The Development of Competency Indicators for Chinese-French Written Translation

Min Fang[1,2] & Peng-Fei, Chen[1,*]

[1]Chinese International College, Dhurakij Pundit University, Bangkok, Thailand

[2]School of Foreign Languages and International Communication, College of Arts and Sciences Kunming, China

*Correspondence: Chinese International College, Dhurakij Pundit University, Bangkok, Thailand. E-mail: blissfulalice@gmail.com

Received: February 20, 2026 Accepted: April 5, 2026 Online Published: April 30, 2026

doi:10.5430/jct.v15n2p205 URL: https://doi.org/10.5430/jct.v15n2p205

Abstract

China is committed to enhancing its capacity for international communication, in which the cultivation of talents for translation from Chinese into foreign languages is particularly crucial. Within this context, the training of Chinese-French written translation talents constitutes an important component. However, specialized evaluation standards for Chinese-French written translation talents are lacking, and the construction of a graded competency framework for Chinese-French written translation remains a relatively underexplored area in current domestic research in China. There is a notable absence of systematic integration of indicators and rigorous quantitative analysis of their weighting. Therefore, based on the PACTE (Process in the Acquisition of Translation Competence and Evaluation) theoretical model of translation competence, this study employs literature analysis, a two-round Modified Delphi Method, and the Analytic Hierarchy Process (AHP) to systematically construct a Chinese-French written translation competency framework comprising 8 first-level indicators and 34 second-level indicators. According to the priority of indicator weights, the first-level indicators are ranked as follows: Chinese-French bilingual language knowledge competency, Chinese-French bilingual comprehension competency, Chinese-French bilingual writing and written expression competency, Chinese-French cross-cultural knowledge competency, Chinese-French written translation strategy competency, Chinese-French written translation professional competency, Chinese-French written translation technological tool competency, and Chinese-French written translation psycho-physiological competency. The findings of this study will provide fundamental reference and a scientific basis for Chinese-French written translation in areas such as educational and pedagogical research, optimization of evaluation standards, and talent development pathways.

Keywords: Chinese-French written translation, PACTE translation competence model, competency indicators

1. Introduction

French, as an official language of 33 international organizations including the United Nations, the European Union, and the International Olympic Committee, holds an irreplaceable position in global diplomacy, law, culture, and economic trade (Liu et al., 2024). Chinese-French written translation serves as a bridge connecting China with the French-speaking world, which encompasses Belgium, Switzerland, Quebec in Canada, and vast regions of Africa (Zheng, 2019). However, the practical application ability of Chinese students in Chinese-French written translation remains relatively low. This not only affects students' opportunities for further studies abroad but also constrains the development of their intercultural communication skills and limits the demand for students' French proficiency in the job market. Currently, the construction of a graded competency framework for Chinese-French written translation remains a relatively underexplored area in China, primarily reflected in two aspects. First, existing research on translation competence tends to focus on macro-level systems, lacking specialized grading for Chinese-French written translation. Second, studies on French language testing primarily concentrate on basic skills and do not encompass the stratification of translation competence, with existing proficiency examinations emphasizing foundational language abilities rather than translation competence. Therefore, the development of a Chinese-French written translation competency framework is fundamental to building a competent translation talent pool. The formulation and application of an effective translation competence standard play a crucial role in the assessment of translation professionals (Mu

Lei et al., 2024).

Among translation competence models, the PACTE translation competence model is the most influential (Ningrum et al., 2024). Proposed in 1997 by the research team at the Universitat Autònoma de Barcelona in Spain, the PACTE (Process in the Acquisition of Translation Competence and Evaluation) model has become one of the most influential theoretical frameworks in translation studies. Its purpose is to investigate the acquisition of translation competence in both directions: from a foreign language into the mother tongue (inverse translation) and from the mother tongue into a foreign language (direct translation) (PACTE, 2008). Its empirical foundation and multidimensional sub-competence structure provide a systematic methodology for translation teaching, competence assessment, and research on cognitive processes. Based on the PACTE translation competence model, this study employs literature analysis, the Modified Delphi Method, and the Analytic Hierarchy Process (AHP) to construct a Chinese-French written translation competency indicator system and calculate the weight ranking of its graded indicators. It aims to provide a guiding framework for research in Chinese-French written translation education and pedagogy, the optimization of evaluation standards, and pathways for talent cultivation.

2. Literature Review

2.1 The PACTE Model of Translation Competence

The PACTE group's preliminary findings posit that translation competence constitutes a complex, integrated ability (Albir & Rodríguez-Inés, 2022). The definitions of its six sub-competences are as follows: Bilingual Communicative Sub-competence is defined as the underlying system of knowledge and skills required for linguistic communication in two languages (Károly, 2024). Extra-linguistic Sub-competence is defined as knowledge of general world knowledge, as well as specialized knowledge in specific cultural domains and subject areas (Altuwairesh, 2024). Sub-competence is defined as knowledge of and skills related to professional translation practice, including the knowledge and use of diverse documentary sources, knowledge and use of new technologies, and knowledge of the translation market and profession (e.g., rates, types of assignments) (PACTE Group, 2008). Knowledge about Translation Sub-competence is defined as declarative knowledge concerning the principles, processes, and methods of translation (Beeby, 2011). Strategic Sub-competence is defined as the capacity responsible for planning the translation process, activating the other various sub-competences, evaluating the process and the result, and ultimately solving problems to ensure the completion of the translation task (Prieto Ramos, 2024). Its core function is to manage and regulate the entire translation process. Psycho-physiological Sub-competence is defined as the ability to employ psychomotor, cognitive, and attitudinal resources (PACTE Group, 2008).

2.2 The Impact of the PACTE Translation Competence Model on Chinese-French Written Translation

The PACTE classification of translation competence, with its broad coverage and clear problem definition, has garnered extensive attention and provided a reference for many subsequent studies. The PACTE model is characterized by three key features: dynamism, comprehensiveness, and empirical foundation (PACTE Group, 2008). Firstly, the PACTE model emphasizes that translation competence is a dynamically evolving process, rather than a static, fixed skill (Robert et al., 2017). Secondly, the model encompasses multiple dimensions of translation competence, focusing not only on linguistic ability but also on critical factors in the actual translation process, such as the selection of translation strategies and the use of instrumental aids (Hazaea & Qassem, 2024). Finally, the PACTE model is constructed upon a foundation of numerous empirical studies, lending it strong scientific validity and practical applicability (Ningrum et al., 2024). Based on this, the present study will apply the PACTE theoretical model of translation competence as the referential theoretical foundation for developing indicators of Chinese-French translation competence. The six sub-competences outlined by PACTE will serve to develop the overarching competencies for Chinese-French written translation, which will in turn provide the basis for further developing the subsequent, more granular level of Chinese-French written translation competence indicators.

2.3 Constructing a Chinese-French Written Translation Competency Indicator Framework Based on the PACTE Model

Translation competence is complex and multidimensional (Esfandiari & Ebrahimi, 2025). Considering the core concept of "application-orientation" in competency indicator development (Liu Jianda & Wu Sha, 2019), cultivating students' Chinese-French written translation competence (Zhu, 2023) is the central task. The core competencies for Chinese-French written translation constitute a comprehensive concept (Flores, 2023) with significant theoretical value and practical implications (Alzamil, 2024). Through literature review, this study derives seven primary core competencies: A) Chinese-French Bilingual Language Knowledge Competency, B) Chinese-French Bilingual Comprehension Competency, C) Chinese-French Cross-Cultural Knowledge Competency, D) Chinese-French Written Translation

Strategic Competency, E) Chinese-French Written Translation Technological Tool Competency, F) Chinese-French Bilingual Writing and Written Expression Competency, and G) Chinese-French Written Translation Professional and Psycho-physiological Competency.

Based on these primary indicators, secondary indicators are derived. A) Chinese-French Bilingual Language Knowledge Competency includes A1 possessing solid knowledge of Chinese-French bilingual grammar (Barassa, 2024); A2 possessing extensive Chinese-French bilingual vocabulary knowledge (Zheng, 2025); A3 possessing correct Chinese-French bilingual textual/discourse knowledge (PACTE Group, 2008); A4 possessing correct Chinese-French bilingual pragmatic/stylistic knowledge (Alafnan, 2025). B) Chinese-French Bilingual Comprehension Competency encompasses B1 the ability to accurately comprehend linguistic differences between Chinese and French (Zheng, 2025); B2 the ability to accurately comprehend deep conceptual meanings in Chinese and French (Károly, 2024). C) Chinese-French Cross-Cultural Knowledge Competency encompasses C1 mastery of correct general socio-encyclopedic knowledge (PACTE Group, 2008); C2 mastery of correct specialized domain knowledge in Chinese and French contexts (Olohan, 2016); C3 mastery of correct Chinese-French cross-cultural knowledge. D) Chinese-French Written Translation Strategic Competency encompasses D1 the ability to accurately analyze source Chinese text and semantics (Sun et al., 2022); D2 the ability to quickly identify difficulties in translation texts (Neubert, 2011); D3 mastery of at least one translation theory school and related strategies (Khachatryan, 2024). E) Chinese-French Written Translation Technological Tool Competency encompasses E1 the ability to utilize Chinese-French reference works and the internet for accurate information retrieval (Albir et al., 2020); E2 the ability to utilize tools to quickly verify doubts and difficulties in Chinese-French translation (He, 2024); E3 the ability to utilize computer-aided tools for Chinese-French text editing (Mammadova, 2025). F) Chinese-French Bilingual Writing and Written Expression Competency encompasses F1 the ability to perform Chinese-French language transfer and textual reconstruction (Lederer & Larché, 2014); F2 familiarity and proficient use of different Chinese-French registers (Zheng, 2025), styles, and genres; F3 mastery of fluent written expression in both Chinese and French (Guo & Shen, 2024). G) Chinese-French Written Translation Professional and Psycho-physiological Competency encompasses G1 mastery of correct professional norms for Chinese-French written translation (Beeby, 2011); G2 possession of professional ethics and ethical awareness in Chinese-French translation (PACTE Group, 2011); G3 the ability to handle culturally sensitive texts in Chinese-French translation (Díaz-Millón, 2023); G4 the ability to cope with and manage stress from complex Chinese-French translation texts (PACTE Group, 2008); G5 the ability to maintain an open learning attitude towards the knowledge and skills required for Chinese-French translation texts (Göpferich & Jääskeläinen, 2009); G6 the ability to handle critical or evaluative Chinese-French translation texts (Göpferich & Jääskeläinen, 2009); G7 possession of memory capacity for handling Chinese-French translation texts (PACTE Group, 2008); G8 possession of concentration capacity for handling Chinese-French translation texts (PACTE Group, 2008); G9 possession of perseverance in handling Chinese-French translation texts (PACTE Group, 2008); G10 possession of logical reasoning, analytical, and synthesizing capabilities for handling Chinese-French translation texts (Yao et al., 2025).

Currently, the translation industry lacks a unified competency evaluation system, which to some extent affects the assurance of translation quality (Fang, 2025). Standards for cultivating written translation talent in Chinese universities are inconsistent, and the competency indicators used for evaluation are diverse, mostly focused on English (Maria, 2024). Cultivating high-quality foreign language, foreign affairs, and translation professionals remains a primary function and goal of the Foreign Language and Literature discipline (Wang Kefei, 2023). For Chinese-French written translation talent cultivation, enhancing students' translation competence and problem-solving abilities is urgently needed. A graded Chinese-French written translation competence system is a core tool for assessing translator professionalism and plays a significant role in the international language services industry, translation education, teaching, and talent development (Mu Lei et al., 2024). However, current academic efforts specifically dedicated to developing Chinese-French written translation competency indicators are insufficient. These gaps represent bottlenecks in education-related academic research and dilemmas in translation talent cultivation, and they remain unresolved. Furthermore, amidst the impact of AI technological transformation on translation competence assessment, large language models are deeply integrated into translation work. Vast electronic parallel corpora assist students in textual comparison and can help translators improve their translations. Although China leads globally in translation technology R&D capability, the Chinese-French translation field has yet to establish a "technological competence" dimension to assess translators' tool usage proficiency (Qumar et al., 2024). In light of this, based on the PACTE translation competence model as the theoretical foundation, this study develops a tailored theoretical system for Chinese-French written translation competencies and conducts a quantitative analysis of indicator weights. It aims to provide researchers and learners with scientific competency indicator guidance, establish competency reference standards for formative and summative assessments in Chinese-French translation teaching, promote the development

of diversified evaluation in Chinese-French translation teaching and research, and foster coordinated development in translation teaching, learning, and assessment. This aligns with the needs of Chinese-French translation learning in China. The construction of competency indicators can directly serve classroom teaching and French language talent cultivation (Mu Lei et al., 2024). Simultaneously, constructing Chinese-French written translation competency indicators is crucial for evaluating and developing the French expression of Chinese culture and constitutes an important component of China's efforts to enhance its international communication.

3. Methods

Guided by the PACTE theoretical model of translation competence, this study first conducts a literature review to explore the core competencies for Chinese-French written translation and derives a set of secondary competency indicators. Subsequently, a two-round Modified Delphi Method (Wiersma, 1976) is employed to refine these indicators. Finally, the Analytic Hierarchy Process (AHP) is applied to calculate and rank the weights of the graded indicators.

3.1 Modified Delphi Method

The Modified Delphi Method, proposed by Murry and Hammons (1995) as an adaptation of the traditional Delphi approach (Revez et al., 2020), utilizes purposive sampling to assemble a high-level expert panel comprising 15 members from across the country (Delbecq et al., 1975).

3.2 Analytic Hierarchy Process (AHP)

The AHP, recognized for its application in translation quality assessment (Albayrak & Erensal, 2004), offers distinct advantages in evaluating abstract constructs, making it well-suited for research on competence assessment in French written translation (Wang & Tian, 2022). utilizes purposive sampling to assemble a high-level expert panel comprising 15 members from across the country (Delbecq et al., 1975).

3.3 Participants

This study employed a mixed-methods approach combining qualitative and quantitative research (Sequeira, 2024). For many complex issues, relying solely on either quantitative or qualitative research methods would pose significant challenges and fail to achieve objectivity and accuracy (Karunarathna et al., 2024). Researchers must determine the appropriate sampling technique to ensure sample representativeness and that the collected data demonstrate sound reliability and validity (Ahmed, 2024). Sampling serves to better align the sample with the research purpose and objectives, thereby enhancing the rigor of the study and the credibility of its findings (Nyimbili & Nyimbili, 2024). This study was conducted in two phases: first, a modified Delphi method, followed by an analytic hierarchy process (AHP). Accordingly, purposive sampling was adopted, with 15 experts invited to participate in each phase, totaling 30 experts. For the modified Delphi method, a national panel of 15 high-level experts was assembled. The recruited experts comprised authoritative scholars in translation studies, senior revisers, and experienced professional translators, all holding doctoral degrees. Each expert had over 15 years of teaching experience or professional translation practice. Among them, 11 were university professors, including two who also held senior professional reviser qualifications; two were associate professors, both possessing professional translation certification; one was a senior reviser with an associate senior professional title; and one was a professional translator. For the analytic hierarchy process, a panel of 15 high-level experts from universities nationwide was formed. All members held doctoral degrees and senior academic titles, including 13 with full professorial rank and 2 with associate professorial rank, each with over 15 years of teaching experience. All were renowned scholars in translation studies in China with substantial practical experience in translation. In accordance with research ethics, the researcher distributed an informed consent form to participants, explaining the purpose of the study, the level of participation required, confidentiality and anonymity, and the possibility of withdrawing from the study at any time. After obtaining consent from the 15 experts, the survey was conducted (Linstone & Turoff, 2011).

3.4 Procedures

The Modified Delphi Method is a mixed-methods research approach that integrates quantitative and qualitative elements (Díaz-Millón, 2023). Guided by the PACTE theoretical model of translation competence and aligned with the research objectives, this study collects, synthesizes, and organizes relevant literature to delineate the graded evaluation indicators for Chinese-French written translation competence. These indicators form the basis for developing a structured questionnaire for the first round of the Delphi process (Díaz-Millón, 2023). The questionnaire is administered iteratively between the researcher and the expert panel via email, allowing for online distribution and collection. Experts anonymously express their initial opinions and suggestions (Hasson et al., 2000), ensuring data consistency and comparability while minimizing subjectivity in data interpretation (Eubank et al., 2016). After the first

round, expert feedback is compiled and serves as the foundation for designing the second-round questionnaire. In the second round, experts further refine the Chinese-French written translation competency indicators based on the aggregated feedback from the first round (Lecours, 2020), progressively moving toward consensus (Mckenna, 1994).

The Analytic Hierarchy Process (AHP), introduced by Saaty (1977), is a multi-criteria decision-making method that combines qualitative and quantitative analysis (Wang & Tian, 2022). It breaks down a complex decision problem into a hierarchical structure comprising goals, criteria, sub-criteria, and alternatives. The strength of AHP in evaluating abstract constructs aligns well with the assessment of translation competence in written translation research (Wang & Tian, 2022). In this study, data collection utilizes a questionnaire designed based on Saaty's 1–9 scale. The consistency criterion is as follows: when the Consistency Ratio (CR) is less than 0.10, the judgment matrix is considered acceptably consistent. If CR $\geq$ 0.10, the matrix is returned to the expert for re-evaluation and adjustment (Saaty, 1977). Finally, expert questionnaires are collected to calculate and confirm the relative weights of the Chinese-French written translation competency indicators, thereby constructing the comprehensive indicator system.

3.5 Data Analysis

In the Modified Delphi Method, this study distributed 15 expert questionnaires and received 15 valid responses, yielding a questionnaire recovery rate of 100%. Thus, the positive coefficient of expert participation was 100%, indicating that the experts demonstrated a proactive attitude, high engagement, clear expression, and timely responses. The mean (*M*), standard deviation (*SD*), full score rate (*K*), and coefficient of variation (*CV*) for each dimension were calculated to determine whether an indicator should be retained. Indicators with a mean (M) greater than 4 (Yaccob et al., 2024), a standard deviation (*SD*) less than 1 (Díaz-Millón, 2023), a full score rate (*K*) higher than 30% (Oxley et al., 2025), and a coefficient of variation (*CV*) $\leq$ 0.300 (Caner & Ogan-Bekiroglu, 2025) were considered appropriate. Indicators meeting these thresholds were either retained directly or revised and retained, while those failing to meet the criteria were deleted. Based on the feedback and suggestions provided by the experts on the evaluation indicators, the revised graded competency indicators were compiled and served as the foundation for designing the second-round Modified Delphi expert questionnaire.

This study employed the Analytic Hierarchy Process (AHP) to conduct a questionnaire survey on the Chinese-French written translation competency indicators. By aggregating the ratings from experts in the national foreign language and translation community, a systematic analysis of the expert-reviewed questionnaire data was performed to determine the relative importance ranking of the indicators. A total of 15 AHP questionnaires were distributed to senior experts in the national translation community, all of which were effectively returned, achieving a 100% response rate. After data analysis using the SPSS formula, at the criterion level, the consistency ratio (*CR*) for all items was below the threshold of 0.100 (Saaty, 1977), indicating that the Chinese-French written translation competency indicator system exhibits excellent internal consistency. This result demonstrates that the questionnaire performed exceptionally well in terms of reliability and validity, and the collected data accurately reflects the respondents' genuine perspectives and positions. Consequently, it provides a reliable research foundation for subsequent studies on Chinese-French written translation education and teaching, optimization of evaluation indicators, and talent development pathways.

4. Results

4.1 First Round of the Modified Delphi Survey

The expert questionnaire in this study, based on the Modified Delphi Method, employed a 5-point Likert scale, where "1" indicated "Highly Inappropriate" and "5" indicated "Highly Appropriate." The results of the first round of expert consultation indicated a high degree of consensus and a positive attitude among the panelists, with strong agreement on the evaluated items. Specifically, the mean score (M) for Dimension C, "Chinese-French Cross-cultural Knowledge Competence," was 4.933, with a standard deviation (SD) of .258, a full score rate (K) of 93.333%, and a coefficient of variation (CV) of .052. For the remaining six dimensions—A. Chinese-French Bilingual Linguistic Knowledge Competence; B. Chinese-French Bilingual Comprehension Competence; C. Chinese-French Cross-cultural Knowledge Competence; D. Chinese-French Translation Strategy Competence; E. Chinese-French Translation Technology and Tool Competence; F. Chinese-French Bilingual Writing and Written Expression Competence; and G. Chinese-French Translation Professional and Psycho-physiological Competence—the mean score (M) was 5, with a standard deviation (SD) of 0.000, a full score rate (K) of 100%, and a coefficient of variation (CV) of .000. These findings demonstrate convergent opinions, a high level of positive engagement, and consensus among the experts in this round. Based on the data from the first-round Modified Delphi questionnaire, the positive coefficient and degree of concentration of expert opinions on the competency indicators were deemed satisfactory. Consequently, revisions were made to the competency framework based on expert feedback: the first-level indicator dimension originally titled

"G. Chinese-French Professional and Psycho-physiological Competence" was bifurcated into two separate dimensions: "Chinese-French Professional Competence" and "Chinese-French Psycho-physiological Competence." At the second-level indicator level, two items, "G6. Ability to process critical Chinese-French translation texts" and "G7. Possess the memory required for processing Chinese-French translation texts," were deleted. All other indicators were either retained or retained after revision, and descriptions for some indicators were supplemented.

4.2 Second Round of the Modified Delphi Survey

Table 1. Second-Round Revised Chinese-French Written Translation Competency Indicators

Primary Indicators	Secondary Indicators
A) Chinese-French Bilingual Language Knowledge Competency	A1 Possess rich vocabulary knowledge in Chinese and French.
	A2 Possess solid grammatical knowledge in Chinese and French.
	A3 Possess correct textual knowledge in Chinese and French.
B) Chinese-French Bilingual Comprehension Competency	B1 Ability to accurately comprehend linguistic differences between Chinese and French
	B2 Ability to accurately comprehend metaphors, allusions, idioms in Chinese, and idioms/culturally-loaded expressions in French.
	B3 Ability to accurately comprehend the deep cultural connotations in Chinese and French texts across domains such as philosophy, politics, literature, economy & trade, and science & technology.
C) Chinese-French Cross-cultural Knowledge Competency	C1 Master correct socio-encyclopedic knowledge.
	C2 Master correct specialized domain knowledge.
	C3 Master correct knowledge related to Chinese-French cross-cultural communication.
D) Chinese-French Translation Strategy Competency	D1 Ability to accurately analyze the source Chinese text and its semantics.
	D2 Ability to quickly identify text types (e.g., political, economic & trade, legal, scientific & technological, literary, news, cultural) and difficulties in Chinese-French written translation.
	D3 Ability to select appropriate translation methods, strategies, and styles based on text type (e.g., political, economic & trade, legal, scientific & technological, literary, news, cultural) and difficulties in Chinese-French written translation.
E) Chinese-French Translation Technology and Tools Competency	E1 Ability to utilize various Chinese-French reference works (including electronic) and the internet to accurately retrieve information.
	E2 Ability to utilize tools to quickly verify doubts and difficulties in Chinese-French translation texts.
	E3 Ability to utilize computers for preliminary translation of Chinese-French texts.
	E4 Ability to use Computer-Assisted Translation (CAT) tools for Chinese-French project management and terminology database construction.
	E5 Possess machine translation post-editing ability, capable of judging and correcting errors in Chinese-French machine translation output.
F) Chinese-French Bilingual Writing and Written Expression Competency	F1 Ability to perform Chinese-French bilingual conversion and reconstruction.
	F2 Familiarity with and proficiency in using different Chinese and French registers and genres.

Table 1. Second-Round Revised Chinese-French Written Translation Competency Indicators (continued)

Primary Indicators	Secondary Indicators
	F3 Possess fluent written expression ability in Chinese and French.
	F4 Ability to ensure the translation conforms to target language textual coherence, logical cohesion, and rhetorical norms.
	F5 Possess the ability to proofread and revise bilingually based on Chinese-French cultural differences.
G) Chinese-French Professional Competence	G1 Ability to accurately grasp professional standard knowledge for Chinese-French written translation.
	G2 Possess professional ethics and ethical awareness for Chinese-French written translation.
	G3 Ability to consistently handle culturally sensitive terms between Chinese and French from a national standpoint.
	G4 Ability to maintain sensitivity to the latest linguistic developments in Chinese and French and trends in the Chinese-French translation industry.
H) Chinese-French Psycho-Physiological Competence	H1 Ability to cope with and handle pressure from complex Chinese-French translation texts, high-intensity work, long durations, etc.
	H2 Ability to maintain an open learning attitude towards the knowledge and skills required for Chinese-French translation texts.
	H3 Possess the concentration required to handle Chinese-French translation texts.
	H4 Possess the perseverance required to handle Chinese-French translation texts.
	H5 Possess the logical deduction, analytical, and synthesis abilities required to handle Chinese-French translation texts.
	H6 Possess cooperation awareness, teamwork spirit, and sense of responsibility for Chinese-French written translation.H2 Ability to maintain an open learning attitude towards the knowledge and skills required for Chinese-French translation texts.

Note: Source of data is the present study.

The design of the second-round Modified Delphi questionnaire was developed based on the analysis and revision of the first-round indicators, maintaining the same structural framework. In this second round of expert review, a consensus was achieved among national-level senior experts. The expert panel provided three recommendations for this round: First, to revise indicator A5 to read as "Possess the basic ability to identify French regional variations (such as Canadian French, Belgian French, African French, etc.)." Second, to add an indicator under the first-level dimension F, "Chinese-French Bilingual Writing and Written Expression Competence," specifically "F5. Ability to accurately proofread and revise Chinese-French translation texts based on cultural differences between Chinese and French." Third, to supplement the first-level dimension G, "Chinese-French Professional Competence," with "G4. Ability to maintain sensitivity to the latest linguistic developments in Chinese and French and emerging trends in the Chinese-French translation industry."The results indicated a mean score (M) of 4.746, surpassing the threshold of 4 (Zhong et al., 2015), and a full score rate (K) of .750, exceeding the threshold of 0.300 (Von Der Gracht, 2012). These findings demonstrate strong consensus among the expert panel. Based on these results, the Chinese-French Translation Competence Indicator System, as revised through the second round of the Modified Delphi Method, was finalized (see Table 1).

4.3 Analytic Hierarchy Process (AHP) Survey

This study employed a two-round Modified Delphi method, inviting national senior experts to review and ultimately finalize the indicators for Chinese-French translation competence. An expert review questionnaire was constructed using the Analytic Hierarchy Process (AHP) judgment matrix. A total of 15 AHP questionnaires were distributed to a

national panel of senior experts in the translation field, all of which were validly returned, yielding a 100% response rate. Data analysis was conducted using SPSS formulas, and at the criterion level, the calculated CR value was .000, significantly below the threshold of .100, thus successfully passing the consistency test (Saaty, 1990). This result indicates that the indicator system for Chinese-French translation competence possesses ideal consistency. The system comprises eight first-level indicators and thirty-four second-level indicators, with weights calculated for each level and subsequently reordered and recoded, as shown in Table 2.

From the perspective of the first-level dimensions of Chinese-French translation competence, the top three ranked indicators are A. Chinese-French Bilingual Language Knowledge Competence (.191), B. Chinese-French Bilingual Comprehension Competence (.187), and C. Chinese-French Bilingual Writing and Written Expression Competence (.175). This ranking suggests that the foreign language translation academia generally regards language knowledge, comprehension ability, and expression ability as the most critical components of translation competence, collectively forming its core framework. The ordering indicates a high degree of consensus among the expert panel regarding the demands on translators in both source language comprehension and target language production, emphasizing the accurate understanding and transfer between the Chinese and French language systems. D. Chinese-French Cross-cultural Knowledge Competence (.136) closely follows, with D1. Mastery of Correct Knowledge Related to Chinese-French Cross-cultural Communication (.386) ranked first within this dimension. This underscores the significant importance of identifying and handling cultural differences in Chinese-French translation practice, particularly as an essential competency for high-level translators. Although E. Chinese-French Translation Strategy Competence (.110) and F. Chinese-French Translation Professional Competence (.087) are ranked lower, they still demonstrate the supporting role of strategic choices and professional ethics in translation practice. G. Chinese-French Translation Technology and Tool Competence (.058) and H. Chinese-French Translation Psycho-physiological Competence (.056), while placed further down, are by no means unimportant; these two indicators represent essential capabilities for advanced translators. Overall, within the current context of Chinese-French translation education and practice, experts generally continue to affirm the priority of traditional core competencies such as language, culture, and strategy. In the era of AI, technical tool competence remains an auxiliary skill, while psychological attributes serve as the foundational guarantee for translation practice.

Table 2. Weighting Table for Chinese-French Written Translation Competency Indicators

Primary Indicator	Secondary Indicator
A Chinese-French Bilingual Language Knowledge Competency (.191)	A1 Possess rich vocabulary knowledge in Chinese and French (.266)
	A2 Possess correct textual knowledge in Chinese and French (.248)
	A3 Possess solid grammatical knowledge in Chinese and French (.218)
	A4 Possess correct pragmatic/stylistic knowledge in Chinese and French (.187)
	A5 Possess basic ability to recognize French regional varieties (e.g., Canadian French, Belgian French, African French) (.081)
B Chinese-French Bilingual Comprehension Competency (.187)	B1 Ability to accurately comprehend metaphors, allusions, idioms in Chinese, and idioms/culturally-loaded expressions in French (.386)
	B2 Ability to accurately comprehend linguistic differences between Chinese and French (.340)
	B3 Ability to accurately comprehend the deep cultural connotations in Chinese and French texts across domains such as philosophy, politics, literature, economy & trade, and science & technology (.275)
C Chinese-French Bilingual Writing and Written Expression Competency (.175)	C1 Ability to perform Chinese-French bilingual conversion and reconstruction (.253)
	C2 Familiarity with and proficiency in using different Chinese and French registers and genres (.251)
	C3 Possess fluent written expression ability in Chinese and French (.182)
	C4 Ability to ensure the translation conforms to target language textual coherence, logical cohesion, and rhetorical norms (.165)
	C5 Possess the ability to proofread and revise bilingually based on Chinese-French cultural differences (.148)
D Chinese-French Cross-cultural Knowledge Competency (.136)	D1 Master correct socio-encyclopedic knowledge (.386)
	D2 Master correct specialized domain knowledge (.316)

Table 2. Weighting Table for Chinese-French Written Translation Competency Indicators (continued)

Primary Indicator	Secondary Indicator
	D3 Master correct knowledge related to Chinese-French cross-cultural communication (.297)
E Chinese-French Translation Strategy Competency (.110)	E1 Ability to accurately analyze the source Chinese text and its semantics (.414)
	E2 Ability to quickly identify text types (e.g., political, economic & trade, legal, scientific & technological, literary, news, cultural) and difficulties in Chinese-French written translation (.315)
	E3 Ability to select appropriate translation methods, strategies, and styles based on text type (e.g., political, economic & trade, legal, scientific & technological, literary, news, cultural) and difficulties in Chinese-French written translation (.271)
F Chinese-French Professional Competence (.087)	F1 Ability to accurately grasp professional standard knowledge for Chinese-French written translation (.341)
	F2 Possess professional ethics and ethical awareness for Chinese-French written translation (.273)
	F3 Ability to consistently handle culturally sensitive terms between Chinese and French from a national standpoint (.222)
	F4 Ability to maintain sensitivity to the latest linguistic developments in Chinese and French and trends in the Chinese-French translation industry (.164)
G) Chinese-French Translation Technology and Tools Competency (.058)	G1 Ability to utilize various Chinese-French reference works (including electronic) and the internet to accurately retrieve information (.345)
	G2 Ability to utilize tools to quickly verify doubts and difficulties in Chinese-French translation texts (.217)
	G3 Ability to utilize computers for preliminary translation of Chinese-French texts (.175)
	G4 Ability to use Computer-Assisted Translation (CAT) tools for Chinese-French project management and terminology database construction (.155)
	G5 Possess machine translation post-editing ability, capable of judging and correcting errors in Chinese-French machine translation output (.109)
H Chinese-French Psycho-Physiological Competence (.056)	H1 Ability to cope with and handle pressure from complex Chinese-French translation texts, high-intensity work, long durations, etc (.199)
	H2 Ability to maintain an open learning attitude towards the knowledge and skills required for Chinese-French translation texts (.180)
	H3 Possess the concentration required to handle Chinese-French translation texts (.171)
	H4 Possess the perseverance required to handle Chinese-French translation texts (.156)
	H5 Possess the logical deduction, analytical, and synthesis abilities required to handle Chinese-French translation texts (.148)
	H6 Possess cooperation awareness, teamwork spirit, and sense of responsibility for Chinese-French written translation (.146)

Note: Source of data is the present study.

5. Discussion

This study employs the Analytic Hierarchy Process (AHP) to determine the weights of the indicators of Chinese-French translation competence, the following discussion explores its implications for guiding the teaching and pedagogical research of Chinese-French translation, optimizing evaluation criteria, and fostering talent development.

5.1 Primary-Level Indicators of Chinese-French Translation Competence Model

Guided by the PACTE translation competence model, this study develops an independent and comprehensive system of primary-level indicators for Chinese-French translation competence. The differences between the primary-level indicators in the revised PACTE model and those established in this study—through literature review, two rounds of modified Delphi method, and analytic hierarchy process—are as follows: First, PACTE's extralinguistic sub-competence refers to declarative knowledge about the world and specific domains, encompassing both implicit and explicit knowledge (Altuwairesh, 2024), including bilingual cultural knowledge, encyclopedic knowledge in specific fields, and subject-matter knowledge (PACTE, 2008). This study proposes Chinese-French cross-cultural knowledge

competence, which comprises cross-cultural communication knowledge relevant to Chinese and French, specialized domain knowledge, and general encyclopedic knowledge. Second, PACTE's knowledge about translation sub-competence primarily concerns declarative knowledge about what translation entails and professional aspects of translation, including both implicit and explicit knowledge (PACTE Group, 2008). This study divides this category into two distinct components: knowledge related to translation strategies, techniques, methods, and procedures is incorporated into Chinese-French translation strategy competence, while knowledge pertaining to professional translation practice and the translation profession is categorized under Chinese-French translation professional competence. Within this newly proposed primary-level dimension, professional norms and standards are examined (PACTE Group, 2008). Third, PACTE's instrumental sub-competence refers to the ability to access and utilize various resources and information, as well as to apply modern technologies in the translation process (PACTE Group, 2008). This study designates this as Chinese-French translation technological tool competence and refines its secondary-level indicators to address the use of technological tools in translation practice in the era of artificial intelligence. Fourth, in addition to these adaptations, this study innovatively proposes Chinese-French bilingual comprehension competence, Chinese-French writing and written expression competence, and Chinese-French translation professional competence. Based on weight rankings, bilingual knowledge competence, comprehension competence, and written expression competence rank among the top three, indicating that experts in China's foreign language translation field generally consider the primary-level indicators proposed in this study to be highly significant. Furthermore, Chinese-French translation professional competence contributes to the evaluation of professional norms in translation practice.

5.2 Training Translators and Human–Machine Collaboration in the Chinese–French Translation Competence Indicator System in the Age of Artificial Intelligence

AI technology does not overturn the core competence requirements for translators; rather, it reshapes the weighting of various competences and their practical manifestations. In the AI era, the five second-level indicators under G Technological Tool Competence must be endowed with new connotations and can be systematically cultivated in Chinese–French translation professionals. First, an "AI+Core Competence" integrated training module should be constructed to embed technological tool training into competence development across all dimensions (Nguyen et al., 2025). Second, instructors may consider setting up human–machine collaborative translation workshops. Third, instructors should strengthen students' training in the critical use of AI (Nguyen et al., 2025). Fourth, a dynamic competence evaluation mechanism should be established to adjust training priorities in line with the evolving development of AI technologies. A human–machine collaborative evaluation mechanism based on the Chinese–French translation competence indicator system can efficiently assess translation quality. AI tools can perform a basic analysis of A2 Discourse Knowledge—and check errors in A3 Grammatical Knowledge—in the French target text, as well as verify terminology accuracy under G2 Use of Reference Tools. Human translators can leverage AI tools to produce a preliminary evaluation report covering a broad range of foundational indicators. Subsequently, in the human evaluation stage, human translators focus on higher-order criteria that are difficult for AI tools to judge, such as B3 Effectiveness in Conveying Deep Cultural Connotations, C1 Artistic Expression in Stylistic Norms, E2 Choice of Translation Strategies, and F1 Appropriateness in Handling Culturally Sensitive Terms (Roumeliotis & Tselikas, 2023). Based on the report generated by the AI tool, they verify, deepen, and refine the evaluation, thereby improving efficiency while ensuring translation quality (Zhao et al., 2024).

5.3 Integration of French Regional Varieties into General Translation Training or Specialized Applications

In general translation training, the second-level indicator A5 basic ability to identify regional varieties of French (e.g., Canadian French, Belgian French, African French) which carries a clear weight, is integrated into foundational instruction. Within the module on Chinese–French bilingual language knowledge, instructors may employ contrastive analysis and corpus-assisted methods to guide students in recognizing differences in vocabulary, syntax, and cultural context among different French varieties. This training can be combined with the post-editing of machine translation using AI tools, as highlighted in the dissertation, to cultivate students' foundational competence in critically identifying and handling non-standard French varieties. In specialized training programs, particularly for directions such as Africa-focused cooperation and diplomacy and international communication, the integration of French regional variety identification should be closely aligned with indicators such as national stance (F1) and cross-cultural communication knowledge (D1), drawing on the weighted relationship between D (cross-cultural knowledge) and F (professional competence) established in the study. Specialized modules can be developed to focus on the translation of political and economic texts from French-speaking Africa, thereby strengthening translators' ability to manage terminology and cultural adaptation within specific regional contexts, precisely serving national strategic needs.

6. Conclusion

Building on the PACTE translation competence model, this study systematically constructed an competency indicator system for Chinese–French translation. An initial framework comprising 7 first-level and 28 second-level indicators was developed through literature review. Following two rounds of modified Delphi expert consultations, the system was revised to include 8 first-level and 34 second-level indicators. The study then applied the Analytic Hierarchy Process (AHP) to assign weights to each indicator, culminating in a scientifically validated competency framework. The construction and weighting of the Chinese–French translation competence indicator system constitute not only a static, foundational description of competencies but also a dynamic tool for educational decision-making. This system can serve as a guiding reference for areas such as the pedagogical research of Chinese–French translation, the optimization of evaluation criteria, and the development of talent cultivation pathways.

7. Implications

Theoretically, this study fills a gap in the relatively underexplored area of graded competence indicator construction for Chinese–French written translation within current domestic research. It addresses the lack of studies on talent evaluation criteria specifically tailored to Chinese–French written translation, offering a systematic integration of competence indicator exploration and a rigorous quantitative analysis of indicator weights. Furthermore, it extends the application of the PACTE translation competence model in foreign language translation education and Chinese–French written translation. Practically, the competence indicator system and weight ranking proposed in this study provide quantifiable references for the reform of Chinese–French written translation instruction, translation assessment, and the cultivation of translation professionals.

8. Limitations and Recommendations

This study has certain limitations. The findings are primarily derived from expert consensus and weight analysis involving 30 senior foreign language translation specialists nationwide, constituting a static, foundational investigation. As such, the study lacks empirical validation of the feasibility and effectiveness of the indicator system within authentic Chinese-French translation teaching and learning contexts. Accordingly, future research is encouraged to build upon the established indicator system by developing three-level sub-indicators and designing indicator scales in real-world instructional settings. Future research should implement the Chinese–French written translation competence indicators constructed in this study in a sample of students to verify whether targeting high-weight indicators has a direct association with improved translation performance. Furthermore, grounded in the reform of Chinese-French translation pedagogy, efforts should be directed toward fostering a competence development and assessment framework for students in Chinese-French translation courses. This would facilitate the dynamic revision and continuous optimization of the indicator system.

References

Ahmed, S. K. (2024). How to choose a sampling technique and determine sample size for research: A simplified guide for researchers. *Oral Oncology Reports, 12,* Article e100662. https://doi.org/10.1016/j.oor.2024.100662

Alafnan, M. A. (2025). Large language models as computational linguistics tools: A comparative analysis of chatgpt and google machine translations. *Journal of Artificial Intelligence and Technology, 5,* 20-32. https://doi.org/10.37965/jait.2024.0549

Albayrak, E., & Erensal, Y. C. (2004). Using Analytic Hierarchy Process (AHP) to improve human performance: An application of multiple criteria decision making problem. *Journal of Intelligent Manufacturing, 15*(4), 491-503. https://doi.org/10.1023/B:JIMS.0000034112.006 52.4c

Albir, A. H., & Rodríguez-Inés, P. (2022). *Towards a European framework of competence levels in translation.* The PACTE group's NACT project.

Albir, P. G. A. H., Galán-Mañas, A., Kuznik, A., Olalla-Soler, C., Rodríguez Inés, P., & Romero, L. (2020). Translation competence acquisition. Design and results of the PACTE group's experimental research. *The Interpreter and Translator Trainer, 14*(2), 95-233. https://doi.org/10.1080/ 1750399X.2020.1732601.

Altuwairesh, N. (2024). Using metacognitive Questionnaires to develop translator trainees' strategic sub-competence: A case study. *International Journal of English Linguistics, 14*(5), 65-77. https://doi.org/10.5539/ijel.v14n5p65

Alzamil, A. M. (2024). Translation competence between industry and academia in Saudi Arabia: Job descriptions vs students' perceptions. *The Interpreter and Translator Trainer, 18*(3), 442-464. https://doi.org/10.1080/1750399X.2024.2348962

Barassa, D. (2024). Demystifying the discourse: Techniques to effective academic writing. *Journal of Research and Academic Writing, 1*(1), 13-21. https://doi.org/10.58721/jraw.v1i1.571

Beeby, A., Fernández, M., Fox, O., Hurtado Albir, A., Kuznik, A., Neunzig, W., Rodrígue-z, P., Romero, L., & Wimmer, S. (2011). Results of the validation of the PACTE Tran-slation Competence Model. In *Integrative approaches in translation Studies* (pp. 317-343). John Benjamins. https://doi.org/10.1075/btl.94.22pac

Caner, F., & Ogan-Bekiroglu, F. (2025). Determination of Integrated STEM Teacher Competencies: A Modified Delphi Method. *European Journal of STEM Education, 10*(1), 1-23. https://doi.org/10.20897/ejsteme/16497

Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes.* Scott, Foresman and Company.

Díaz-Millón, M. (2023). What do experts think about transcreation training? A Delphi method approach. *The Interpreter and Translator Trainer*, *17*(4), 566-584. https://doi.org/10.1080/1750399X.2023.2207132

Esfandiari, M. R., & Ebrahimi, Z. (2025). *Pedagogical frameworks and competences.* Routledge. (pp. 479-495). Retrieved from https://www.taylorfrancis.com/chapters/edit/10.4324/9781003381303-35/pedagogical-frameworks-competences-mohammad-reza-esfandiari-zahra-ebrahimi

Eubank, B. H., Mohtadi, N. G., Lafave, M. R., Wiley, J. P., Bois, A. J., Boorman, R. S., & Sheps, D. M. (2016). Using the modified Delphi method to establish clinical consensus for the diagnosis and treatment of patients with rotator cuff pathology. *BMC Medical Research Methodology, 16*(1), 56. https://doi.org/10.1186/s12874-016-0165-8

Fang, M. Z. (2025). *Pragmatic Translation Studies: Principles, Strategies, and Techniques.* Taylor & Francis.

Flores, N. (2023). Toward a raciolinguistic perspective on translation and interpretation. *Language in Society, 52*(5), 893-901. https://doi.org/10.1017/S0047404523000660

Göpferich, S., & Jääskeläinen, R. (2009). Process research into the development of translation competence: Where are we, and where do we need to go? *Across Languages and Cultures, 10*(2), 169-191. https://doi.org/10.1556/Acr.10.2009.2.1

Guo, Z., & Shen, S. (2024). A corpus-based study on metaphorical modes of China's diplomatic discourse and corresponding French translation strategies: Taking the speeches made at the regular press conferences of the Ministry of Foreign Affairs from 2020 to 2022 as an example. Advances in Education, *Humanities and Social Science Research, 12*(1), 452-452. https://doi.org/10.56028/aehssr.12.1.452.2024

Hasson, F., Keeney S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing, 32* (4), 1008-1015. https://doi.org/10.1046/j.1365-2648.2000.t01-1-01567.x

Hazaea, A. N., & Qassem, M. (2024). Translation competence in translator training programs at Saudi universities: Empirical study. *Open Education Studies, 6*(1), Article e20240029. https://doi.org/10.1515/edu-2024-0029

He, D. (2024). Application of CNRTL (Centre National de Ressources Textuelles et Lexicales) in translation teaching. *The Educational Review, 8*(10). 1235-1241. https://doi.org/ 10.26855/er.2024.10.007

He, M., & Xie, Q. (2024). Empowering autonomy in language learning: The sustainable impact of data-driven learning on noun collocation acquisition. *Humanities and Social Sciences Communications, 11*(1), 1-14. Retrieved from https://www.nature.com/articles/s41599-024-04038-6.pdf

Károly, K. (2024). Toward a conceptual model of academic translation competence. *International Journal of Applied Linguistics,* Article e12644. https://doi.org/10.1111/ijal.12644

Karunarathna, I., Gunasena, P., Hapuarachchi, T., & Gunathilake, S. (2024). Comprehensive data collection: Methods, challenges, and the importance of accuracy. *Uva Clinical Research, 2024,* 1-24. https://doi.org/10.13140/RG.2.2.13134.47689

Khachatryan, A. (2024). Strategies of rendering realia in mediated literary translation. *Translation Studies: Theory and Practice, 2024*(2), 78-89. https://doi.org/10.46991/TSTP/2024.SI.2.078

Lecours, A. (2020). Scientific, professional and experiential validation of the model of preventive behaviours at work: Protocol of a modified Delphi Study. *BMJ Open, 10*(9), Article e035606. https:// doi.org/10.1136/bmjopen-2019-035606

Lederer, M., & Larché, N. (2014). *Translation: The interpretive model.* Routledge.

Linstone, H. A., & Turoff, M. (2011). Delphi: A brief look backward and forward. *Technological Forecasting and Social Change, 78*(9), 1712-1719. https://doi.org/10.1016/j.techfore.2010.09.011

Liu, J. D., & Wu, S. (2019). Studies on China's Standards of English Language Ability (CSE). *Higher Education Press.*

Liu, Y., Li, T., & Zhong, Q. (2024). Influencing factors of second foreign language motivation in the era of global English: The case of Chinese university students' French learning. *The Asia-Pacific Education Researcher, 33*(6), 1445-1454. https://link.springer.com/article/10.1007/s40299-024-00825-6

Ma, H. (2023). Construction of literary translation system based on digital Education. *International Journal of Educational Innovation and Science, 4*(1), 27-40. https://doi.org/10.38007/IJEIS.2023.040103

Mammadova, I. (2025). Cognitive and pedagogical dimensions of translation: A theoretical and practical exploration. *Acta Globalis Humanitatis Et Linguarum, 2*(1), 213-220. https://doi.org/10.69760/aghel.02500127

Maria, Z. I. T. A. (2024) Investigating transcript of records translation, case study: Ouargla offices of translation [Doctoral dissertation, Université Kasdi Merbah-ouargla]. [paper presatation]. Retrieved from https://dspace.univ-ouargla.dz/jspui/handle/123456789/36873

McKenna, H. (1994). The Delphi Technique: A worthwhile research approach for nursing? *Journal of Advanced Nursing, 19*(6), 1221-1225. https://doi.org/10.1111/j.1365-2648.1994.tb01207.x.

Mu, L., Liang, W. L., & Liu, X. Y. (2024). A Comparative Study of China's Standards of Translation Ability and the Translation Ability Scales in China's Standards of English Language Ability. *Foreign Languages in China, 21*(3), 87-97. https://doi.org/10.13564/j.cnki.issn.1672-9382.2024.03.012.

Murry Jr, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *The Review of Higher Education, 18*(4), 423-436. https://doi.org/10.1353/rhe.1995.0008

Neubert, A. (2011). Competence in language, in languages, and in translation. In C. Schäffner & B. Adab (Eds.), *Developing translation competence* (pp. 3-18). John Benjamins Publishing Company. https://doi.org/10.1075/btl.38.03neu

Nguyen, T. N. N., Tran, T. T., Nguyen, N. H. A., Lam, H. P., San Nguyen, H. M., & Tran, N. A. T. (2025). The benefits and challenges of AI translation tools in translation education at the tertiary level: A systematic review. *International Journal of TESOL & Education, 5*(2), 132-148. https://doi.org/10.54855/ijte.25527

Ningrum, D. K. S., Sofyan, R., & Saragih, E. (2024). Exploring linguistic competence in academic text translation by professionals. *Language Literacy: Journal of Linguistics, Literature, and Language Teaching, 8*(1), 301-314. https://doi.org/10.30743/ll.v8i1.9277

Nyimbili, F., & Nyimbili, L. (2024). Types of purposive sampling techniques with their examples and application in qualitative research studies. *British Journal of Multidisciplinary and Advanced Studies, 5*(1), 90-99. https://doi.org/10.37745/bjmas.2022.0419

Olohan, M. (2016). Science, translation and the mangle: A performative conceptualization of scientific translation. *Meta, 61,* 5-21. https://doi.org/10.7202/1038682ar

Oxley, E., Nash, H. M., & Weighall, A. R. (2025). Consensus building using the Delphi method in educational research: A case study with educational professionals. *International Journal of Research & Method in Education, 48*(1), 29-43. https://doi.org/10.1080/1743727X.2024.2317851

PACTE Group. (2008). Building a translation competence model. In F. Alves (Ed.), *Triangulating translation* (pp. 43-66). John Benjamins Publishing Company. https://doi.org/10.1075/btl.45.06pac

PACTE Group. (2011). Results of the validation of the PACTE translation competence model: Translation project and dynamic translation index. In S. O'Brien (Ed.), *Cognitive explorations of translation (*pp. 30-56). Continuum. https://doi.org/10.1075/btl.94.22pac

Prieto Ramos, F. (2024). Revisiting translator competence in the age of artificial intelligence: The case of legal and institutional translation. *The Interpreter and Translator Trainer, 18*(2), 148-173. https://doi.org/10.1080/1750399X.2024.2344942

Qumar, S. M. U., Azim, M., & Quadri, S. M. K. (2024). Addressing the data gap: Building a parallel corpus for kashmiri language. *International Journal of Information Technology, 16*(7), 4363-4379. https://link.springer.com/article/10.1007/s41870-024-01979-8

Revez, A., Dunphy, N., Harris, C., Mullally, G., Lennon, B., & Gaffney, C. (2020). Beyond forecasting: Using a modified Delphi method to build upon participatory action research in developing principles for a just and Inclusive Energy Transition. *International Journal of Qualitative Methods, 19,* Article e160940692090321. https://doi.org/10.1177/1609406920903218

Robert, I. S., Remael, A., & Ureel, J. J. (2017). Towards a model of translation revision competence. *The Interpreter and Translator Trainer, 11*(1), 1-19. https://doi.org/10.1080/1750399X.2016.1198183

Roumeliotis, K. I., & Tselikas, N. D. (2023). ChatGPT and Open-AI models: A preliminary review. *Future Internet, 15*(6), Article e192. https://doi.org/10.3390/fi15060192

Saaty , A. T. L. (1977). Scaling method for priorities in hierarchical structures. *Journal of Mathematical Psychology, 15*(3), 234-281. https://doi.org/10.1016/0022-2496(77)90033-5

Sequeira, S. (2024). Hybrid design. In J. Bakal, J. Haglin, J. Abboud, J. Crisco, & A. Eltora (Eds.), *Translational orthopedics* (pp. 269-271). Academic Press. https://doi.org/10.1016/B978-0-323-85663-8.00052-0

Sun, H., Waschl, N., & Veera, R. (2022). Language experience and bilingual children's heritage language learning. *Studies in Second Language Acquisition, 44*(5), 1356-1383. https://doi.org/10.1017/S0272263121000942

Wang, J., & Tian, Y. (2022, July 22). *A design of translation competence evaluation based on analytic hierarchy process.* [Paper presatation]. The International Conference on Diversified Education and Social Development 2022, Hangzhou, China. https://doi.org/10.2991/978-2-494069-37-4_10

Wang, K. F. (2023). The Transformation and Development of Foreign Language Disciplines in the AI Era. *Technology Enhanced Foreign Language Education, 2023*(6), 3-7+105. https://doi.org/10.20139/j.issn.1001-5795.20230601

Wiersma, W. (1976). *Research methods in education.* Routledge.

Yaccob, N. S., Yunus, M. M., & Hashim, H. (2024). A quest for experts' consensus on the knowledge domain for an ESL global competence framework using fuzzy delphi method analysis. *International Journal of Learning, Teaching and Educational Research, 23*(11), 1-31. Retrieved from https://www.researchgate.net/publication/389041990

Yao, J., Kasuma, S. A. A., & Moindjie, M. A. (2025). Exploring the relationship between translators' styles and translation competence: A case study of English translations of the true story of Ah Q. *International Journal of English Linguistics, 15*(1), 17-30. https://doi.org/10.5539/ijel.v15n1p17

Zhao, X., Liu, Y., Lang, X., Liu, K., Yang, X., & Liu, L. (2024). Study on the Characteristics and Operational Mechanisms of Industry–University–Research Collaborative Innovation in Megaprojects: The Case from China. *Systems, 12*(12), 553. https://doi.org/10.3390/systems12120553

Zheng, L. (2019). *Intercultural Communication between Chinese and French.* Iggybook.

Zheng, Z. (2025). From bilingualism to professionalism: The effect of bilingual dominance and professional experience on translation quality in Chinese-to-English translation. *Cogent Arts & Humanities, 12*(1), 1-14. https://doi.org/10.1080/23311983.2025.2465936

Zhu, M. (2023). Sustainability of translator training in higher education. *PLOS ONE, 18*(5), Article e0283522. https://doi.org/10.1371/journal.pone.0283522

Acknowledgments

I sincerely thank all the experts who participated in the two rounds of the modified Delphi method and the analytic hierarchy process during the study implementation for their valuable input.

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have

appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.