A GenAI-Empowered Teaching Model for MTI Students' Traditional Chinese Culture Translation: A Cultural Translation Theory Perspective

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Abstract: This study explores the application of Generative Artificial Intelligence (GenAI) in teaching the translation of China's fine traditional culture to Master of Translation and Interpreting (MTI) students. Grounded in Bassnett's cultural translation theory, it proposes a teaching model that deeply integrates GenAI into a reconstructed "teaching-learning-practice-evaluation" cycle. The model features a three-phase practical pathway: AI-aided resource preparation, human-machine collaborative classroom interaction, and a post-class personalized improvement loop. Employing a mixed-methods approach, empirical results demonstrate its effectiveness. Compared to a control group using traditional methods, the experimental class showed significantly greater improvement in core competencies like cultural term translation accuracy and cultural transmission integrity, while reducing instructors' assessment workload by 40%. This approach effectively addresses key challenges in traditional teaching, such as cultural distortion and delayed feedback, offering a replicable model for the digital reform of cultural translation pedagogy.

Keywords: Cultural Translation Theory; GenAI; MTI; Traditional Culture Translation; Teaching-Learning-Practice-Evaluation Cycle

1.Introduction

The rapid development of Generative Artificial Intelligence (GenAI) technology has triggered a paradigm shift in translation education. Intelligent tools represented by ChatGPT and DeepSeek, with their advantages of rapid translation generation, precise term matching, and multimodal interaction, have broken down the "professional barriers" of traditional translation teaching, shifting the focus from language conversion skills to the cultivation of "soft knowledge" such as cultural connotation transmission [1]. Against this backdrop of transformation, the "profound impact of artificial intelligence on education" is emphasized, and translation, as the core medium of cross-cultural dialogue, bears the important mission of "telling China's story well." The Master of Translation and Interpreting (MTI) serves as the core reserve force for cross-cultural translation talents, and the cultivation of the ability to translate fine traditional Chinese culture directly affects the precision and influence of the international dissemination of Chinese culture.

Bassnett's cultural translation theory posits that translation is fundamentally a "cultural transformation" rather than mere linguistic conversion. The core objective of translation lies in achieving complete transmission of source culture's essence within target language contexts. This theory provides guidance for teaching traditional Chinese culture translation—transcending "literal correspondence" to focus on "cross-contextual transmission of cultural meaning". However, current master's programs in English translation teaching traditional Chinese culture face dual challenges: Firstly, traditional teaching presents cultural materials in fragmented ways, emphasizing superficial aspects like traditional festivals while neglecting deeper cultural domains such as Traditional Chinese Medicine and philosophy [2]. Teaching methods remain monotonous, lacking culturally oriented practical scenarios, and the curriculum system suffers from severe disconnection between skill-based courses and cultural knowledge courses [3]. This results in graduates who "can translate but lack cultural understanding, or understand culture but cannot apply it," failing to achieve the "deep cultural transmission" required by cultural translation theory. Secondly,

the introduction of GenAI brings new challenges. Insufficient understanding of cultural contexts may lead to "cultural misinterpretations". Over-reliance on technical tools in teaching may also weaken master's students' cultural interpretation and critical translation decision-making abilities, contradicting the core demands of cultural translation theory.

While existing research has explored the application of GenAI in translation education, most studies focus on generalized translation instruction at the undergraduate level, with insufficient specialized research targeting MTI programs. A systematic teaching approach centered on cultural translation theory, tailored to MTI training needs, has yet to be established. This study addresses the core research question: How can we integrate GenAI deeply into the "teach-learn-practice-evaluate" cycle of MTI programs for translating China's outstanding traditional culture, guided by cultural translation theory?

2.Theoretical Framework and Definition of Core Concepts

2.1 Core Theory: Cultural Translation Theory

Bassinet's Cultural Translation Theory serves as the theoretical foundation for this study, with its core propositions and pedagogical implications as follows:

Cultural context dictates translation strategies: The contextual differences between source and target cultures constitute the core challenge in translation. Translators must select appropriate strategies—such as adding cultural annotations, adjusting expression logic, or replacing cultural imagery—to effectively convey cultural meanings. This provides a theoretical foundation for training in "cultural compensation translation strategies" in teaching, guiding the design of classroom case analyses and practical exercises [4].

The translator's cultural intermediary role: As a bridge in cross-cultural communication, translators must possess both the ability to interpret source language cultures and adapt to target language cultures. They need to deeply understand the core values of the source culture while being familiar with the cultural cognitive habits of target language readers. This requires strengthening the cultivation of "bicultural literacy" for master's students in translation studies, while enhancing their cultural interpretation and cross-contextual adaptation skills.

The essence of translation evaluation lies in cultural transmission effectiveness. When assessing translation quality, the focus should be on whether the cultural connotations are fully conveyed and whether the target language readers accurately comprehend the content, rather than merely examining linguistic form. This provides guidance for constructing a teaching evaluation system, which requires incorporating "cultural transmission completeness" and "target language context appropriateness" as core evaluation criteria.

2.2 Connotation of GenAI and Traditional Culture Translation

Generative Artificial Intelligence (GenAI) refers to AI technologies powered by large language models that autonomously generate text, images, audio, and other content based on user commands. In this study, it primarily encompasses intelligent tools like ChatGPT, DeepSeek, and Metso, which are applicable to translation education. These tools feature core functionalities including corpus integration, translation generation, terminology verification, and intelligent feedback. Their role is defined as an "auxiliary tool for cultural translation" rather than a cultural intermediary that replaces human translators.

The translation of China's outstanding traditional culture involves converting classical texts, folk customs, intangible cultural heritage, and cultural promotion materials into foreign languages that accurately reflect the target culture's linguistic context while preserving cultural essence. This study focuses on Chinese-English translation, covering core master's-level translation practices such as classical text adaptation, intangible cultural heritage interpretation, and cultural tourism promotion materials. These efforts align with the "cultural transformation" principle in cultural translation theory.

3. The Practice Path of GenAI Empowered MTI Students' Program in Teaching the Translation of Fine Traditional Chinese Culture

This study addresses the aforementioned issues by aligning with the training needs of master's students and guided by cultural translation

theory. It establishes a GenAI-empowered practical pathway through three phases: teaching preparation, classroom implementation, and post-class consolidation. Each phase clearly defines the roles of GenAI, instructors, and master's students, focusing on the core objective of "complete transmission of cultural connotations" to form a closed-loop process of "teaching-learning-practice-evaluation." (see Figure 1)

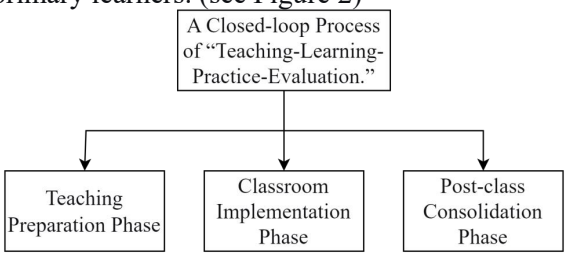

Figure 1. A Framework for the Whole Process of Translation Teaching

3.1 Teaching Preparation Phase: Establishing an AI-Enabled Cultural Translation Resource Framework

The primary objective of this phase is to provide tailored resources for cultural translation instruction, enhance the cultural literacy and foundational competencies of MTI students, and address challenges such as fragmented teaching materials and inadequate student adaptation. During this stage, GenAI handles resource integration and task generation, while instructors oversee cultural orientation and resource/task review, with MTI students serving as the primary learners. (see Figure 2)

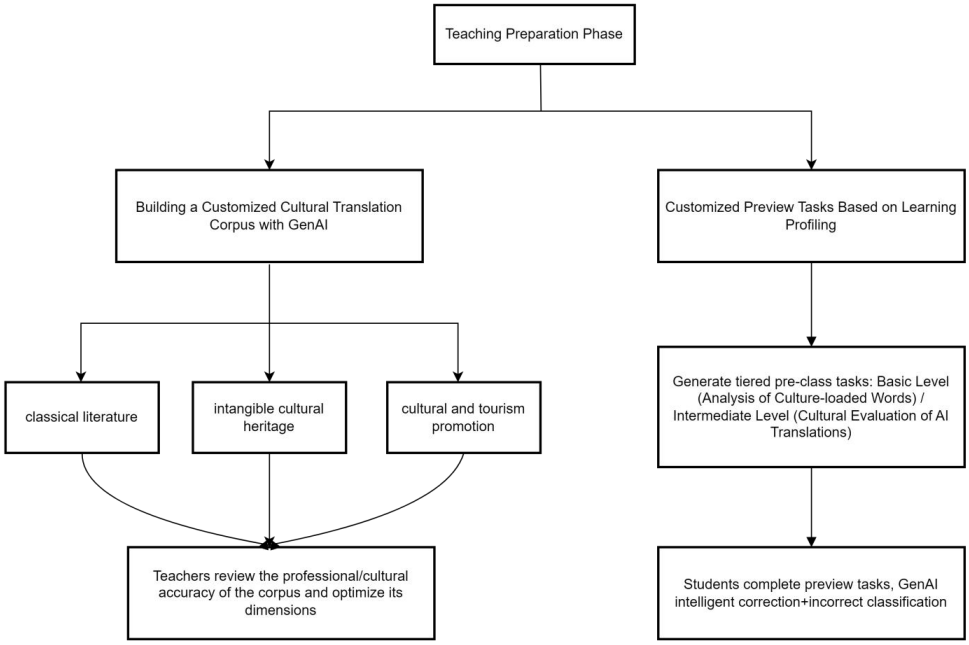

Figure 2. The Preparation Stage of Translation Teaching

3.1.1 Building a Customized Cultural Translation Corpus with GenAI

GenAI synthesizes core practice domains of MTI programs—including classical texts, folk symbols, intangible cultural heritage techniques, and cultural tourism promotion—into a structured corpus. This framework integrates "source text, authoritative translations, cultural annotations, professional application scenarios, and translation strategy analysis," replacing fragmented reference materials while embodying the core principle of "cultural transformation" in translation theory. In line with MTI training objectives, faculty members review and refine the corpus to ensure its professional rigor, accuracy, and vocational relevance.

In the field of classical literature: integrate authoritative English translations of classic works such as *the Analects of Confucius* and *Tao Te Ching* by James Legge and Roger T. Ames, extract different translations of core concepts, annotate semantic differences and cultural connotations and translation strategies (e.g., adding annotations, semantic reconstruction), and clarify the rationale for translation choices in different contexts (academic research, popular dissemination). In the field of intangible cultural heritage: cover terminology databases, overseas promotion copy references, and translation cases for intangible cultural heritage projects such as paper-cutting, Peking Opera, and traditional Chinese medicine, annotate cultural adaptation strategies for different professional scenarios (cultural and creative products, scenic spot

interpretation, international exhibitions), such as supplementing cultural annotations like "similar to Western opera's character types but with unique cultural meanings" when introducing the Peking Opera role to Western audiences. In the field of cultural and tourism promotion: integrate promotional texts such as "Belt and Road" and China's traditional cultural scenic spots, provide translation references suitable for overseas communication contexts, and annotate strategies for handling culturally loaded terms.

Meanwhile, GenAI dynamically adjusts the corpus dimensions based on teaching needs. For first-year master's students in translation, it simplifies annotation depth by focusing on basic terminology and translation methods. For second-year students, it deepens annotation content by supplementing cross-cultural adaptation suggestions and practical case studies, thereby achieving tailored resource provision for individualized instruction.

3.1.2 Customized Preview Tasks Based on Learning Profiling

GenAI analyzes master's past assignments and exam results to create personalized learning profiles, pinpointing cultural translation weaknesses (e.g., misinterpretation of culturally charged terms, inadequate cultural nuances, or limited AI tool proficiency). Teachers then refine these tasks according to classroom objectives, delivering tiered preview assignments that activate prior knowledge and prepare students for cultural translation practice.

Basic Level (Capacity Enhancement): Focusing on "Cultural Load Word Translation Analysis", GenAI provides bilingual comparison tables of culturally charged terms and designs context-matching exercises (e.g., translating in different professional contexts). This helps master's students in translation strengthen foundational terminology and establish cognitive connections between "words-meanings-culture", aligning with the core requirement of cultural translation theory to "accurately convey cultural connotations" [5]. Intermediate Level (Skill Improvement): Emphasizing "Evaluation of Cultural Transmission Effectiveness in AI Translations", GenAI generates initial AI translations for cultural scenarios like "ancestor worship" and "Dragon Boat races during the Dragon Boat Festival", providing evaluation criteria guided by cultural translation theory (completeness of cultural connotations, scene appropriateness, terminological consistency). Master's students in translation are required to compile evaluation reports using corpora and propose optimization plans, cultivating critical thinking in cultural translation.

After completing the preview tasks, utilizing GenAI for intelligent grading, analyzing error rates and categorizing error types (e.g., linguistic or cultural). Teachers then provide supplementary materials addressing common cultural translation challenges, laying the groundwork for classroom instruction.

3.2 Classroom Implementation Phase: Developing a Human-Machine Collaborative Cultural Translation Interactive Teaching Model

The core objective of this phase is to enhance master's practical cultural translation skills, human-machine collaborative decision-making capabilities, and cultural interpretation abilities. It features three course types: case analysis, practical training, and cultural interpretation. Each type is guided by cultural translation theory, progressively integrated with a 60% total class hour allocation. The model emphasizes a collaborative approach where students take the lead, teachers provide guidance, and AI serves as an auxiliary tool. (see Figure 3)

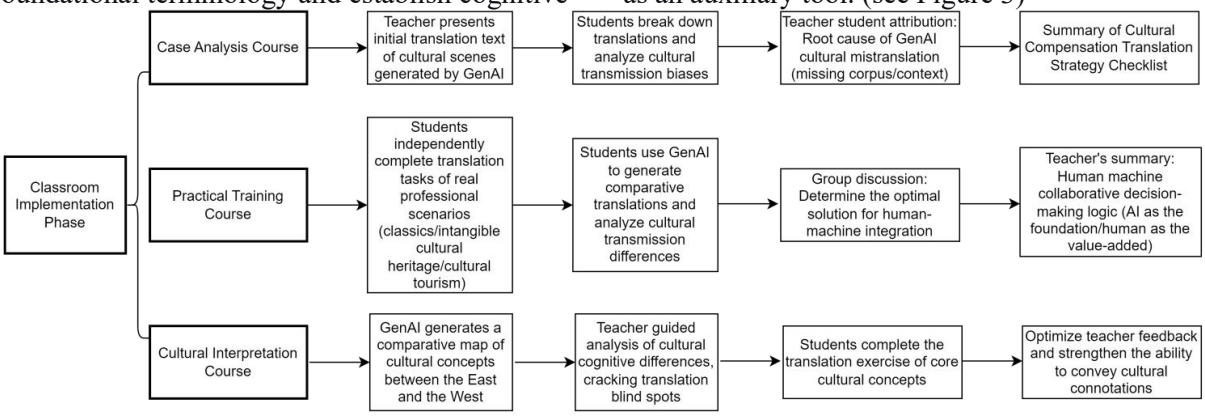

Figure 3. The Implementation Stage of Translation Teaching

3.2.1 Case Analysis Course: Targeting AI-Translated Texts to Summarize Cultural Compensation Strategies

This course centers on "Analyzing Cultural Transmission Biases in AI-Translated Texts" and employs a three-phase interactive approach— "text deconstruction → bias attribution → strategy summarization" —to guide master in translation studies to deepen their understanding of cultural translation logic, master cultural compensation strategies, and align with the core principle of "contextual adaptation" in cultural translation theory.

Translation breakdown: The instructor presents GenAI-generated cultural scenarios (e.g., Dragon Boat races during the Dragon Boat Festival, moon viewing during the Mid-Autumn Festival) and guides master in translation studies to analyze them from two dimensions: "cultural connotation integrity" and "contextual appropriateness." Through anonymous voting on Yuketang, the instructor collects students' evaluations of AI translations' cultural transmission effectiveness, encouraging full participation. Error attribution: Faculty and students jointly explore the root causes of AI's cultural misinterpretations — GenAI struggles to capture deep cultural meanings due to "lack of cultural annotations" and "fragmented contextual information" in training data [6]. For instance, simplifying "the blessing and disaster-avoidance connotation of dragon boat races" to "celebrate" overlooks its folkloric function, violating the cultural translation theory's requirement of "complete transmission of cultural significance." Strategics Summary: The study guides master in translation studies to develop optimization strategies for AI translation errors by applying cultural translation theories. Key measures include "enhancing cultural annotations" (e.g., adding "to pray for blessings and ward off disasters, a tradition to commemorate the patriotic poet Qu Yuan") and "adjusting expression logic" (e.g., replacing "celebrate" with "participate in... to honor Qu Yuan and seek safety"). The research concludes with a "Cultural Compensation Translation Strategy Checklist," specifying appropriate strategies for different error types (content omission, imagery misplacement, contextual inappropriateness), thereby providing practical tools for master's students in translation studies to enhance their cultural translation practices.

3.2.2 Practical Training Course: Realistic Professional Contexts for Mastering Cultural Translation Collaboration

Guided by cultural translation theories, this course designs authentic translation tasks including classical text translation, intangible cultural heritage interpretation, and cultural tourism promotion. Through a four-phase approach—individual translation, AI comparison, group discussion, and instructor review—it optimizes the collaborative model of 'student-led, AI-assisted, and teacher-guided' to develop master practical competencies in cultural translation.

Independent Translation: Master's candidates in Translation and Interpreting independently complete 3-5 core translation tasks, such as "English translation of the plaque commentary for the Hall of Supreme Harmony" and "Overseas promotion copywriting for intangible cultural heritage paper-cutting." The tasks require three components: textual meaning, cultural background, and professional context adaptation, embodying the cultural translation theory that positions translators as cultural intermediaries. AI Comparison: Candidates use tools like DeepSeek and Metaso to generate comparative translations for the same task, analyzing differences in cultural transmission between human and AI outputs to identify initial translation issues. Group Discussion: Teams of 4-5 members discuss "cultural integrity, linguistic appropriateness, and human-machine division of labor" to determine the optimal "human + AI" integration approach. They clarify which tasks are suitable for AI (e.g., terminology consistency, language fluency) and which require human refinement (e.g., cultural context supplementation, cross-context adaptation). Instructor Summary: The instructor focuses on the decision-making logic of "human-machine collaboration in cultural translation." Through comparing group proposals, core principles emerge: AI excels in efficiency-driven foundational tasks, while humans should handle advanced tasks like cultural depth interpretation and professional context adaptation. This highlights the organic integration of "AI handling basics, humans adding value", always prioritizing the cultural translation theory's core goal of "fully conveying cultural essence" [7].

3.2.3 Cultural Interpretation Course: AI-aided Mapping to Address Cognitive Disparities in Cultural Translation

Guided by cultural translation theory and

utilizing GenAI-generated multimodal resources, this course tackles translation challenges faced by master's students in written translation due to cultural cognitive gaps. It deepens the understanding of cognitive differences between Eastern and Western cultures, providing cognitive support for cultural adaptation.

Map Interpretation: The instructor demonstrates the "Comparative Map of Chinese and Western Cultural Concepts" generated by GenAI on an electronic whiteboard. Guided by core questions, the master's degree candidates observe semantic differences and understand the importance of "connotative adaptation" in cultural translation.

Case Analysis: The instructor presents past mistranslations caused by cultural cognitive gaps, such as translating "li shang wang lai" as "courtesy demands reciprocity", failing to convey the cultural purpose of "maintaining harmonious interpersonal relationships". Through map analysis, candidates propose optimization solutions (e.g., adding "to maintain harmonious relationships"). Translation Practice: Candidates complete cultural concept translation exercises using the map, such as Confucian and Taoist core concepts like "ke ji fu li" and "dao fa zi ran", ensuring complete cultural connotation transmission. The instructor provides feedback to refine translations, eliminating cultural translation blind spots and reinforcing the practical application of cultural translation theories.

3.3 Post-class Consolidation Phase: Establishing an AI-powered Closed Loop for Personalized Cultural Translation Enhancement.

This phase aims to transform classroom learning into professional competencies through tiered tasks, multidimensional AI feedback, and iterative optimization. It creates a personalized "task-feedback-modification-accumulation" cycle to address traditional teaching's challenges of delayed feedback and lack of sustained reinforcement, with the core focus on the "cultural transmission effect" in translation theory. (see Figure 4)

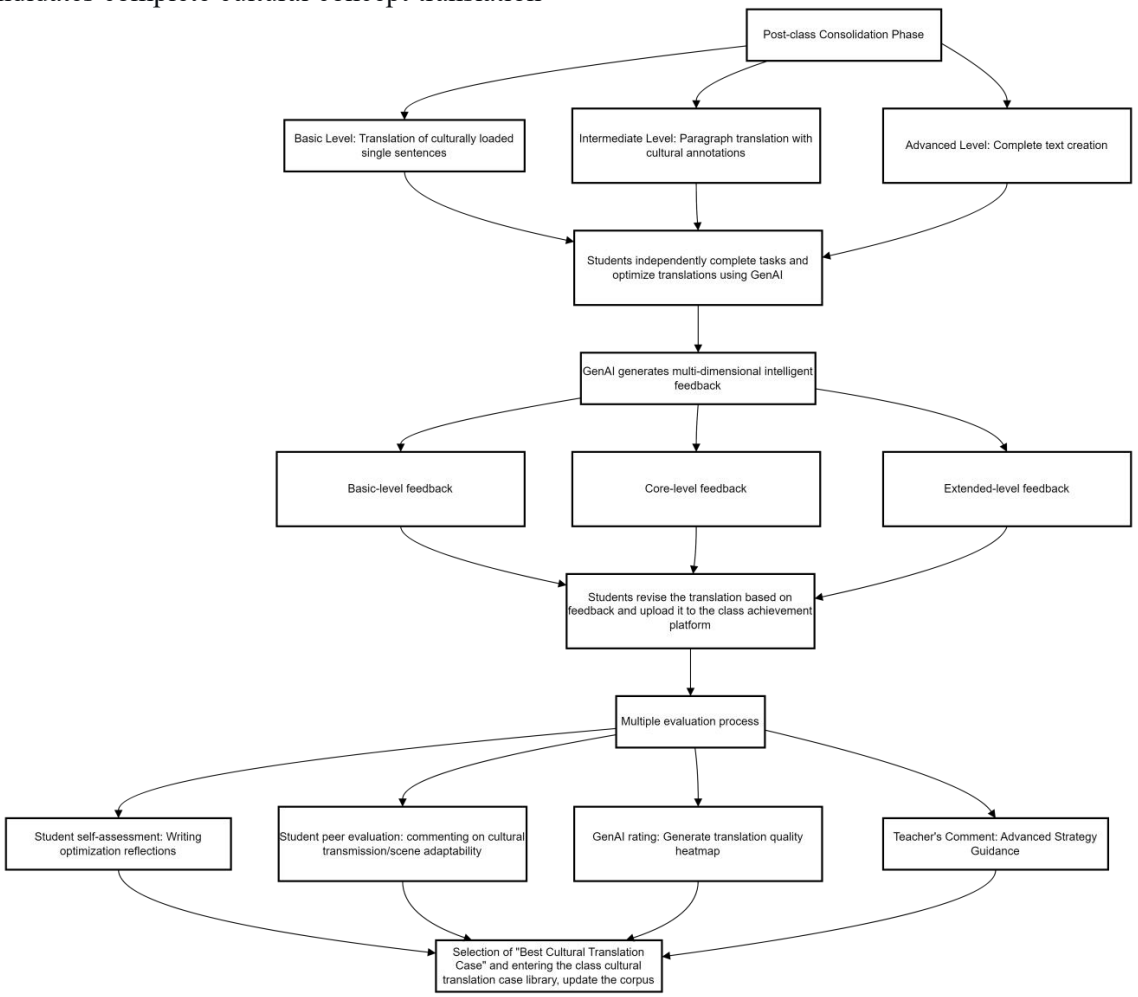

Figure 4. The Consolidation Stage of Translation Teaching

3.3.1 Implementing Tiered Professional Tasks for Spiral Cultural Translation Competency Development

GenAI follows the "progressive deepening" principle to design tiered cultural translation tasks aligned with real-world market demands [8]. These tasks are reviewed and refined by instructors, then independently completed by MTI candidates. The program facilitates skill progression from single sentences to paragraphs and ultimately full texts, covering core professional scenarios while consistently adhering to the "deep cultural transformation" theory in translation studies.

Basic Level: Translation of culturally loaded single sentences, such as "The art of negative space in ink painting is to create artistic conception" or "The meridian theory in traditional Chinese acupuncture." This requires mastering precise expression of culturally specific concepts through corpus analysis to solidify foundational cultural translation skills. Intermediate Level: Paragraph translation with cultural annotations, such as introducing Dragon Boat Festival customs or explaining Peking Opera roles. Master's candidates in translation add one or two English cultural annotations to enhance the ability to convey cultural nuances, fulfilling the theoretical goal of "assisting target language readers in understanding." Advanced Level: Complete text creation, such as English science popularization articles on traditional Chinese acupuncture or promotional copy for Kunqu Opera's overseas promotion. This requires completing the full creative process of "title-introduction-main body (including cultural interpretation) -conclusion," optimized with AI tools to enhance linguistic style and cultural appropriateness, meeting professional cultural translation demands.

3.3.2 Multi-dimensional Intelligent Feedback for Precise Cultural Translation Guidance

Leveraging the personalized learning profiles of MTI students, GenAI generates comprehensive feedback that not only corrects grammatical and terminological errors but also evaluates cultural conveyance effectiveness and occupational scenario adaptability. It further recommends similar cultural translation cases to reinforce MTI students' memory, enabling tailored guidance for individualized approaches. This fully aligns with the evaluation principles of cultural translation theory.

Basic-level feedback: Provides direct suggestions for fundamental aspects like grammar, terminology, and fluency. Core-level feedback: Addresses core issues such as inadequate cultural connotation transmission and poor contextual adaptability. Analyzes root causes using cultural translation theories (e.g., "insufficient consideration of target readers' cultural cognitive habits"), proposes optimization solutions, and recommends case studies from corpora. Extended-level feedback: Shares comparative analyses of similar cultural translation cases (both successful and unsuccessful examples) to guide master's students in comparative studies, enabling them to summarize reusable cultural translation strategies and develop transferable skills.

Meanwhile, GenAI tracks real-time feedback from master in translation. When a student consistently solves a specific type of cultural translation problem correctly, the system reduces exposure to basic cases of the same type and instead presents advanced ones, ensuring feedback content evolves alongside the student's proficiency.

3.3.3 Driving Iterative Optimization of Teaching Outcomes to Establish Cultural Translation Legacy

After refining translations through GenAI feedback, Master's candidates in Translation Studies upload their work to the class's achievement platform for a three-phase evaluation cycle: self-assessment, peer review, and faculty assessment. The system generates a "Quality Heatmap" that quantitatively scores translations across three dimensions: linguistic accuracy, cultural transmission completeness, and contextual appropriateness. Through collaborative selection by instructors and students, the "Best Cultural Translation Case" is ultimately recognized, solidifying the teaching legacy. Throughout this process, the core evaluation criterion remains the "cultural transmission effect" as defined by cultural translation theory.

Student Self-Assessment: Master in Translation will create "Translation Optimization Reflections" using AI heat maps to identify gaps and improvement areas in cultural translation. Peer Review: Students evaluate each other's translations focusing on "innovative cultural delivery and professional context adaptability," providing feedback to develop collaborative skills and deepen understanding of translation theories. Teacher Screening: Based on AI heat

map data (prioritizing translations scoring ≥85 in cultural delivery and ≥80 in language fluency) and peer evaluations, teachers select 10-15 candidate cases. Collective Selection: Through anonymous voting on Yuketang, three or five “Best Cultural Translation Cases” are chosen. Teachers provide in-depth critiques, summarizing reusable strategies (e.g., “using ‘with’ structures to integrate cultural actions and meanings while avoiding redundant annotations”) and incorporate these cases into the class’s dedicated cultural translation repository for future teaching references.

4. Empirical Verification of the Effectiveness of Teaching Reform

This study adopted a mixed research method, selecting two classes of second-year Master’s students in English Translation at a university as research subjects. The experimental class (32 students) adopted the GenAI-enabled teaching approach proposed in this study, while the control class (30 students) used the traditional teaching model. The teaching duration was 16 weeks, focusing on the specialized course “China Traditional Culture Translation”. Based on cultural translation theory, core dimensions such as “cultural transmission integrity” and “cultural translation strategy application ability” were selected [9]. Through cross-validation of quantitative indicators and qualitative data, the effectiveness of the teaching reform was empirically tested.

4.1 Quantitative Indicator Analysis

This study selected four quantitative indicators: translation accuracy of culturally charged terms, cultural transmission completeness score, AI-assisted cultural translation efficiency, and classroom participation level. Through pre-test and post-test comparative analysis, the improvement in abilities between the experimental and control classes was evaluated. All data were statistically analyzed using SPSS 26.0.

4.1.1 Significant Improvement in Cultural Load Word Translation Accuracy

The experimental class achieved a 29.3% improvement in translation accuracy, rising from 61.2% before class to 90.5% afterward. The control group showed a 11.5% increase from 60.8% to 72.3%. The experimental group's performance outperformed the control group by a statistically significant margin ($p<0.001$), demonstrating that the GenAI-enhanced teaching approach effectively enhances master's students' ability to handle cultural load words. This achievement lays a solid foundation for the theoretical requirement of "fully conveying cultural connotations" in cultural translation.

4.1.2 Cultural Transmission Integrity Scores Significantly Superior to Control Group

Post-class, the “Cultural Transmission Integrity Scoring Scale” (developed based on cultural translation theory, with a 100-point scale covering three dimensions: cultural connotation integrity, target language contextual appropriateness, and cultural annotation appropriateness) was applied to evaluate the translation works of master’s students in both classes. The experimental group achieved an average score of 86.3, significantly higher than the control group’s 70.5 ($p<0.001$). This demonstrates that the teaching approach in this study effectively enhances the cultural connotation transmission competence of master’s students in translation, precisely addressing the pain point of “cultural distortion” and fully aligning with the core objectives of cultural translation theory.

4.1.3 AI-Assisted Translation: Significant Efficiency Improvement

The experimental group of master’s students in written translation demonstrated a 45.8% efficiency gain, reducing the average time required to complete the same professional cultural translation task from 120 minutes before class to 65 minutes afterward. In contrast, the control group showed only a marginal improvement, with translation time decreasing from 118 minutes to 105 minutes post-class, reflecting a mere 10.9% efficiency increase. This indicates that the teaching methodology effectively enhances students' proficiency in using AI tools, freeing them from tedious linguistic tasks and enabling them to focus on the core aspects of cultural translation.

4.1.4 Significant Improvement in Classroom Engagement

Classroom engagement was measured through three dimensions: frequency of cultural interpretation discussions, depth of cultural translation strategy analysis, and contribution to group discussions. The experimental class achieved a mean score of 88.7 post-class, up from 65.2 pre-class, while the control class improved from 64.8 to 71.3. The marked improvement in the experimental class

demonstrates that the interactive human-computer collaborative teaching model effectively enhances the learning initiative of MTI students, deepening their understanding and application of cultural translation theories.

4.1.5 Significant Reduction in Teachers' Evaluation Workload

The evaluation workload for teachers in the experimental class was reduced from 12 hours to 7.2 hours per week, a 40% decrease. In contrast, teachers in the control class maintained an evaluation workload of approximately 11.5 hours weekly. This demonstrates that GenAI's intelligent feedback function effectively alleviates teachers' evaluation burden, enabling them to focus more on core tasks such as cultural interpretation and strategy summarization, thereby enhancing teaching efficiency.

4.2 Qualitative Data Analysis

This study collected reflective journals and classroom discussion records from master's students in the experimental class, and conducted semi-structured interviews with 10 master's students and 2 instructors to explore the underlying causes of teaching reform effectiveness. The qualitative data was analyzed using the thematic analysis method, with a focus on the practical implementation of cultural translation theory [10].

4.2.1 MTI Perspective: Significant Enhancement in Cultural Translation Competence and Critical Thinking

Through modules like "AI Translation Cultural Delivery Evaluation" and "Group Discussions," Master of Translation students demonstrated not only mastery of cultural translation strategies but also deepened their theoretical understanding. They clarified that translation's essence lies in cultural transmission rather than mere linguistic conversion. One student remarked: "While previous translations focused solely on linguistic accuracy, this course taught me to evaluate translations from a cultural delivery perspective. I now proactively employ strategies like adding annotations and adjusting expressions to ensure Western readers grasp the core cultural meanings of Chinese content. At the same time, I've learned to effectively utilize AI tools to enhance translation efficiency without over-relying on machine-generated outputs." Additionally, the customized corpus provided abundant reference materials, saving significant time in data organization and enabling focused efforts on cultural interpretation and translation refinement.

4.2.2 Educator Perspective: Enhanced Teaching Efficiency and Remarkable Implementation of Cultural Translation Theory

Interviewed instructors highlighted that GenAI significantly alleviates routine tasks like resource organization and assignment grading, enabling teachers to focus more on core instructional elements such as classroom facilitation, cultural interpretation, and strategy summarization—thereby substantially improving teaching efficiency. Moreover, the human-computer collaborative teaching model centered on cultural translation theory effectively stimulates students' learning initiative, reinforcing their central role in the educational process. The classroom dynamic has transitioned from "one-way teacher lectures" to "bidirectional teacher-student interaction," allowing students to transcend theoretical understanding of cultural translation and apply it flexibly in professional practice. This demonstrates the remarkable practical implementation of cultural translation theory.

4.3 Validation Summary

Empirical research demonstrates that the GenAI-powered teaching approach for MTI students in Chinese traditional culture translation, grounded in cultural translation theory, achieves four key benefits: 1) It significantly enhances core competencies in cultural translation (including cultural term processing, cultural connotation transmission, AI tool application, and translation strategy implementation); 2) It effectively stimulates students' learning motivation and improves classroom engagement; 3) It reduces teachers' assessment workload, optimizes teaching resources, and boosts instructional efficiency; 4) It addresses three persistent challenges in traditional culture translation education—cultural distortion, insufficient practice, and delayed feedback—simultaneously enhancing teaching effectiveness and translation quality. These outcomes conclusively validate the practical value of cultural translation theory in digital education environments.

5. Conclusion

This study, specifically designed for MTI students, adopts Bassnett's cultural translation

theory as its core framework. It establishes a three-phase practical approach— "teaching preparation, classroom implementation, and post-class reinforcement" —to empower the translation of China's fine traditional culture using GenAI. By deeply integrating GenAI into the entire "teaching-learning-practice-evaluation" cycle, empirical research has validated the effectiveness of this pedagogical pathway. The study reveals that GenAI not only provides customized resources and precise intelligent feedback for cultural translation instruction, significantly enhancing teaching efficiency and reducing faculty workload, but also cultivates MTI students' cultural interpretation skills, cross-contextual adaptability, and professional competencies through components like "AI-translated cultural transmission assessment" and "human-machine collaborative translation training."

GenAI provides empowerment for MTI programs in teaching Chinese traditional culture through its "resource supply" to "model innovation" approach. Its value lies not only in enhancing teaching efficiency but also in reconstructing the "cultural translation mindset" of translation students via "human-machine collaboration" —transitioning them from "passive text translation" to "active cultural dissemination." However, GenAI is not a universal solution. The risks of oversimplifying cultural nuances and potential technological dependency must be mitigated by adhering to the core principle of "teacher-led, technology-assisted, student-centered" approaches, while consistently upholding the fundamental positioning of cultural translation theory.

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