

Research on the Development Path of "Digital Humanities Literacy" for College English Learners under the Background of New Liberal Arts Construction-Taking the Course "English Speech" as an Example

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Abstract: At the 20th Congress of the Communist Party of China, General Secretary Xi Jinping proposed to accelerate the construction of a "digital China" by promoting digitalisation in education in order to achieve a "digitally strong nation". The training of talents in the context of the new liberal arts should be transformed from traditional humanities literacy to "digital humanities literacy". This paper takes the English Speech course as the starting point and the "Five Powers Model" as the theoretical basis to carry out teaching experiments and explore how to use the new media platforms to enhance the "digital humanities literacy" of English learners in colleges and universities, so as to improve their "international communication power" and achieve the goal of "delivering the voice of China".

1. Preface

In 2021, the Ministry of Education (MOE) issued the "Digital Campus Construction Standards for Higher Education Institutions (for Trial Implementation)"^[1], which sets out the requirements for the informatization construction of higher education institutions on top of the development needs of "Internet + Education", clearly stating that information literacy is the awareness, ability, thinking and cultivation of individuals to use information technology appropriately to acquire, integrate, manage and evaluate information; understand, construct and create new knowledge; discover, analyze and solve problems. The cultivation of information literacy is an important element in the cultivation of high-quality and innovative talents in higher education. In the 20th Congress of the Communist Party of China, General Secretary Xi Jinping proposed to speed up the construction of "digital China" by promoting digitalisation in education in order to achieve a "digitally strong nation".^[2]

In the International Symposium on Enhancing the Comprehensive Professionalism of TESOL English Teachers in the Context of New Liberal Arts in 2022, Wang Lifei pointed out that the cultivation of talents in the context of new liberal arts should "change from traditional humanistic literacy to digital humanistic literacy. English learners in the new liberal arts context should be "interdisciplinary" and "complex talents"^[3], which requires them to have a comprehensive knowledge system, i.e. core professional knowledge (such as language, literature and culture knowledge), related professional knowledge (business knowledge, regional and country

knowledge, Chinese language knowledge), and a comprehensive knowledge system. He particularly emphasized that English majors should strengthen their international communication skills (consisting of "media communication skills" and "technical communication skills").

2. The significance of English speech course in training English learners in the "digital humanities literacy" in higher education

2.1. The nature of English Speech course

English Speech is a compulsory course in the second year of undergraduate studies for English majors in China, and the National Standards for Teaching Quality in Foreign Languages and Literature (the new "National Standards") promulgated in 2018 require English Speech course as a core course for English majors. English Speech is a skill-based course that emphasizes practice, competence and quality, and has an important role and impact on the development of students' critical thinking and creative thinking. The course is a breakthrough from the purely linguistic training mode of English speaking teaching, which has improved the single and fragmented skills training in traditional English teaching and achieved the integration of English listening, speaking, reading and writing skills^[4]. It also helps to create a relaxed and student-centered classroom atmosphere, allowing students

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to give full play to their own initiative and express their own views, so that their thinking skills and innovative thinking can be gradually improved in practice and they can become qualified and sophisticated talents that meet the needs of society.

2.2. Definition and current development of digital humanities literacy

The term "digital literacy"^[5] or "digital competence" originated in the United States and was first applied in the field of library management research, and has developed into "one of the core literacies for citizens in the 21st century" (Shi Man, 2016)^[6]. It is not only related to people's quality of life, but also the basis for building a learning society and an important literacy that demonstrates the soft power and international competitiveness of a country. To date, the Dig Comp has been revised four times: Dig Comp 1.0 defines digital literacy as "the ability to securely and appropriately access, manage, understand, integrate, communicate, evaluate and create information through digital technologies in order to facilitate employment, decent work and entrepreneurship"^[7]; and divides it into five dimensions(see table 1).

Table 1. dimensions and contents of the digital literacy framework identified by Dig Comp 1.0

Dimensions	Contents
Dimension 1	The literacy domains and concepts that make up digital literacy
Dimension 2	Specific literacies and definitions included in each literacy area
Dimension 3	Requirements for different levels of proficiency in each specific literacy
Dimension 4	Examples of the knowledge, skills, attitudes required for each specific literacy
Dimension 5	Literacy cases for different scenarios

After three revisions by the EU, the five dimensions of Dig Comp version 1.0 were extended and updated to Dig Comp version 2.2.^{[8][9][10]}(see table 2).

Table 2 Revised content of digital humanities literacy

Revised versions	Revised content
Dig Comp 2.0(2016)	Expansion of the five literacy domains of Dig Comp 1.0 Dimension 1; Upgraded 21 specific qualities of Dig Comp 1.0 Dimension 2.
Dig Comp 2.1(2017)	Upgraded Dig Comp 1.0 dimension 3; Enriched with examples of Dig Comp 1.0 Dimension 5 in work and study.
Dig Comp 2.2(2022)	Updated Dig Comp 1.0 dimension 4 with 259 additional examples of digital technology

Research on digital literacy in China is still in its infancy, and the corresponding literature studies are relatively few, mostly focusing on the exploration of librarians' digital humanities literacy, for example, Ma Guanghua (2021)^[11] and Qi Weiyang (2022)^[12]. Jiang Minjuan (2022)^[13] and other scholars "start from a systematic thinking, based on the content framework of

digital literacy in foreign countries, expand and redefine the framework of digital literacy in a timely manner, and put forward the "five strengths" model of digital quality based on epistemic logic, namely: perceptiveness, adaptability, and the ability to understand. The "Five Forces" model is based on epistemic logic, namely: perceptiveness, adaptability, inclusiveness, practicality and development(see figure 1).

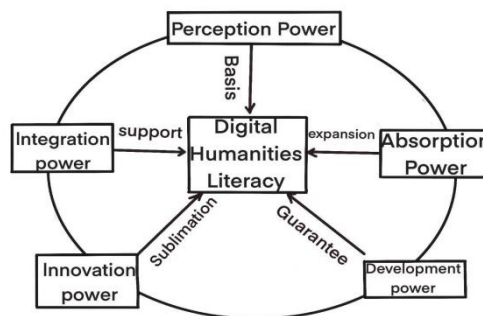


Figure 1 The "Five Powers" model of digital humanities literacy (Jiang Minjuan, 2022)

2.3.The "Digital Humanities Literacy" in English Speech course

After scholars such as Su Xunwu (1997)^[14] and Jia Guodong (2015)^[15] argued the necessity of implementing the English Speech curriculum, Tian Chaoxia (2013^[16], 2015^[17]) proposed the importance of the "localization" of English speech in China. Cross-cultural communication is not a one-way input of foreign culture, but must include the output of local culture, which is the only way to achieve effective two-way cross-cultural communication. Wang Jing and Zhao Xueqin (2018)^[18] point out that the research paradigm for the development of intercultural competence in English language teaching should break through the limitations of the Western perspective and seek the continuous integration of the perspective of "I" and the perspective of the other, "to learn and confirm the self in the mirror image of the other". (Wang Jing and Zhao Xueqin 2018)^[18].

Most of the research on the English Speech course has focused on the development of competence and knowledge, but not on "digital humanities literacy". In order to respond to the mission of the times and to realize the goal of a "digitally strong nation", this paper will explore, through an experimental demonstration, how the English Speech course can be used to enhance the "digital humanities literacy" of English learners.

3. the Experiment in training "Digital Humanities Literacy" in English Speech course

China Internet Network Information Center (CNNIC) released the 50th Statistical Report on the Development of the Internet in China (hereinafter referred to as: the Report) in Beijing. The Report shows that, as of June 2022, the size of China's Internet users was 1.051 billion, and the

Internet penetration rate reached 74.4%; the user size of short videos in China has grown the most significantly, reaching 962 million, an increase of 28.05 million from December 2021, accounting for 91.5% of the overall Internet users. Humanity has entered the era of big data, with massive amounts of data coming in explosive form. New media such as "Tik Tok" and "Little Red Book" have become the most active platforms for information delivery and communication, especially the emergence of the overseas version of Tik Tok, which has attracted many international users and provides an important platform for China's foreign communication. Tik Tok cultural and educational short videos, being regarded as a new path to popularize cultural and educational knowledge-, are "a spark that comes out of the collision of the Internet and knowledge." (Guo Tingting, 2020)^[19]. As a result, in this experiment, Tik Tok is used as the main platform for the subjects to post their videos.

3.1. Experimental content

The participants were eight second-year university students in the author's course, English Speech, and the experiment was conducted over a six-week period when the course entered the informative speech component. To ensure the quality of the experiment, an application system was used to select the participants, who were asked to briefly state their reasons for participating in the experiment, thus ensuring a high level of motivation for the students to participate in the whole process. The experiment was divided into six sessions: Pre-test, Speech 1, Speech 2, Speech 3, Speech 4 and Post-test. The "pre-test" and "post-test" consisted of an impromptu speech test respectively. Informative speech topics were chosen for the pre-test because they are more in line with the informative nature of the new media and are the best time to "tell Chinese stories", allowing students to understand the meaning of China's story through a step-by-step approach. Participants were required to post videos of their speeches on a specified topic on their own "Tik Tok" platform account at a specified time. Six days after each video was posted, participants were required to compile the corresponding data and fill in their reflections. The concept of the experiment is shown in Figure 2:

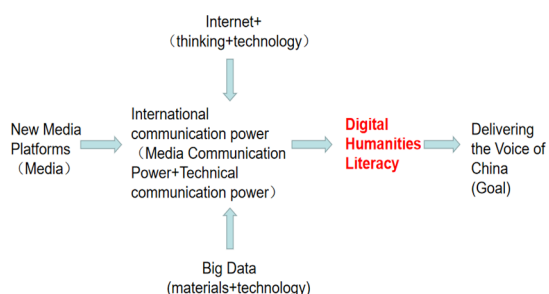


Figure 2 Pathway concept for "Digital Humanities Literacy" training

The experiment applied Five Powers Model (Jiang Minjuan, 2022)^[13]. The first topic was "My Ethnic Story", in which the participants were asked to develop a sense of the content of the "China's story" from the perspective of promoting the excellent traditional culture of their ethnics

and forging a sense of Chinese national community, which aimed to gain their "Perception Power". The second theme was "My Hometown Story", in which the participants were asked to explore as many aspects of their hometown culture as possible - including food, music, dance, etc. - and integrate them into the content of their speech, thus enhancing their "Absorption power"; The third presentation, "Lanzhou Story", required the participants to collect information from various sources, find the common threads behind them, and summarize three aspects of the topic that best reflected them in their presentation, thus enhancing the students' "Integration Power". The fourth presentation is "China Story", which differs from the previous three sessions in that the teacher does not provide the requirements for the presentation, but allows the students to organize, analyse and integrate the materials with what they have learnt before, and to deliver their own presentations, thus enhancing their independent "Development Power". In the final post-impromptu session, the teacher scores and evaluates the students to test and enhance their 'Innovation Power'(see table 3).

Table 3 Details of the English speech experiment

Presentation topics	Digital Humanities Literacy Application Sub-item
Improvisation pre-test	Warm-up
My Ethnic Story*	Perception power
My Hometown Story	Absorption power
Lanzhou Story*	Integration power
Chinese Stories	Development power
Improvised post-test	Innovation power

* The subjects consisted of five ethnic groups, so "My Ethnic Story" was chosen as one of the speech topics; all eight subjects were students of the Northwest Minzu University for Nationalities which was located in Lanzhou, so "Lanzhou Story" was chosen as one of the speech topics

3.2. Questions for the experiment

Four questions are raised for the experiment, including:

- (1) Whether the subject's English speaking ability will improve?
- (2) Whether the subject's English language ability will improve?
- (3) Whether there was an increase in the digital humanities literacy of the subjects?
- (4) Whether there is an increase in the awareness and competence of the subjects in cultural communication?

3.3. Experimental methods

This experiment uses a combination of quantitative, qualitative and comparative analyses.

3.3.1. Quantitative analysis

The number of plays, likes, comments, favorites, retweets and followers increase of each video of the subjects were imported into SPSS software, and the corresponding data were derived to describe and analyze the trends and special values.

3.3.2. Qualitative analysis

The reflective logs recorded by subjects are used to analyse whether they have improved their skills and literacy in various aspects of the experimental tests and to explore the reasons for the changes(see table 4).

Table 4 Specific requirements for a reflective log

Presentations	"Five Powers Model"	Reflections
Presentation 1	Perception Power Reflection	What was it like to post a speech for the first time using "Tik Tok"?
Presentation 2	Absorption Power Reflection	What useful information did I draw on and what specific competencies did I acquire that would help me to do better in this presentation.
Presentation 3	Integration Power Reflection	Am I able to blend video editing skills, captioning skills, ability to communicate with followers, ability to diffuse in the face of negative comments, ability to shape the Tik Tok ID, ability to analyse video traffic, etc. , so as to better present the last work.
Presentation 4	Development Power Reflection	Can I create and publish my work more fluidly? Am I more comfortable interacting with my followers? What other areas have I improved in?
Post-test	Innovation Power Reflection	What have I gained from the experimental phase and how these gains affect my studies and life?

3.3.3. Comparative analysis

The pre-test and post-test were audio-recorded and Discourse Analysis was used to assess and analyse the learning performance, expanding the dimensions of this experiment - in addition to interpreting the participants' training in 'digital humanities' literacy. In addition to the interpretation of the participants' training in 'digital humanities literacy', the evaluation of the participants' intercultural competence in speech, English and information transfer broadened the value of this experiment(see table 5).

Table 5. Summary of pre-test and post-test questions

Subjects	Pre-test questions	Post-test questions
Ma	Tell an interesting story about yourself.	Tell a regrettable experience.
Cai	Tell an unforgettable memory.	Tell an interesting activity.
Kai	Describe yourself.	Describe your best friend.
Lei	Describe your favourite course.	Describe your favourite movie.
Yang	How to celebrate the spring festival?	How to celebrate a birthday?
Chan	How to make up before a date?	How to make a good presentation?

Nu	Explain your understanding of education.	Explain your understanding of marriage.
Zhuo	Explain the spirit of the Olympics.	Explain the concept of globalization.

3.4. Experimental findings

3.4.1. A boost in cultural identity and confidence

Some scholars have proposed the concept of "Chinese cultural aphasia" (Cong, 2000)^[20], suggesting the importance and urgency of strengthening the English expression of Chinese culture. This experiment graded Chinese stories in a hierarchical progression. In the reflection logs, it was found that the participants had a deeper understanding of "ethnicity", "hometown", "place of residence", and "China". The four levels of cultural confidence all increased. Nu said, "I used to have a stereotypical understanding of ethnicity, but after I understood it better, I felt a sense of pride in my ethnicity"; Lei mentioned that she had refined the scope of the topic "my hometown" to "my school "She said, "When I was writing my speech, I looked up the history of my school, and after reading it, I was very impressed. Cai, who is from a rural area, mentioned the changes in her hometown brought about by the "revitalisation of the countryside" and the launch of Shenzhou XIV, and said that she was "overwhelmed" by these stories and "could not help but cry". Chen narrowed down her 'stories from my place of residence' to 'stories from my university', telling the story of how the Northwest Minzu University sent buses to take students to their teaching qualification exams during the epidemic to make sure that students could timely participate the exams. She said, "I was deeply moved by the university's initiative and I am proud of the way we pulled together before the difficulties."

3.4.2. Presentation skills enhancement

In the reflection logs, it was found that eight subjects used words such as "nervous", "uneasy", "apprehensive" and "worried about criticism" to describe themselves when the video of their first speech was released " to describe their feelings. From the second video release onwards, the subjects mostly expressed in their reflection logs that their self-confidence had increased. In addition to this, subjects expressed that they had a clearer idea of their speech, an enhanced ability to write a speech, a more comfortable interweaving of body language, a more skilled control of voice intonation, and a more sophisticated design of visual aids.

3.4.3. English language skills enhancement

The comparison between the reflection log and the pre and post-tests showed that the subjects' English language skills, especially their speaking skills, had improved. A number of participants mentioned that their vocabulary and phrases had improved; others mentioned that they had

learned to use definite clauses and inverted sentences; Lei and Ma said that they had learned "dumb English" and through the speaking experiment they were now able to speak English.

3.4.4. Digital humanities literacy

International communication is made up of "intellectual competence" and "technical competence"^[21]; it is also a manifestation of digital humanities literacy. During the experiment, the participants demonstrated a spontaneous increase in knowledge acquisition without teacher intervention. In her third reflection, Cai said, "In the previous two presentations, I expressed more personal feelings, but this time, I sought a wider range of knowledge channels, such as public websites, Baidu, Jitterbug, and knowledge literature". Lei and Chen demonstrated a "field spirit" by going to the high schools they graduated from to conduct research and collect materials. The other six subjects also elaborated on the specific instructions they received. Overall, the participants had a more specific and deeper understanding of the meaning of "Chinese Stories", an increased ability to integrate knowledge, and a better knowledge base.

According to statistics, the 32 videos released by the eight subjects received a total of 179,187 views, meaning that their "Chinese Stories" were heard by nearly 180,000 users; a significant breakthrough in the dissemination of traditional offline speech methods. The top three videos were Zhuo's first video, Lei's second video and Chen's second video(see Figure 3).

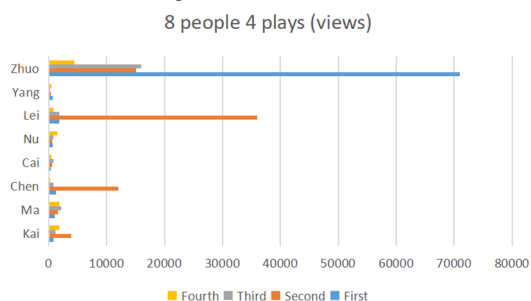


Figure 3 Experimental "view" data graph

The author went on to analyse the subject logs of these three videos, and interviewed the three subjects. The analysis showed that all three subjects emphasized "video editing ability", "audio editing ability", "platform data analysis ability", "subtitle editing ability" and "hotspot combination ability". Without teacher intervention, the rest of the subjects presented "completion rate", "incremental fan base", "user portrait", "Dou+ traffic boost"(a bonus gave by Tik Tok to boost the video traffic), "personal IP building" and "personal IP", which are regarded as the important manifestations of digital humanities literacy They demonstrated their sensitivity to the operation of the platform and their improved technical skills in the use of new media platforms.

4. Conclusion

The English speech course has an important role to play in enhancing the 'digital humanities literacy' of English

learners. In the course of the experiment, the participants were influenced by the "Internet+" thinking and used the new media platform as a vehicle to collect information from big data to create their speech videos; each speech video was a corresponding exercise in the "Five Powers" of the students' digital humanities literacy. The English speech course is based on new media platforms, which help to enhance learners' digital humanities literacy. It is an important factor in enhancing international communication, which is an important guarantee for conveying the voice of China. The English speech course has a significant effect on improving students' digital humanities literacy; at the same time, the subjects' English speech ability, language ability, humanities literacy and cultural communication awareness have all improved.

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