Research on Innovative Teaching Mode of Chinese College English Teachers Based on Digital Competence

Zhang Yingting

(*School of International Cooperation, Guangdong Polytechnic of Science and Technology, Zhuhai, 519090, China*)

Abstract : *With the arrival of the digital era, digital literacy has become one of the important qualities that English teachers in Chinese colleges must have. The level of teachers' digital literacy not only directly affects the teaching effect and students' English learning, but also plays a decisive role in the innovative development of English teaching mode. This study centers on an in-depth discussion of the innovative teaching practices of English teachers in Chinese colleges in the context of digital literacy, with a view to finding effective ways to improve the quality and efficiency of college English teaching.*

Keywords *: digital literacy; Chinese college English teachers; innovative teaching mode;*

I.   INTRODUCTION

With the rapid development of information technology, digital technology has been widely used in various fields, bringing new opportunities and challenges to English teaching in Chinese colleges. Digital literacy is the sum of knowledge, skills and attitudes to effectively utilize digital tools and resources in a digital environment. It includes the ability to recognize, access, understand, evaluate, create and disseminate digital information [1]. Digital literacy is a basic ability that citizens in modern society should have, and it is an important part of talent cultivation in the digital era. Digital literacy is characterized by broadness, comprehensiveness, practicability and interactivity. The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines digital literacy as "a set of basic competencies needed to survive, learn and work in the digital world "[1] . These competencies include information and data literacy, communication and collaboration, digital content creation, security and problem solving. DigComp 2.1, a digital literacy framework proposed by the European Commission, defines and measures digital literacy in five dimensions: information and data literacy, communication and collaboration, digital content creation, security and problem solving. [2]

II.   Literature Review

In the field of education, digital literacy is crucial for promoting pedagogical innovation and student development. In the digital era, digital literacy has become one of the core competencies of English teachers. English teachers with higher digital literacy are able to embrace change more proactively and update their educational concepts and teaching methods. They use rich digital resources to stimulate students' interest in learning, optimize the classroom teaching process, and carry out personalized and precise teaching. This can not only significantly improve the effectiveness and quality of teaching, cultivate students' language ability, cultural awareness and critical thinking ability, but also promote teachers' own professional growth and adapt to the development needs of the times. It is foreseeable that with the rapid development and wide application of information technology, digital literacy will become an important force to promote the change of English education in colleges and universities.

III.   METHODOLOGY

The first paragraph under each heading or subheading should be flush left, and subsequent paragraphs should have a five-space indentation. A colon is inserted before an equation is presented, but there is no punctuation following the equation. All equations are numbered and referred to in the text solely by a number

enclosed in a round bracket (i.e., (3) reads as "equation 3"). Ensure that any miscellaneous numbering system you use in your paper cannot be confused with a reference [4] or an equation (3) designation. (10)

In this study, a corresponding interview outline was designed and conducted for the interviewees. Thus, the actual situation of public English teaching, beneficial experiences, implementation dilemmas, and future prospects from four Chinese colleges and universities were collected, which in turn revealed the current situation of public English teaching in Chinese colleges and universities, and provided the necessary evidence to support the later research reflections on the innovation of English teaching in Chinese colleges and universities based on digital literacy.

As shown in Table 1, four public English teachers in Chinese colleges and universities with different educational backgrounds, genders, ages and titles were selected for formal or informal interviews in this study. Prior understanding and consent was obtained from the stakeholders and they answered the interview questions truthfully. The interviews were audio-recorded or transcribed and then transcribed for analysis. R3 was conducted in an informal setting to ask random questions to supplement the answers, and appropriate questions were followed up based on the interviewee's answers to expand the breadth and depth of the interview data.

Table 1：Profile of the Interviewee (the 4 teachers)

No	Teachers	Colleges	Age	Gender	Educational Background	Professional Title
1	R1	A	52	Female	PhD	Professor
2	R2	B	40	Male	PhD	Associate Professor
3	R3	C	35	Female	Master	Lecturer
4	R4	D	29	Male	Master	Teaching Assistant

Research Questions:

RQ1: What are the lecturers' perception of the utilization of innovative teaching mode based on digital literacy/conventional teaching mode in College English class? Please explain.

RQ2: Do you think you should use innovative teaching mode supported by digital technology/conventional teaching mode in College English class? Please explain.

Research Results:

Research Question 1:Do you like the innovative teaching mode supported by digital technology/conventional teaching mode in public English class? Please explain.

Some public English teachers in Chinese colleges believe that they should stick to the traditional teaching mode. They tend to follow the established syllabus and teaching materials and do not easily try new teaching methods or techniques.

In my opinion, it is essential to stick to and deepen the traditional English teaching model. Although I have accumulated a wealth of experience in teaching organization and effective classroom discipline management skills, I have to admit that it is a challenge to pay attention to the real-time needs of every student in the classroom at the same time. It is indeed difficult to ensure the consistency of teaching and learning activities as well as to ensure that each student receives appropriate attention and guidance under the traditional classroom model. (R2)

I prefer the traditional model of teaching English. I have a thorough understanding of the teaching materials and I know every point in each text by heart. Language learning should focus more on face-to-face interaction and

communication. However, I have to admit that it is difficult to achieve a classroom where every student participates in the conversation and gives one-to-one feedback. (R3)

These teachers believed that they could better ensure that students mastered the basics of the English language by following strict classroom discipline and traditional teaching steps. They tended to place more emphasis on the explanation of grammatical structures and the accumulation of vocabulary, while being more conservative about how to stimulate students' interest in learning English and their practical application skills.

Research Question 2: Do you think you should use innovative teaching mode supported by digital technology/conventional teaching mode in public English class in the future? Please explain.

Through the interviews with teachers, it can be found that some teachers realize the importance of digital literacy in improving the effectiveness of English teaching and to a certain extent have carried out multimedia teaching supported by digital technology, but there are also teachers whose digital literacy is yet to be improved and who do not have a strong will to participate in relevant training.

I strongly agree that digital technology has a facilitating effect on students' English language learning, so I use digital tools appropriately in my English teaching design. I have tried some new digital technologies in the hope that they can help students improve their language learning and digital literacy. Because students will be in the information technology environment in the future, I hope they can get used to apply new information technology tools very quickly. (R4)

I agree that digital literacy is important for the new generation of young people. However, as I have been teaching for more than 20 years, I usually have to teach and do administrative work at the same time, and I have little time to rest during holidays. I am not very enthusiastic about learning about electronic products, and I am not very good at using the latest digital technology available, and I even prefer paper-based teaching materials. (R1)

I am not interested in the latest digital technology tools, I am more satisfied with the current teaching mode and do not want to spend too much time on various new technologies. (R3)

Based on the above responses, in general, the integration of digital literacy in the reform and innovation process of English language teaching is not satisfactory. The level of teachers' digital literacy varies.

IV. FINDINGS

The innovative application of digital tools in college English teaching in Chinese colleges and universities can not only improve the quality and efficiency of college English teaching, realize the diversification of teaching and learning styles, but also further promote the development of education modernization, so as to realize educational equity.

4.1 Change the Teaching Mode and Optimize the Quality of Education

The traditional English teaching mode in colleges is difficult to meet the needs of talent cultivation in the new era. Driven by digital technology, the English teaching mode in Chinese colleges and universities needs to be revolutionized. Digital technology and tools have added a steady stream of innovative power to English teaching and provided a broad space for the change of teaching mode. The introduction of digital tools and technologies can break the time and space limitations of the traditional classroom, realize online and offline hybrid teaching, and make students no longer restricted by textbooks and blackboards. Instead, students can learn in an immersive, interactive and intelligent environment, which greatly mobilizes learning interest and initiative, and thus improves teaching quality. [3]

4.2 Realize the joint progress of teaching and learning

The use of digital tools can also facilitate the use of data analysis by public English teachers in Chinese colleges and universities to accurately grasp the students' learning situation, tailor teaching to the students' needs, so that each student can get fully personalized guidance, and truly realize the mutual improvement of teaching and learning. At the same time, digital tools can take on a huge number of teaching tasks, freeing teachers from the heavy cycle of lesson planning, lecturing, and correcting assignments. In this way, teachers can focus more on teaching design and guiding students' learning. Incorporating digital tools into public English teaching in Chinese colleges and universities not only improves teaching efficiency and learning outcomes, but also allows teachers and students to enhance their digital literacy and innovative awareness in a subtle way. [4]

4.3 Promote the overall social equity and progress of education

With the continuous development of digital technology, it has become an indispensable force in promoting the modernization of education. By providing a borderless learning platform, digital means have enabled education to extend beyond traditional classrooms and books. This change provides equal opportunities for every student of different backgrounds and abilities to access and absorb high-quality educational resources, thus contributing to the overall educational equity and progress of society. [5]

V. DISCUSSION

A conclusion section must be included and should indicate clearly the advantages, limitations, and possible applications of the paper. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extentions. (10)

A series of strategies will be listed below with a view to informing Chinese college English teachers on how to incorporate new digital tools in English teaching. It is hoped that these strategies can help solve the above problems in English teaching in Chinese colleges, and realize the innovative reform of English teaching in colleges based on digital literacy.

5.1 Focus on diversified teaching objectives and customize online learning resources

In the digital era, the teaching goal of English in colleges has gone far beyond the mere teaching of language knowledge and training of test-taking skills to cultivate students' comprehensive application of English, cross-cultural communication ability, independent learning ability and innovation ability [6]. In order to achieve this goal, English teachers in Chinese colleges and universities should make full use of digital tools to develop the scope of learning and build a diversified intelligent learning platform for students.

For example, teachers can provide students with high-quality online English MOOC resources, such as China University MOOC English courses, online open courses of Harvard University and Yale University. Through this, students can be deeply integrated into the English environment and be exposed to the internationalized classroom. Alternatively, virtual reality technology can be utilized to allow students to experience the customs of English-speaking countries and promote cultural understanding through immersive experiences. With the support of intelligent teaching system, students can carry out personalized learning anytime and anywhere, breaking through the time and space limitations and realizing ubiquitous learning.

In addition, colleges can rely on AI to cooperate with domestic and foreign universities and enterprises to carry out online and offline exchange programs to broaden students' international horizons. Through the assistance of AI, students can improve the accuracy, fluency and decency of language expression. Digital tools provide a powerful aid to the goal of English teaching in Chinese colleges and lay a solid foundation for students to develop into international talents with digital literacy.

5.2 Deep analysis of teaching content and customization of intelligent teaching methods

With the support of digital tools, English teaching content and teaching methods in Chinese colleges are undergoing profound changes. Teachers should flexibly adopt intelligent teaching methods according to different teaching contents, create personalized and intelligent learning situations for students, and improve the pertinence and effectiveness of teaching.

In speech teaching, teachers can use speech recognition, speech synthesis and other technologies to provide students with a huge amount of listening materials, and real-time feedback, correct students' pronunciation, and strengthen the input and output ability of English speech.AI English learning platform can accurately assess students' speaking, give scores and optimization suggestions, and even provide one-on-one guidance, which improves the learning efficiency.

In vocabulary teaching, knowledge mapping, intelligent labeling and other technologies can be used to dig out the semantic links between words, present multiple contexts of vocabulary, and help students master vocabulary knowledge systematically. The vocabulary intelligent learning system can also automatically push

review tasks according to the students' memory curve to consolidate the learning effect.

In writing teaching, the AI correction system can not only evaluate the grammar, vocabulary, structure and logic of the article, but also give constructive comments from the perspective of content relevance and innovation. The intelligent writing assistance platform gathers a wealth of excellent model essays and is equipped with intelligent writing guidance and real-time error correction functions, providing strong support for students' writing practice.

In translation teaching, the machine translation technology is improving day by day, which can assist students in practicing English-Chinese translation. The translation quality assessment system can evaluate students' translation works in multiple dimensions and provide reference translations to strengthen students' mastery of translation skills.

It is worth mentioning that with the help of artificial intelligence, teachers can understand the learning situation in time and teach students according to their abilities. In this way, every student can obtain personalized learning materials suitable for him/her in the nearest development zone.

5.3 Accurate Assessment of Learning Conditions and Customized Learning Paths

In traditional English teaching in Chinese colleges and universities, it is difficult for teachers to fully and accurately grasp the learning situation of each student. Artificial intelligence provides a powerful technical support for the realization of personalized teaching. Through the collection of students' learning data, such as learning behavior, cognitive characteristics, knowledge mastery, etc., the intelligent teaching system can objectively assess the students' English level, diagnose learning problems, predict learning risks, and customize an exclusive learning path for them.

For example, the Smart Adaptive Learning Platform obtains each student's starting level through pre-testing, pushes personalized learning resources according to their learning needs, and dynamically adjusts the matching degree of resources with the learning process. During the learning process, the system tracks learning behavior in real time, analyzes the mastery of exercises, pinpoints weak knowledge, and provides students with exclusive customized reinforcement exercises. For students who are lagging behind in their learning progress, the system will provide timely warnings and targeted learning suggestions to help them catch up as soon as possible.

In addition, the digital tool is also capable of intelligent grouping, based on the similarity of the students' knowledge structure, i.e., allowing students to collaborate with peers of comparable level to complement each other's strengths. The group learning situation will be fed back to the teacher in real time. This makes it easier for teachers to control the teaching progress and adjust the teaching strategy. This kind of personalized learning assistance mode is conducive to mobilizing students' learning motivation and meeting students' individual learning needs, so as to help each student make progress in English learning.

5.4 Timely feedback and customized comprehensive evaluation report

Evaluation of English teaching in Chinese colleges should establish a diversified evaluation system in the digital era. The traditional examination method is obviously difficult to comprehensively judge students' English proficiency, and it is also impossible to effectively monitor the learning process. However, AI can build an evaluation model combining formative and summative evaluation through automatic marking and real-time feedback to promote students' continuous progress.

In terms of process evaluation, the intelligent teaching platform can objectively record the whole process of students' learning, including learning time, learning behavior, classroom performance, and completion of homework. It can assess students' learning status and progress from multiple perspectives. Learning analytics engine can mine massive learning data, visualize students' knowledge mastery, facilitate teachers to control the effectiveness of teaching as a whole, and improve the quality of teaching in a targeted manner. At the same time, the system can also intelligently push personalized learning reports, so that students know their own strengths and weaknesses in a timely manner. In this way, students can identify areas for improvement and enhance their confidence in learning.

When it comes to summative evaluation, the AI-assisted examination system can realize intelligent grouping, adaptive examination, automatic marking and other functions to improve the credibility and validity of the examination. The question bank can intelligently match the questions according to the students' ability level and instantly adjust the difficulty of the questions to make the examination fairer and more scientific. After the exam, the system can judge the students' answers from multiple dimensions such as phonetics, grammar, vocabulary and parts of speech, and present them in the form of charts and other forms of visual presentation, which is convenient for the candidates to check the shortcomings and make up for the omissions.

Therefore, with the help of digital tools, the evaluation of English teaching in Chinese colleges is no longer limited to the assessment of academic performance, but expanded to the comprehensive evaluation of students' overall quality. By analyzing students' performance in classroom discussion, project practice, cross-

cultural communication, etc., the system can assess students' critical thinking, innovation, teamwork, global vision and other key competencies, thus guiding students' overall development. This process-oriented and diversified intelligent evaluation system helps students better recognize their learning dynamics and clarify their development goals.

VI.   Conclusion

Digital tools are leading Chinese colleges to carry out changes in English teaching and learning. English educators should embrace this change with an open and prudent attitude. On the one hand, English teachers in colleges and universities should strengthen their digital literacy and continuously update their digital tools and technologies. Only by keeping up with the times can they be invincible in the digital era.

On the other hand, in the process of digital tools, English teachers in colleges should adhere to the principle of student-oriented. Although digital tools can provide personalized and intelligent teaching services, they cannot completely replace the unique role of teachers in providing emotional support to students. Digital tools should be used to optimize the teaching process, enhance the learning experience, and provide students with psychological care, so as to realize the mutual benefit of teaching and learning.

In the future, digital tools will become a powerful aid to English teaching in colleges. Empowered by digital tools, English teachers in Chinese colleges and universities should continue to improve their digital literacy, innovate their teaching concepts, and change their teaching modes, so as to make greater contributions to the cultivation of internationalized talents in China in the new era.

REFERENCES

[1]   X.D. Zheng. Research on the Construction and Application of Digital Competence Model for K12 Teachers in China[D].East China Normal Universit,2019.
[2]   T. Yi& G.F. Luo. Improving Digital Literacy of University Librarians Using Educational Technology[J/OL]. Journal of Library and Information Science in Agriculture,2024(02):61-70.
[3]   D.H. Yin, D.Y. Lu, F. Xu. Development of Online-offline Blended Teaching in Higher Education under Background of Digital Revolution[J]. Heilongjiang Researches on Higher Education,2024,42(04):156-160.
[4]   Y.J. Zhao, M.X. Xu, Z. Zuo, J. Guan. The Reality, Problem Analysis, and Optimization Direction of Teachers' Reflection on Technology Application—Empirical Analysis Based on Text for Teaching Reflection[J]. China Educational Technology,2023(07):118-125.
[5]   D.J. Liu, H.J. Zeng, L.L. Huang, J.Liu. Smart Education Empowers Lifelong Learning for All: Based on GSE2023 Perspectives [J/OL].E-Education Research,2024(05):98-105
[6]   Y.Q. Wang. Towards the Cultivation of Innovation Competency and Global Literacy for China's Integrated Foreign Language Talents in Compliance with the National Strategies[J]. Contemporary Foreign Language Studies,2018(02):43-54+110.