Compilation and Translation Review
Vol. 18, No. 2 (September 2025), 163-204
DOI: 10.29912/CTR.202509_18(2).0005

Balancing Process and Outcome in an Undergraduate Translation Classroom: Application of Expert-Model Feedback With Student Self-Reflection

Ivan Yung-chieh Chiang

This study examines teacher feedback in an undergraduate translation course, employing "expert-model feedback with student self-reflection" to enhance translation competence and address two issues in the "problem-posing feedback" of problem-based learning (PBL) instruction: psychological pressure from negative feedback and confusion over solving translation problems. The proposed strategy replaces negative comments with positive examples to reduce pressure and uses clear demonstrations to inspire translation thinking. Students actively engage in reflecting on feedback and generating self-reflective notes. The effectiveness is evaluated through questionnaires, pretests and posttests, and self-reflective notes. The results show that this approach can address the two issues of PBL feedback and stimulate students' comprehension and attention to translation input, transfer, and output, thereby improving translation competence. Additionally, the self-reflective notes can be compiled into a teaching material that embodies meaningful teacher-student collaboration and enhances learning impressions.

Keywords: expert-model feedback, student self-reflection, noticing hypothesis, translation input and output, translation teaching

Received: February 17, 2024
Revised: May 20, 2024; June 11, 2024; June 21, 2024
Accepted: December 11, 2024

Ivan Yung-chieh Chiang, Associate Professor, Department of Foreign Languages and Literatures, National Chung Hsing University, E-mail: chiangyc@nchu.edu.tw

編譯論叢
第十八卷　第二期（2025年9月），163—204

兼顧過程與結果的大學筆譯課：專家範例回饋搭配學生反思的運用

強勇傑

本研究以大學部筆譯課程中的教師回饋為主題，利用「專家範例回饋搭配學生反思」策略來增進筆譯能力，並解決「PBL 問題回饋法」的兩項問題：否定式回饋造成的心理壓力、面對翻譯問題的困惑。本研究用正面而明確的範例回饋取代否定的評論，以降低心理壓力，提供改進方向。為鼓勵積極參與，要求學生對回饋進行獨立省思，做成反思記錄。最後以問卷、前後測、與反思記錄來檢驗實施成效。研究結果顯示，本策略可解決PBL回饋法的兩項問題，引發學生對於翻譯輸入、轉換、與輸出的理解與注意力，進而提升筆譯能力。此外，彙整學生的反思記錄，可形成有意義、有系統的師生合作教材，亦可加深學習印象。

關鍵詞：專家範例回饋、學生反思、注意力假說、翻譯輸入與輸出、翻譯教學

收件：2024 年 2 月 17 日
修改：2024 年 5 月 20 日、2024 年 6 月 11 日、2024 年 6 月 21 日
接受：2024 年 12 月 11 日

強勇傑，國立中興大學外國語文學系副教授，E-mail: chiangyc@nchu.edu.tw。

Introduction

In recent years, flexible pedagogical approaches have emerged to address the shortcomings of the traditional "lecturing, practicing, correcting, and providing feedback" (Liao, 2007, p. 165) method in college translation education. Problem-based Learning (PBL) has been applied both domestically and internationally to translation teaching. Chiang (2022) utilized PBL for English-to-Chinese training, encouraging students to build translation knowledge by solving problems. The results showed that PBL enhanced translation skills and improved other capabilities, such as problem-solving and communication. However, PBL's feedback approach can cause issues for novice translators. First, the problem-posing feedback involves the instructor pointing out translation problems, which can be perceived as negative criticism, leading to psychological pressure for students with strong self-esteem or low confidence. Second, the lack of suggested solutions in PBL feedback can leave novice translators uncertain about how to address the problems, making it difficult for them to improve their translations effectively.

These issues stem directly from feedback, and addressing them hinges on adjusting feedback methods. In traditional translation classrooms, teachers typically employ direct corrective feedback, focusing solely on translation outcomes. This approach places students in a passive role, lacking opportunities for communication, negotiation, and discussion. Students often perceive teachers' revisions as definitive, unaware of the range of possible translations. Conversely, in PBL, the problem-posing strategy utilizes indirect corrective feedback, prioritizing the problem-solving process over achieving a flawless translation. Teachers do not supply immediate answers but instead foster student engagement in knowledge exploration and construction.

This study aims to integrate the strengths of both approaches by proposing "expert-model feedback with student self-reflection" (EMS feedback) as a strategy to address the two issues identified in PBL. EMS feedback features two key components: teacher-provided translation models and student-generated self-reflection. The translation models are central to this approach, designed to tackle the two issues and enhance students' comprehension and attention to translation input, transfer, and output. Self-reflection is integral to EMS feedback, guiding students in independently assessing their work and actively participating in knowledge construction. Following the submission of initial drafts, the teacher refrains from immediate comments and instead provides model translations for comparison. This encourages students to identify areas for improvement and develop their translation abilities autonomously, documenting their insights through self-reflective notes.

Translation models, produced by teachers or experts, usually serve as reference translations for learning. They are used either during lectures to illustrate translation methods before assignments or as exemplary demonstrations afterward. In traditional translation classrooms, these models often imply singular and rigid standards, leading to indiscriminate imitation. In line with the assertion by Liao et al. (2016) about the importance of translation examples in translation learning (p. vi), this study emphasizes both process and product by combining translation models with self-reflection to remedy traditional shortcomings. While traditional reference translations offer clear examples, they risk being viewed as unchallengeable standard answers, hindering independent reflection and discussion. Contrastively, in EMS feedback, models serve as inspirational references rather than definitive solutions, prompting students to explore diverse translation possibilities and document insights in reflective notes. This approach fosters independent knowledge construction and flexible translation perspectives, placing equal value on

process and outcome—a departure from traditional translation teaching.

The hypotheses of this study are: (a) EMS feedback avoids negating or problem-posing, thereby reducing students' psychological pressure and addressing the first drawback of PBL; (b) EMS feedback offers feasible translation examples, assisting novice learners in recognizing their own challenges and identifying avenues for improvement, thus addressing the second drawback of PBL.

While addressing the two issues, this study does not overlook the core objective of the course, which is to develop translation competence. Translation competence is defined variably in academia: Wilss identifies it as comprising first-language abilities, second-language abilities, and mediation skills between L1 and L2 (as cited in Kiraly, 1995, p. 26); Lai (2009) expands this to include reading proficiency in L1, writing proficiency in L2, cultural proficiency, knowledge proficiency, and conversion skills (p. 22). Esfandiaria et al. (2015) and Cerezo Herrero (2019) provide further theoretical insights. In this study, considering the practical course for novices, translation competence is discussed using Wilss's three-dimensional model, rephrased as input (understanding the original text), transfer (conversion across languages), and output (expression of the translated text).

To verify the hypotheses, this study uses questionnaires, pretest and posttest, and students' self-reflective notes to examine the effectiveness of EMS feedback in translation teaching. Three research questions will guide this investigation:

1. Does EMS feedback overcome the two PBL issues of student psychological pressure and bewilderment in solving translation problems?
2. Does EMS feedback lead to significant improvement in students' translation competence?
3. In EMS feedback, what elements do students consciously notice when receiving feedback? Do these elements align with the three aspects of translation competence?

Literature Review

Translation Input and Output

This study draws on theories of input and output in foreign language learning. Krashen's (1982, 1985) "input hypothesis" posits that "comprehensible input," which is slightly beyond learners' current proficiency level, aids language acquisition. Arguing that mere comprehensible input is insufficient without learners' attention, Schmidt (1990, 2001) proposes the "noticing hypothesis" to emphasize the role of attention in learning. Swain (1985, 1995, 2000, 2005) extends this with the "comprehensible output hypothesis," asserting that producing language helps learners notice gaps between intended and actual output, motivating them to adjust and improve based on feedback. Swain (1995) identifies three functions of output: (a) noticing function: output enables learners to recognize their deficiencies by noticing the gap between what they want to express and what they can express; (b) hypothesis-testing function: learners test their language concepts through output and make adjustments based on feedback; (c) metalinguistic function: learners reflect on the language they have learned and internalize linguistic knowledge through output (pp. 126-130).

While translation learning and foreign language acquisition differ cognitively, the above input and output theories can inform translation training in that translation shares similarities with foreign language learning in terms of comprehension and attention during the input, transfer, and output phases. To facilitate subsequent analysis, definitions of input, transfer, and output in translation are provided here for clarity. All three concepts encompass both a dynamic and a static sense in translation. The dynamic aspect of input refers to the process of comprehending the

source text; the static aspect refers to the source text itself. The dynamic aspect of transfer involves the process of interlingual conversion, transforming the original expressive structure into a target expressive structure that is both comprehensible and faithful, resulting in a converted text; the static aspect refers to translation techniques, the descriptive terms for the methods of conversion. The dynamic aspect of output involves the process of polishing the converted text to achieve naturalness and fluency, taking account of the target context and conventions; the static aspect refers to the translated text itself. These concepts are exemplified in Table 1 with a translation example from English to Chinese.

Table 1

Input, Transfer, and Output in Translation

Phase	Aspect	Meaning	Example
Input	dynamic	the process of comprehending the source text	Analyze the original text "It's not safe to eat food when you don't know where it came from" to understand the conveyed concept and purpose.
	static	the source text	"It's not safe to eat food when you don't know where it came from."
Transfer	dynamic	the process of cross-language conversion	Swap the clauses in the original text "It's not safe to eat food when you don't know where it came from," transforming it into 當你不知道食物從哪來的時候，吃了並不安全 to conform to the expressive structure of Chinese that is comprehensible and faithful, forming a converted text.
	static	translation techniques	"the syntactic reversal technique"
Output	dynamic	the process of polishing the converted text	Based on the context and the conventions of the target language, refine the converted text 當你不知道食物從哪來的時候，吃了並不安全 from the transfer phase into a more natural and fluent expression, such as 別吃來路不明的東西
	static	the translation text	別吃來路不明的東西

The input and output theories discussed can be applied to translation. In the input stage, students typically grasp the basic meaning of the source text, but thorough understanding may pose a challenge, reflecting Krashen's (1982, 1985) concept of "comprehensible input." Dynamically, students identify parts of the text that need clarification and enhance their understanding through exploratory research, which aligns with Schmidt's (1990, 2001) "noticing hypothesis." During the transfer stage, students must notice the differences in cross-linguistic expressive systems in order to achieve comprehensible and faithful conversion, echoing the noticing hypothesis. In the output stage, students become aware of their expressive deficiencies and notice the gap between their translations and the feedback from teachers, thereby modifying their translation assumptions and applying them in subsequent translation activities, illustrating Swain's (1985) "comprehensible output hypothesis."

Translation practice can also be viewed in terms of Swain's (1995) three functions of output: (a) noticing function: students notice the gap between source comprehension and target expression, recognizing their own inadequacies in translation competence; (b) hypothesis-testing function: students test their translation assumptions through producing translated texts and adjust their views based on feedback; (c) metalinguistic function: students reflect on their translation concepts and internalize translation knowledge through translation output.

In summary, this study's teaching approach is grounded in the input-output framework of foreign language learning. Comprehension and attention play a crucial role in translation input, transfer, and output, influencing learning outcomes. This study focuses specifically on feedback mechanisms, which serve to correct, confirm, or inspire students' comprehension of the original text and their translation expression. Different feedback methods affect comprehension and attention differently during the process, making them worth exploring in translation

pedagogy. The study introduces the EMS feedback approach to address the two PBL issues while maintaining learning effectiveness, evaluated through the lens of input-output theories in foreign language acquisition.

Textual Feedback

In education, feedback can serve as a scaffolding that helps students construct knowledge. While extensively studied in foreign language teaching, feedback is relatively under-explored in translation training. Both translation and L2 writing involve text production, so insights from L2 writing feedback can inform translation teaching. Ellis's (2009) classification of L2 writing feedback includes six categories: (a) direct corrective feedback: pointing out errors and suggesting revisions; (b) indirect corrective feedback: indicating errors without specific suggestions; (c) metalinguistic corrective feedback: marking mistakes and providing error codes for reflection and revision; (d) focus of the feedback: offering either unfocused feedback on all errors or focused feedback on specific types; (e) electronic feedback: indicating errors and providing electronic resources for improvement; (f) reformulation: rewriting students' drafts based on their intended meanings (p. 98). Additionally, research has compared reformulation and models as feedback strategies, making models another option for L2 writing feedback (Coyle et al., 2018; Hanaoka, 2006; Nguyen & Le, 2022; Sachs & Polio, 2007; Tocalli-Beller & Swain, 2005; Yang & Zhang, 2010).

These seven types of feedback can be grouped into three categories: feedback scope (focus of the feedback), feedback medium (electronic feedback), and feedback methods (the other five types). Using non-electronic and unfocused feedback as a premise, this study concentrates on feedback methods, drawing on direct, indirect, metalinguistic, reformulation, and model feedback. To address the two PBL feedback issues, the utilized feedback must avoid pointing out

shortcomings and provide guidance for improvement. Consequently, direct, indirect, and metalinguistic feedback, which either highlight flaws or lack improvement suggestions, are excluded, leaving reformulation and model feedback as the shortlisted methods.

In L2 writing, reformulation involves a native speaker rewriting learners' drafts into fluent texts while keeping the original ideas (Cohen, 1983, p. 4), whereas models are exemplary texts created by native speakers for the same task, tailored to learners' age and proficiency but not based on their drafts (Coyle & de Larios, 2014, p. 453). Both methods help learners improve accuracy by comparing differences (Cánovas Guirao, 2011; García, 2011; Martínez Esteban & Roca de Larios, 2010; Qi & Lapkin, 2001). However, reformulation limits feedback to learners' expressed content, offering sentence-by-sentence revisions but no new language input. In contrast, models, not tied to learners' drafts, provide diverse language usage and broader expression opportunities. Additionally, models as independent creations by native speakers offer varied intellectual inspiration, broadening learners' writing horizons. Studies have shown that models provide more language and cognitive stimulation compared to reformulation, promoting active participation and motivating learners to turn knowledge gaps into progress (Coyle et al., 2018; Coyle & de Larios, 2014; Hanaoka & Izumi, 2012; Yang & Zhang, 2010).

If applied to translation, reformulation refers to an expert's revision of learners' initial drafts to correct errors and improve fluency in the target language, while model texts are independently translated by experts and serve as professional references for learners. Insights from L2 writing suggest that both methods engage learners through comparative analysis, facilitating development in translation competence. However, reformulation accommodates to learners' narrative style, limiting alterations and providing insights within their framework. Models, on the other hand, offer diverse inspirations and expressions, differing significantly from

learners' drafts. Moreover, reformulation is labor-intensive and less feasible in larger classes, whereas model feedback is manageable and promotes expanded learning. Therefore, this study adopts model feedback to capture students' attention and encourage independent comparison.

Studies on Translation Feedback

Recent research in translation feedback has advanced with diverse innovations. Korol (2021) explored digital teacher feedback's effectiveness, while Washbourne (2014) investigated a dialogic model involving instructors, students, and peers. Aside from teacher feedback, peer feedback's effectiveness has also been studied extensively across dimensions by Flanagan and Heine (2015), Heine (2019), Li and Ke (2022), Lin et al. (2021), Sha et al. (2022), Vandepitte and Hanson (2019) and Wang and Han (2013). Other studies have focused on integrating feedback mechanisms into the translation process itself, such as Pietrzak (2017) on formative assessment and Schaeffer et al. (2019) on mechanical visual prompt feedback. Comparative studies have explored traditional versus ChatGPT-based feedback (Cao & Zhong, 2023), and differences in feedback practices between Saudi Arabia and the United States (Alfayyadh, 2016). Moreover, Man et al. (2022) introduced an ecological perspective to broaden feedback's applicability.

An overview of recent literature in translation highlights a gap in model feedback research but still offers pertinent insights for teacher feedback, the focus of this study. Moreno and Pujols (2023) analyzed written in-text comments' impact in a professional translation course, exposing its one-way nature primarily focused on terminology and error correction without mutual communication. Zheng et al. (2020) explored how teacher feedback on translation assignments influenced students' emotional responses and perceptions of feedback quality. Beiranvand and

Golandouz (2017) compared self-assessment and peer-assessment effectiveness, finding self-assessment encouraged higher improvement goals and language knowledge acquisition through reflection. Nikolaeva and Korol (2021) studied student responses to four feedback types, showing that revising translations alongside self-reflection reports yielded the best outcomes. In brief, Moreno and Pujols' (2023) findings underscore the limited inspiration provided by traditional unidirectional corrective feedback, supporting the present study's advocacy for a more constructive feedback approach. Zheng et al.'s (2020) research highlights the emotional impact of teacher feedback, prompting consideration of student emotional states in this study. Beiranvand and Golandouz (2017), along with Nikolaeva and Korol (2021), underscore the educational benefits of student self-reflection.

Based on the literature reviewed, this study adopts the EMS feedback approach to avoid direct emotional impact on students while promoting self-reflection to enhance translation competence. Three key components are: (a) using positive translated examples to alleviate psychological pressure, offer clear improvement guidance, and enhance students' comprehension and attention to translation processes; (b) exposing learners to different expert translations to foster flexible translation perspectives; and (c) promoting active student engagement through the production of self-reflective notes, which develop independent thinking, decision-making, and translation skills.

Methods

Design and Procedures

The course under study was an undergraduate-level, single-semester basic translation course, meeting for three credit hours per week. It comprised two main

components: (a) a survey of translation history in China and the West, covering 13 chapters of the textbook over the semester, occupying one hour weekly; (b) English-to-Chinese translation practice, allotted two hours weekly. Six translation exercises were assigned across 12 weeks, with each exercise given two weeks for completion.

This study focused solely on the translation practice component, excluding the translation history segment. Since the history of translation was not directly related to translation practice, it did not affect the study's results. The six exercises over 12 weeks aimed to highlight feedback effects through accumulated practice and increase the study's reliability. To ensure active participation, all exercises were conducted in class with students engaging in autonomous learning. The instructor acted as an observer, guide, supervisor, and explicator. Each exercise involved translating a 250-to-300-word English article within a two-week timeframe (four hours total) as individual assignments.

The EMS feedback approach addressed PBL feedback drawbacks using expert translation models and student self-reflection, promoting flexible perspectives on translation diversity. To prevent students from seeing expert models as singular standards, a dual-model, dual-stage feedback strategy was used. Each assignment contained two expert models: one by a professional translator (professional translation) and one by the instructor-researcher (teacher translation), each using different strategies. Feedback was delivered anonymously, with the translators identified only as "experts" to students.

For the dual-stage design, feedback was provided in two stages with two different model texts. This approach aimed to reduce cognitive load for beginners and prevent distraction by avoiding simultaneous comparison. The first stage's single expert model offered initial insights, which were reinforced and expanded in the second stage with a different model text. This repeated exposure was expected to deepen students' understanding of translation diversity more effectively than a single feedback session.

Based on the above design, each four-hour exercise activity proceeded as follows:

1. Independent translation (two hours) involved students translating the assigned text into Chinese. The instructor stressed the importance of completing the reading and addressing comprehension issues before starting the translation.
2. First-stage feedback (1.5 hours) highlighted EMS feedback and self-reflective notes. The instructor provided a professional translation for students to compare with their own, encouraging notes on insights and different rendition possibilities. Guidance for writing self-reflective records was: "Compare your translation with the expert model sentence by sentence. Document differences, insights, alternative translations, and other thoughts. This expert model is a feasible translation, but not the only or best one." This aimed to promote active participation, independent thinking, and prevent viewing the expert translation as the standard.
3. Second-stage feedback (0.5 hour) featured the instructor's comprehensive feedback. Comparing the professional and teacher translations anonymously, together with occasional fragments of student versions, was intended to emphasize varied rendition approaches and avoid rigid standards of translation quality. Students were encouraged to independently evaluate translations based on personal preferences and style, noting insights in their self-reflective records to refine their understanding.

This study employed a questionnaire, pretest and posttest, and self-reflective notes to assess EMS feedback. The questionnaire aimed to address whether EMS feedback mitigated student psychological pressure and confusion in solving translation problems. Pretest and post test assessments, conducted at the term's start and end by the instructor and an external scholar for reliability, investigated whether EMS feedback enhanced translation competence, examined along with the

survey results regarding students' perceived improvement. Students' self-reflective notes were coded to explore elements they consciously noticed in the feedback process that demonstrated Schmidt's (1990, 2001) noticing hypothesis in the three aspects of translation competence. The procedures of the study are shown as follows (see Figure 1).

Figure 1

The Procedures of the Study

Participants

This study enlisted 25 students from a central Taiwan public university enrolled in an undergraduate foundational translation course taught by the researcher. Among them, 24 were English majors, comprising four juniors, 19 seniors, and one fifth-year student, with one participant majoring in History. All participants lacked prior translation training and gave informed consent before participating in the study. In the questionnaire, questions five, six, and seven in the first dimension (Table 2) addressed students' prior experiences and sentiments regarding feedback. The data indicated that 92% of respondents had encountered teachers who directly pointed out errors (question five), 72% noted this direct approach as predominant (question six), and 80% felt that different feedback methods influenced perceived pressure (question seven). These findings underscored that direct feedback was prevalent in respondents' educational backgrounds, and that most of them perceived varying levels of pressure based on feedback methods. These results aligned with the study's premise.

Table 2

Dimension One: Experiences and Feelings Regarding Feedback

Question	Answer	
1. Student number	(short response)	
2. Department and year	History major: fourth-year (1). English majors: third-year (4), fourth-year (19), fifth-year (1).	
3. Name	(short response)	
4. Biological sex	Male: 10 (40%)	Female: 15 (60%)
5. In the courses I took before, I have encountered teachers who would directly point out issues or mistakes in my assignments.	Yes: 23 (92%)	No: 2 (8%)
6. In the courses I took before, most teachers would directly point out issues or mistakes in students' assignments.	Yes: 18 (72%)	No: 7 (28%)
7. Different corrective feedback approaches offered by the teacher give me different feelings of pressure.	Yes: 20 (80%)	No: 5 (20%)

Materials and Instruments

The tools for this study were a pretest-posttest question, six translation practice texts, six pairs of expert translations (professional translations and teacher translations), and one questionnaire. The pretest-posttest question involved translating a 281-word English text on consumer culture into Chinese. The text was intentionally devoid of specialized knowledge or challenging vocabulary to minimize comprehension errors and concentrate on assessing translation performance.

The six translation practice texts were excerpts from English articles, each ranging from 250 to 300 words. Carefully excerpted for coherence, they could function independently as concise essays. Their topics, covering contemporary societal issues like education, social security, morality, entertainment celebrities,

medical advancements, and artificial intelligence, exposed students to varied language expressions across different domains.

Regarding expert translations, the six professional translations were commissioned to a professional translator in the industry, while the six teacher translations were completed by the instructor-researcher. The paired translations were distinctly different, yet both were accurate and fluent. Figure 2 is an example.

Figure 2

Dual-Model Translations Example

Original Text:
A man is beaten by hoodlums in plain daylight and in view of bystanders. These people not only fail to help the victim, but, like the hoodlums, flee before the police can question them.

Professional Translation:
看到流氓光天化日之下動手打人，非但不敢路見不平，反而和肇事的流氓一樣，一見警察就溜之大吉，免得被找去問話。

Teacher Translation:
惡棍在大白天公然圍毆百姓，旁人卻只顧著隔岸觀火，不僅沒有挺身而出，還跟惡棍一樣，不待警察前來釐清案情就逃之夭夭。

Here, the translations by the professional translator and the teacher differed in several salient aspects: (a) terminology: *liumang* 流氓 versus *egun* 惡棍 for "hoodlums;" (b) conjunction: *feidan...faner* 非但……反而 versus *bujin...hai* 不僅……還 for "not only… but;" (c) subject: (untranslated) versus *pangren* 旁人 for "these people [bystanders];" (d) idiom and phrase: *lu jian bu ping* 路見不平 versus

tingshen er chu 挺身而出 for “help the victim;” (e) voice: 被（警察）找去問話 versus 警察前來釐清案情 for “the police can question them;” (f) sentence pattern: 一見警察就溜之大吉，免得被找去問話 versus 不待警察前來釐清案情就逃之夭夭 for “flee before the police can question them.” Despite their differing translation strategies, both versions effectively conveyed the original meaning and were deemed high-quality translations. This served to promote an appreciation for translation diversity and enhance students’ adaptable translation skills.

The questionnaire aimed to assess this study’s effectiveness in addressing the two PBL issues and students’ perceived improvement in translation competence. To streamline the survey process and maintain respondent engagement, questions within each aspect were structured uniformly to facilitate focused responses. Validity was ensured through a review by two scholars specializing in English teaching and translation from national universities in Taiwan. After incorporating their feedback, the questionnaire, comprising 60 questions, was finalized. Given respondents’ bilingual background (L1 Chinese, L2 English), the questionnaire was administered in both languages to ensure clarity. To promote genuine feedback and enhance response reliability, participants were reminded that their responses would solely contribute to educational research and course improvement without affecting their academic assessment.

The 60-item questionnaire comprised five dimensions, with dimensions one, two, three, and five analyzed in this study and dimension four surveyed for the instructor’s reference. Dimension one (questions one to seven) focused on basic background inquiries to establish participants’ past experiences with feedback. Dimensions two (questions 8-23) and three (questions 24-35) investigated psychological pressure and confusion resolution related to feedback methods, comparing PBL feedback with EMS feedback. Dimension five (questions 48-60) explored students’ perceptions of improvement in translation competence. Novice

learners typically simplified translation into understanding the original text (input) and expressing the translated text (output), often unacademically mixing "translation techniques" in the latter. Thus, this dimension integrated students' perceptions of translation techniques into the output aspect, focusing analysis on input and output.

Data Analysis

This study analyzed the questionnaire, pretest and posttest, and self-reflective notes data. The questionnaire's first dimension involved basic background inquiries, detailed in the "Participants" subsection under "Methods." Students' past feedback experiences were examined by comparing their responses to three binary questions. Dimensions two, three, and five used a Likert five-point scale, categorizing responses as positive (agree and strongly agree) or negative (disagree and strongly disagree). Neutral responses were excluded from analysis to focus on comparing the ratios of positive to negative responses across these dimensions, revealing students' overall perceptions.

The analysis of pretest-posttest performance involved two parts: scoring and improvement assessment. Lai (2009) emphasized accuracy in comprehension (input) and fluency in expression (output) as crucial aspects in translation assessment. Her study on grading methods concluded that the two-dimensional six-four scale grading was valid, reliable, and effective (p. 178). This scale was adopted for scoring in this study, aligning with its use in Taiwan's Ministry of Education translation proficiency test 2007. Each sentence in the pretest and posttest, consisting of 14 sentences each, was scored based on this scale of "six points for Accuracy and four points for Fluency" (see Appendix). This scoring system with a total of 140 points is converted into percentage grades. SPSS software (version 22) was used for statistical analysis, including Pearson

correlation analysis for interrater reliability and paired sample *t*-tests for improvement assessment.

Self-reflective notes contained students' insights and reflections from comparing their translations with expert renditions. Notes from the first feedback stage were independently created by students, holding greater significance for their autonomous reflections. Conversely, notes from the second stage, influenced by teacher analysis, mainly documented teacher translations with less independent thinking. Therefore, the study focused primarily on reflections from the first stage. A total of 150 self-reflective notes were collected from 25 students across six translation exercises.

For analysis, the students' reflection records were categorized based on their areas of attention, aligning with the three main aspects of translation: input, transfer, and output. Regarding input, this study assessed model-triggered changes in students' understanding of the original text. Concerning transfer, the focus was on whether students identified specific translation techniques, referencing the classification standard of 16 techniques by Liao et al. (2013): transliteration, direct translation, elaborative translation, iconic translation, addition, reduction, transposition, perspective reversal, synchronizing, syntactic reversal, voice conversion, combining, splitting, recasting, domestication, and foreignization. For output, this study examined methods students noticed to enhance translation fluency, including expressive and rhetorical techniques. The frequency of each attention item was tallied from student self-reflective notes across all translation exercises.

For example, student no. 24 translated the original text "And if the police get cynical at this irresponsibility, they are hardly to blame" as 如果警察對這種不負責任感到憤世嫉俗，他們也很難責備那些人 , while the professional translator rendered it as 如果民眾總是事不關己，警察變得憤世嫉俗也就無可厚非了 . In the first stage of feedback, the student's self-reflective notes were as follows:

專家譯文的翻譯順序跟原文不一樣，先翻 “irresponsibility” 再翻 “the police get cynical”，與原文剛好顛倒，而且不是按照字典翻成「不負責任」，而是變成一句話「民眾總是事不關己」，這種翻法好特別，雖然跟原文結構不一樣，但意思好像差不多，把「不負責任」的概念轉成「事不關己」這個成語，讀起來很順，也符合上下文的情況，以前從來沒想到翻譯可以這樣轉換。“they are hardly to blame” 我原本以為是警察不應該怪那些不負責任的人，看了專家譯文後才知道原來意思剛好顛倒，是不能怪警察的意思，剛才查字典才發現真的是這樣。專家譯文把 “blame” 翻成「無可厚非」，也是成語的用法，讀起來比較有學問。

English translation (by the author): The expert's version alters the original expressive order by translating “irresponsibility” before “the police get cynical,” reversing the sequence. Instead of a literal translation like 不負責任 for “irresponsibility,” the expert transforms it into the phrase 民眾總是事不關己 . This special change retains the meaning effectively, albeit with a different structure. I never thought that the concept of “irresponsibility” could be transformed into the idiom 事不關己 , which reads smoothly and fits the context. I originally thought “they are hardly to blame” meant the police shouldn't blame those irresponsible people. Now I realize it suggests you can't blame the police, as confirmed by the dictionary. The expert's choice of 無可厚非 for “blame” adds elegance, employing an idiom that enhances the translation. (no. 24 student's reflection)

Analysis of the self-reflective notes identified several attention items noticed by the student during translation comparison: (a) reversing the expressive order of “irresponsibility” involved the technique of syntactic reversal, thus categorized and counted once under recasting; (b) translating “irresponsibility” into the clause 民眾

總是事不關己 demonstrated part-of-speech transposition, hence classified and counted once under transposition; (c) both 事不關己 and 無可厚非 were idiomatic phrases, categorized and counted twice under idiom and phrase; (d) clarifying the meaning of "they are hardly to blame" involved correcting a miscomprehension, classified and counted once under miscomprehension. These items were further categorized into three elements of translation competence: miscomprehension as input, recasting and transposition as transfer, and idiom and phrase as output.

Results

Questionnaire

Dimension one examined students' past experiences and feelings about feedback, analyzed in the "participants" subsection under "methods." Dimension two (Table 3) focused on students' psychological pressure from feedback, assessing self-esteem, confidence, and motivation. Questions eight, nine, 16, and 17 addressed the impact of feedback on self-esteem. For questions eight and nine, the positive-to-negative ratios were 13:6 and 12:8, indicating that most students felt PBL feedback affected their self-esteem. For questions 16 and 17, the ratios were 12:1 and 15:1, showing that more participants found EMS feedback helpful in reducing self-esteem pressure.

Questions 10, 11, 18, and 19 addressed the impact of feedback on confidence, measured by undermined confidence (10, 18) and feelings of inferiority (11, 19). For questions 10 and 11, the positive-to-negative ratios were 8:8 and 12:5, indicating that many respondents felt PBL feedback affected their confidence, particularly in their translation abilities. For questions 18 and 19, the ratios were 14:2 and 15:3, showing that most respondents found EMS feedback helpful in reducing confidence pressure.

Questions 12-15 and 20-23 focused on the impact of feedback on motivation, measuring four aspects: reduction in leaning incentives (12, 20), arousal of fear (13, 21), reluctance to attend class (14, 22), and future psychological stress (15, 23). The positive-to-negative response ratios for questions 12-15 were 4:19, 4:17, 4:19, and 4:16, indicating that most respondents believed PBL feedback had little effect on motivation. For questions 20-23, the ratios were 16:2, 14:2, 11:2, and 11:2, showing that most respondents found EMS feedback helpful in reducing stress and maintaining motivation.

The above survey results showed that PBL feedback burdened most students regarding self-esteem and confidence, which EMS feedback improved. In terms of motivation, the comparison between PBL and EMS did not highlight the effect of EMS feedback, as PBL feedback had little impact on motivation. However, EMS feedback did provide psychological comfort, alleviating concerns about motivation.

Table 3

Dimension Two: Psychological Pressure

Question	5	4	3	2	1	P:N
8. When I receive feedback on my translation, I worry that my translation flaws will be noticed by my peers.	0	13	6	4	2	13:6
9. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, I feel embarrassed.	1	11	5	6	2	12:8
16. Expert translation examples alleviate my concerns about my translation flaws being noticed by peers.	2	10	12	0	1	12:1
17. Expert translation examples alleviate my concerns of feeling embarrassed due to being corrected.	2	13	9	1	0	15:1
10. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, my confidence is undermined.	1	7	9	8	0	8:8
11. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, I feel that my translation abilities are poor.	1	11	8	5	0	12:5

（continued）

Table 3

Dimension Two: Psychological Pressure (continued)

Question	5	4	3	2	1	P:N
18. Expert translation examples alleviate my concerns of losing confidence due to being corrected.	1	13	9	2	0	14:2
19. Expert translation examples alleviate my concerns about feeling that my translation abilities are poor due to being corrected.	0	15	7	3	0	15:3
12. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, my motivation to learn translation is reduced.	0	4	2	14	5	4:19
13. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, I feel fearful of translation.	0	4	4	11	6	4:17
14. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, I feel reluctant to attend translation classes.	0	4	2	13	6	4:19
15. During translation feedback, if the teacher directly points out the issues or mistakes in my translation, the psychological pressure increases for my future translation work.	0	4	5	11	5	4:16
20. Expert translation examples alleviate my concerns of losing motivation to learn translation due to being corrected.	0	16	7	2	0	16:2
21. Expert translation examples alleviate my concerns of feeling fearful of translation due to being corrected.	0	14	9	2	0	14:2
22. Expert translation examples alleviate my concerns of hesitating to attend translation classes due to being corrected.	1	10	12	2	0	11:2
23. Expert translation examples alleviate my concerns of experiencing increased psychological pressure for my future translation work due to being corrected.	0	11	12	2	0	11:2

Note. 5 (Strongly Agree), 4 (Agree), 3 (Neutral), 2 (Disagree), 1 (Strongly Disagree); P:N (Positive Side versus Negative Side).

Dimension three (Table 4) focused on feedback effectiveness in resolving student confusion, comparing PBL and EMS feedback across six aspects: identifying key issues (24, 30), revising (25, 31), starting information searches (26, 32), avoiding wrong directions (27, 33), meeting teacher standards (28, 34), and learning translation skills (29, 35). Affirmative to negative response ratios for questions 24-29 were 21:2, 19:1, 14:6, 21:2, 20:2, and 18:3, showing that PBL

feedback left most students confused. Ratios for questions 30-35 were 23:0, 22:1, 11:3, 15:1, 22:0, and 22:1, indicating that EMS feedback effectively reduced confusion and provided clear improvement directions.

Table 4

Dimension Three: Feedback Inspiration

Question	5	4	3	2	1	P:N
24. During translation feedback, if the teacher only points out issues or mistakes in my translation without providing suggestions for revisions, I worry that I might miss the key problems or errors.	3	18	2	1	1	21:2
30. Expert translation examples help me identify the key problems or errors in my own translation.	6	17	2	0	0	23:0
25. During translation feedback, if the teacher only points out issues or mistakes in my translation without providing suggestions for revisions, I'm concerned about not knowing how to make the revisions.	4	15	5	0	1	19:1
31. Expert translation examples help me understand how to revise my own translation.	4	18	2	1	0	22:1
26. During translation feedback, if the teacher only points out issues or mistakes in my translation without providing suggestions for revisions, I'm worried about not knowing how to do research to make improvements.	1	13	5	5	1	14:6
32. Expert translation examples help me learn how to do research to improve my translation.	1	10	11	3	0	11:3
27. During translation feedback, if the teacher only points out issues or mistakes in my translation without providing suggestions for revisions, I'm afraid that my research might lead me in the wrong direction, resulting in unresolved issues.	3	18	2	1	1	21:2
33. Expert translation examples help me identify the correct direction for doing research.	1	14	9	1	0	15:1
28. During translation feedback, if the teacher only points out issues or mistakes in my translation without providing suggestions for revisions, I'm concerned that even after making revisions, I might still not meet the teacher's standards.	1	19	3	2	0	20:2
34. Expert translation examples help me elevate the quality of my translation to meet the teacher's standards.	0	22	3	0	0	22:0
29. During translation feedback, if the teacher only points out issues or mistakes in my translation without providing suggestions for revisions, I'm worried about not being able to learn the principles and techniques of translation.	1	17	4	3	0	18:3
35. Expert translation examples help me learn independently and acquire the principles and techniques of translation.	3	19	2	1	0	22:1

Note. 5 (Strongly Agree), 4 (Agree), 3 (Neutral), 2 (Disagree), 1 (Strongly Disagree); P:N (Positive Side versus Negative Side).

The fifth dimension (Table 5) focused on students' perceptions of source comprehension (input), target expression (output), and overall progress. Questions 48, 56, and 57 assessed gains in input. Responses were predominantly affirmative, showing students benefited in various ways: expert translations clarified unclear parts (24:0), deepened comprehension of the content (23:0), and clarified words or phrases (24:0).

Table 5

Dimension Five: Perception of Translation Competence Improvement

Question	5	4	3	2	1	P:N
48. Expert translation examples can solve the comprehension issues I encounter when reading the original text.	6	18	1	0	0	24:0
56. Expert translation examples give me a deeper understanding of the content meaning in the original text.	6	17	2	0	0	23:0
57. Expert translation examples help me better understand the meanings of certain words and phrases in the original text.	10	14	1	0	0	24:0
49. Expert translation examples can solve the issues I encounter when doing translation.	4	20	1	0	0	24:0
50. Expert translation examples offer me a direction to revise my translation.	8	17	0	0	0	25:0
51. Expert translation examples inspire me and make me aware of different translation versions.	9	14	2	0	0	23:0
52. Expert translation examples help me learn translation techniques.	7	17	1	0	0	24:0
53. Expert translation examples make me aware of blind spots in my translation.	10	15	0	0	0	25:0
54. Expert translation examples familiarize me with Chinese words, phrases, and expressions I have never used before.	10	14	1	0	0	24:0
55. Expert translation examples help me improve my capacity for Chinese expressions.	8	16	1	0	0	24:0
58. Expert translation examples are beneficial for my translation learning.	8	16	1	0	0	24:0
59. Expert translation examples assist me in learning translation independently.	6	17	1	1	0	23:1
60. Expert translation examples can replace teacher guidance and explanations.	0	2	5	14	4	2:18

Note. 5 (Strongly Agree), 4 (Agree), 3 (Neutral), 2 (Disagree), 1 (Strongly Disagree); P:N (Positive Side versus Negative Side).

Questions 49 through 55 assessed gains in output, with overwhelmingly positive responses. Students benefited in multiple ways: expert translations solved translation issues (24:0), provided improvement directions (25:0), prompted the recognition of the diversity of translation (23:0), showcased different translation techniques (24:0), brought attention to overlooked aspects (25:0), helped learn new expressions (24:0), and improved Chinese writing skills (24:0).

Questions 58-60 addressed overall learning gains. The results indicated that expert examples were beneficial for translation learning (24:0) and self-study (23:1), but few agreed that they could replace teacher guidance and explications (2:18). Thus, the teacher's role remained complementary and essential.

In summary, EMS feedback effectively enhanced learning in source comprehension, target expression, and overall translation competence, with students benefiting from self-directed learning supported by teacher guidance.

Pretest and Posttest

The interrater reliability test (Table 6) showed a strong and significant correlation between the evaluations of the two raters for both the pretest ($r(23)= 0.95$, $p< 0.001$) and the posttest ($r(23)= 0.96$, $p< 0.001$). This confirmed the consistency of the scoring criteria across the raters.

Table 6

Interrater Reliability Test (Pearson Correlation Analysis)

Test	N	Pearson Correlation (*r*)	*p*
Pretest	25	0.95	< 0.001***
Posttest	25	0.96	< 0.001***

The progress assessments (Table 7) showed significant improvements. In accuracy, pretest scores ($M= 43.54$, $SD= 3.84$) improved to posttest scores ($M=$

45.59, *SD*= 4.63), *t*(24)= 2.996, *p*= 0.006, an increase of 2.05 points. In fluency, pretest scores (*M*= 25.3, *SD*= 2.62) improved to posttest scores (*M*= 27, *SD*= 2.72), *t*(24)= 2.598, *p*= 0.016, an increase of 1.7 points. Overall translation competence improved from pretest scores (*M*= 68.84, *SD*= 5.92) to posttest scores (*M*= 72.59, *SD*= 6.66), *t*(24)= 3.015, *p*= 0.006, an increase of 3.75 points.

Table 7

Progress Assessments (Paired Sample t-test)

Test	Pretest *M*	Posttest *M*	Pretest *SD*	Posttest *SD*	N	*t*	*p*
Accuracy	43.54	45.59	3.84	4.63	25	2.996	0.006**
Fluency	25.3	27	2.62	2.72	25	2.598	0.016*
Total Score	68.84	72.59	5.92	6.66	25	3.015	0.006**

* α = 0.05

Self-Reflective Notes

An analysis of self-reflective notes identified 20 specific elements noticed by students, ranked in Table 8 by frequency. These elements fell into four major categories: source text comprehension, target language expression, translation techniques, and format.

In source text comprehension, the most frequently noted element was miscomprehension (ranked 1st), indicating many instances where students recognized differences between their reading and the experts' understanding. This suggested significant improvement in source text comprehension.

The elements related to target language expression were diction (ranked 2nd), idiom and phrase (ranked 3rd), smoothing (ranked 4th), register (ranked 5th), implicitation (ranked 13th), consistency (ranked 18th), and noun number (ranked 19th). These issues encompassed inappropriate word choices, inadequate use of Chinese idioms, lack of fluency, stylistic inappropriateness, failure to leverage generalized expressions to convey the original intent, lexical inconsistency, and

unnecessary pluralization or singularization of Chinese nouns. All these impacted rhetorical and writing abilities in the target language.

In translation techniques, the noticed ones included specialized terminology (rank 9th), proper noun (rank 11th), addition (rank 6th), splitting (rank 7th), reduction (rank 8th), recasting (rank 10th), voice conversion (rank 14th), transposition (rank 15th), combining (rank 16th), perspective reversal (rank 17th), and domestication (rank 20th). Compared to the 16 techniques identified by Liao et al. (2013), participants recognized 11 techniques. Techniques not noted (elaborative translation, iconic translation, synchronizing, syntactic reversal, and foreignization) are less relevant in basic translation teaching. Elaborative and iconic translations, which fall under term translation, typically present no challenges in translation instruction. Synchronizing, a common strategy among novice translators, does not require special teaching. Syntactic reversal is a subset of the already-noticed recasting technique. Foreignization, which involves cultural transfer, is less common in basic translation training. Overall, participants acquired the essential techniques for English-to-Chinese translation.

Participants noted one issue with format: punctuation (rank 12th). The most common problem in punctuation was indiscriminately converting English periods to Chinese periods. Other issues included semicolons, dashes, and quotation marks.

Table 8

Elements Noticed by Students

Rank	Element	Count	Example
1	Miscom-prehension	352	A: One attains an intimate understanding of the ways and values of the organization. B: 學員初步了解組織的運作方式和價值觀。 C: 學員深切體會組織的運作方式和價值觀。
2	Diction	344	A: These leaders-in-training need to know the extent of their own limitations. B: 這些仍在練習如何成為領導者的人，需深刻了解自己的極限。 C: 這些養成中的領導人才，必須認清自己的侷限。

（continued）

Table 8

Elements Noticed by Students (continued)

Rank	Element	Count	Example
3	Idiom and Phrase	209	A: Followers' jobs are at their essence to do as they are told. B: 追隨者的職責在於他們做他們被要求要做的事。 C: 服從的本質說穿了就是聽命行事。
4	Smoothing	193	A: I am concerned that there will be a temptation to revert to the superficial reassurance of the military response alone. B: 我擔心會有個誘因讓一切回復到軍事應對只是對人民表面上的保證。 C: 我擔心有人會走回頭路，僅靠軍事手段掃蕩以求一時的苟安。
5	Register	76	A: Morale is a matter of giving support and having faith in one another; where both are lacking, "law" has become a worthless word. B: 士氣是講求相互支持、彼此信任，如果這兩個都沒有，那「法律」就變成沒有價值的字眼。 C: 士氣講求的是相互支持、彼此信任，一旦兩者都付之闕如，「法律」就形同具文了。
6	Addition	69	A: the drastic reduction in affordable health services and affordable housing B: 負擔得起的醫療資源和房屋急遽的減少 C: 房價與醫療費用飆漲，民眾無力負擔
7	Splitting	59	A: Each person who comes to West Point learns where one's individual authority ends and where the institution's begins. B: 每一個來到西點軍校的人學到個人權力的結束和團體的開始。 C: 每個來到西點軍校的人都要了解，一旦服膺組織的權力，個人權力就得暫時拋開。
8	Reduction	53	A: About 40 some years ago, when it was revealed that cancer-inducing genes are inherited in our body, scientists rushed to identify the functions of these oncogenes. B: 大約四十多年前，當科學家一發現癌變基因遺傳至身體的時候，就迅速辨識這些致癌基因的功用。 C: 約四十多年前，科學家發現人體會遺傳致癌基因，便前仆後繼想找出這些致癌基因的作用機制。
9	Specialized Terminology	47	A: Src is a protein tyrosine kinase. B: Src 是一種蛋白酪胺酵素。 C: Src 是一種蛋白質酪胺酸激酶。
10	Recasting	45	A: The conviction that he is still alive is not confined to California, where a large number of citizens have always been ready to believe that the usual laws of time and space have been suspended or rewritten for their benefit. B: 抱持著他猶在世的想法的人不限加州，許多加州公民一直深信普通的時空法則已經為了他們而被中止或改寫。 C: 加州有大批居民深信他還在世，認為尋常的時空定律會為他們停擺或改寫，但抱持這種信念的人並不限於加州。

（continued）

Table 8

Elements Noticed by Students (continued)

Rank	Element	Count	Example
11	Proper Noun	40	A: Elvis Presley is a case in point. B: 埃爾維斯・普列斯利就是最好的例子。 C: 貓王就是最好的例子。
12	Punctuation	40	A: The famous people were living human beings. Not even show business could conceal that fact. B: 名人也是活人。即使是演藝界也無法掩蓋這個事實。 C: 名人也是人，就連演藝圈也隱藏不了這個事實。
13	Implicitation	37	A: Otherwise, we will function only as incident responders, never getting to the root causes of crime, violence and fear. B: 否則，我們只能充當事故救援者，永遠無法找到犯罪、暴力和恐懼的根源。 C: 否則我們就只能治標，永遠無法根除犯罪、暴力和恐懼。
14	Voice Conversion	36	A: It has always been our dream that someday cancer can be conquered. B: 我們一直期望癌症某天能被征服。 C: 我們夢想有朝一日能戰勝癌症。
15	Transposition	35	A: We had a collapse of a range of social institutions. B: 我們遭遇一系列社會制度上的崩潰。 C: 各種社會機制連番崩解。
16	Combining	28	A: I believe in community policing. I see it as a logical and rational use of police resources. B: 我認同社區警務。我認為這種配置警力資源的方式是合理的。 C: 我相信社區警政能讓警力達到合理、有效的運用。
17	Perspective Reversal	26	A: The indulgent mother denies him nothing except responsibility. B: 溺愛孩子的母親除了責任以外幾乎什麼都不會拒絕他。 C: 溺愛的母親什麼都給他，就是沒有給他責任感。
18	Consistency	23	A: Every leader is a follower. For every leader, no matter how "supreme," there is always a higher authority who must be answered. B: 領導也必須服從，對每個領導而言，無論多麼至高無上，總會有更高的權威必須為其負責。 C: 領導和服從是一體兩面，一個領導再怎麼位高權重，上頭總有更高的權威必須服從。
19	Noun Number	21	A: A city official knows of a colleague's bribe but does not report it. B: 一位市政官員知道同事收賄卻不舉報。 C: 市府公務員知道同事受賄卻不舉報。
20	Domestication	12	A: a nice kid from a middle-class family B: 一個中產階級家庭的好小孩 C: 一個小康家庭的好孩子
	Total	1745	

Note. A (Original Text), B (Student Translation), C (Professional Translation with Marked Insights Noticed by Students).

Conclusion

This study investigates whether the EMS feedback strategy can address two issues of PBL feedback in an undergraduate translation course and answers three research questions. For the first research question (Does EMS feedback overcome the two PBL issues of student psychological pressure and bewilderment in solving translation problems?), questionnaire results indicated that PBL feedback significantly impacted self-esteem and confidence, with minimal effect on motivation. In contrast, EMS feedback did not cause psychological burdens in these aspects. Regarding bewilderment in problem-solving, PBL feedback left novice translators uncertain about the solution process, while EMS feedback clarified doubts and provided concrete guidance. Thus, the answer to the first research question is affirmative: EMS feedback effectively addresses the two issues of PBL feedback.

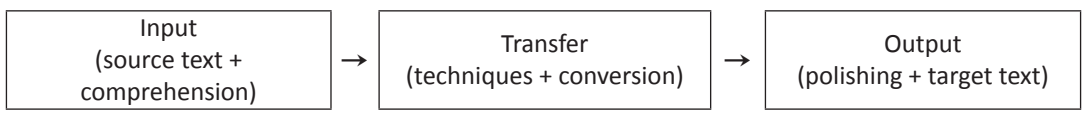
Concerning the second research question (Does EMS feedback lead to significant improvement in students' translation competence?), this study assessed students' translation performance in terms of accuracy (input) and fluency (output). Participants exhibited significant improvements in accuracy, fluency, and overall translation performance. Students' perceptions aligned with these findings, confirming the positive impact of EMS feedback on source comprehension, target expression, and overall translation abilities. Therefore, the answer to the second research question is positive: EMS feedback enhances English-to-Chinese translation competence.

To address the third research question (In EMS feedback, what elements do students consciously notice? Do these elements align with translation competence?), the self-reflective notes analysis identified 20 elements of student attention. These elements were categorized into source text comprehension, target

language expression, translation techniques, and format. These categories correspond closely to the three aspects of translation competence: source text comprehension concerns input, target language expression and format pertain to output, and translation techniques relate to transfer, illustrated in Figure 3.

Figure 3

Translation Competence Dimensions



Based on this, the third research question can be answered: The 20 elements noticed by students during feedback align comprehensively with the three aspects of translation competence: input, transfer, and output. Miscomprehension, the most frequently noted element, highlights the discrepancy between students' gist-based reading habits and the rigorous comprehension demands in translation. Students' tendency to prioritize general understanding over minor details in reading may easily cause comprehension errors in translation. Additionally, the significant attention given to target language expression underscores challenges in output, reflecting students' struggles with expressive and writing abilities. Finally, students' recognition of English-to-Chinese translation techniques during the transfer phase indicates their ability to acquire essential translation skills through comparative analysis, albeit without explicit awareness of the techniques used. In conclusion, EMS feedback effectively engages students across all three facets of translation competence.

The self-reflective notes highlight students' independent study outcomes. When organized, these notes provide valuable material for translation instruction, offering a systematic understanding of input, transfer, and output, and enhancing

learning impressions. This material, blending teacher-supplied content with student-generated reflections, exemplifies meaningful teacher-student collaboration, contrasting with traditional teacher-only material provision.

The effectiveness of EMS feedback can be analyzed from three aspects: expert models, student self-reflection, and the two-stage feedback strategy. Expert model texts (professional translations and teacher translations) provide exemplary demonstrations and show translation variations. Student self-reflection fosters active engagement and autonomous learning. In the two-stage feedback, students first see professional translations, then observe teacher and professional translations along with fragments of peer versions, highlighting translation diversity. The teacher guides analytical comparisons, emphasizing flexibility in translation. Thus, EMS feedback, supported by teacher guidance, is the major factor in enhancing learning, while the impact of sporadic student fragments is minimal.

The principle of EMS feedback can be expounded by theories of input and output. For input, translation involves both the static source text and the dynamic process of comprehension. Students generally grasp the main content idea but may struggle with details, which aligns with Krashen's (1982, 1985) "comprehensible input" theory. Under the workings of Schmidt's (1990, 2001) "noticing hypothesis," students identify unclear parts of the text and improve understanding through research and expert translation comparisons, which serve the functions of confirmation, correction, and inspiration. For output, translation involves the static translated text and the dynamic process of refinement, which highlights challenges in target-language expression and writing skills. As Swain's (1985) "comprehensible output" hypothesis suggests, students notice gaps between their translations and the feedback, adjusting their assumptions, which is mirrored in their self-reflective notes. Thus, this study embodies Swain's (1995) three functions of output: noticing gaps, testing hypotheses, and internalizing knowledge through self-reflection.

In conclusion, effective translation learning hinges on comprehension and attention across input, transfer, and output stages. Teachers play a crucial role in fostering understanding and attention among students. This study highlights the pivotal role of expert translation models and student self-reflection in this process. By recording their reflective journey, students engage deeply with expert models, initiate critical reflection on translation, and internalize their translation knowledge through adjustments and corrections. Thus, EMS feedback facilitates active and meaningful student participation, showcasing advancements in translation competence and providing empirical support for theories by Krashen (1982, 1985), Schmidt (1990, 2001), and Swain (1985, 1995, 2000, 2005).

Research Limitations: This study employs a sequential presentation of professional and teacher translations in two feedback stages to achieve its objectives. However, simultaneous presentation and concurrent student self-reflection may also achieve learning effects. Due to the scope of this study, an analysis comparing these two feedback methods is not feasible here and can be considered for future research. Besides, students in this study are not required to produce new translations post-feedback, raising questions about their ability to generate independent and creative translations following EMS feedback. Moreover, the questionnaire format, which contrasts negative inquiries about PBL feedback with positive ones about EMS feedback, may subtly influence student responses. While suggestive effects appear minimal in this study judging from students' responses, future research should mitigate potential biases in questionnaire design to enhance credibility.

References

Alfayyadh, H. M. (2016). *The feedback culture in translator education: A comparative exploration of two distinct university translation programs* [Doctoral dissertation, Kent State University]. ProQuest Dissertations & Theses Global; OhioLINK Electronic Theses and Dissertations Center. http://rave.ohiolink.edu/etdc/view?acc_num=kent146066941

Beiranvand, M., & Golandouz, G. R. (2017). The comparative effects of self-assessment and peer feedback on improving translation quality. *Journal of Language and Translation*, *7*(4), 29-42.

Cánovas Guirao, J. C. (2011). *The use of models as a written feedback tool in primary education* [Unpublished master's thesis]. University of Murcia.

Cao, S., & Zhong, L. (2023). *Exploring the effectiveness of ChatGPT-based feedback compared with teacher feedback and self-feedback: Evidence from Chinese to English translation* [Preprint]. arXiv. https://doi.org/10.48550/arXiv.2309.01645

Cerezo Herrero, E. (2019). Systematization of competences in language B teaching for Translation Studies in the EHEA from a translation competence model. *Monografías de Traducción e Interpretación*, *11*, 77-107. https://doi.org/10.6035/MonTI.2019.11.3

Chiang, I. Y. C. (2022). An exploratory study on the effectiveness of problem-based learning in teaching basic translation skills. *Studies of Translation and Interpretation*, *25*, 55-74.

Cohen, A. D. (1983). *Reformulating second-language compositions: A potential source of input for the learner* (ED 228866). ERIC. https://files.eric.ed.gov/fulltext/ED228866.pdf

Coyle, Y., Cánovas Guirao, J. C., & de Larios, J. R. (2018). Identifying the

trajectories of young EFL learners across multi-stage writing and feedback processing tasks with model texts. *Journal of Second Language Writing*, *42*, 25-43.

Coyle, Y., & de Larios, J. R. (2014). Exploring the role played by error correction and models on children's reported noticing and output production in a L2 writing task. *Studies in Second Language Acquisition*, *36*(3), 451-485. https://doi.org/10.1017/S0272263113000612

Ellis, R. (2009). A typology of written corrective feedback types. *ELT Journal*, *63*(2), 97-107. https://doi.org/10.1093/elt/ccn023

Esfandiaria, M. R., Seporaa, T., & Mahadia, T. (2015). Translation competence: Aging towards modern views. *Procedia: Social and Behavioral Sciences*, *192*, 44-53. https://doi.org/10.1016/j.sbspro.2015.06.007

Flanagan, M., & Heine, C. (2015). Peer-feedback as a translation training tool in web-based communication. *HERMES: Journal of Language and Communication in Business*, *27*(54), 115-136. https://doi.org/10.7146/hjlcb.v27i54.22951

García, F. J. (2011). *Written corrective feedback: Testing the effects of reformulation with year 5 primary school learners* [Unpublished master's thesis]. University of Murcia.

Hanaoka, O. (2006). Exploring the role of models in promoting noticing in L2 writing. *JACET Bulletin*, *42*, 1-13.

Hanaoka, O., & Izumi, S. (2012). Noticing and uptake: Addressing pre-articulated covert problems in L2 writing. *Journal of Second Language Writing*, *21*(4), 332-347. https://doi.org/10.1016/j.jslw.2012.09.008

Heine, C. (2019). Student peer feedback in a translation task: Experiences with questionnaires and focus group interviews. In E. Huertas-Barros, S. Vandepitte, & E. Iglesias-Fernández (Eds.), *Quality assurance and assessment*

practices in translation and interpreting (pp. 337-357). IGI Global. https://doi.org/10.4018/978-1-5225-5225-3.ch015

Kiraly, D. C. (1995). *Pathways to translation: Pedagogy and process*. Kent State University Press.

Korol, T. (2021). Teacher feedback as a translation assessment tool. *Journal of Teaching English for Specific and Academic Purposes*, *9*(4), 575-586. https://doi.org/10.22190/JTESAP2104575K

Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Pergamon.

Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. Longman.

Lai, T. Y. (2009). *Training of translators: Evaluation and criticism in translation teaching*. National Institute for Compilation and Translation.

Li, X., & Ke, P. (2022). An empirical study of peer feedback in translation didactics: Quality, response and student perceptions. *Assessment & Evaluation in Higher Education*, *47*(8), 1231-1244. https://doi.org/10.1080/02602938.2022.2044013

Liao, P. S. (2007). *English and translation teaching*. Showwe Information.

Liao, P. S., Ho, C. E., Lin, C. H., Chang, S. T., Chang, C. A., You, Y. H., & Yang, L. (2016). *Self-learning translation classroom: Error analysis of 180 authentic English-Chinese translations*. Jong Wen Books.

Liao, P. S., Ou, K. Y., Li, T., Wu, S. Y., Chen, Y. L., Chang, S. T., You, Y. H., & Liu, Y. L. (2013). *English-Chinese translation 1: Basic theories and methods*. Jong Wen Books.

Lin, Z., Song, X., Guo, J., & Wang, F. (2021). Peer feedback in translation training: A quasi-experiment in an advanced Chinese-English translation course. *Frontiers in Psychology*, *12*, Article 631898. https://doi.org/10.3389/fpsyg.2021.631898

Man, D., Zhu, C., Chau, M. H., & Maruthai, E. (2022). Contextualizing assessment feedback in translation education: A corpus-assisted ecological approach. *Frontiers in Psychology*, *13*, Article 1057018. https://doi.org/10.3389/fpsyg.2022.1057018

Martínez Esteban, N., & Roca de Larios, J. (2010). The use of models as a form of written feedback to secondary school pupils of English. *International Journal of English Studies*, *10*(2), 143-170. https://doi.org/10.6018/ijes/2010/2/119241

Moreno, G. A., & Pujols, M. D. C. (2023). Type, level and function of in-text comments in written feedback on specialised translations: An exploratory study. *Interpreter and Translation Trainer*, *18*(1), 58-76. https://doi.org/10.1080/1750399X.2023.2272465

Nguyen, L. Q., & Le, H. V. (2022). Improving L2 learners' IELTS task 2 writing: The role of model essays and noticing hypothesis. *Language Testing in Asia*, *12*(1), Article 58. https://doi.org/10.1186/s40468-022-00206-0

Nikolaeva, S., & Korol, T. (2021). Formative assessment in the translation classroom: Closing a feedback loop. *International Journal of Evaluation and Research in Education*, *10*(2), 738-746. https://doi.org/10.11591/ijere.v10i2.21274

Pietrzak, P. (2017). A methodology for formative assessment: Feedback tools in the translation classroom. *Kwartalnik Neofilologiczny*, *64*(1), 66-80.

Qi, D. S., & Lapkin, S. (2001). Exploring the role of noticing in a three-stage second language writing task. *Journal of Second Language Writing*, *10*(4), 277-303. https://doi.org/10.1016/S1060-3743(01)00046-7

Sachs, R., & Polio, C. (2007). Learners' use of two types of written feedback on an L2 writing task. *Studies in Second Language Acquisition*, *29*(1), 67-100. https://doi.org/10.1017/S0272263107070039

Schaeffer, M. J., Halverson, S. L., & Hansen-Schirra, S. (2019). "Monitoring" in

translation: The role of visual feedback. *Translation, Cognition & Behavior*, *2*(1), 1-34. https://doi.org/10.1075/tcb.00017.sch

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, *11*(2), 129-158. https://doi.org/10.1093/applin/11.2.129

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge University Press. https://doi.org/10.1017/CBO9781139524780.003

Sha, L., Wang, X. L., Ma, S. Y., & Mortimer, T. A. (2022). Investigating the effectiveness of anonymous online peer feedback in translation technology teaching. *Interpreter and Translator Trainer*, *16*(3), 325-347. https://doi.org/10.1080/1750399X.2022.2097984

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Newbury.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidelhofer (Eds.), *Principle and practice in applied linguistics: Studies in honor of H. G. Widdowson* (pp. 125-144). Oxford University Press.

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-119). Oxford University Press.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 495-508). Routledge.

Tocalli-Beller, A., & Swain, M. (2005). Reformulation: The cognitive conflict and L2 learning it generates. *International Journal of Applied Linguistics*, *15*(1), 5-28. https://doi.org/10.1111/j.1473-4192.2005.00078.x

Vandepitte, S., & Hanson, J. (2019). The role of expertise in peer feedback analysis: Exploring variables and factors in a translation context. In E. Huertas-Barros, S. Vandepitte, & E. Iglesias-Fernández (Eds.), *Quality assurance and assessment practices in translation and interpreting* (pp. 315-336). IGI Global. https://doi.org/10.4018/978-1-5225-5225-3.ch014

Wang, K., & Han, C. (2013). Accomplishment in the multitude of counsellors: Peer feedback in translation training. *Translation & Interpreting: The International Journal of Translation and Interpreting Research*, *5*(2), 62-75. https://doi.org/10.12807/ti.105202.2013.a05

Washbourne, K. (2014). Beyond error marking: Written corrective feedback for a dialogic pedagogy in translator training. *The Interpreter and Translator Trainer*, *8*(2), 240-256. https://doi.org/10.1080/1750399X.2014.908554

Yang, L., & Zhang, L. (2010). Exploring the role of reformulations and a model text in EFL students' writing performance. *Language Teaching Research*, *14*(4), 464-484. https://doi.org/10.1177/1362168810375369

Zheng, Y., Zhong, Q., Yu, S., & Li, X. (2020). Examining students' responses to teacher translation feedback: Insights from the perspective of student engagement. *Sage Open*, *10*(2), Article 2158244020932536. https://doi.org/10.1177/2158244020932536

Appendix

Two-Dimensional Six-Four Scale

Points	Accuracy Scale
6 pts.	The message conveyed in the translation is exactly the same as the original text, without any errors.
5 pts.	The message conveyed in the translation is roughly the same as the original text, but there is a minor error.
4 pts.	The message conveyed in the translation is different from the original text, with two or more minor errors.
3 pts.	The message conveyed in the translation is quite different from the original text, with either one major error or three or more minor errors.
2 pts.	The message conveyed in the translation is extremely different from the original text, with two or more major errors, or just a literal word-for-word interpretation.
1 pt.	The message conveyed in the translation is fundamentally different from the original text, or it is completely mistranslated.
Points	Fluency Scale
4 pts.	The statement is clear and articulate, with appropriate vocabulary, register, collocation, and punctuation.
3 pts.	The statement is generally clear and intelligible, but there are one or two inappropriate word choices or expressions, or there may be misspelled words, wrongly written characters, redundant words, etc.
2 pts.	The statement is barely intelligible, but there are syntactical errors, as well as quite a few inappropriate word choices and expressions.
1 pt.	The statement does not conform to the syntax, making it difficult to understand or completely mistranslated.

Note. The scale was translated from Chinese into English by the present researcher.