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Article

A Self-Narrative Inquiry into GenAI-Enhanced Chinese Cultural Instruction

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Abstract
Despite the rapid proliferation of generative artificial intelligence (GenAI) in language education, longitudinal practitioner-centred accounts of how teachers' instructional practices and professional competence evolve through sustained GenAI integration in Chinese cultural instruction remain scarce. This self-narrative inquiry examines one pre-service Chinese language teacher's six-month experience of integrating GenAI into adult Chinese cultural instruction at a university. Drawing on 11 reflective journals, pedagogical artefacts, and semi-structured interviews with three peer observer teachers and two professors specialising in Chinese cultural instruction, the study employs Riessman's (2008) thematic narrative analysis within Clandinin and Connelly's (2000) narrative inquiry framework. Findings reveal a developmental trajectory across three qualitatively distinct phases: designing for novelty, designing for function, and designing for integration. Concurrently, the teacher's role evolved from tool user to tool architect, with AI literacy, in-class improvisational responsiveness to technology failure, and the conceptual repositioning of GenAI from pedagogical spectacle to invisible infrastructure developing iteratively through practice. Two design principles were inductively constructed: GenAI task design should target functions irreplaceable by lower-threshold alternatives, and GenAI-generated content should compensate for the inaccessibility of authentic materials rather than substitute for them. This study contributes a practitioner-centred, longitudinal perspective to the underexplored intersection of GenAI integration and Chinese cultural instruction, and offers empirically grounded design suggestions for instructional practice.

Keywords
Generative artificial intelligence, Chinese cultural instruction, self-narrative inquiry

1 Introduction

The emergence of generative artificial intelligence (GenAI) as a mainstream pedagogical resource has initiated one of the most consequential and disruptive shifts in language education (Kasneci et al., 2023;

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Li et al., 2025). As these tools grow in capability and accessibility, language educators find themselves compelled to integrate technologies into established instructional practices while simultaneously navigating the affective, ethical, and identity-related tensions that such integration invariably produces (Eedelouei, 2026; Lin et al., 2025). Within this rapidly evolving landscape, understanding how GenAI reshapes not only what teachers do but how they feel, reflect, and grow as practitioners remains an important question.

In Chinese as a Foreign Language (CFL) and Chinese as a Second Language (CSL) instruction, research on GenAI integration has grown considerably across multiple dimensions, such as writing quality and automated corrective feedback (Yang & Chen, 2025), speaking proficiency (Chen et al., 2026; Zhang et al., 2025), vocabulary acquisition (Zhao et al., 2026), and the development of teacher professional identity through AI-mediated materials design (Lin et al., 2025). At the level of cultural instruction, Klimova and Chen (2024) synthesised 11 empirical studies and confirmed that AI-driven tools produced meaningful gains in students' intercultural communication competence and cultural knowledge. However, existing studies mainly focus on language form, writing mechanics, and speaking fluency, while the cultural instruction dimension has yet to receive sustained empirical attention (Arif et al., 2025; Sugie, 2024). Moreover, the teachers' interior experience, including the emotional dimensions, identity negotiations, and reflexive meaning-making processes through which teachers navigate GenAI integration across time remains substantially undercharacterised (Chiu et al., 2023; Panke, 2025). Longitudinal qualitative studies that trace how teachers' emotional responses and pedagogical practices evolve through sustained GenAI integration across an instructional cycle are few.

To address these gaps, the study adopts a self-narrative inquiry methodology to examine one instructor's emotional experiences and pedagogical transformations during the integration of GenAI into adult Chinese cultural instruction for six months. Specifically, this study addresses two research questions:

RQ1: What instructional practice changes does a pre-service Chinese language teacher undergo across three teaching cycles of GenAI integration in adult Chinese cultural instruction?

RQ2: How do the teacher's professional competence and emotions develop through sustained GenAI integration?

2 Literature Review

2.1 GenAI integration in language and cultural instruction

AI-driven language learning has been found to foster self-reflection, creativity, and emotional resilience among EFL learners, with growing evidence, such as affective benefits (He et al., 2025). Deng and Jamaludin (2026) synthesised 51 EFL-focused studies and found that it can scaffold language production, reduce cognitive barriers, and generate diversified teaching materials. Wu et al. (2025) employed a quasi-experimental design to investigate the effects of integrating AI chatbots into think-pair-share activities and reported significant reductions in foreign language speaking anxiety and increases in language enjoyment and speaking performance compared to traditional instruction. At the same time, the negative impacts of GenAI's application in teaching should not be ignored, such as uncritical adoption without teacher mediation risks engendering surface-level engagement and academic integrity concerns (Deng & Jamaludin, 2026).

Existing research on the integration of GenAI in Chinese as a Foreign/Second Language education has expanded rapidly across multiple dimensions. Studies have examined GenAI's effects on writing quality and automated corrective feedback (Chen & Gong, 2025; Gao, 2025; Yang & Chen, 2025), speaking proficiency within project-based learning frameworks (Chen et al., 2026; Zhang et al., 2025), vocabulary instruction through prompt engineering (Zhao et al., 2024), oral skill development

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via intelligent voice assistants (Dai, 2025), and the motivational and attitudinal shifts associated with multimodal GenAI use in Chinese vocabulary learning (Zhao et al., 2026). At the instructional design level, AI-TPACK frameworks have been developed for pre-service teachers of CSL, demonstrating the mediating roles of AI attitudes and educator support in shaping self-efficacy and AI-integrated teaching flow (Gao et al., 2026; Xu et al., 2025). Synthesising 45 empirical studies on GenAI-enabled international Chinese language education, He and Gao (2026) revealed GenAI's systematic pedagogical potential across diverse application scenarios, yet highlighted that longitudinal research remains scarce. There is still much room for research on the application of GenAI in CFL/CSL. Law (2024) analysed 41 studies and identified key applications of GenAI across language skills, while flagging persistent gaps in non-English and culturally contextualised research. Lee et al. (2025) examined 49 classroom-based empirical studies and confirmed that English as a foreign language (EFL) contexts have overwhelmingly dominated the research landscape, leaving non-English languages significantly underrepresented. Klimova and Chen's (2024) systematic review found that AI tools, including chatbots and virtual reality simulations, achieved significant gains in students' cultural knowledge, intercultural communication competence, and engagement. Collectively, these findings suggest that while GenAI has demonstrated broad utility for linguistic skill development in CFL/CSL contexts, its capacity to support Chinese cultural instruction remains underexplored.

2.2 Qualitative research on the application of GenAI in teaching

The existing literature has extensively discussed the application of GenAI technologies in language education. Nevertheless, there is a lack of qualitative research that examines how teachers and instructional designers utilise AI technologies in everyday practice including emotional response and attitudes (Chiu et al., 2023). The lived pedagogical practices of educators and the specific pathways through which they appropriate AI tools into their professional routines thus remain substantially undercharacterised (Bozkurt et al., 2021; Chiu et al., 2023).

Connelly and Clandinin (1990) introduced narrative inquiry as a powerful tool for exploring teachers' lived lives. Researchers not only embraced the narrative approach for studying the complexities of teacher identities, but teacher educators within the general teaching field were also quick to adapt narrative inquiry to self-studies in an attempt to understand their own professional identities and practices (e.g., Hamilton & Pinnegar, 1998; Korthagen, 1995). In the field of language teaching, many studies have explored the application of GenAI in teaching through narrative inquiry (Lakhe Shrestha et al., 2025; Tafazoli & Meihami, 2023; Zaimoğlu & Dağtaş, 2025). Panke (2025), adopting an autoethnographic approach related to but distinct from narrative inquiry, documented her own evolving engagement with GenAI across research, instructional design, and teaching over five months, producing a reflective first-person narrative grounded in activity theory. Weng (2025) employed a three-year autoethnographic narrative to trace her developmental journey as a language teacher educator integrating virtual professional training platforms, illustrating through longitudinal self-narration the nonlinear evolution from dependent to independent professional agency.

In summary, the field of GenAI is developing rapidly, especially in English as a Foreign Language teaching environments. Artificial intelligence has been shown to significantly improve language skills development, learning motivation, and affective effects. However, two gaps remain: GenAI research in Chinese cultural instruction lacks empirical grounding, and self-study methodologies widely used in general teacher education are rarely applied in CFL/CSL. At the level of teacher development, research has examined how educators move beyond being tool users to become designers of technology-enhanced learning (Goodyear, 2005; Laurillard et al., 2018). These theoretical resources are useful for tracing how teachers' roles and responsive capacities evolve through sustained GenAI integration. This study addresses both by documenting one teacher's emotions and practice across six months of GenAI-enhanced Chinese cultural instruction.

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3 Methodology

3.1 Research context and design

A self-narrative study is a qualitative research design focused on the examination of personal experiences and self-reflections (Cole et al., 2022). It can be applied in educational research to investigate the experiences and reflections of teachers, especially in language and culture teaching and learning contexts (Duan et al., 2023; Uştuk, 2025; Weng, 2025; Xue, 2021).

3.1.1 Participant

In addition to data such as interviews, observations, and written documents (Hammersley & Atkinson, 1983), self-narrative inquiry relies more heavily on data generated through researcher introspection, reflection, and memory (Wall, 2008). This study focuses on the first author, a pre-service teacher who taught Chinese at a university. The participant was selected on three criteria: she holds undergraduate and master's degrees in International Chinese Education with relevant certifications and has taught Chinese as a second language to students from Russia, Mongolia, and the United States; her host institution actively supports digital technology in classroom instruction; and she has a sustained research interest in GenAI-enabled language teaching.

The course was an interest-based elective with voluntary participation, no fixed textbook, and content designed independently by the instructor. The university actively encourages the application of digital technology in classroom instruction and has established multiple digital learning platforms. Over the six-month instructional period, more than 40 undergraduate and graduate students participated in the course. The participants were aged 19 to 28, with native languages including English, Japanese, Spanish, and French. Across all lessons and cycles, a total of approximately 80 attendances were recorded, as some students attended multiple sessions.

3.1.2 Instructional design framework

The integration of GenAI was guided by Su and Yang's (2023) IDEE framework. Four desired outcomes were identified: personalised multimodal resources to render abstract cultural concepts experientially accessible; linguistic cognitive offloading of lower-order tasks to reduce extraneous cognitive load (Sweller, 1988); concurrent development of GenAI literacy and intercultural communicative competence through situational dialogue; and gamified instruction to enhance classroom engagement. GenAI was positioned as a supplementary enhancement rather than a replacement for existing pedagogy. Ethically, the study proceeded from a principle of human–GenAI collaboration rather than GenAI dominance (Panke, 2025). The teacher maintained oversight of the cultural appropriateness and accuracy of all GenAI output, and prompt engineering and critical use awareness were built into the instructional objectives (Zhang et al., 2025). Findings were triangulated across reflective journals, interviews and pedagogical artefacts.

3.2 Data collection

Drawing on Clandinin and Connelly's (2000) conceptualisation of field texts, three categories of data were generated: eleven reflective journals written by the teacher, materials applied using GenAI tools, and semi-structured interviews with peer teachers and Chinese cultural teaching experts as supplementary data for triangulation purposes (Denzin, 1978), as shown in Table 1. Each reflective journal was completed on the day of teaching. These journals varied from 500 to 800 words and provided valuable insights into her emotional and practical changes throughout the GenAI-enhanced Chinese culture

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teaching. Reflective journal entries are cited throughout the Findings using the format (RJ, lesson title, cycle number), where RJ denotes Reflective Journal. The researchers analysed the teacher's application of GenAI tools during the six months of teaching practice, from the initial design of multimodal teaching materials(Cycle 1), to the real-time interactive virtual digital human (Cycle 2), and finally to the materials such as the teacher's self-developed cultural learning AI agent (Cycle 3). In addition, this study conducted semi-structured in-depth interviews with three Chinese teachers who observed the classes and two Chinese cultural teaching experts to facilitate triangulation. Interviews with the three teachers were conducted immediately after each class, while the expert interview was conducted after every teaching cycle. Each interview lasted 45-70 minutes and focused primarily on classroom observations, advantages, and areas for improvement regarding the application of GenAI in cultural teaching. With the consent of both the interviewed teachers and the experts, all interviews were recorded and transcribed. To ensure the accuracy of the transcripts, the two researchers cross-checked the transcripts.

Table 1

Overview of Data Sources

Data source	Type	Volume / duration	Role in analysis
Reflective journals	Self-narrative inquiry data	11 entries; 500–800 words each	Primary dataset. Riessman's (2008) thematic narrative analysis
Semi-structured interviews	Qualitative interview	3 peer observer teachers; 2 cultural teaching experts	Triangulation of self-narrative data (Denzin, 1978); thematic analysis (Braun & Clarke, 2006)
Pedagogical artefacts	Material field texts (Clandinin & Connelly, 2000)	GenAI-generated materials	Triangulation of self-narrative data. Examined in chronological sequence across three dimensions, operationalizing broadening and burrowing (Clandinin & Connelly, 2000)

3.3 Data analysis

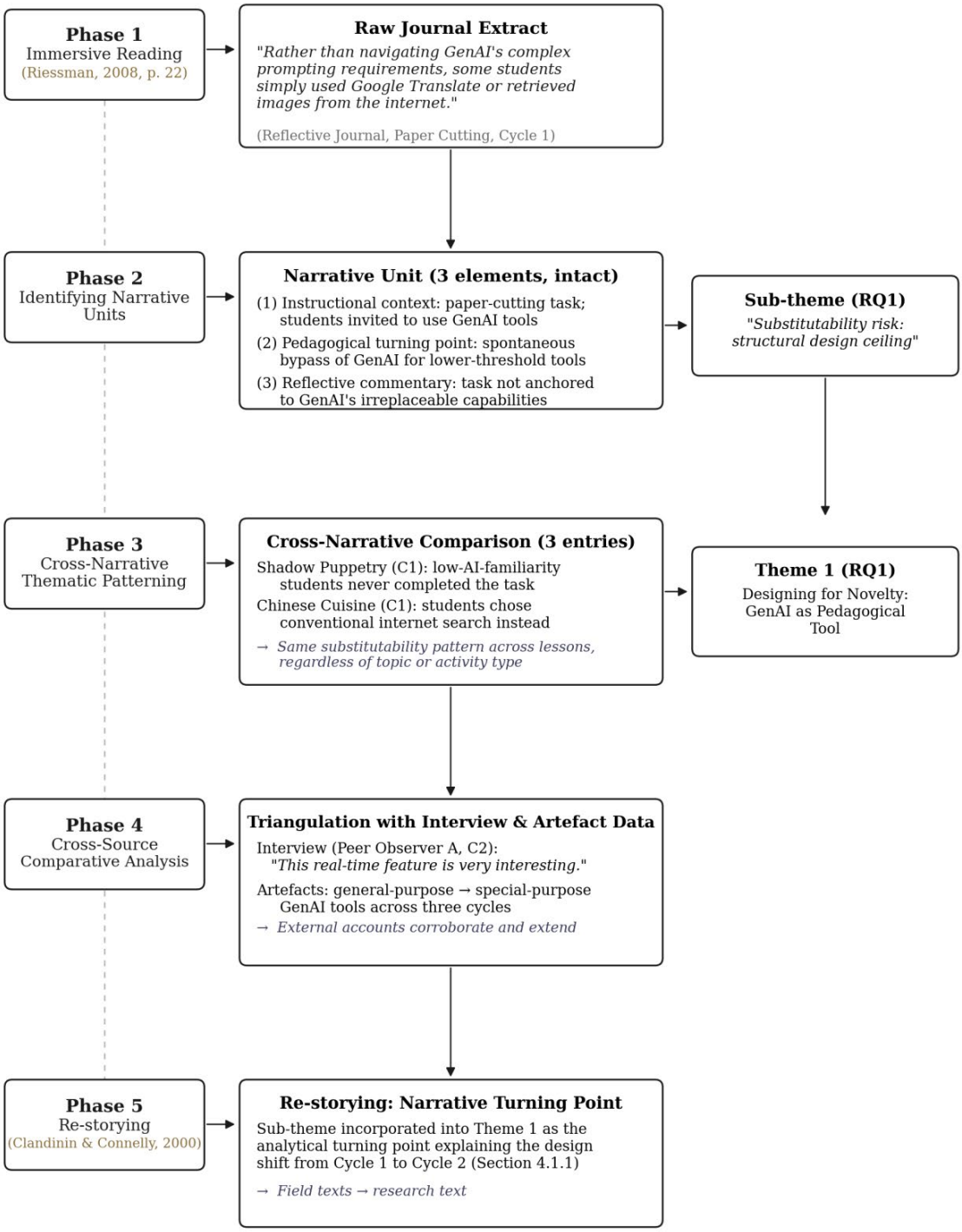
Three analytical pathways were applied to the three categories of field texts (Clandinin & Connelly, 2000). As for the reflective journals, Riessman's (2008) thematic narrative analysis served as the operational core, complemented by the narrative inquiry analytical tools developed by Clandinin and Connelly (2000). Riessman's (2008) thematic narrative analysis attends to the content of what is written, interrogating "what" was experienced, by identifying emotional and pedagogical themes across narrative units while preserving each unit as an intact whole rather than fragmenting it into decontextualised codes (Riessman, 2008, p. 53). This analytical orientation is particularly suited to the present study, as it enables thematic identification while maintaining the temporal integrity of emotional shifts across the six-month instructional cycle. Complementing this approach, Clandinin and Connelly's (2000, pp. 115-116) three analytical movements-broadening, burrowing, and storying and restorying, served as tools for transitioning field texts into research texts: broadening situated the teacher's emotional experiences within the broader landscape of GenAI integration in language education and her professional knowledge landscape; burrowing enabled close examination of the internal meaning of specific emotional incidents; and storying and restorying reconstructed the analysed themes into a coherent three-phase narrative of emotional and practice change (Clandinin & Connelly, 2000). These two approaches are methodologically complementary: Riessman (2008) provides the operational pathway for inductively surfacing emotional and pedagogical themes from the data, while Clandinin and Connelly (2000) supply

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the transformative tools for integrating those themes into a narratively coherent research text (Eryılmaz & Dikilitaş, 2025; Liu, 2025). Reflective journals were analysed following Riessman's (2008) thematic narrative approach through five iterative phases: (1) immersive reading, (2) identifying narrative units, (3) cross-narrative thematic patterning, (4) cross-source comparative analysis, and (5) re-storying. To make the analytical process transparent, Figure 1 provides an illustrative trace of one representative journal extract through the five analytical phases, demonstrating how a raw observation was transformed into a narrative unit, linked to a sub-theme, and incorporated into one of the three developmental phases that structure the Findings.

Figure 1

An Illustrative Trace of the Five-Phase Thematic Narrative Analysis (Riessman, 2008)



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Note. C1 = Teaching Cycle 1; C2 = Teaching Cycle 2. RQ1 = Research Question 1. The five analytical phases (Riessman, 2008) were applied iteratively rather than in strict sequence; movement between phases occurred as new patterns emerged in the data. Triangulation with interview data and pedagogical artefacts was operationalised in Phase 4 (Denzin, 1978). Re-storying (Phase 5) transitioned dispersed field texts into a research text (Clandinin & Connelly, 2000).

Interview transcripts were analysed through thematic analysis (Braun & Clarke, 2006), serving a triangulation function (Denzin, 1978). The first author conducted initial thematic coding of all transcripts; the corresponding author independently reviewed the coding scheme, and discrepancies were resolved through sustained dialogic discussion until consensus was reached. The resulting themes were systematically cross-referenced with those identified in the reflective journals, attending to both convergent and divergent patterns. Pedagogical artefacts were treated as material field texts (Clandinin & Connelly, 2000) and examined in chronological sequence to trace iterative changes across three dimensions: GenAI tool type and functional complexity, degree of teacher agency in tool development, and underlying instructional design philosophy, operationalizing the analytical movements of broadening and burrowing (Clandinin & Connelly, 2000). Artefacts were cross-referenced with corresponding reflective journal entries to triangulate material evidence with the teacher's experiential account.

3.4 Trustworthiness

Trustworthiness was addressed through four strategies. First, through six months of continuous teaching practice and systematic recording, prolonged engagement was ensured. Each reflection journal entry was written on the corresponding course day to minimize retrospective bias (Creswell & Creswell, 2023). Second, data source triangulation (Creswell & Creswell, 2023; Denzin, 1978) was achieved through the convergence of three independent data categories: self-produced narrative journals, pedagogical artefacts, and external interview data from peer observer teachers and two professors. Third, a reflexivity statement is warranted. Occupying the dual position of researcher and primary participant, the first author may have accorded productive episodes of GenAI use proportionally greater analytical attention than moments of failure or student disengagement. The present study addressed this risk through explicit negative case analysis. For example, the affective indifference of graduate students to AI-animated characters constrained the applicable scope of GenAI's affective activation affordances; similarly, the comprehension failures of the real-time conversational digital human were preserved as the empirical basis for the teacher's improvisational responsiveness claim, rather than being dissolved by the successes of Cycle 3. Fourth, peer debriefing (Creswell & Creswell, 2023) was conducted through a process of collaborative analytic review involving the corresponding author, who independently reviewed emerging themes and interpretations to identify potential blind spots in the self-narrative analysis.

All interview participants, three peer observer teachers and two Chinese cultural teaching experts, provided informed consent prior to data collection . All students were adults aged 19 to 28 who participated on a fully voluntary basis; they were explicitly informed that the course carried no academic credit and that non-participation would entail no academic consequences of any kind. Student reactions referenced in this study were documented solely through the researcher-teacher's reflective journals as naturally occurring observations in a voluntary elective course.

4 Findings

4.1 Instructional practice changes

Table 2 traces how the three phase themes were derived. Across the cycles, the teacher's relation to the tools shifted from user to trainer to architect, and this shift is legible in both her journal accounts and the

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artefacts she produced. In Cycle 1, GenAI was foregrounded as the object explored rather than the means of instruction, and its usefulness proved conditional in ways she had not anticipated. In Cycle 2, the design question shifted to what GenAI alone could do—and to where its generated content ceased to add value. By Cycle 3, the technology had receded: attention, the teacher's and the observers' alike, rested on cultural learning rather than on the tools enabling it.

Table 2

Derivation of the Three Phase Themes across Teaching Cycles

Teaching Cycle	Teacher's Role with Tools	Representative Journal Evidence	Corroborating Evidence	Theme
1	**User** Selects from general-purpose commercial platforms and adapts practice to what they offer.	"Rather than navigating GenAI's complex prompting requirements, some students simply used Google Translate or retrieved images from the internet."	Artefacts: all tools used as released; no model training. Interview: experts and peer observers noted students enjoy "teaching activities that involve a high level of student engagement."	Designing for Novelty: GenAI as Pedagogical Tool
2	**Trainer** Trains virtual digital humans on lesson-specific cultural content.	"When students learned that they could place orders with the virtual digital human, those who had been quiet immediately broke into smiles."	Interview (Peer Observer A): the real-time feature "leads students through a review of what they learned in the lesson." Interview (Professor B): balance between GenAI-generated materials and authentic cultural artefacts "is of critical importance."	Designing for Function: Rethinking the GenAI Boundary
3	**Architect** Builds course-specific AI tools.	"The students were delighted to hear this AI agent and actively used it before and after class."	Interview (Peer Observer C): "The GenAI tools were present, but I did not feel their presence." Artefacts: Huahua AI agent.	Designing for Integration: GenAI as Invisible Pedagogical Infrastructure

Note. Journal extracts shown are the most representative instances for each cycle.

4.1.1 Designing for novelty: GenAI as a pedagogical tool

During the first teaching cycle (Table 3), the teacher undertook a wide-ranging exploration of GenAI integration in the classroom. The overall instructional design encompassed three dimensions. At the student use level, guided by a task-based learning approach, the teacher first introduced students to the relevant GenAI tools, after which students, using platforms such as ChatGPT, Gemini, and Claude, directly employed these tools to support the completion of their learning tasks. At the teacher instruction level, GenAI-generated images, videos, and music were incorporated to facilitate multimodal teaching, enhancing the visual impact and appeal of the cultural classroom. At the instructional design level, three-

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to-five-minute GenAI usage segments were embedded into each lesson, covering operational guidance on how to prompt the tools to address new vocabulary, pronunciation, and grammar questions, instruction in prompt engineering, and explicit reminders for students to evaluate GenAI responses critically.

Table 3

Courses for the First Teaching Cycle

Lesson title	GenAI application	Tools used	Students
Shadow Puppetry	1. Students create personalised shadow puppet character images using GenAI tools. 2. Students perform shadow puppetry scenes, employing GenAI tools for brainstorming, vocabulary supplementation, and grammar self-checking.	ChatGPT, Gemini	A total of 29 student attendances were recorded. Some students chose to attend more than one lesson within this cycle. The majority of participating students had little experience with GenAI-enabled Chinese classroom instruction.
Traditional Chinese Medicine	1. Multimodal instructional material generation: anthropomorphized character images of traditional Chinese medicinal herbs among others. 2. Students voluntarily choose whether to use GenAI tools to support their Chinese oral presentation task.	Jimeng AI, Doubao, Gemini	
Paper Cutting	1. Multimodal instructional material generation: personalised paper-cutting templates and related visual content. 2. Students voluntarily choose whether to use GenAI tools to support their Chinese oral presentation task.	Jimeng AI, Doubao, Gemini, Kling AI	
Chinese Cuisine	1. Scenario creation: a simulated Chinese restaurant ordering experience constructed with GenAI. 2. Students voluntarily choose whether to use GenAI tools to support their Chinese oral presentation task. 3. Multimodal instructional material generation.	Laihua AI, ChatGPT, Gemini, Claude	

GenAI-generated personalised multimodal materials appeared to activate students' affective engagement. "When a virtual digital human avatar that addressed students by name, and GenAI-generated paper-cutting templates closely tied to students' campus life, were presented in class, students' eyes lit up with delight, and they broke into smiles" (RJ, Paper Cutting, Cycle 1). "When the GenAI-constructed simulated Chinese restaurant ordering scenario was introduced, students excitedly engaged in the ordering activity and eagerly asked the teacher various questions about Chinese restaurants" (RJ, Chinese Cuisine, Cycle 1). During the interviews, fellow teachers all mentioned that students enjoy "teaching activities that involve a high level of student engagement" (Peer Observer Teacher B, Interview, Cycle 1). This observation resonates with Kohnke and Moorhouse's (2025) conclusion that GenAI can effectively lower affective barriers in language learning, suggesting that highly contextualised GenAI-generated content can foster student engagement within cultural instruction settings. GenAI also demonstrated

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potential for supporting personalised student creation and language learning. In the paper-cutting lesson, "several students at the advanced Chinese proficiency level used GenAI to look up vocabulary and revise sentences, completing their paper-cutting presentations with distinction" (RJ, Paper Cutting, Cycle 1). The teacher recorded many positive aspects, such as in the shadow puppetry lesson:

> Students worked collaboratively to generate personalised puppet character images using GenAI tools. Under conditions of my guidance throughout, the quality of student output was largely satisfactory, some students were genuinely surprised and delighted by the puppet characters they had created using GenAI tools, and introduced their creations in Chinese. (RJ, Shadow Puppetry, Cycle 1)

Although GenAI holds genuine pedagogical affordances, this study simultaneously identified two structural risks arising from open-ended task design. The first is the risk of substitutability: when task design fails to anchor activities to GenAI's functionally irreplaceable capabilities, students tend to default to conventional tools with lower cognitive cost. This pattern was most evident in the spring couplet writing activity: "rather than navigating GenAI's complex prompting requirements, some students simply used Google Translate or retrieved images from the internet" (RJ, Paper Cutting, Cycle 1). When the breadth of a task allows ordinary web search to meet its requirements, the additional prompting demands of GenAI become a substantive cognitive burden rather than an enabling resource. This finding resonates with Kohnke and Zou's (2025) argument regarding the importance of identifying AI's irreplaceable functional boundaries, and prompted the teacher to inductively formulate a guiding design principle: "the more focused the use of GenAI tools, the better" that is, the pedagogical value of GenAI can only be reliably activated when task design locks onto capabilities unique to GenAI that no lower-threshold alternative can replicate. The second risk is that of proficiency-level mismatch in GenAI-generated content. In one lesson, "a group of students produced Chinese output far exceeding their own proficiency level—to the point that I, the teacher, could not understand what they were saying" (RJ, Shadow Puppetry, Cycle 1). In the paper-cutting lesson, "a student at the intermediate proficiency level used GenAI to write sentences; however, GenAI generated many sentences beyond his comprehension, which he proceeded to read aloud despite not understanding their meaning" (RJ, Paper Cutting, Cycle 1). Similar phenomena were also observed in the Chinese cuisine lessons. Based on the teacher's classroom observations, when GenAI-generated content exceeds students' cognitive capacity, learners substitute the formal production of language for the substantive internalisation of meaning. Thus, the observed affordances of GenAI vary structurally across learners of different proficiency levels.

Students' responses to the same multimodal materials varied considerably depending on the learner group. Reflective journal data from the traditional Chinese medicine lesson revealed that the same GenAI-generated materials elicited markedly different emotional responses across student cohorts: "undergraduate students' eyes lit up at the GenAI-generated animated character, while graduate students responded with visible indifference" (RJ, Traditional Chinese Medicine, Cycle 1). Students' degree of familiarity with GenAI tools influenced their efficiency in using these tools during class, resulting in differential task-completion times among learners. As the reflective journal recorded: "some students, already familiar with GenAI tools, completed tasks rapidly, while others encountering the tools for the first time had not yet generated their puppet characters by the time their classmates had finished" (RJ, Shadow Puppetry, Cycle 1). The affective pull of GenAI-generated content thus appeared to vary with learner characteristics such as age and AI literacy, and teachers must incorporate students' characteristics as a core consideration at the material design stage.

4.1.2 Designing for function: Rethinking the GenAI boundary

The second teaching cycle (Table 4) uses the reflections from the first teaching cycle as a reference to achieve a transition from "exploratory breadth" to "functional depth".

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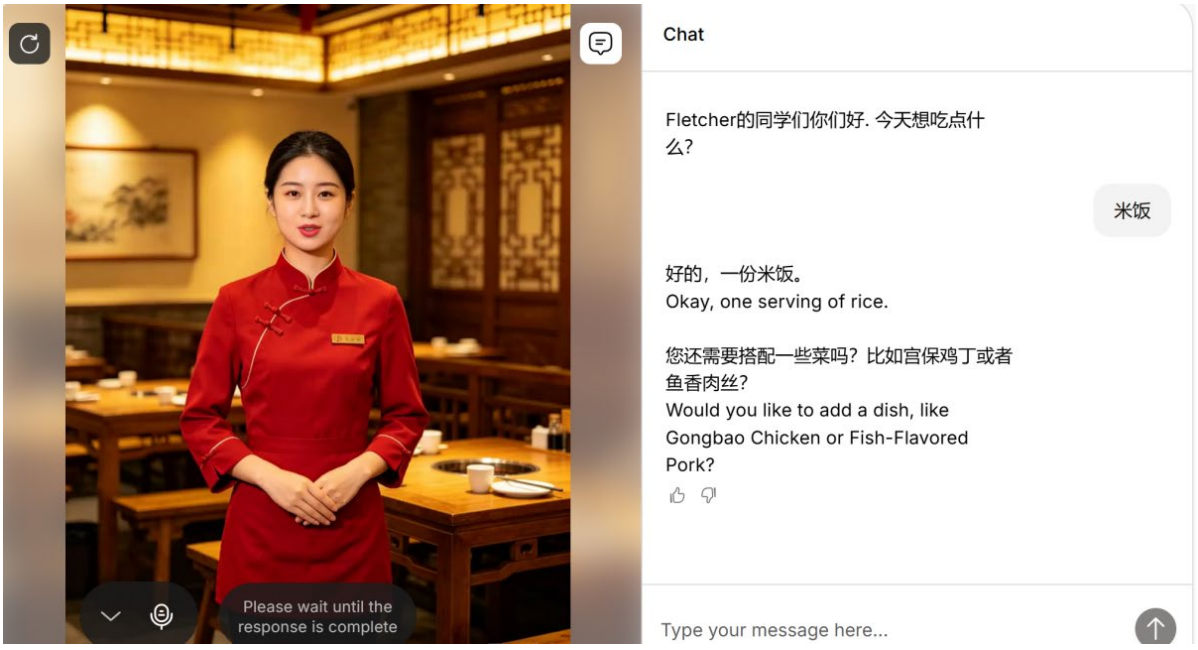
Table 4

Courses for the Second Teaching Cycle

Lesson title	GenAI application	Tools used	Students
Intangible Cultural Heritage Gifts	1. GenAI-assisted Peking opera face-mask (lianpu) generation and oral presentation support. 2. Multimodal instructional material generation.	Jimeng AI, Doubao, Gemini	A total of 21 student attendances were recorded. Some students chose to attend more than one lesson within this cycle. The majority of participating students had some experience with GenAI-enabled Chinese classroom instruction.
The Forbidden City	1. Real-time conversational virtual digital human (ancient scholar character). 2. Multimodal instructional material generation.	D-ID, Jimeng AI, Gemini	
Exploring Chinese Cities	1. Real-time conversational virtual digital human (simulated restaurant ordering scenario). 2. Multimodal instructional material generation.	D-ID, Jimeng AI, Doubao, Gemini	

Figure 2

Real-time Conversational Virtual Digital Human (simulated restaurant ordering scenario)



This instructional cycle marked the first deployment of a culturally oriented, real-time conversational virtual digital human independently trained by the teacher (Figure 2). The virtual digital human was built upon a knowledge base comprising the cultural content covered in each lesson, enabling students to engage in oral, real-time interaction with it during class. The system responded to student questions and guided continued student expression in both Chinese and English. To ensure that the linguistic complexity of the output was commensurate with learners' proficiency levels, the teacher imposed constraints during the training stage, restricting vocabulary output to the HSK Level 1-6 range and calibrating

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sentence length to a range appropriate for second language (L2) learners, so that the interactions simultaneously reinforced students' cultural learning from the lesson. This design marked a shift in the degree of GenAI integration in this study, moving from the Augmentation level to the Modification level of the SAMR framework (Kohnke & Zou, 2025; Puentedura, 2006). Students' responses to the tool affirmed its function as an interactive cultural learning tool. As the reflective journal recorded: "When students learned that they could place orders with the virtual digital human, those who had been quiet immediately broke into smiles, and all of them were eager to interact with it" (RJ, Exploring Chinese Cities, Cycle 2). A peer observer teacher similarly remarked in the post-lesson interview: "This real-time conversational feature is very interesting; it also leads students through a review of what they learned in the lesson, and it's very enjoyable" (Peer Observer Teacher A, Interview, Cycle 2). Concurrently, during this instructional cycle, the teacher began exploring the development of a Chinese cultural instruction AI Agent and the design of web-based interactive mini-games, investing a substantial amount of time in model design and iterative testing in preparation for their deployment in the subsequent teaching cycle.

GenAI-generated multimodal instructional materials demonstrated three pedagogical functions in this cycle: making abstract cultural concepts accessible through visual representation, enhancing the multisensory impact of cultural content, and compensating for the teacher's limitations in foreign language expression. With respect to the visual representation of abstract concepts, in the lesson addressing the question "Why is the roof of the Wenyuan Pavilion in the Forbidden City black?", the teacher employed Avatar Animation technology to create an anthropomorphised representation of the pavilion building, accompanied by an animation illustrating the principle of "water overcoming fire." This approach transformed the abstract cultural philosophy of the Five Elements into a visual narrative that students could directly perceive. The design received affirmative feedback from students "The students smiled with surprise and delight upon seeing it" (RJ, The Forbidden City, Cycle 2) and peer observer teachers: "New ways to say the same concept. It's amazing" (Peer Observer Teacher A, Interview, Cycle 2). With respect to emotional engagement with cultural content, the teacher used GenAI to generate Avatar Animations for the Forbidden City's mascots "Longzhuangzhuang" and "Fengmeimei," enabling them to narrate their own stories, thereby transforming static cultural symbols into interactive characters with narrative agency. These singing and dancing animations captured students' attention the moment they appeared (RJ, The Forbidden City, Cycle 2). A peer observer teacher evaluated this as "Very enjoyable for students" (Peer Observer Teacher C, Interview, Cycle 2). With respect to language expression support, Avatar Animations could switch flexibly between Chinese and English according to instructional needs, partially compensating for the teacher's limitations in foreign language expression. As one peer observer teacher noted: "The Chinese and English expressions for these Avatar Animations are very clear" (Peer Observer Teacher B, Interview, Cycle 2).

Recognising the boundaries of GenAI-generated materials. In the second teaching cycle the teacher also came to recognise the application boundaries of GenAI-generated materials. "When I attempted to use GenAI tools to animate static photographs of Chinese cities, students responded to these images with visible indifference" (RJ, Exploring Chinese Cities, Cycle 2). The question received feedback from the interview: "In multimodal content design, maintaining an appropriate balance between GenAI-generated materials and authentic cultural artefacts is of critical importance"(Professor B, Interview, Cycle 2). "Photographs of Chinese cities are readily available, and students want to see the real China; AI-generated images of Chinese cities may strike them as inauthentic. Complex cultural concepts, however, are well served by GenAI's capacity to render them accessible and comprehensible" (Peer Observer Teacher A, Interview, Cycle 2). "Lacking authenticity, too much AI-generated content can easily lead to aesthetic fatigue" (Professor A, Interview, Cycle 2). Preserving the authenticity and immediacy of the culture serves as an indispensable safeguard against reducing GenAI to a pedagogical gimmick.

4.1.3 Designing for integration: GenAI as invisible pedagogical infrastructure

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The third instructional cycle (Table 5) was conducted with undergraduate and graduate students from another college, whose native languages included English, Japanese, French, and Spanish. Students' Chinese proficiency ranged from beginner to intermediate level. The instructional content was further refined and optimised on the basis of the second cycle.

Table 5

Courses for the Third Teaching Cycle

Lesson title	GenAI application	Tools used	Students
Shadow Puppetry	1. AI Agent for Cultural Learning (Huahua). 2. GenAI-generated interactive web game. 3. Students create personalised shadow puppet character images using GenAI tools. 4. Students voluntarily choose whether to use GenAI tools to support their Chinese oral presentation task.	Hugging Face, Coze, Python, D-ID, Jimeng AI, Claude	A total of 30 student attendances were recorded. Some students chose to attend more than one lesson within this cycle. The majority of participating students had some experience with GenAI-enabled Chinese classroom instruction.
Chinese Architecture	1. AI Agent for Cultural Learning (Huahua). 2. GenAI-generated interactive web game. 3. Real-time conversational virtual digital human. 4. Multimodal instructional material generation.	Hugging Face, Coze, Python, D-ID, Jimeng AI, Claude	
Exploring Chinese Cities	1. AI Agent for Cultural Learning (Huahua). 2. GenAI-generated interactive web game. 3. Real-time conversational virtual digital human. 4. Multimodal instructional material generation.	Hugging Face, Coze, Python, D-ID, Jimeng AI, Claude	
Chinese Festivals	1. AI Agent for Cultural Learning (Huahua). 2. GenAI-generated interactive web game. 3. Real-time conversational virtual digital human. 4. Multimodal instructional material generation.	Hugging Face, Coze, Python, D-ID, Jimeng AI, Claude	

GenAI-supported autonomous learning. During the third instructional cycle, the teacher, drawing on the model training experience accumulated over the preceding two cycles, independently developed a large-model AI Agent specifically designed for Chinese cultural learning, named "Huahua" (as shown in Figure 3). Huahua's core knowledge base was built upon traditional Chinese cultural content, enabling students to pose questions freely in multiple languages. Responses were generated at a linguistic difficulty level calibrated for second language learners, presenting Chinese, pinyin for key vocabulary, and English in parallel to provide integrated scaffolding for both language and cultural content. Following the model's development, the teacher invited more than 10 frontline Chinese language teachers to pilot-test Huahua and continuously refined the model based on their feedback. The core pedagogical positioning of Huahua was to extend Chinese cultural learning beyond classroom time into pre-class preparation and post-class review. The teacher was also able to access conversation data through the AI agent's backend (not included in the research corpus; for instructional improvement only). Students' responses to Huahua affirmed its function as an autonomous learning tool. When the teacher informed students in class that

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Huahua was available for independent use after class, "The students were delighted to hear this AI agent and actively used it before and after class. I also used the data from the students' conversations with the AI Agent to identify their difficulties and optimise the classroom teaching content" (RJ, Shadow Puppetry, Cycle 3). Similar situations occurred in the Chinese Festivals and Chinese Architecture courses. The optimisation of the AI Agent was continuous rather than complete: "Students' feedback from using it was my main source of inspiration as I kept refining the model" (RJ, Exploring Chinese Cities, Cycle 3).

Figure 3
AI Agent for Cultural Learning



GenAI-supported engaging and gamified learning. The teacher used GenAI to generate code and independently designed a series of web-based interactive games centred on Chinese cultural themes, such as a shadow puppet character assembly puzzle (as shown in Figure 4) and an architectural culture knowledge challenge. The content of each game was closely aligned with the cultural theme of the corresponding lesson. Students participated in small-group competitive formats, consolidating and testing the cultural knowledge points covered in class within time-limited, competitive task contexts. The gamified instructional segment appeared to activate students' engagement. As the reflective journal recorded: "Before class I made a challenge-style game; as soon as students saw the competitive game in class, they became enthusiastic. The whole class was divided into two teams, and students actively participated in the time-limited competition—everyone wanted to be on the winning team" (RJ, Exploring Chinese Cities, Cycle 3). "the competitive atmosphere created by gamified contexts helps overcome the challenge of insufficient student participation in cultural instruction classes" (Peer Observer Teacher B, Interview, Cycle 3). The customised games appeared to contribute to students' sense of classroom participation.

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Figure 4
Shadow Puppet Assembly Puzzle Game



4.2 The teacher's professional competence and emotional development

4.2.1 Building AI literacy

Across the three cycles, the teacher's technical competence with GenAI tools developed from effortful, time-consuming trial and error toward a fluency that reorganised where her attention went during lesson preparation. The demands became apparent as soon as she moved beyond off-the-shelf tools. Training the real-time conversational virtual digital human in Cycle 2 required not only familiarity with prompt engineering but model configuration, iterative testing, and a working knowledge of code—competencies that extended well beyond general information literacy. She recorded the experience in the journal:

> The first attempt at training the model involved frequent trial and error and consumed a substantial amount of time; by the second attempt, proficiency had improved considerably and the process was much faster. Sufficient digital literacy and foundational coding knowledge are necessary conditions for deploying these tools more efficiently. (RJ, The Forbidden City, Cycle 2)

The improvement between the first and second attempts was already visible within a single cycle. By Cycle 3, the contrast with where she had begun was substantial: "When training a new model, I no longer need to spend several days on repeated trial and error as I did the first time; a simple digital human model now takes me about one hour" (RJ, Shadow Puppetry, Cycle 3). In the same cycle the teacher noted a shift in what occupied her during preparation: "I gradually internalised the technical logic of the tools, directing more attention toward instructional design rather than technical troubleshooting" (RJ, Chinese Architecture, Cycle 3). During the first two cycles, technical problems had absorbed cognitive resources that might otherwise have gone to pedagogical decisions. As the technical work became routine, those resources were released for pedagogical decisions.

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4.2.2 Responding to classroom friction

GenAI tools introduced forms of classroom friction that had no equivalent in the teacher's prior practice, and across the three cycles her responses to that friction shifted from seeking technical remedies toward adjusting her own instruction.

GenAI-enabled classrooms are driving a change in how teachers guide students. The first friction was instructional. When the teacher introduced GenAI by enumerating operational steps and leaving students to work independently, the outcome was confusion rather than autonomy: "If I merely list operational steps and ask students to operate the GenAI tools independently, students are still left bewildered and unsure of where to start" (RJ, Traditional Chinese Medicine, Cycle 1). The teacher revised the approach within the same cycle, adopting a co-constructed, step-by-step facilitation model in the Chinese cuisine lesson: "In carrying out the 'Recommend a Dish' oral reporting task, I guided the entire class step by step, from brainstorming through discourse construction to error-checking, and all students successfully completed their oral presentations" (RJ, Chinese Cuisine, Cycle 1). What changed was her conception of guidance itself—from the transfer of operational information to a process modelled in real time alongside students.

GenAI-enabled classrooms exhibit a complexity in pacing and student management that distinguishes them from conventional environments, requiring more finely grained observation and more flexible differentiated guidance. Image generation took one to two minutes, and it took different students different amounts of time, fragmenting a rhythm she had previously been able to hold for the whole class at once. As the reflective journal recorded:

> In the one-to-two minutes between students' prompt submission or image generation, what guidance can I provide? For instance, using language to build students' sense of anticipation? Given the differential generation times among students, how can I simultaneously support slower students while directing faster ones to continue advancing? (RJ, Shadow Puppetry, Cycle 1)

These were not questions about the technology but about pedagogy under new temporal conditions. The real-time conversational virtual digital human did not always perform as the teacher had anticipated: "It occasionally responds slowly, and because L2 learners' Chinese pronunciation and intonation are not as standardised as those of native speakers, the virtual digital human sometimes failed to understand what students said" (RJ, The Forbidden City, Cycle 2). Physical conditions compounded the problem: "In a large classroom, students seated at the back had to speak loudly for the virtual digital human to hear them clearly, and speaking loudly sometimes made students feel self-conscious" (RJ, Exploring Chinese Cities, Cycle 2). These difficulties prompted continued refinement of the purpose-built model. More consequentially, they prompted a question of a different order: When the model cannot make out what a student is saying, might this also be a good moment for me to practise oral expression with them? (RJ, Exploring Chinese Cities, Cycle 2) The shift in this question—from how to repair the tool to how to work with what it cannot do—marks the point at which the teacher began treating technological friction as pedagogical material rather than as an obstacle to be eliminated. Its consequences are visible in how she handled a comparable incident one cycle later. In Cycle 1, when the technology failed in front of the class, the journal recorded only this: "When the GenAI didn't unfold as I expected, I just felt very embarrassed" (RJ, Chinese Cuisine, Cycle 1). By Cycle 3, the same category of incident produced a markedly different response:

> In the Chinese architecture lesson, when the virtual digital human failed to comprehend a Japanese student's Chinese utterance and responded only with "Sorry, I didn't understand," I immediately seized the opportunity to teach students how to use the word bàoqiàn. At that time, students had an "aha" moment of understanding. (RJ, Chinese Architecture, Cycle 3)

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What had changed was not the technology—the virtual digital human's comprehension limits remained unresolved—but the teacher's capacity to notice what a breakdown made available and to redirect the lesson toward it without losing the class.

4.2.3 From explorer to architect

During the third instructional cycle, a qualitative transformation occurred in the teacher's relationship with the GenAI technologies she deployed, a shift from anxious improvisation to confident orchestration, and this transformation itself constituted an important condition for deepening the quality of classroom practice.

The move from user to architect is most visible in the artefacts themselves. In Cycle 1 the teacher deployed general-purpose commercial platforms as released; in Cycle 2 she trained a virtual digital human on lesson-specific content and constrained its output; by Cycle 3 she had built a course-specific AI Agent from scratch and refined it through peer testing. What this progression required of her was not only technical fluency but a different relation to the technology. This shift in position was accompanied by a shift in purpose. In the first two cycles, GenAI was foregrounded as a novel object of student attention; the third cycle was characterised by its deliberate backgrounding:"I used the real-time conversational virtual digital human to help students practise the cultural points they had just learned, used the AI Agent to support students' autonomous learning before and after class, and used multimodal materials that students genuinely enjoy to activate their interest" (RJ, Chinese Festivals, Cycle 3). A peer observer registered the same quality independently: "In this lesson the GenAI tools were present, but I did not feel their presence; they had blended naturally into the classroom" (Peer Observer Teacher C, Interview, Cycle 3). Students' attention likewise rested on cultural content rather than on the technology delivering it—when the virtual digital human spontaneously produced the term zhōngzhóuxiàn (the central axis of Beijing) that students had just learned, they "were astonished and exclaimed 'So impressive!'" (RJ, Chinese Festivals, Cycle 3). After the Chinese Festivals lesson, one student voluntarily approached her to say: "It's very helpful and very enjoyable for me to understand and learn the history of China in this way. Thank you!" (RJ, Chinese Festivals, Cycle 3). The teacher's own entry that day closed with a single line: "After class I felt completely energised" (RJ, Chinese Festivals, Cycle 3). This repositioning—from GenAI as technological spectacle to GenAI as pedagogical infrastructure—corresponds to the Redefinition level of the SAMR framework (Kohnke & Zou, 2025; Puentedura, 2006), where technology ceases to be perceived as technology and becomes the medium through which new forms of learning become possible.

5 Discussion

5.1 Conditional affordances: What makes GenAI work in cultural instruction

The most consistent pattern across the three cycles is that GenAI's pedagogical value in cultural instruction proved conditional rather than inherent. The same animated character that drew visible delight from undergraduate students left graduate students unmoved. The same open task design that invited GenAI use also permitted students to bypass it entirely in favour of a translation engine. The same category of AI-generated content that made the Five Elements philosophy perceptible produced indifference when applied to photographs of contemporary Chinese cities. In each instance, what varied was not the capability of the technology but the fit between that capability and the specific pedagogical situation. This pattern is intelligible within affordance theory as it has been developed for educational settings. In Gibson's (1979) original formulation, affordances are relational properties of the organism-environment system rather than fixed attributes of objects; Norman (1999) subsequently distinguished real from perceived affordances in human–computer interaction, noting that what a user

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perceives an artefact to permit governs how it is actually used. Kirschner et al. (2004) extended this distinction to education by separating technological affordances, which are the attributes of the tool itself, from educational affordances, which concern the relationship between those attributes and a specific learning context. The present findings illustrate why this separation matters in practice. The technological affordances of the animated character were constant across the two cohorts; its educational affordances were not. Klimova and Chen's (2024) review reports gains in intercultural communicative competence across AI-supported interventions, and Kohnke and Moorhouse (2025) find that GenAI can lower affective barriers in language learning. The present study is consistent with both, but locates the operative mechanism differently. The affective response documented here was not activated by GenAI's capabilities as such; it was activated by personalisation—by content that reflected students' own campus surroundings, or placed them inside a culturally recognisable scenario. Where that calibration was absent—as when the same animated character that engaged undergraduates met with indifference from graduate students—the technology's affective pull largely dissipated. Findings reported at the aggregate level may therefore conceal considerable variation within a single classroom, and practitioner accounts are needed to specify when this potential is realised and when it is not.

Two design principles emerged inductively from this trajectory. The first concerns task design: GenAI should be deployed for functions that lower-threshold alternatives cannot replicate. The substitutability pattern of Cycle 1 admits a straightforward cognitive-cost account—where a task can be completed through a familiar search engine, the additional demands of prompt engineering operate as a deterrent rather than a resource, and learners take the shorter path. This is consistent with the principle of extraneous cognitive load in Sweller's (1988) formulation: processing demands that do not contribute to the learning goal compete for the same limited working-memory resources as the goal itself. It also aligns with long-standing findings on technology acceptance, in which perceived ease of use shapes adoption independently of perceived usefulness (Davis, 1989)—a relationship that Li et al. (2024) have documented among Chinese language learners specifically. The second principle concerns content: GenAI-generated material should compensate for the inaccessibility of authentic material rather than substitute for it. The contrast within Cycle 2 is instructive. Animating the interior logic of the Wenyuan Pavilion made visible a philosophical principle that no photograph could convey; animating photographs of Chinese cities replaced something students could already access with a synthetic version they found less credible. As one peer observer put it, students "want to see the real China." Cultural authenticity, on this account, is not an abstract value to be protected but a functional resource that AI-generated content can either extend or erode, depending on whether the original was available to begin with. In summary, these principles suggest that the question of whether GenAI benefits cultural instruction is less productive than the question of under what conditions it does.

5.2 Teacher learning as the precondition for technological integration

If the affordances of GenAI are conditional, the conditions are substantially set by the teacher. The three-cycle trajectory documented here suggests that the depth of technological integration achievable in a classroom is bounded less by what the technology can do than by what the teacher has learned to do with it.

The clearest illustration is the movement from tool user to tool architect. In Cycle 1 the teacher selected from commercially available platforms and adapted her practice to what they offered. In Cycle 2 she trained a virtual digital human on lesson-specific content and constrained its output to the HSK 1–6 range—a direct response to the proficiency mismatch she had encountered in Cycle 1. By Cycle 3 she had built a course-specific AI Agent from scratch, pilot-tested it with more than 10 frontline teachers, and refined it iteratively on the basis of student use. This progression corresponds closely to what Goodyear (2005) termed the "teacher-designer" and what Davis et al. (2011) have described as pedagogical design capacity—the ability to perceive and mobilise available resources in the construction of instruction.

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Laurillard et al.(2018) argue that positioning teachers as designers of technology-enhanced learning, rather than as recipients of tools designed elsewhere, is what enables genuine pedagogical innovation. The present case supports that argument longitudinally: the Redefinition-level integration achieved in Cycle 3 was not the result of adopting a more sophisticated tool but of the teacher having become able to build one.

Across the three cycles, the technology failed repeatedly and in similar ways: the virtual digital human responded slowly, could not parse L2 pronunciation, and asked students seated at the back of the room to speak uncomfortably loudly. What changed was not the frequency of these breakdowns but the teacher's repertoire for responding to them. The same category of incident that produced a bare notation of embarrassment in Cycle 1 became, in Cycle 3, the occasion for teaching students to say bàoqiàn and to express that they had not understood someone. This capacity is not a troubleshooting skill in the technical sense but a form of what Sawyer (2004, 2011) has termed disciplined improvisation: creative pedagogical action that occurs within, rather than in place of, established structures and routines. Sawyer's account, and the expert–novice research it draws on (Borko & Livingston, 1989), holds that improvisational fluency is a marker of expertise rather than a substitute for planning—expert teachers invoke routines more, not less, than novices, but deploy them flexibly in response to what the moment presents. The trajectory documented here is consistent with that account and specifies its technological variant: the capacity to read a breakdown in real time, to identify what it makes available for learning, and to redirect the lesson without visible interruption.

Over the three cycles the teacher's understanding of what GenAI was for shifted from a technology to be demonstrated to a medium through which cultural learning could be enabled. This reconceptualisation was not the product of instruction or planning. It accumulated through cycles of design, breakdown, reflection, and redesign.

6 Conclusion

Through a six-month self-narrative inquiry, this study traced how one pre-service Chinese language teacher's instructional practice and professional competence developed as she integrated GenAI into adult Chinese cultural instruction. Her design work moved through three qualitatively distinct orientations: an exploratory phase in which GenAI was foregrounded as an object of student attention; a functional phase organised around what GenAI alone could do and where its content ceased to add value; and an integrative phase in which the technology receded into the background of a classroom whose visible content was cultural rather than technological.

This trajectory was inseparable from the teacher's own development. Her AI literacy, modes of instructional guidance, and capacity to respond to technological breakdown in the moment each developed across the three cycles, and each shaped what forms of integration were available to the teacher at any given point. What the data document is not a series of discrete improvements but a shift in how the teacher understood, inhabited, and enacted her professional role in a GenAI-enabled classroom. Two design principles emerged inductively from this process. First, GenAI task design should target functions that lower-threshold alternatives cannot replicate; where an ordinary search engine suffices, the additional demands of prompt engineering operate as a deterrent rather than a resource. Second, GenAI-generated content should compensate for the inaccessibility of authentic materials rather than substitute for them.

This study makes a distinctive contribution to the field by providing longitudinal, practitioner-centred accounts of GenAI integration specifically within Chinese cultural instruction. Regarding technological dynamics, this study captures a transient snapshot of GenAI development over a six-month period. As generative models continue to advance rapidly in multimodal processing, real-time latency reduction, and contextual understanding, some technical frictions documented in this paper (e.g., L2

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voice recognition errors or model setup complexity) may be technical bottlenecks of a specific moment. Future research can expand the analytical frame to incorporate the student perspective: while the present study illuminates how the teacher experienced and navigated GenAI integration, how students perceived, responded to, and were cognitively and affectively shaped by this evolving instructional environment remains an open empirical question.

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Disclosure of AI Use

Claude has been used for proofreading the language. However, all content is our own.

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生成式人工智能赋能中国文化教学的自我叙事探究

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摘要
生成式人工智能（GenAI）在语言教育中发展迅速，但在中国文化教学领域，关于 GenAI 赋能如何影响教师教学实践与专业能力的纵向研究仍较有限。本研究采用自我叙事探究法，追踪一名职前中文教师运用 GenAI 赋能中国文化教学的经历。数据来源包括该教师每节课后的反思日志，GenAI 生成的教学素材与工具，以及对三位同行观课教师和两位专门从事中国文化教学研究的教授所进行的半结构化访谈。数据分析基于 Clandinin 和 Connelly（2000）的叙事探究框架，采用 Riessman（2008）的主题叙事分析。研究发现，教师的教学设计经历三个发展阶段：为新奇而设计、为功能而设计、为融合而设计。同时，教师角色由工具使用者演变为工具架构者；其 AI 素养、面对技术故障时的课堂即兴应对能力，以及将 GenAI 从教学“景观”重新定位为“隐形基础设施”的观念转变，均在实践中逐步形成。研究进一步提炼出两条设计原则：GenAI 任务设计应聚焦低门槛替代方案无法替代的功能；GenAI 生成内容应弥补真实材料难以获取之不足，而非取代真实材料。本研究为 GenAI 赋能中国文化教学这一交叉领域提供了以实践者为中心的纵向视角，并为教师教育与文化教学实践提供了具有实证依据的设计建议。

关键词
生成式人工智能，中国文化教学，自我叙事探究

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