



Case-Driven, AI-Assisted, and Competence-Transfer: A Three-Phase Pedagogical Model for Medical Terminology Management and Translation Course

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Abstract: Master of Translation and Interpreting (MTI) programs in China often face insufficient practical opportunities, monolithic instructional formats, and limited systematic training with authentic cases. Case-based teaching, as a pedagogical paradigm well aligned with the cultivation of application-oriented professionals, can compensate for students' lack of real-world translation experience and help them understand how theoretical knowledge is applied in practice. Taking the course Medical Terminology Management and Translation as an example, this paper reports the construction and implementation of a "Case-Driven — AI-Assisted — Competence-Transfer" teaching model grounded in case-based pedagogy. With translation cases as the organizing vehicle, the model guides students through typical cases toward generative AI-assisted medical translation, with the aim of strengthening their accuracy in medical terminology translation and their proficiency in using AI tools. This study is presented as a teaching-practice exploration that reports the design rationale and implementation process of the model, treating the observed pedagogical effects as hypotheses for further validation. It thus seeks to offer a practical pathway for medical translation education reform in the age of artificial intelligence.

Keywords: generative artificial intelligence; medical terminology management and translation course; case-based teaching; MTI education in China

1. Introduction

With the rapid development of large language models such as DeepSeek, Kimi, and Doubao in China, generative artificial intelligence technology is profoundly reshaping the ecological landscape of the language service industry. GenAI technology centered on large language models has permeated the entire workflow of language services, promoting the synergistic development of machine translation technology and human translation, and forming a human-in-the-loop translation model.^[1] In this context, MTI education should actively innovate its teaching models by embedding the use of generative artificial intelligence technology into practical courses, thereby fostering the formation of new translation teaching paradigms.

In addition, the Introduction to Graduate Education Disciplines and Specialties and Their Degree Requirements (Trial Version), released in 2024, emphasizes that translation education for graduate degree adhere to practice-oriented and real-training-driven approaches.^[2] However, some translation courses in current China MTI education still suffer from insufficient student translation practice, monolithic formats, and a lack of systematic training with authentic or simulated cases. To address this, the integration of case-based learning into translation courses is imperative. With its unique advantages of "authentic context embedding" and "problem-oriented learning", the case method can provide methodological support for resolving current dilemmas in translation education.^[3] Medical Terminology Management and Translation is one of the specialized courses offered for MTI students at Youjiang Medical University for Nationalities, aiming to systematically enhance students' translation proficiency in medical terminology and to cultivate high-level, application-oriented translators who can meet the demands of the medical language service industry. Medical texts are characterized by high specialization, dense terminology, concise expression, and rigorous wording, imposing requirements on translators that far exceed those for general texts. Therefore, exploring the deep integration of GenAI technology and case-based teaching through typical medical terminology management and translation cases, and constructing a "Case-Driven, AI-Assisted, Competence-Transfer" teaching model, holds significant practical implications for advancing characteristic translation curriculum reforms in MTI education.

2. Case-based Teaching

First proposed by professor Christopher Columbus Langdell, Case-based teaching originated in the educational reform practice of Harvard Law School in the 1870s. Case-based teaching is based on the effective combination of pedagogical elements, including material, context, concepts, and method^[4]. To be more specific, this pedagogical method uses authentic or simulated specific contextual cases as the vehicle, guiding learners to conduct autonomous inquiry, discussion, analysis, and decision-making around the core problems of the case.

It has been widely applied in management education, medicine education, language education and other fields. The case method represents a powerful instructional technique that has found its place in various educational disciplines and professional training^[5]. Empirical evidence indicates that the case method yields significant pedagogical benefits,



including the development of critical-thinking abilities, enhanced retention of curricular content, and increased student engagement in classroom activities.^{[6], [7]}

The core characteristic of case-based teaching is learning through cases. The teacher uses authentic or simulated typical cases as instructional materials, designs progressive guiding questions around teaching objectives, inspires students to explore problems, and organizes them to analyze and discuss cases in order to solve problems through group collaboration. In case-based teaching, students shift from passive learners to active participants, developing critical thinking abilities, problem-solving capabilities, and practical competence through the analysis of complex and reality-proximate cases.

In China, the scholars who first explicitly proposed introducing case-based teaching into translation courses were Yu Lianjiang and Zhang Zuogong. They pointed out that case-based teaching is an effective approach to cultivating application-oriented, market-oriented talents.^[8] Meanwhile, case-based teaching methodology is highly compatible with the talent cultivation objectives of MTI programs.^[9] To adapt to the new requirements imposed by changing times and social development on MTI education, translation courses should continuously and actively explore case-based teaching models to leverage and advance the practical role of case-based teaching in training translation professionals.

3. The Application of GenAI in Translation Education

In April 2026, an “artificial intelligence (AI) empowering education” action plan jointly issued by the Ministry of Education and four other ministries of the People’s Republic of China emphasized giving full play to the engine role of artificial intelligence in empowering educational transformation, and promoting the integration of intelligent technology with all educational elements, throughout the entire process, and across all scenarios.^[10] The integration of generative artificial intelligence with translation education has become an irreversible trend. At the classroom instruction level, large language models in AI tools can provide students with personalized, multi-dimensional, and instant feedback, effectively alleviating the predicament of delayed, one-dimensional, and limited-coverage teacher feedback. Meanwhile, generative AI tools can simulate diverse text types and specialized domain requirements in translation scenarios, helping students practice repeatedly in case-driven learning environments and cultivating their systematic capabilities in pre-translation analysis, in-translation decision-making, and post-translation editing. This shifts translation instruction from a unidirectional knowledge-transmission paradigm to a multi-dimensional competence-construction paradigm. This full-process human-machine collaboration not only improves translation efficiency but also strengthens students’ translation decision-making and quality control capabilities in complex contexts.

However, the deep embedding of generative artificial intelligence into the translation teaching workflow also poses new requirements for education. The focus of translation instruction has expanded from mere bilingual conversion skill training to the cultivation of human-machine collaborative literacy and ethical judgment—that is, enabling students to clarify the boundaries and norms of GenAI usage, maintain independent thinking and professional judgment in human-machine collaboration, and uphold a prudent attitude toward translation accuracy, cultural appropriateness, and professional ethics.

4. Construction and Implementation of a “Case-Driven—AI-Assisted—Competence-Transfer” Pedagogical Model

Distinct from conventional translation instruction that privileges the final translated product, case-based pedagogy foregrounds the translation process itself, emphasizing the collaborative engagement of both instructors and students in exploring and completing translation tasks. Based on case-based teaching, we constructed and implemented a “Case-Driven—AI-Assisted—Competence-Transfer” pedagogical model within the MTI course of Medical Terminology Management and Translation.

This course comprises 32 class periods in total, with each period lasting 40 minutes. Teaching is organized in sessions of three periods each, comprising ten three-period regular sessions and one two-period session for final presentation and assessment. The target learners are eight 2025-cohort graduate students enrolled in the MTI program, consisting of two males and six females. Their undergraduate majors were mainly English, translation, English language teaching, and business English. All participants held the Test for English Majors Band 8 (TEM-8) certificate, China’s national English proficiency examination administered exclusively to undergraduate English majors. They possessed relatively solid general English reading and writing proficiency as well as a basic awareness of bilingual transfer. Some students had received translation training or completed internships in the fields of business or education during their undergraduate studies. However, almost none had systematic exposure to medical English before, thus lacking knowledge of basic medical disciplines and being unfamiliar with Greek-Latin roots and affixes in medical word formation. Consequently, when dealing with medical and pharmaceutical texts, they often could comprehend syntactic structures but had difficulty grasping the conceptual boundaries and were prone to literal interpretation and terminological inconsistency. In terms of learning characteristics, this group had strong learning motivation, relatively high expectations for the career prospects of medical and pharmaceutical translation as a specialized field, and was receptive to case-driven or project-based learning.

As this study was defined as a teaching-practice exploration, the account that follows draws on instructor field notes, students’ submitted translations and post-editing documentation, reflection journals, and classroom presentation records. The implementation description and classroom observations presented below are therefore intended to document the design rationale and pedagogical process rather than to establish measurable learning outcomes.

4.1 Theoretical Underpinnings

Apart from case-based teaching, the proposed three-phase model is grounded in an integrative theoretical framework that draws upon situated learning theory, distributed cognition, sociocultural theory and transfer of learning theory. These

three strands are sequentially linked, each providing the theoretical precondition for the next and jointly explaining why the pedagogical sequence must move from case analysis, through AI-assisted practice, to independent competence transfer. The case-driven phase is underpinned by situated learning theory. As Lave and Wenger argue, learning is not the acquisition of decontextualized knowledge but a process of legitimate peripheral participation in authentic communities of practice; knowing and doing are inseparable, and expertise is acquired by engaging with the real, ill-structured problems of a domain.^[11] In translation education, this suggests that imparting knowledge about translation strategies cannot by itself produce strategic competence. The cases in this phase are therefore not illustrative examples but epistemic anchors. This case-built framework is the cognitive precondition for the critical evaluation of AI output in the subsequent phase, without which, learners would lack the criteria against which machine-generated terminology could be judged. The AI-assisted phase is anchored in distributed cognition and Vygotsky’s sociocultural theory. Distributed cognition holds that cognitive activity is not confined to the individual mind but is distributed across people, artifacts, and environments.^{[12], [13]} Likewise, sociocultural theory treats higher-order thinking as mediated by cultural tools and social interaction, and locates development within the zone of proximal development, the gap between what learners can accomplish alone and what they can accomplish with assistance^[14]. Within this framework, generative AI functions as a cultural tool and cognitive mediator rather than an autonomous translator. It temporarily extends learners’ terminological reasoning beyond what unassisted effort would permit, while the instructor and peers provide the social scaffolding that regulates how that tool is used. Crucially, this theoretical positioning explains the pedagogical emphasis on critical rather than uncritical AI use.

The competence-transfer phase is supported by transfer of learning theory. Perkins and Salomon distinguish near transfer from far transfer. Near transfer refers to the application of learned knowledge or strategies to closely analogous tasks, whereas far transfer refers to their application to tasks that differ in context, purpose, or domain. They argue that transfer is not automatic but must be engineered through high-road transfer, that is, the mindful abstraction of principles from prior experience and their deliberate re-application to new situations^[15]. This distinction directly motivates the design of the transfer tasks.

These three strands converge on the model’s central theoretical claim, which is best stated as a conditional chain rather than a sum of components. Case analysis builds the domain-specific cognitive framework that makes evaluative judgment possible. Human-AI collaboration then externalizes that framework under scaffolded conditions, with the tool extending capacity and the learner retaining regulatory control. Competence transfer occurs only when the framework is abstracted, internalized, and reapplied to novel configurations of text type, audience, and translation purpose. On this account, the three phases are theoretically ordered rather than merely sequential with each supplying the precondition for the next.

4.2 Implementation of the Three-Phase Pedagogical Model

This section presents the instructional implementation of the proposed pedagogical model in Medical Terminology Management and Translation, using the teaching unit on English translation of Traditional Chinese Medicine (TCM) health preservation terminology as an example. This unit comprises three 40-minute class periods, totaling 120 minutes. All activities were organized around translation cases. Figure 1 presents the conceptual framework of the three-phase model implemented in this unit. The case-driven phase is intended to establish the cognitive framework for AI-assisted practice, the AI-assisted phase aims to foster the tool competence and critical awareness required for independent transfer, and the competence-transfer phase probes whether these competencies can be applied to novel tasks.

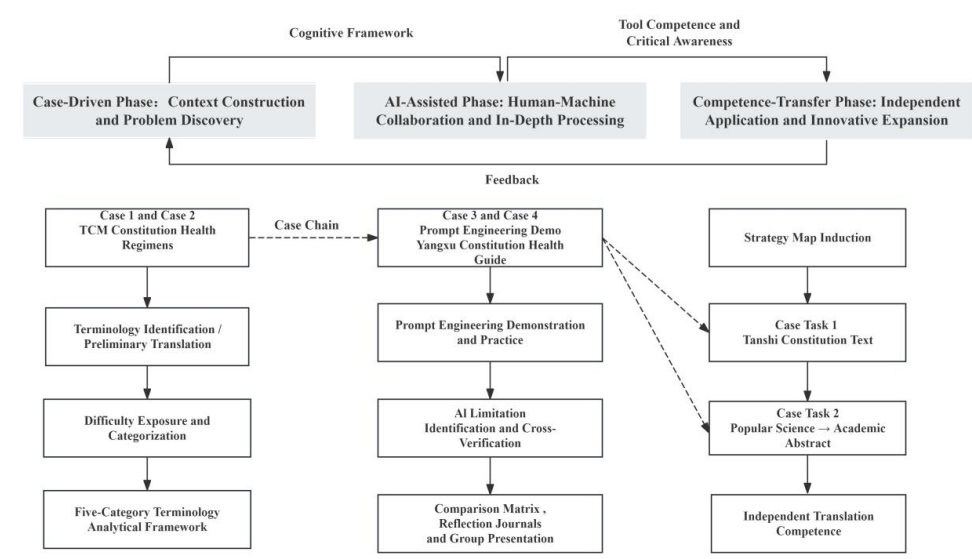


Figure 1 Conceptual Framework of the Three Phases of Case-Driven, AI-Assisted, and Competence-Transfer Instruction.

4.2.1 Case-Driven Phase: Context Construction and Problem Discovery

Theoretically, this phase operationalized the situated-cognition premise of case-based learning. By confronting cases before any tool was introduced, students constructed the domain-specific interpretive framework that later served as the evaluative criterion for AI output.

The instructor first elaborated the contextual backgrounds of Case 1 and Case 2. In these two cases, an international TCM journal had commissioned the translation of health regimens based on TCM constitutions. The regimens encompassed the etiology and symptomatic manifestations of different constitution types, together with specific conditioning protocols across five dimensions—dietary nourishment, daily routine regulation, exercise health care, emotional regulation, and acupuncture therapy. These two cases served as the vehicle to introduce students to the core theme of English translation of TCM health preservation terms. The selection of these two cases is deliberate and representative, exemplifying the central challenges in translating TCM health preservation terms, that is, high terminology density, heavy cultural load, and lack of standardized equivalents. Students first had a comprehensive understanding of the case background, including journal requirements, target readership, and translation skopos, then identified core terms in the source text by themselves and attempted preliminary translations without recourse to any AI tools. The intention of this phase was to activate students' prior knowledge while simultaneously discovering their knowledge gaps. Most students typically experienced challenges and confusion regarding the selection of translation strategies, discovered that the translation of certain medical terms has difficulties in simultaneously preserving cultural connotation and ensuring reader comprehension, or encountered TCM terms for which no English equivalents exist. At this stage, the instructor primarily assumed the role of observer and facilitator, collecting the difficulties raised by students and collaboratively working with the class to identify representative difficulties and group them accordingly, thereby laying the groundwork for in-depth exploration in subsequent phases.

Once students have developed a preliminary awareness of translation difficulties, instruction advanced to problem inquiry, which is still anchored in the two cases. Case 1 presented a health regimen for *Qixu* constitution, while Case 2 offered a comparative analysis of multiple authorized translations of *Qixu*. Taking this term as the focal point for analysis, Case 2 presented three authoritative renderings—qi deficiency, vital energy deficiency, and hypofunction of qi. These three versions represent the principal translation methods of TCM terminology: adoption of the WHO International Standard Terminologies on Traditional Chinese Medicine, descriptive translation, and domesticating translation. Through group discussion, students analyzed the contextual differentials applicable to each rendering and determined the divergent orientations between academic journals and popular science publications in their terminological selections. Case 2 did not constitute an isolated terminology inventory; rather, it was intentionally linked to Case 1. Case 2 provided a systematic analytical framework for solving the confusion students encountered regarding the translation of *Qixu* in Case 1. The instructor further guided students to classify TCM health preservation terminologies into five categories within their groups, namely terminology concerning philosophical concepts, terminology concerning constitution identification, terminology concerning exercises and movements, terminology concerning dietary therapies, as well as terminology concerning meridians and collaterals. The common translation strategies and their boundaries of applicability for each category were discussed. This part was intended to serve as a transition from perceptual confusion to rational analysis, with the aim of helping students transform their scattered and intuitive understanding of TCM health preservation terminology into a more systematic cognitive framework, thereby preparing the cognitive foundation for the introduction of GenAI tools in the second phase.

4.2.2 AI-Assisted Phase: Human-Machine Collaboration and In-Depth Processing

Phase 1 was designed to familiarize students with the complexity of TCM health preservation terminology and to introduce an analytical framework, after which instruction transitioned to the introduction and deployment of GenAI tools. The instructional objective of this phase was to cultivate students' ability to design professional prompts based on case translation, and to leverage GenAI to better assist English translation of TCM terms. The instructor employed Case 3 centered on prompt engineering demonstration as the vehicle to demonstrate how to assign translation roles to large language models, specify translation tasks, constrain translation contexts, standardize output formats, and propose quality requirements. The demonstration prompt encompassed the following descriptions. "You are a senior expert in Chinese-English translation of TCM, familiar with the WHO International Standard Terminologies on Traditional Chinese Medicine" was defined as role assignment; "Translate the following TCM health preservation terminology into academic/popular science English" functioned as task specification; "Target readers are international TCM journal readers" worked as contextual constraint; and "Provide three candidate translations with applicable contexts indicated and standard sources noted" acted as output requirement. Through analyzing Case 3, students comprehended the basic principles and techniques of prompt design, and subsequently entered the practice concentrated on Case 4.

Case 4 pertains to AI-assisted translation of a health guide to *Yangxu* constitution. Two large language models in China, DeepSeek and Kimi, were selected as the primary GenAI tools for this phase. Based on the case, students collaborated with these models through multi-turn dialogues in small groups. Turn 1 issued a direct request for full-text translation to obtain the AI initial draft. Turn 2 requested terminology verification against WHO standards. Turn 3 requested supplementary suggestions for cultural annotations. Throughout this process, students gradually identified common limitations on GenAI output, such as excessive domesticating translation of certain medical terms, inconsistency in renderings of acupoint names, and insufficient explanatory notes for culturally-loaded terms. Group members documented and categorized these common limitations. To ensure the accuracy and reliability of AI-generated medical terminology translations, students were required to cross-verify all terminology outputs against the WHO International Standard Terminologies on Traditional Chinese Medicine and other authoritative references, including standard TCM textbooks and journal articles. Discrepancies between the outputs of DeepSeek and Kimi were also compared, with any inconsistent

renderings flagged for further instructor-led adjudication. These discoveries prompted students to shift from uncritical reliance on AI toward its critical and discerning use. Notably, Case 4 and Case 1 belonged to the same text category on the theme of constitutional health preservation. In Case 4, students were required to apply the analytical framework accumulated in Case 1 while leveraging AI tools to enhance translation efficiency. The closed relationship between cases was designed to reinforce the coherence of learning and to create favorable conditions for the transfer of competence.

Upon completion of the human-machine collaborative translation practice, instruction moved to comparative reflection part, which constituted the critical transition from tool usage to competence internalization. The instructor guided students in constructing a human-machine translation comparison matrix, requiring them to systematically compare their own initial translations with AI-generated versions, deeply process them after group discussion, and collaboratively finalize their polished versions. Concurrently, students were required to compose reflection journals, systematically documenting the following items, which include what the advantages and limitations of AI-assisted TCM translation are, how the outputs of DeepSeek and Kimi differed in handling the same terminology, how group members identified and corrected errors, which terminology translations remain debatable, and what new insights they gain regarding human-machine collaborative translation from this practice. Later, group representatives presented their finalized translations and reflection journals, followed by instructor's timely feedback. Finally, the class voted to select the optimal translation together. And the instructor and students then collaboratively engaged in further refining it. In the whole process, students conducted multi-level analysis on the same cases, ensuring both the focal concentration of cases and the progressive deepening of cognitive levels.

It is equally important to acknowledge the inherent limitations of GenAI in medical terminology work, which demand sustained pedagogical attention. First, the tendency of large language models to generate plausible yet fabricated or unverifiable information poses a particular risk in medical contexts, where factual accuracy is paramount. During the course, AI tools occasionally produced seemingly authoritative but invented terminology, underscoring the need to cultivate students' critical verification skills. Second, inaccurate or non-standard terminology remains a persistent challenge. Despite prompt engineering constraints, GenAI sometimes rendered terms inconsistently or substituted domain-specific vocabulary with colloquial approximations, especially for culturally loaded TCM concepts lacking standardized equivalents. Third, data privacy and confidentiality concerns arise when students input sensitive or proprietary content such as unpublished research texts into publicly accessible AI platforms, raising questions about data ownership, consent, and compliance with institutional ethics protocols. Finally, students' potential over-reliance on AI constitutes a pedagogical risk. Prolonged dependence on machine-generated outputs may erode independent terminological reasoning, diminish professional judgement, and reduce students to passive editors rather than active professional translators. Collectively, these limitations stress the need to embed critical AI literacy, ethical awareness, and autonomous professional judgment throughout the instructional design, rather than treating GenAI merely as a productivity enhancer.

4.2.3 Competence-Transfer Phase: Independent Application and Innovative Expansion

The case-driven phase was designed to build students' domain-specific cognitive framework, and the AI-assisted phase to develop their capacity for tool-mediated translation. The third phase was intended to explore whether these competencies could be transferred to other analogous translation materials. Cases remained the core vehicle for achieving this objective. The instructor required students to systematically induce translation strategies from their prior case practices and to complete a translation strategy map for TCM health preservation terminology, thereby achieving strategy internalization. Students reviewed specific cases including translation of *Qixu* constitution text in Case 1, the multi-version comparison in Case 2, and translation of *Yangxu* constitution text in Case 4, summarized translation strategies for TCM health preservation terminology and listed representative terms and applicable conditions for each category. The construction of this strategy map was essentially a systematic organization of students' prior case experiences.

In this phase, two types of case tasks were designed with an attempt to facilitate the cultivation of students' independent translation competence. Task 1 required students to translate a text on health preservation for *Tanshi* (literally means phlegm-dampness) constitution that has not previously translated before in class. Students independently employed GenAI tools to assist translation, submitting post-edited translations, AI usage documentation, and quality self-assessment. This case task belonged to the same category of constitutional health preservation texts as Cases 1 and 4, yet the specific content and terminology combinations were encountered for the first time. The purpose of the task was to test whether students can flexibly apply learned strategies to similar contexts. When processing health preservation terminology related to *Tanshi* constitution, students needed to invoke the analytical framework accumulated in Cases 1 and 2, the human-machine collaborative translation methods acquired in Cases 3 and 4, and simultaneously refer to the induced strategy map to make translation decisions. The case experiences from all three phases were organically integrated.

Task 2 increased cognitive demand by requiring students to rewrite a popular science article on TCM health preservation targeting European and American general audiences into an academic abstract for an international journal. This case involved a fundamental adjustment in terminology translation strategy from popularized expression to standardized rendering, while it simultaneously required students to explicate terminology processing differentials across distinct readerships and to reflect on applicability adjustments of GenAI across varying contexts. The task design embodied the ultimate objective of case-based teaching. Students were capable not only of handling new cases analogous to classroom cases, but more importantly, of coping with complex situations where text type, target readership, and translation purpose have all undergone transformation. The completion of both case tasks served as an attempt to facilitate and assess students' potential transfer of terminology translation skills in TCM health preservation scenarios, offering a preliminary closure to the instructional process.

This phase operationalized transfer theory by deliberately distinguishing near transfer from far transfer. Near transfer was instantiated in Task 1, which involves a structurally analogous text, while far transfer was instantiated in Task 2, which required the reconfiguration of text type, readership, and skopos. The strategy map functioned as the mechanism of mindful abstraction that enables high-road transfer.

4.3 Implementation Essentials

In the implementation process, instructors should observe the following essentials. First, the selection of translation cases must be representative. Second, cases should form progressive and closed relationships rather than being presented in isolation. Third, case-based teaching should be student-centered, guiding students to actively construct knowledge and enhance practical competence through inquiry and discussion. Fourth, translator responsibility and ethics education should permeate the entire instructional process to prevent students from over-relying on AI and thereby losing professional judgment capabilities. Last but not least, for students with varying levels of translation proficiency, instructors may provide differentiated supplementary case resources to accommodate individualized learning needs.

5. Limitations

While the model has been implemented in the MTI course Medical Terminology Management and Translation and has generated pedagogically useful insights, its effectiveness has not been empirically established, and the extent of its generalizability warrants careful consideration.

First, although the proposed model offers a structured framework for integrating GenAI into specialized translation pedagogy, several empirical, contextual, and methodological boundaries must be acknowledged. Foremost among these are empirical and methodological constraints inherent to the study's design. The model was implemented in one institutional setting with a single cohort of eight graduate students, all of whom shared a homogeneous profile characterized by English-related undergraduate majors, TEM-8 certification, and little prior exposure to medical English. Although the small class facilitated intensive case-based interaction, multi-turn human-machine collaboration, and individualized feedback, the findings lack statistical robustness and may not generalize to larger classes or learners with different linguistic and disciplinary backgrounds. Consequently, claims regarding the model's effectiveness are grounded primarily in qualitative classroom observations and performance-based assessments rather than experimental outcomes. The study is therefore positioned as a teaching-practice exploration.

Second, The model's reliance on GenAI also introduces practical and ethical limitations. Successful implementation presupposes a baseline of digital literacy among both instructors and students. However, where this baseline is lacking, implementation may disproportionately disadvantage less digitally prepared learners, reduce human-machine collaboration to superficial or ineffective tool use. Moreover, the risk of AI hallucination observed in this course, coupled with the potential for student over-reliance on machine-generated outputs, points to ongoing challenges that call for vigilant pedagogical scaffolding and critical evaluation training.

Last but not least, The cultural and disciplinary specificity of Medical terminology especially TCM terminology further constrains the transferability of findings. TCM terms carry substantial cultural load and lack universally standardized English equivalents. Even the WHO International Standard Terminologies on Traditional Chinese Medicine serve as a reference rather than a binding normative standard. This terminological ambiguity makes the domain particularly conducive to case-based inquiry and critical AI engagement. Consequently, while the model's three-phase architecture is in principle transferable to other ESP translation courses, it remains an open question whether this model would be equally productive in domains with well-standardized terminology systems such as legal translation, where the availability of binding norms and mature machine translation resources might reduce both the pedagogical necessity and the room for case-based critical inquiry.

6. Conclusion

This paper has reported a teaching-practice exploration of a “Case-Driven—AI-Assisted—Competence-Transfer” pedagogical model designed for an MTI course on Medical Terminology Management and Translation. Grounded in case-based teaching, the model organizes instruction into three theoretically ordered phases. The case-driven phase establishes a domain-specific interpretive framework through cases, the AI-assisted phase treats generative AI as a cultural tool and cognitive mediator whose output must be regulated by that framework, and the competence-transfer phase explores whether the framework can be abstracted and reapplied to novel configurations of text type, readership, and translation purpose. A distinctive feature of the design is its explicit treatment of AI's limitations as teachable content rather than problems to be avoided.

It should be emphasized that this study is exploratory rather than evaluative. Its evidence base mainly consists of qualitative classroom observation and student-produced artifacts. Future research should validate the model through multi-institutional studies with larger and more heterogeneous samples, develop standardized instruments for measuring AI-assisted translation competence, and expand the case repository to cross-domain contexts, so that the model's applicability and limits can be examined rather than assumed.

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