communication are all determined by this level. This level also includes ideologies composed of human thinking patterns, philosophies, living habits, and unspoken rules of society, as well as the potential of communication procedures or structures that can concretely implement this ideology [7]. Many scholars have applied Zhang Delu's multimodal interaction analysis framework to teaching reform, and have achieved many teaching reform results.

4.2 Practical Content

Firstly, digital intelligence empowers the reform of college English teaching. The convergence of digital technology, network technology, intelligent technology, and other technologies is bringing significant changes to education. Artificial intelligence technology is advancing rapidly, which presents unprecedented challenges and opportunities for reform in higher education. This research focuses on the practical path of using digital intelligence empowerment tools to tell the story of China's modernization well in college English course teaching.

Second, the story of Chinese path to modernization can be utilized as the starting point. Telling a good story of Chinese path to modernization is necessary to deepen theoretical arming and to break international prejudice, which is of great significance for shaping a good public opinion environment. The college English course has a wide audience, so it is more necessary to take the story of Chinese path to modernization as the starting point to effectively implement the fundamental task of building morality and cultivating people.

Thirdly, based on a multimodal interaction analysis framework. Based on the multi-modal interactive analysis framework, this paper systematically discusses how to "tell a good story of Chinese path to modernization" in college English teaching from five aspects: cultural context, situational context, interactive discourse, mode and media.

Fourthly, the ideological and political content of higher education courses need to be optimized. The current ideological and political content in higher education courses is relatively scattered and lacks systematicity, involving mostly traditional Chinese culture. The stories of Chinese path to modernization needs to be fully exposed to make the ideological and political content of higher education curriculum interesting and vivid, naturally integrate into the daily life of teachers and students, and moisten things silently.

Fifth, the teaching content of college English courses needs to be improved. At present, the teaching content of college English courses mostly focuses on traditional English listening, speaking, reading, and writing skills training, which can easily lead to students feeling tired of learning. The integration of Chinese path to modernization stories can make the teaching content of college English more colorful, and can cross integrate with the knowledge of other disciplines to play a greater role in educating people.

Sixth, a good story of Chinese path to modernization in college English courses can also be extended to the second classroom. The traditional teaching method is limited to the classroom, but due to limited class hours, it often cannot achieve the best effect of the teaching mode. The combination of online and offline activities will extend the story of Chinese path to modernization to the second classroom activities. By holding school level competitions, participating in provincial competitions and national competitions, students' ability to express and use English will be fully exercised and improved, students' profound understanding and recognition of Chinese culture, Chinese values, Chinese achievements and Chinese spirit will be cultivated, and the glorious mission of building and strengthening cultural self-confidence, consciously telling Chinese stories, spreading Chinese culture and letting the world hear the voice of China will be established.

4.3 The practical path of "telling the story of Chinese path to modernization well" in college English teaching

Under the framework of multimodal interaction analysis, the teaching of Chinese path to modernization stories in the Digital Intelligence Enabling College English course can be deepened from five aspects: cultural context, situational context, interactive discourse, mode and media. The specific contents are as follows:

At the level of cultural context, it relies on digital intelligence technology to build a dynamically updated Chinese path to modernization cultural resource bank. Cases such as the transformation of villages and the development of the aircraft in poverty alleviation can be integrated, and core cultural codes can be adopted such as "putting people first" and "independent innovation" through AI semantic analysis technology. Developing a cultural comparison module can be simultaneously developed, such as presenting the conceptual differences between the "dual carbon target" and Western environmental policies through digital graphs, supplemented by AI generated comparisons of Chinese and Western media reports, to help students grasp the cultural core of the story and the connection point between international expression.

In terms of situational context, VR/AR technology is used to create a stepped immersive scene. The basic scenario can set up a simulated classroom for the overseas dissemination of traditional Chinese festivals, where students explain the modern inheritance of the Dragon Boat Festival and Mid Autumn Festival in English; Advanced scenario construction: "Investigation of Science and Technology Innovation Enterprises in the Guangdong Hong Kong Macao Greater Bay Area", triggered by AR scanning and holographic projection of enterprise development data. Students integrate professional terminology and storytelling expression in the explanation. The digital intelligence system captures students' body language and speech intonation in real-time, generating a contextual fit analysis report.

Interactive discourse segment, building a dual track platform of "human-machine collaboration+community co creation". AI dialogue robots play the roles of "international friends" and "industry experts", and raise topics such as "China's aging response measures" during the dialogue, guiding students to organize their discourse from multiple perspectives; At the same time, using blockchain technology to establish a story creation community, English story fragments uploaded by students are optimized through community voting and integrated into a series of narrative works by AI, forming a discourse dissemination chain.

In terms of modal innovation, intelligent tools can be developed for "data storytelling". After students input themes such as "Global Trade in Yiwu Small Commodity Market", the system automatically generates modal materials such as dynamic information maps, interview video clips, and 3D trade route maps. Students only need to add English commentary scripts to complete multimodal works. The tool has a built-in modal adaptation algorithm that automatically prompts optimization suggestions such as "adding audio modality for village interviews in rural revitalization stories".

In the construction of the media matrix, the strategy of "precise push+effect traceability" can be implemented. The interests of overseas audiences can be identified through big data analysis, and targeted content needs to be promoted such as "China Rural Education Changes" micro documentaries and "5G Technology Application" animated commentary created by students on platforms such as Bilibili and TikTok; At the same time, public opinion analysis tools can be used to track and disseminate data, such as the viewing time and interactive comment keywords of non-native English speakers, and empirical evidence can be provided for course media selection.

5. Conclusion

Based on the framework of multimodal interaction analysis, this study systematically explores the practical path of college English curriculum to tell the story of Chinese path to modernization in the context of digital intelligence empowerment. The research shows that the digital and intellectual construction of cultural context can help students consolidate the cultural foundation of Chinese practice and form a deep understanding of Chinese path to modernization; Immersive creation of situational contexts can enhance students' ability to use English to tell Chinese stories in cross-cultural contexts; The collaborative innovation of interactive discourse enhances the accuracy and infectiousness of story expression; The multimodal fusion application utilizes intelligent tools to optimize the combination of text, audio, video, and other modalities, enhancing the dissemination effect of the story; The precise construction of the media matrix has expanded the international influence of

the story through digital intelligence technology.

In summary, the multimodal teaching path empowered by digital intelligence has effectively improved the quality of college English teaching, assisted students in interpreting Chinese practices and exploring Chinese theories from a cross-cultural perspective, provided feasible solutions for achieving the fundamental task of cultivating morality and talents, cultivating high-quality innovative applied talents, and also provided practical references for serving the new era's opening-up strategy and international communication construction.

Acknowledgments

Project funding:

- (1) 2024 Guangdong University of Technology Education Teaching Reform Project "Research on the Practical Path of Empowering College English Courses with Digital Intelligence to Effectively Tell the Story of Chinese Modernization under the Framework of Multimodal Interaction Analysis";
- (2) 2024 Projects of PhDs' Start-up Research of GDUPT, Grant No.: 2024bsqd2020, 2024bsqd2019.
- (3) 2024 Science and Technology Plan Project of Maoming City, Grant No.: 2024049.

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