

Research on the Pathways and Strategies for Cultivating Students' Digital Humanities Literacy in College Chinese Language Courses within the Context of Digital Humanities

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Abstract: The rise of digital humanities has profoundly influenced the teaching and research paradigms of humanities disciplines and has also imposed new requirements on the literacy structure of learners. College Chinese Language courses are faced with the issue of redefining their own functions within the digital cognitive environment. This study, proceeding from the theoretical level, deconstructs digital humanities literacy into four dimensions: technological cognition, data interpretation, critical reflection, and innovative expression, and demonstrates the intrinsic connection between the humanistic endowment of College Chinese Language courses—centered on meaning interpretation—and the generation of literacy. Subsequently, it analyzes the cultivation mechanisms from three aspects: the transformation of course knowledge forms, the reconstruction of teaching discourse practice, and the moderating effect of evaluation mechanisms. On this basis, it proposes three mutually supportive pathways—classical interpretation, interdisciplinary intervention, and meaning production—which together constitute a strategic system with inherent logical consistency, thereby providing a theoretical reference for literacy cultivation.

Keywords: Digital Humanities Literacy; College Chinese Language Course; Interpretive Pathways; Interdisciplinary Thinking; Meaning Production

Introduction

The deep involvement of digital technology in the research paradigms and knowledge dissemination methods of the humanities has made it an important issue in curriculum and teaching research for humanities education to respond to changes in the cognitive environment. The College Chinese Language course, centering on the close reading of classical texts, focuses on cultivating linguistic sensibility, logical reasoning, and cultural imagination. The formation of the digital media environment has profoundly transformed learners' ways of receiving information and their habits of thinking, and the traditional teaching framework has shown a certain degree of inadequacy in adaptation. The knowledge accumulation in the digital humanities field provides referential resources for the functional expansion of the course. Incorporating digital humanities literacy into the educational vision is not a simple addition to the course objectives, but rather a response to the deepening of the course's humanistic educational function under digital conditions. This study attempts to clarify, at the theoretical level, the intrinsic connection between literacy connotations and course endowments, and to analyze the deep mechanisms of literacy cultivation through the functional structure of course operation, thereby constructing theoretically grounded cultivation pathways.

1. Theoretical Definition of Digital Humanities Literacy and Its Value Anchoring in the Curriculum

1.1 Deconstruction of the Connotation and Division of Dimensions of Digital Humanities Literacy

The definition of digital humanities literacy should be examined within the coordinate system of digital humanities as an interdisciplinary field. It is not a simple transfer of information technology literacy into the humanities, but rather a composite ability structure in which individuals use

computational thinking and data methods to address humanistic issues and interpret cultural phenomena within the digital media environment. The core of this literacy does not merely lie in operational skills, but emphasizes the deep integration of technological tools and humanistic interpretation. Its fundamental purpose is to expand the boundaries of humanistic cognition through digital means, thereby achieving new understandings of texts and culture.

Based on this, digital humanities literacy can be further deconstructed into four interrelated ability dimensions. The first is the technological cognition dimension, which involves grasping the principles of digital tools and understanding the logic of data generation; the second is the data interpretation dimension, which refers to the ability to identify patterns and extract meaning from unstructured cultural data; the third is the critical reflection dimension, which requires prudent judgment regarding the biases in knowledge production during the digitalization process; and the fourth is the innovative expression dimension, which manifests as the comprehensive literacy of using multimedia forms for cultural narration and opinion output. These four dimensions are not in a linear progressive relationship, but rather constitute an organic whole of mutual permeation and circular reinforcement, jointly forming an analytical framework for measuring an individual's competence in the digital humanities field^[1].

1.2 Functional Niche and Humanistic Endowment of the College Chinese Language Course

The College Chinese Language course occupies a unique functional niche within the higher education system. It is neither an applied course focused primarily on language skills training, nor a specialized course aimed at imparting literary historical knowledge; rather, it focuses on cultivating students' linguistic sensibility, logical reasoning, and cultural imagination through the in-depth reading of classical texts. This functional orientation determines that the College Chinese Language course always takes the understanding of meaning as its ultimate goal, emphasizing the empathetic appreciation and careful contemplation of the inner texture of texts. The value judgments, aesthetic experiences, and ethical concerns embedded in its teaching process constitute the most core endowment resources of humanistic education.

It is precisely this humanistic endowment centered on meaning interpretation that endows the College Chinese Language course with an irreplaceable foundational role in the cultivation of digital humanities literacy. In the face of the trends of information fragmentation and cognitive flattening brought about by digitalization, the abilities of holistic reading, contextualized understanding, and critical dialogue upheld by the College Chinese Language course precisely constitute an important barrier against cognitive superficialization. Meanwhile, the rich cultural resources and the tradition of classical interpretation carried by the course also provide a depthful content ground for the application of digital tools. It can be said that the College Chinese Language course does not passively adapt to the digital wave; rather, its inherent humanistic quality itself possesses the potential for in-depth dialogue with digital methods, and this potential constitutes the deep endowment for the generation of literacy.

1.3 Intrinsic Logical Connection between Course Objectives and Literacy Generation

From the perspective of pedagogy, there exists a profound intrinsic logical connection between the objective system of the College Chinese Language course and the generation of digital humanities literacy. The teaching objectives of the College Chinese Language course generally encompass three levels: language application, aesthetic appreciation, and cultural inheritance, and these three levels have all gained new interpretative space in the digital context. At the level of language application, students are required to discern effective expressions amidst massive information; at the level of aesthetic appreciation, it is necessary to maintain value judgments amidst diverse media; and at the level of cultural inheritance, the course faces the profound reshaping of classic dissemination methods by digital carriers. The ability requirements embedded in this objective system are highly resonant with the dimensions emphasized by digital humanities literacy, such as critical reflection and innovative expression^[2].

Furthermore, the generation of literacy is not an additional appendage to the course objectives, but rather a natural extension and deepening of the teaching objectives of the College Chinese Language course under the conditions of the digital age. When classical texts are reopened with the aid of tools such as database retrieval and textual analysis, the depth of understanding and breadth of perspective that students can achieve are beyond what could be attained by relying solely on close reading in the past. This transformation of cognitive approaches in the teaching process effectively facilitates the imperceptible generation of literacy. Digital humanities literacy is not an external new cultivation task

imposed on the College Chinese Language course; rather, it should be regarded as a new form of realization of the course's existing objectives within the contemporary media environment. The relationship between the two is an organic unity of objective and generation, rather than a simple externally added one.

2. Functional Structure of the College Chinese Language Course and Mechanisms of Literacy Cultivation

2.1 Knowledge Forms of Course Content and the Tension of Media Transformation

The knowledge content of the College Chinese Language course takes classical texts as its primary carrier, and its knowledge form presents itself as a highly contextualized, meaning-intensive crystallization of linguistic art. Such knowledge embodies specific cultural logics, emotional structures, and value orientations, and its transmission and reception are highly dependent on linear reading, deep immersion, and individual apprehension. The intervention of digital media has brought about a profound transformation in the form of these classical texts originally carried on paper. Texts are datified, fragmented, and visualized; the original modes of meaning generation encounter the intervention of new cognitive tools such as algorithmic retrieval and distant reading, and knowledge shifts from a deep structure awaiting discovery to an information resource that can be manipulated and reorganized. This transformation is not entirely harmonious, as it contains underlying tensions: between the holistic significance of classical texts and the fragmenting tendency of digital analysis, and between the diachronic immersion required by close reading and the synchronic leaps of digital browsing—there exist contradictions that are not easily reconciled, constituting an inherent tension that the course content must confront in the digital age^[3].

Upon closer examination of the root of this tension, it can be found that it essentially stems from the collision of two different knowledge paradigms. One is the textual meaning paradigm based on hermeneutics as its methodological foundation, which emphasizes the subjective participation of understanding and the irreducibility of context; the other is the data paradigm based on computational science as its methodological foundation, which emphasizes quantifiability, operability, and pattern recognition. The convergence of these two paradigms at the level of the College Chinese Language course content, on the one hand, offers classical texts an opportunity to be reopened, allowing digital tools to reveal potential connections and distribution patterns that are not easily detectable in traditional reading; on the other hand, it also brings the risk that the depth of interpretation may be dissolved by technical procedures. To confront and manage this tension does not mean simply abandoning either side; rather, it requires course designers to seek a dynamic balance between the two knowledge forms, so that technical operations serve rather than replace the deep pursuit of meaning.

2.2 Discursive Practice and Cognitive Restructuring in the Pedagogical Field

The pedagogical field is essentially a specific space of discursive practice, in which teacher-student interaction, textual dialogue, and meaning negotiation constitute the basic channels for knowledge transmission and ability generation. In the traditional College Chinese Language classroom, discursive practice is primarily manifested as the teacher's oral instruction and students' textual responses, with its cognitive orientation focusing on cultivating students' sensitivity to language and their overall grasp of literary works. Under the background of digital humanities, the spatial structure of this discursive practice has undergone significant changes. The introduction of digital media has expanded classroom teaching from a single linguistic symbol system to a multimodal information interaction network, in which images, data visualization, audio-visual materials, and text jointly participate in the process of meaning construction. The direct consequence of this change is that students' patterns of attention allocation, habits of information reception, and modes of thinking organization are all confronted with profound adjustments. Classroom discursive practice is no longer merely verbal communication, but has become a composite field interwoven with multiple semiotic systems^[4].

This change in discursive practice further touches upon the deep restructuring of students' cognitive structures. When students are required to simultaneously process the semantic information of texts and the structural information of data, their cognitive activities continuously switch between interpretive thinking and computational thinking. This process of switching may bring about cognitive expansion, as students gradually become accustomed to examining the same cultural phenomenon from multiple perspectives—being able both to enter into the text for empathetic experience and to step outside the

text for pattern-based observation. The training of this dual cognitive orientation is of critical significance for the cultivation of digital humanities literacy. The reconstruction of discursive practice in the pedagogical field has its deep function in creating for students a learning environment under cognitive tension, in which traditional humanistic interpretive ability is not weakened; rather, it gains more conscious self-reflection through contrast and dialogue with digital methods.

2.3 Moderating Effect of the Evaluation Mechanism on Learning Orientation and Ability Shaping

The evaluation mechanism plays a functional role of feedback regulation in the curriculum system, and its design exerts a significant guiding effect on students' learning behaviors and ability development. In the existing evaluation tradition of the College Chinese Language course, assessments tend to focus on the memorization of knowledge and the written expression of literary appreciation ability, with summative assessment in the form of standardized test papers occupying a dominant position. This evaluation orientation reflects, to some extent, the course's functional expectations of knowledge transmission and aesthetic cultivation. The introduction of digital humanities literacy imposes new requirements on the evaluation system, because the dimensions of technological cognition, data interpretation, and innovative expression within this literacy cannot be effectively measured through traditional paper-and-pencil tests. The simplification of evaluation content and methods may result in a misalignment between literacy cultivation objectives and students' actual investment in learning, as students tend to concentrate their efforts on the aspects covered by assessments, while the components of literacy that require more practical exercise are likely to be marginalized.

From the perspective of moderating effects, the direction of evaluation reform needs to align with the inherent laws of literacy generation. The introduction of the process-oriented evaluation concept can, to a certain extent, compensate for the deficiencies of summative assessment. By continuously attending to students' performance in project-based learning, their strategies for using digital tools, and their quality of interpreting cultural data, the function of evaluation shifts from simple ability judgment to the guidance of the learning process. At the same time, the setting of evaluation criteria also needs to take into account both the depth of humanistic inquiry and the appropriateness of technological application, so as to avoid impairing the judgment of students' critical thinking and innovative expression due to one-sided emphasis on quantifiable indicators. A well-designed evaluation mechanism can exert a positive moderating effect, redirecting students' learning investment from passive knowledge accumulation to active ability construction. In this process, evaluation is no longer at the end of the teaching chain, but is integrated into every link of the learning cycle. Through continuous calibration of learning orientation, it exerts differentiated shaping effects on the various dimensions of digital humanities literacy^[5].

3. Theoretical Construction and Multidimensional Design of Cultivation Pathways and Strategies

3.1 Interpretive Pathway of Deep Integration between In-depth Exploration of Classics and Digital Tools

The deep integration of in-depth exploration of classics and digital tools constitutes an interpretive pathway centered on textual meaning and assisted by technological means. Database retrieval functions can help learners complete cross-textual tracking of vocabulary distribution and image associations within a relatively short time; textual analysis tools can present quantitative maps of character relationship networks and emotional tendencies; and geographic information systems can achieve visual overlay of literary space and physical space. The analytical results generated by these technical operations do not constitute the end point of interpretation; rather, they serve as intermediate links that trigger deeper understanding, guiding learners to return to the interior of the text to verify, revise, or question the conclusions obtained, so that technical operations serve rather than replace the deep pursuit of meaning.

The strategic design under this pathway requires a proper sense of proportion between tool use and classical interpretation. One feasible strategic orientation is to embed the operation of digital tools into specific stages of classical reading, introducing textual analysis means as a reference frame for reflecting on reading experience after completing the immersive reading of an entire work, or employing visualization tools to assist in sorting out structural frameworks when facing complex long narratives. This embedded strategic arrangement ensures that technological intervention serves rather than replaces learners' direct reading experience. Its fundamental purpose is to facilitate, through the

assistance of digital means, learners' acquisition of an understanding of classical texts that possesses both depth and novelty, thereby preventing technology from transgressing the boundaries of interpretation.

3.2 Intervention Pathway of Interdisciplinary Thinking Mode under a Problem-Oriented Approach

Introducing interdisciplinary thinking modes with a problem-oriented approach aims to break through the limitations of a single disciplinary perspective on the cognition of complex cultural phenomena. The classical texts and cultural issues that the College Chinese Language course confronts often contain multilayered interpretative spaces. When faced with cross-cutting issues involving spatial transformation, media evolution, or social structure, a purely literary-linguistic perspective may need to draw upon cognitive frameworks from other disciplines as supplements. Starting from topics with interdisciplinary potential, and introducing concepts such as the periodization theory from history, the field concept from sociology, or visual analysis methods from art studies into the process of textual interpretation, can help learners approach the same cultural phenomenon from multiple facets, thereby forming a more three-dimensional cognitive structure.

The implementation of this pathway requires particular attention to the appropriateness and organic integration of interdisciplinary intervention. The introduction of methods should be organized around the analytical needs of specific issues, rather than being a rigid accumulation of disciplinary terminology. At the strategic level, consideration can be given to designing study units around specific cultural motifs; for example, selecting the multimedia evolution of a certain literary image as the object of investigation, and guiding learners to comprehensively employ means such as textual research, spatial analysis, and image interpretation in their inquiry. In the digital environment, the acquisition and integration of interdisciplinary resources have become considerably more convenient, as learners can access databases and analytical tools from different disciplines through digital platforms, which provides technological support for the cultivation of interdisciplinary thinking modes^[6].

3.3 Creative Transformation Pathway from Text Consumption to Meaning Production

The pathway design from text consumption to meaning production focuses on the transformation of learners' roles from passive recipients to active creators. In traditional teaching, learners' activities are mainly concentrated at the levels of reading, comprehension, and appreciation, with their cognitive investment directed toward the reception and internalization of the existing meanings of texts. The innovative expression ability required by digital humanities literacy, however, points to learners' capacity to reproduce and re-express cultural meanings through various media means — not only possessing an in-depth understanding of classical texts, but also transforming this understanding into concrete outcomes that can be perceived and discussed by others, such as digital narrative works, visualized presentations of cultural resources, or interactive textual reconstructions.

The strategic design of the creative transformation pathway needs to provide learners with adequate creative space and resource support. In terms of task design, productive assignments that lie between academic writing and creative expression can be devised. Learners are required to select, organize, and recode the original materials, and the choices involved entail judgments about the relative importance and urgency of meanings. The training of this judgmental ability itself constitutes an important link in literacy enhancement. The outcomes of meaning production can enter the public discussion space for scrutiny and response, and the mechanism of communicative feedback can further promote learners' reflection on and adjustment of their own expressive effects, enabling them to deepen their understanding of the internal structure of classical texts in the process of personally attempting meaning construction, and to achieve a leap in ability from external observation to internal participation.

Conclusion

This study has formed a systematic framework of understanding regarding the cultivation of digital humanities literacy in the College Chinese Language course from three levels: theoretical definition, mechanism analysis, and pathway construction. At the theoretical level, digital humanities literacy is deconstructed into four dimensions: technological cognition, data interpretation, critical reflection, and innovative expression. The humanistic endowment of the College Chinese Language course, centered on meaning interpretation, constitutes the deep soil for literacy generation, and the relationship between

course objectives and literacy generation presents itself as an organically unified extensional relationship. At the mechanism level, there exists a deep tension between the classical knowledge form of course content and digital media; teaching discursive practice expands from a single linguistic symbol system to a multimodal interactive network and prompts the restructuring of cognitive structures; and the evaluation mechanism exerts differentiated shaping effects on various dimensions of literacy through continuous calibration of learning orientation. At the pathway level, the interpretive pathway of deep integration between in-depth exploration of classics and digital tools emphasizes that technology serves the pursuit of meaning; the interdisciplinary intervention pathway focuses on expanding cognitive horizons; and the meaning production pathway concentrates on the leap in ability from external observation to internal participation. The three pathways have their respective emphases while mutually supporting one another. This study belongs to a theoretical framework construction, and subsequent research may conduct detailed examinations of the implementation conditions and effects of each pathway in specific course contexts, so as to promote the effective transformation of the theoretical framework into the operational level.

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