

The Application of AI Tools in Teaching English Translation of Chinese Classics: A Training Practice of “Four-Phase Integration”

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Abstract: With the rapid development of AI technology and especially the breakthrough application of large-scale language models, translation teaching has been profoundly changed. As a special branch in translation teaching, translating classical Chinese culture means many complicated problems like the interpretation ancient texts and the transferring of cultural images, as well as maintaining lyrical qualities. Pedagogical innovation under the background of AI empowerment becomes a major issue for scholars concerned about this topic. According to our analysis of core problems faced by the instruction of English translation of Chinese classics, and given the nature of AI translation as well as prior studies related to it, this article puts forth a “Four-Phase Integration” instructional model. This model systemically integrates AI tools in the translation classroom by means of four phases: pre-editing, prompt design, post-editing and proofreading, and adding necessary annotation marks to build up a human-computer collaborative practice model in translation teaching. Based on the case study of translating classics, in this paper, we explain in detail what happens at every step and which are its main educational messages. This paper also discusses how such a mode can improve students’ translation competence as well as its shortcomings with the hope that we may have a better understanding theoretically and some direction practically on the possibility of teaching translation of classics in the age of AI.

Keywords: English Translation; Chinese Classics; AI; Four-Phase Integration

1. Introduction

Large language models have posed deep

challenges to the study of foreign languages in the age of artificial intelligence, which have particular implications for translation programs as well as translation studies itself. Thus, is it possible to entirely replace human translation work by means of AI? Not quite. As Wang (2024:6) pointed out, “human translator’s and professional translator’s role is still strong in such fields as translating humanities and academic research works, translating literature and Chinese classic texts.” Researchers have also been studying the cooperation of AI translation with human translation, using these cooperative methods in audiovisual translation (Wahid, Han, Fauzan & Karjaluto 2026), pragmatic text translation and translation pedagogy (Greaves & Rangheard 2025; Xu, Su & Liu 2025; Feng 2025; Wang & Zhang 2025). Theoretically, on one hand, Hu & Wang (2025) has brought in the eco-translatology to analyse the AI context and Sun (2023) has considered the linguistic ecological ethics for translation teaching, thus opening up new perspectives in theory-building for studies into teaching translation. In methodology, Mu & Zheng (2025) and his collaborators used the Neo4j graph database to build a KG for translation, enabling visualizing and quantitatively analyzing the correlation between knowledge; Shu (2021) used a teaching experimental design, which can provide some empirical basis for teaching models, and these new methods are a reference for future research work. As far as the teaching models are concerned, Wang & Zhang’s (2025) four-Phase human-computer collaborative teaching model and Mu & Zheng’s (2025) three-dimensional interaction paradigm offer some feasible pragmatic approaches to translation instruction in the AI age, which facilitates a shift in the direction of translation pedagogy from empiricism to scientificism.

“The situation in the translation market changed and evolved dynamically together with the

image of the translator's profession," and translators, as well as teachers of translating, have to give still more careful consideration to the processes of skill-competence acquisition by their students. (Lewandowska-Tomaszczyk & Bogucki 2015:50). Translation of Chinese cultural classics as an integral component of teaching and learning of Chinese language and literature has a particular purpose; it aims at presenting the wealth of Chinese traditional culture to the rest of the world. However, this goal is by no means easy to achieve. The translation of the old Chinese is to translate ancient books, transfer culture images and maintain poetry style; this process needs not only a high level of professional ability in both languages, but also abundant knowledge reserve about related cultures as well as certain skills on interpretation. In traditional classroom-based instruction, students tend to fall into a trap of frustration: not understanding the original enough, and yet not knowing how to portray the images from it, and they feel frustrated when it turns out badly. At the same time, teachers are limited in time and scope due to the sheer amount of work produced by students to give them the one-on-one attention they need during this very crucial Phase of translation.

Large language models have also brought some hope to solve this teaching problem. For example, as shown by Feng Qinghua (2024), "DeepSeek-LLMs have great potentials in the fields of learning evaluation, corpora research, machine translation and stylometric profiling. This is an age of generative artificial intelligence; a translator can hardly succeed without knowing how to make use of prompts in machine-assisted translation, post-editing, and automatic processing". But what is more, how could these AI tools play a meaningful role in the instruction on translating Chinese classics? How to strike an optimal equilibrium between over-dependence on machine and man-machine collaboration? In this article, based on the difficulties of Chinese classical literature translation and dissemination, proposes an embedding of AI in classroom practice via pre-editing, prompt design, post-editing and review within the context of a "Four-Phase Integration", and adding required explanations. Based upon practical teaching experience, we discuss its application and impact under such a framework with the aim of providing new perspectives for the didactic development of classical translations in an era of

artificial intelligence.

2. The Core Challenges in Teaching English Translation of Chinese Classics

In translating Chinese classics into English, translators are often faced with various challenges, and it is even more so with the first learners of translation.

2.1 Interpretive Barriers in Classical Texts

The first hurdle for contemporary learners is language per se. Classical Chinese is compact, and full of subtlety. Take just the first sentence of Book One from the Analects, "子曰:学而时习之,不亦说乎". In these eleven characters, the character "习"(xí) itself has been read in different ways by generations of commentators: "to go over", "to practice", or "to put into action". And their English translations are telling different stories by different translators. However, without fluency in classical Chinese, readers may be unable to negotiate the text's opacity and appreciate its generous margin of interpretation.

A deeper issue, however, is that understanding canonical texts is not simply a question of word meaning; it requires one to enter into the intellectual world of the ancients. Dao De Jing's line "天法道, 道法自然" involves Daoist ontology as well as its philosophy of language. If students do not have relevant intellectual historical background, if they handle a literal rendering by means of reference books, then they cannot capture the philosophic meaning of the source text.

In conventional teaching practice, teachers have been forced to spend much of the class period on explaining lexical glosses and philosophical interpretations, which unavoidably compromises time that should be spent on translating and discussing the material. In turn, students will likely simply receive a 'top-down' or 'authoritative reading' of the text from their instructor, leaving little latitude for independent research.

2.2 The Challenge of Conveying Cultural Images

Chinese culture is rich in unique cultural images and concepts—in particular, ren(仁), li(礼), dao(道), and yinyang(阴阳)—that do not have precise equivalents in the English language, posing a major problem of "untranslatability" to

its translator(s). For example, on Confucius' idea of ren (仁) in the Analects, D.C. Lau translated it as "benevolence", Arthur Waley as "goodness," whereas Ku Hung-Ming prefers to render it as "a moral life" or "humanity." These different translations are not just word choice, but represent essentially different understandings of an essential Confucian idea.

This problem of how to convey a culture's imagery also applies to the rhetoric of metaphor and allusion. Take for example, the first poem of the Book of Songs: Guan-guan go the ospreys/ On the islet in the river/The modest, old age, noble, maiden/To our lord an excellent wife she is. (James Legge's translation) This is a love-song which is sung for poetry's sake, suggesting that there is an ideal relationship of a prince with his good lady. To an English speaker who is not familiar with what the osprey represents to the Chinese, this translation may pose difficulty for students: leaving them unable to grasp the poem's underlying meaning. Classroom students are frequently faced with this choice: retain the image as it was originally presented at the expense of an impenetrable, awkwardly rendered translation, or replace it by its Western equivalent, and so undermine the cultural legitimacy of that text.

2.3 The challenge of Maintaining Formal Aesthetic Qualities

Ancient Chinese canon is both intellectual and literary. The poetic grace of the Shijing (Book of Songs), the allegorical ingenuity of the Zhuangzi, and the narrative dynamism of the Records of the Grand Historian that constitute the quality of these two texts as canonical works. The question concerning how to keep those kinds of features intact when translating them into another language has been one major concern in translating the Chinese classic works.

Let us unpack that. Our input is a pretty academic-sounding paragraph of text in the Chinese language and we're trying to translate it into an equally academic-sounding (but not cliché or overly mechanical) passage of text in the English language: retaining a delicate, sensitive style.

Take lines of Li Sao as an example:

ST: 宁溘死以流亡兮，余不忍为此态；

鸷鸟之不群兮，自前世而固然。

TT: Yet I would rather quickly die and meet dissolution

Before I ever would consent to ape their behaviour.

Eagles do not flock like birds of lesser species; So it has never been since the olden time. (trans. by David Hawkes)

The original lines are composed in a six-character (六言) and (seven-character (七言) meter interspersed, with end-rhymes that create a solemn and resonant rhythm. The provided translation, though retaining its literal meaning lacks a poetic meter like that found in the original. The above is a free-verse version of this poet's defiant proclamation which loses rhythm and rhyme to emphasize the dignity and firmness of Qu Yuan's voice to a certain degree. A perennial problem for instruction, then, is how to teach students to appreciate that kind of poetic features and how they can be creatively preserved in translation.

2.4 Structural Flaws in Established Teaching Practices

Under these conditions described above, what are the drawbacks of conventional teaching mode? Firstly, as far as the class duration is concerned: teachers tend to spend most of the lesson time on explaining the source text and culture; leaving the students little opportunity to engage in any actual translation work or receive useful feedback on their efforts. Secondly, if any problems occur in the translating process, it is very rare that students can get instant advice and comments on their work. Usually that come later after they have handed in the assignment, and they are not able to catch the ideal moment of intervention—when the problem is unfolding in real time; and third there is no sufficient comparative discussion of different translations of students, thus lacking learning opportunities afforded by exposing students to alternative interpretations.

AI tools have the potential to overcome such limitations: it could provide on-demand assistance, multi-version comparisons, and a history of their translation process, while providing the instructor with analytics on learning patterns, common problem recognition, and adaptive help. The challenge is therefore how do we create an educational experience where we use AI for teaching purposes – but not one which gets in the way and/or replaces students' active interaction with texts.

3. "Four-Phase Integration": Theoretical

Framework and Pedagogical Design

In the context of the continuous updating and iteration of AI tools, translation teaching should not remain entrenched in old ways but should embrace AI, learn to make better use of AI tools, and cultivate students to become translation talents for the new era. Douglas Robinson once stated in his book *The Translator's Turn*, “to offer translators tools, not rules” (1991: xvi). This is also the case with students of translation.

3.1 A Human-Machine Collaborative Approach to Translation Pedagogy

The theoretical foundation behind this “Four-Phase Integration Approach” lies in our view of translation pedagogy, which advocates for human-machine cooperation and emphasizes one fundamental idea under the AI age, i.e., “never lose control over humans”. Both in teaching practice and research work, educators and students must fully demonstrate their own capabilities and value to AI, demonstrating a high level of accountability for the maintenance of quality and integrity.

Human-machine collaboration does not simply mean outsourcing tasks to AI. Rather, it entails a complementary and synergistic relationship built on a clear understanding of the respective strengths of humans and machines. AI excels in efficient processing—information retrieval, comparison of multiple translations, generation of preliminary renderings, and analysis of linguistic features. Humans, by contrast, bring to bear deep cognitive capacities: value judgment, cultural interpretation, creative adaptation, and ethical oversight. The task of translation pedagogy, then, is to cultivate students’ ability to harness AI tools effectively—enabling them to achieve “specialized expertise, technological proficiency, and broad knowledge”—while maintaining human agency in the collaborative process.

3.2 The “Four-Phase Integration” Approach

With the aforementioned insights in mind, this study presents an instructional model called the “Four-Phase Blending Model”, which blends AI applications with traditional instruction of classical Chinese translation across four interrelated phases.

3.2.1 Pre-translation Editing

AI-assisted comprehension: After having read through the ST and prior to starting the translation process proper, students use the AI

tools in order to facilitate their understanding of the ST. This comprises lexical glossing, punctuation, the search of allusions and recourse to old commentaries which constitute an indispensable basis for correct interpretation. In addition, students perform initial editing of content items that are culture-sensitive in nature (e.g. names of people and events; dates). For example, recognizing that “十月” in the Records of the Grand Historian refers to the tenth month of the lunar calendar rather than October, which needs explanation in a translation.

The teacher then leads the class in considering an essential question: What are some reasons why we might use one approach to translating rather than another? Students work in small groups to share results from their AI assisted inquiry and discuss questions of difficulty or ambiguity, and reach a working agreement about what the text means. When I move around between groups during this activity, my interventions ensure that any likely mistakes generated by LLMs get corrected and also encourage students to think about important aspects of interpretation.

3.2.2 Prompt Design

Once they are clear about the nature of the translation task, students also acquire how to write good prompts for eliciting high-quality reference translations from AI, i.e., what needs should be specified regarding terms, cultural imagery, rhythm, and narrative features of the source text, stating what is said about the purpose and function of the translation, and who is to read them. Through the comparison of translations generated by different prompting approaches, students will understand the role of prompt in determining translation outcome.

First, the students learn about what prompts are and do. In a series of guided exercises, they see the effects that different prompts have on an AI translation from one language into another. As examples: when translating the Dao De Jing of its line “道可道，非常道，” prompts such as “translate literally,” or “philosophical interpretation” yield markedly different results. Students are guided to reflect: which elements of the prompt shaped the style and orientation of the translation?

Next, students are required to understand the structure of a prompt. The teacher explains some key elements in a good prompt, role assignment (e.g., “you are a translator, who knows about

Chinese as well as western philosophy”), task definition (e.g., “please translate chapter one of Dao De Jing”) specific instructions (“Do not lose the philosophical weight of the source text, but keep it short and strong”) and instructions about what to give back as a response (“Give me your translation together with some short explanation”).

Students should also learn about specific prompt creation for translating Chinese classic literature. To translate the classical Chinese text, some considerations need to be paid to conveying images and retaining poetry styles. We train students with creating a prompt that focuses on these aspects. To illustrate, a prompt for translating a poem in the Book of Songs could say, “Try as much as you can to preserve the poetic features of the original text with a four-character line wherever possible and an even-numbered rhyme scheme. Where rhyme is not perfectly preserved try your best to convey the poetic feel via rhythm and alliteration”.

3.3 Post-Editing and Review

Following on from this translation activity, learners must carry out a contrastive proofreading with respect to the original text in order to analyze issues related to faithfulness, accuracy, fluency, and style suitability. It teaches the student how to spot problems with machine-translations: terminological inconsistency, confusion of the historical characters, bad sentence cohesion and coherence, and poor translation due to a lack of understanding the culture. We need to teach students not just to trust blindly in machine translation but also to learn how to assess it so that they can become responsible for the final outcome of any given translation task.

The first one is fidelity check, by comparing with the source sentence and checking whether there are possible errors like mistranslation, etc., missing words or over-translation. Feng’s (2025) research shows that the large language model has a better performance in translation of Chinese into English, but they can nevertheless lack the ability to translate cultural metaphors properly. Students are advised to use the resources of their knowledge on classical Chinese as well as general culture for detecting possible misinterpretations by a computer translation system.

Second is the cultural image. Check whether the translating method used to deal with some

important cultural images are appropriate or not. For instance, taking the concept of “仁”(ren), a word in the Analects, as an example, students must be aware of several aspects: What method is the AI using for its translation? Is it a good reflection of the intended meaning? Are there alternatives? Teachers can also encourage their students to read and compare the translations by James Legge, Arthur Waley, D.C. Lau, among others who have been outstanding translators.

And the third, is stylistic review. Review if the translation maintains the style features and aesthetic effects in the source text. Students should assess whether the AI-generated translation reflects these characteristics of the ST and make revisions where necessary. As Feng (2025:62) notes, “DeepSeek also demonstrates strong capabilities in translation research, particularly in translation style appreciation and translation quality assessment.”

Next comes the terminological consistency check. Ensure that terminology has been translated consistently through the text, avoiding cases when a term was translated differently for different occurrences of the same meaning; and during translation of long texts machine-translations usually have to be checked manually due to the use of inconsistent terminology. For instance, if the title of a classical Chinese work appears several times in a piece of writing, LLMs can generate totally three different translations, hence undermining its rationality.

3.4 Supplementing the Text with Necessary Annotations

As we know, there are many cases where certain words and phrases can only be found in Chinese culture when translating some classical works into English, so we need to add a brief explanation if necessary. Thus, besides aligning the source and target texts we must use the translator’s initiative by providing additional annotations. Students can use AI assistant to search for the source of those words or ideas, find relevant information quickly, and gather sufficient material to make a specific and concise annotation in order to improve the translatability of this article and increase the communicative effect between different cultures. The ultimate purpose of translating Chinese classics is to contribute to the international communication of Chinese culture. To TL readers, even when the translation is correct, they cannot understand it because there is no

cultural background provided. The addition of some necessary annotations is an important way to bridge such a culture gap.

During instruction, educators prompt learners to consider what an annotation does (and why it is needed): When do we need an annotation? What details are important and which ones are not? How do we balance the need for informative content against readable text? Based on this work, students use their AI tools to find places where cultural information might merit annotation, review older commentaries as well as extant translations; and draft notes.

For instance, using a sentence “八佾舞于庭”(The eight-row dance was performed at court) from the Analects as an example, students could first resort to Yang Bojun’s Commentary on the Analects for comprehension of “八佾”(eight rows of dancers performing a ritual dance in ancient China, a royal rite that was restricted to the Son of Heaven while the feudal lords could have only six ranks) and then apply AI tools to explore further. Next, they ponder how best to concisely explain that ritual system to westerners. In comparison with conventional teaching practice for translating classical Chinese texts, the “Four-Phase Integration” Approach is innovative in that firstly, it replaces a product-oriented method by a process-oriented one; traditional pedagogy usually focuses on the quality of the translated text, while the “Four-Phase Integration” addresses each step in the whole translation process, including pre-translation, translating and post-translation. Using AI tools for documenting and visualizing students’ understanding trajectory, their translation decision making process and revising behavior; this approach makes the thinking process explicit and open for reflection. Secondly, it replaces the prohibition on technology by encouraging students to use it wisely. In traditional instruction, learners are not allowed to use MT for fear that students may become dependent on it. The “Four-Phase Integration,” on the other hand, recognizes that AI is part of today’s translator workplace and rather trains students in using and mastering them, hence, developing a collaborative ability between humans and AI systems. And it replaces the homogenous progress through individualisation of education. Students would be able to learn according to their own pace thanks to artificial intelligent tools. Educators

can then leverage the AI’s learning analytics as a basis for individualized instruction on a per-student basis.

4. Challenges and Responses

In practicing the “Four-Phase Integration” in translation classrooms, we have to be fully aware of the challenges that we are faced with, and be prepared with measures to respond to those challenges.

4.1 Limitations of Technological Tools and Countermeasures

Despite all the potentials of utilizing LLMs to translate classical Chinese text, this approach has some limits too. For instance, there may arise comprehension issues and nuances caused by deep culture gaps, the richness in understanding of emotions, and the consistency on terminology and concepts. So, translation by LLMs also need to be carefully read and revised manually.

To address that problem, we have to train students to be critical. Teachers should teach students how to detect errors in AI outputs, such as misunderstanding of classical Chinese, simplification of culture images, and overlooking of poetic characteristics; teach students how to make up for AI’s disadvantages by means of methods like multiple sources’ cross-checking or combining different tools together.

The other possible danger lies in the fact that learners might rely too much on AI. Some students tend to develop their own coping strategy as “AI translation—student submitting”, missing chances to think independently. In teaching practice, I have encountered some students who have submitted homework with obvious machine translated mistakes and did not check it because they trusted that AI would translate well.

To mitigate such a risk, it needs to be addressed by the instruction design as well as the assessment mechanism. For the instruction design, the importance of process-based evaluation should be integrated into our evaluation metrics so that we can encourage students to reflect on their translation through the consideration of prompt design and post editing. With regard to the assessment mechanism, it is recommended that we teach students to compare and analyze different translations in terms of textual features and social functions so that they will not be confined

to the goal of a perfect translation.

4.2 Transformation of Teacher Roles and Professional Development

The application of AI in teaching also brings new requirements to teachers, who should not only have professional competence in translating Chinese classics, but also learn how to operate AI tools and acquire new skills (e.g., designing prompts or conducting human-AI collaborative teaching). This implies that teachers need to engage in continuous learning and constantly explore the models and effects of human-machine collaboration in the teaching of Chinese classics translation.

5. Implications

According to our observation about the major difficulties encountered in teaching students translating Chinese classical texts, we put forward here a “Four-Phase Integration” approach for integrating AI technologies into teaching and learning processes with four steps: pre-editing, prompt engineering, post-editing after machine translation, and adding required information as annotations to build a human-computer collaborative translation training mechanism. Our teaching practice has shown that such a model facilitates students’ understanding of the classics, cultivating their abilities to use the AI tools, and finally, improves translation quality as well as their understanding of cross-cultural communication.

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