



## The Effect of Data-Driven Feedback, AI-Assisted Error Analysis, and Translation Knowledge on Trainee Translators' Performance

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### Abstract

Feedback plays a pivotal role in enhancing learning outcomes in education; however, the integration of artificial intelligence-generated feedback, particularly that produced by advanced language models such as ChatGPT, remains largely underexplored within the field of translation teaching. This research investigates the impact of data-driven feedback strategies on the performance of 70 trainee translators recruited from administrative and economic workshops in The Translation Department at Tripoli University. Participants were chosen based on specific criteria, and all received theoretical knowledge and training on English-Arabic translation; moreover, all completed the pre-requisite translation workshop courses. It also explores the influence of AI tools and their support in analyzing translation. Data was collected by conducting pre- and post-tests and adopting a training program based on cooperative learning. ChatGPT-4 was used to analyze the translations and identify errors. Translation quality was evaluated using the automatic metric "METEOR." The results of the tests show improvements in trainees' performance. The adopted strategies allow instructors to achieve the goals and track the trainees' progress by addressing the challenges when they appear and providing immediate feedback with reliance on cooperative learning, ChatGPT 4 text analysis, and automatic assessment. The approach has a positive impact on the evaluation and feedback process. Based on the test results, the tools can be adopted as a pedagogical resource to provide initial reflections on translation work and its effectiveness when combined with human reinforcement.

**Key words:** *data-driven feedback, trainee students, performance, AI-empowered tools, METEOR assessment.*

## 1. Introduction

Real-time teaching and training are demanding tasks without adopting a specific approach, particularly in teaching translation programs. In translation workshops, it is challenging to assign translation tasks, assess the quality of the translated texts, make the lecture more attractive, and track each trainee's performance. According to these educational missions, instructors need to be knowledgeable about how to provide a critical reflection on trainees' performance and how to enhance the translation practice and human assessment with reliance on technology.

## 1.2 Research Problem

The primary enquiries of this research stem from the goal of providing valuable resources to improve trainees' performance while also organizing and supporting the efforts of instructors during the translation workshops. It highlights the role of data-driven feedback—human feedback coupled with automatic assessment and its benefits for the translator's training program. Hence, this research investigates the impact of data-driven feedback strategies on the performance of trainee translators at the Translation Department of Tripoli University. It also explores the influence of AI tools and their support in analyzing translation tasks, ultimately seeking to enhance the competence and learning outcomes of trainee translators.

Teaching translation requires a distinct set of strategies and approaches to track students' progress, as it relies on theoretical translation knowledge and its practical application. All this presents a unique obstacle for instructors if they are not apprehending or mastering how

to measure the quality of the translation using technology and providing a reflection on the students' work. Alternatively, if instructors continue to rely on traditional teaching methods, characterized by a heavy emphasis on teacher talk (TTT), they assume a dominant role. This approach is increasingly inadequate given the specific needs of translation education, especially in light of technological advancements and the proliferation of AI tools that can be integrated as assessment and feedback translation tasks.

## 1.3 Research Questions

To achieve the aims and produce reliable results, the research attempts to answer the following questions:

1. How strongly does data-driven feedback impact the performance of trainee translators?
2. How does an automatic metric, i.e., "METEOR", enhance the evaluation and feedback process?
3. To what extent do AI tools and knowledge of translation support text analysis?

## 1.4 Research Hypotheses

This research attempts to prove that automatic feedback allows instructors to assist the teaching process and move to the first step of evaluation of translation tasks. Providing feedback based on systematic data can show individual weaknesses and track the progress of improvement over time, which is essential for tailoring instruction to meet the specific needs of each student in translation tasks. This research includes a structured introduction, a literature review, the advantages and

drawbacks of teacher feedback, and the integration of AI-empowered tools in data-driven feedback with the support of automatic assessment. It encompasses two steps: the first step started with human assessment and then providing feedback. Second, the integration of automatic metrics, particularly METEOR, emphasizes the significance of translation knowledge when used alongside AI-empowered tools in the assessment process.

## 1.5 Research Objectives

To enhance the educational process, instructors need to adopt systematic follow-up on translations assigned during lectures and implement targeted assessment strategies that incorporate data-driven feedback alongside AI tools. This integration aims to leverage the benefits of technological progress effectively. Consequently, this study has the following objectives:

1. Examine the impact of data-driven feedback strategies on the performance of trainee translators in the Translation Department at Tripoli University.
2. Explore the effect of automatic assessment and AI-empowered tools and their support for text analysis for translation tasks.
3. Enhance trainee translators' competence and learning outcomes by providing knowledge of translation.

## 1.6 Literature Review

In today's globalized world, the significance of learning and applying modern techniques to teach translation is paramount.

As translation practices evolve with technological advancements, instructors are encouraged to change their teaching methods to better prepare students for the complexities of the field. One of the effective methods is to utilize data-driven feedback. This approach provides learners with precise insights into their performance and highlights areas for improvement. This approach not only streamlines targeted interventions but also cultivates a more profound understanding of the intricacies of translation, enabling students to refine their skills with clarity and intent. The specific, immediate, and quantifiable nature of this feedback helps create a rich learning environment that encourages ongoing improvement and professional growth.

Before going any further, it's important to explain what it means to give someone feedback on their performance. Narciss (2008, p. 129) argues that feedback is 'all past-response information that is provided to a learner to inform the learner about her or his actual state of learning or performance.' Effective feedback goes beyond mere evaluation; it articulates the particulars of what learners need to address, the reasons behind these improvements, and the ways they can achieve them. This clarity not only assists learners in comprehending their weaknesses but also directs them toward a deeper comprehension of the subject matter and the acquisition of refined skills (Hattie J. Timperley, 2008).

In the realm of higher education, data-driven feedback serves as a fundamental aspect of the learning process, particularly within translation training, as it plays a vital

role in enhancing translation quality by providing targeted suggestions on linguistic components and examining the complexities inherent in translation tasks (Bruton, 2007; Zheng et al., 2020). Translation feedback requires instructors to address issues such as accuracy, fluency, style and contextual appropriateness; Therefore, it also helps trainees cultivate a more complex comprehension of language use. Furthermore, it supports active learning by framing the drafting process as iterative and recursive. This perspective encourages trainees to perceive their work as part of a continuous cycle of revision, fostering an environment where mistakes are considered opportunities for growth (Washbourne, 2014).

Previous studies have also examined the effectiveness of three distinct feedback types with translation education. For instance, one of these studies highlighted the positive impact of written corrective feedback, indicating that students with lower L2 proficiency tend to benefit significantly from direct interventions (Zheng et al., 2020). Similarly, Lyu & Han (2023) discovered that peer feedback not only enhanced students' performance but also fostered their evaluative and judgement skills. Despite the well-documented benefits of feedback, the provision of such guidance remains a time-consuming task, exacerbated by increasing class sizes that add to teachers' workloads (Al-Ghamdi, R. (2024)). As a result, instructors encounter the challenges of balancing the quality and promptness of feedback when evaluating students. This problem has led researchers to investigate automated methods for delivering translation

feedback, aiming to reduce the burden on the instructors while preserving feedback quality. Therefore, this research will explore data-driven feedback, automatic assessments, and the use of ChatGPT for analyzing the translation text to enhance the feedback process and address such problems.

### 1.6.1 Advantages and Drawbacks of Teacher Feedback

Prior studies have proved that teacher feedback is widely acknowledged as a fundamental form of feedback in educational settings (Carvalho et al., 2014). Empirical research indicates that teacher feedback plays a significant role in facilitating formative assessment practices in translation pedagogy, thereby contributing significantly to the development of students' translation competence (Sheen Younghee, 2011). A notable strength of teacher feedback lies in its credibility and authoritative nature, as students receive expert evaluations and guidance directly from their instructors (Guasch et al., 2013). Moreover, teacher feedback fulfils both consultative and interactive roles, fostering substantial engagement with the learning process. This type of instruction not only directs students in error correction but also encourages ongoing reflection and revision (Zheng et al., 2020).

Nevertheless, there are several limitations as well; feedback can sometimes be subjective, leading to potential biases, and it may not always address specific learning needs effectively (Thorp, 2023). For instance, in large classroom settings, instructors may struggle to provide personalized feedback that

caters to each student's unique challenges and learning styles.

In other words, the rapid growth of the higher education system has rendered it increasingly challenging for instructors to deliver consistent and sustained feedback across courses (Cui et al., 2022). In large classroom environments, the demand for personalized and detailed feedback can put undue pressure on educators, often diminishing the quality, depth, and timeliness of the feedback provisions. Moreover, time constraints may lead to feedback that lacks adequate explanation, consequently reducing its efficacy in helping students transfer acquired skills to new translation contexts (Lu et al., 2024).

### 1.6.2 Integrating AI-Powered Tools in Feedback Procedures

The emergence of AI generative tools has introduced novel opportunities for delivering feedback in translation training. Contemporary research has begun to examine the integration of data-driven methods into feedback and assessment practices for translation tasks. For instance, Man et al. (2022) proposed a corpus-assisted ecological assessment framework, wherein a longitudinal corpus of student translations, enriched with metadata and automated evaluation metrics, enhances both formative and summative feedback by tracking students' performance over time and providing data-informed insights into student progress.

The incorporation of artificial intelligence into feedback processes originated from early developments in automated written feedback and automated

writing evaluation systems, which garnered scholarly interest during the 1990s and early 2000s. These early AI-based systems were primarily rule-based and designed to provide corrective feedback on surface-level features such as grammar, spelling, and syntax, particularly in second and foreign language learning contexts.

A comprehensive systemic review of AI-based automated written feedback research spanning 1993-2022 demonstrates that prior studies focused largely on feedback accuracy, efficiency, and learner perceptions, often comparing machine-generated feedback with teacher feedback. According to Zhang, K. (2023), AI chatbots, developed using extensive linguistic datasets from the internet, employ statistical models to predict the most appropriate word in response to user inputs through reinforcement learning algorithms.

A recent study has also highlighted the effectiveness of GenAI feedback in educational settings, demonstrating its ability to enhance both teaching and learning processes. This effectiveness arises from its comprehensive training on a range of materials (Mindner et al., 2023; Lu et al., 2024), which allows it to provide tailored feedback that addresses individual learning needs and improves overall educational outcomes. Other studies indicate that both teachers and students recognize the benefits of utilizing GenAI feedback when assessing assignments. Instructors have reported positive findings, viewing GenAI as a cost-effective and user-friendly tool for delivering feedback (Nguyen, 2023). Likewise, students expressed appreciation for the informative

and consistent feedback provided by AI tools such as ChatGPT (Schmidt-Fajlik, 2023).

A thorough review of AI-based automated written feedback research spanning 1993-2022 demonstrates that prior studies focused largely on feedback accuracy, efficiency, and learner perceptions, often comparing machine-generated feedback with teacher feedback (Shi & Aryadoust, 2024). While such systems were found to enhance immediacy and consistency in feedback delivery, researchers consistently noted their limited capacity to address higher-order concerns, such as discourse coherence, argumentation, and pragmatic appropriateness, thereby highlighting the complementary rather than substitutive role of AI in feedback processes.

Advances in machine learning and natural language processing during the 2010s marked a crucial shift in the nature of AI-mediated feedback. Research during this period reflects a transition from static, form-focused feedback toward adaptive, personalized feedback systems capable of responding to learners' individual performance patterns. Large-scale systematic reviews indicate a rapid growth in AI-assisted feedback research after 2018, coinciding with the emergence of data-driven and generative models that support feedback at multiple levels, including task, process, and self-regulation (Garzón et al., 2025; Shi & Aryadoust, 2024). Empirical studies suggest that AI-assisted feedback can enhance learners' engagement and revision behaviors, particularly when it is integrated into pedagogically informed instructional designs and combined with teacher guidance. Rather

than functioning as isolated assessment tools, AI systems significantly operate as part of blended feedback models, in which automated feedback supports efficiency and personalization while human feedback adds interpretive depth and contextual sensitivity. More recent scholarship has expanded the discussion beyond effectiveness toward ethical, pedagogical, and institutional considerations in the integration of AI into feedback procedures. A structured integrative review by Alghamdi & Alghizzi (2025), synthesizing 37 empirical studies in higher education, highlights educators' generally positive perceptions of AI-automated feedback in terms of immediacy, scalability, and customization, along with persistent concerns related to data privacy, algorithmic bias, transparency, and the potential weakening of teacher-student relationships. Contemporary studies increasingly advocate for hybrid human-AI feedback ecosystems, in which educators retain a central mediating role in interpreting, contextualizing, and validating AI-generated feedback (Audrey Zhang et al., 2025). The recent body of research reflects a maturing field that views AI not merely as a technical solution but as a pedagogical tool whose value depends on ethical governance, instructional alignment, and meaningful human oversight.

### 1.6.3 Towards a Hybrid Assessment Model

Early research all pointed to the inclusion of LLMs in translation feedback and assessment, switching to a hybrid assessment model from the traditional one. In this study, the AI integration and automatic assessment

services are used as a low-level filter for finding conventional linguistic errors, such as literal terminology and grammar. Both also offer immediacy and real-time feedback and enable trainees to participate in deliberate practice. However, a human expert still makes the final decision regarding high-level contexts, such as cultural nuances and equivalents. It is more in-depth when guiding trainees as they navigate the grey areas of specialized translation. The use of AI in assessment, in comparison with human evaluation, will enable trainees to develop their evaluation judgement and the ability to critically assess their translation.

#### 1.6.4 Knowledge of Translation and its Significance

Early research established that translation extends beyond a mere linguistic activity, presenting itself as a complex cognitive and communicative process. Foundational scholars have underlined that successful translation requires greater bilingual proficiency, emphasizing the necessity for translators to grasp meaning, context, and purpose (Catford, 1965). Sun (2015) contends that translators must possess both professional and subject matter expertise to accurately interpret specialized texts. This is particularly true in fields like administration, law, medicine, and technology. From this perspective, translators lacking domain knowledge may resort to superficial lexical equivalence, leading to potential errors and diminished communicative efficacy. These early observations have laid the foundation for understanding translation as a professional practice that demands abstraction, knowledge,

and training, rather than relying solely on intuitive language skills.

Building on this foundation, subsequent theoretical models have defined translation competence as a multidimensional construct. PACTE Group (2008) defines translation as a dynamic interplay of linguistic, extralinguistic, strategic, and professional sub-competences throughout the translation process. Hurtado Albir (2015) also emphasizes the critical role of explicit knowledge in translation studies and decision-making processes, illustrating that high-quality translation stems from informed problem-solving rather than mechanical rendering between languages. Empirical research consistently demonstrates that adopting these frameworks indicates that translators with formal training are more likely to produce translations that are accurate, coherent, and functionally appropriate for their target audiences (Audrey Zhang et al., 2014).

More recent research has increasingly pointed out the importance of cultural knowledge and intercultural competence as essential elements of translation. Prior foundational scholarship acknowledged that language is intricately linked to culture and that translation inherently entails the negotiation of cultural boundaries, meanings, and pragmatic conventions (Newmark, 1988). Building on these insights, studies in translation pedagogy have indicated that a lack of cultural awareness often prompts learners to resort to literal translations, thereby diminishing cognitive effectiveness. More recent studies support these theoretical assertions, pointing out that translation

students who cultivate cultural competence are more adept at producing target texts that align with social and cultural norms as well as communicative expectations (Lee & Yuan, 2025). The above studies prove that the evolution of translation knowledge from a neurolinguistic emphasis to a broader interdisciplinary competence is essential for both academic training and professional practice.

## 2. Methodology

The research employs a holistic pedagogical approach during the administrative and economic workshops; it integrates an instructional package – AI support, instructors' input, cooperative learning, automatic assessment and data-driven feedback – rather than isolated variables. These workshops include 70 trainee translators. First, a cooperative learning approach was adopted during lectures, which was based on the trainees' needs. Following, the instructor depended on a human data-driven feedback strategy. This technique was applied through three steps, including supporting trainees with translation knowledge, assigning translation tasks, and the analysis of the translation errors through practical application (error patterns).

Second, instructors measure trainees' performance using automatic metrics, that is, Metric for Evaluation of Translation with Explicit ORdering (METEOR) and quality assessment rubrics. To calculate METEOR scores, human-certified translations were adopted. These translations were produced by an independent translator expert who works at National Oil Corporation. METEOR was selected; first, it addresses several limitations

found in COMIC and BLUE automatic metrics. Both rely on exact n-gram matches. Unlike METEOR, assessing translation by determining stemming and synonymy matches increases the accuracy of translation quality, which is essential for morphological languages like Arabic. The assessment procedure did not solely rely on METEOR; it also incorporated human assessments and feedback, which were based on back translations to ensure context-specific equivalence.

The typology of error includes accuracy, terminology, fluency and style. The analysis strategy involves collecting trainees' outputs, categorizing and quantifying errors, providing feedback based on the rate of frequency, measuring the severity of their errors and classifying them into neutral, minor, major and critical to assess the impact of errors on their meanings.

Analyzing translation excerpts also relies on ChatGPT 4 as an AI-powered tool. The evaluation process includes pre- and post-tests, and the analysis includes 20 excerpts' translations taken from different kinds of economic texts, such as news and reports. All issued by Libyan oil institutions.

### 1.2 Data Collection and Analysis

To track trainee progress and provide effective feedback for better outputs, the instructor relies on real-time data collection by identifying gaps and personalizing the text translation's instructions. Additionally, instructors integrate technology and respond to specific patterns that have been prepared in advance to measure trainee performance, such

as tracking common errors in translation or assessing the speed of completion for tasks. In this way instructors provide immediate insights and data-driven feedback loops. This method facilitated teachers' workflows and transformed the training process from periodical check-ins to endless support. The system also assists in identifying and adopting specific approaches and provides customized support based on their needs, such as tailored learning plans and targeted resources that address individual challenges. This ensures that trainees receive the necessary support at critical moments, preventing them from falling behind.

### 1.3 Data-Driven Feedback Systems in Translation Education

The instructor adopted the following procedures to achieve adequate answers for the research question.

1. The pre-test includes various text types, such as contracts and agreements, financial and annual reports, and import and export documents. Market analysis. It includes 20 excerpts. Time taken is three hours and 15 minutes for each, plus time for making a revision.
  2. Modules Personalization; they were tailored to trainees' specific needs.
  3. During the 12-week workshop, a specific teaching approach was adopted that included 2 hours per week of "cooperative learning," which focused on trainee-centered learning through their engagement in the translation task and immediate analysis of their responses.
  4. The translation task was "administrative, economic and legal texts", focusing on specialized translation.
  5. The instructor works on the translation knowledge area to implicitly support trainees with real information, including terminologies, accuracy, linguistic conventions and style. The process includes three steps: First, the instructor holds a general discussion on the topic, such as "Oil and gas production and import and export." Second, it provides text for gist reading and then for scan reading; the maximum includes 8–10 pages each week.
  6. First, trainees analyzed the texts and held discussions in small groups of five.
  7. The translation task includes unseen texts and requires individual work; each task consists of 5 excerpts, with 15 minutes allocated for each one. They analyzed the text and shared its translations. Feedback is given after sharing their translation for each excerpt. They trained in this way for 20 lectures, two hours a week.
  8. The test includes 20 excerpts; time taken to complete the task for each excerpt is 15 minutes. It means that it takes two hours and a half.
  9. Feedback includes remarks on error patterns such as fluency, linguistic conventions, accuracy, and style.
- For data analysis, the research uses the following:
- a. Collecting the pre- and post-tests.
  - b. Evaluating the pre-test results
  - c. Holding 20 hours of training with the adaptation of the above-mentioned strategies.
  - d. Conducting the post-test.

e. Quality assessment procedures include both human assessments and automatic assessments that rely on a human-certified translation as well as AI text evaluation and analysis.

f. The ChatGPT4 evaluation includes four types of professional prompts designed and classified according to specialized pedagogical purposes, including the following:

1. Linguistic error analysis prompts were designed for correcting the surface-level errors, e.g., "As an expert, identify grammatical errors and syntactic awkwardness." ..."
2. terminology consistency prompts: It was designed to ensure functional equivalence at the terminology level, e.g., "As an expert, can you verify the correct functional equivalent...?"
3. Translation rationale prompts were used to develop trainees' metacognitive skills. In other words, it was used to help trainees improve their evaluation judgements. Here research asked ChatGPT 4 to compare the source text to the trainee's translation without any correction in the translation. Ask trainees 3-4 Socratic questions to justify the translation selection, e.g., the difference between two terms, such as "void" and "voidable", or the style and structure of contracts and administrative text. When providing such feedback, trainees recognize that translation is not word-for-word; it is a matter of transferring profound meanings, making decisions, and deciding on specific strategies to identify functional and formal equivalents and nuances.

Here, shifting the role of this tool from being a corrector and translator to being a tutor encourages active learning.

## 3. Results

### 3.1 Results of the Pre-test

As the trainees do not have a solid background in translating various types of economic and legal texts, the pretest includes many errors, such as wrong translations, terminology inconsistency, and fluency and style. Therefore, instructors design a module based on their personalized needs and strengths, rather than relying on a fixed standard set of modules, as a first step. This strategy makes the later learning experience more relevant and effective. As the number of trainees was 20 in each class, the lecture workflow and feedback were complete on time. To provide trainees with an overview of their translations, the weekly instructor highlighted the area where each trainee needs improvement based on a specific error pattern. Since the module was designed to align with their needs, there was a chance for further training in error correction, which allows for ensuring the feedback's effectiveness. The research adopted METEOR to evaluate the quality of translation. This metric works by relying on the human reference translation to provide a valid assessment. It ranks the translation quality (TQ) using scores. Scores range from 0:00 to 1:00 based on the error pattern, with lower scores indicating more errors and higher scores reflecting better translation quality.

Based on both human and automatic assessments, trainees received positive and summative feedback. This constructive evaluation focuses on the quality of the submitted translations. The quality levels of the first excerpt's human evaluation ranged

from poor, low to acceptable, with one translation getting a high rating. The other three translations were deemed acceptable, while four were rated as poor. The METEOR assessment indicated that only one trainee achieved a high-quality score, reaching 0.866. The scores for the other translations ranged between 0.791 and 0.327. One can say that this assessment supports and reinforces the results of the human evaluation.

The quality of the second excerpt's translations was rated as acceptable, low, and poor. Trainees' work contained errors impacting the style, accuracy, and language conventions, e.g., awkward/unidiomatic phrasing, mistranslations, omissions, and grammar and word order errors. On the other hand, in the METEOR assessment, only three translations were acceptable; their scores ranged between 0.728 and 0.697 out of one. In contrast, the translation quality of the other trainees' work received low to poor scores, which ranged from 0.594 to 0.304.

The human feedback of the third excerpt identified two translations as high-quality and two as acceptable. Other translations exhibited errors affecting style, terminology, and linguistic conventions, including grammar and word order, as well as literal and under translations, which contributed to their low scores in the overall evaluation. The results of the METEOR assessment aligned with the human feedback evaluation. The translations of two trainees were rated as high quality; they both got scores between 0.886 and 0.837 (TR1 and TR4). TR2 and TR8 achieved acceptable scores, ranging between 0.741 and 0.703, while the remaining translations of this excerpt received lower scores, ranging between 0.586 and 0.446.

Based on the human feedback of the fourth excerpt, two translations were rated as

high quality, two as acceptable, four as low, and only one as poor. The identified errors included issues affecting linguistic conventions, grammar, word order, accuracy, inconsistent terminology, mistranslation, and omission. METEOR reflected the same results of human assessment, in that it recorded a similar range of scores for each trainee's work. For instance, TR5 and TR8 achieved the highest scores, 0.851 and 0.831 out of one.

Human feedback for the fifth excerpt resulted in five translations marked as acceptable. The remaining translations were identified as having various errors, which led to categorizing their quality as low and poor. These errors have affected not only the translation accuracy but also the style, leading to a less fluid and coherent reading experience for the audience. The automatic assessment confirmed these results, giving TR1, TR4, TR7, TR9, and TR10 acceptable quality scores of 0.718, 0.671, 0.655, 0.701, and 0.741. In contrast, the translation levels for TR2, TR3, and TR6 were assigned low scores of 0.456, 0.485, and 0.458, respectively. Additionally, TR5's and TR8's translations were rated as poor quality, with scores ranging from 0.326 to 0.369.

All in all, the pretest's feedback revealed that five translations were categorized as high quality, sixteen were classified as acceptable, and seventeen were rated as low quality. Additionally, twelve translations are classified as poor. It can be concluded that the majority of the trainees produce translations with limited quality. Table 1 illustrates all of these findings, displaying the results of the pre-test.

**Table 1.**

Shows the Results of the Pre-test.

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Pre-Test Data-driven Feedback												
	Excerpts	Reference Translation	Feedback – Detected Errors									
			Accuracy (AC)			Fluency (FL)				Style (ST)		TR <sup>10</sup>
			TR <sup>1</sup>	TR <sup>2</sup>	TR <sup>3</sup>	TR <sup>4</sup>	TR <sup>5</sup>	TR <sup>6</sup>	TR <sup>7</sup>	TR <sup>8</sup>	TR <sup>9</sup>	
1.	Sources, which asked to remain anonymous, said the real reason behind the blockade is the decision of NOC Chairman to sack the manager of Akakus Oil Operations Company, leading to tension among the PFG members who come from Zintan; the same as the sacked manager.	ذكرت مصادر طلبت عدم الكشف عن هويتها أن السبب الحقيقي وراء الإغلاق هو قرار رئيس المؤسسة الوطنية للنفط بإقالة مدير شركة أكاكوس للمعاملات النفطية، مما أدى إلى توترات بين أفراد حرس المنشآت النفطية الذين ينحدرون من مدينة الزنتان، وهي نفس المدينة التي ينتمي إليها المدير المغال.	مصادر التي طلبت ان تبقي مجهولة. قالت ان السبب الرئيسي خلف اغلاق ان القرار الرئيس وكالة النفط العالمية بصرف مدير شركة أكاكوس النفطية بإقالة مدير شركة أكاكوس للمعاملات النفطية، مما أدى إلى توترات بين أفراد حرس المنشآت النفطية الذين ينحدرون من مدينة الزنتان، وهي نفس المدينة التي ينتمي إليها المدير المغال.	مصادر قد طلبت بعدم كتم هويتهم. وقالت أن السبب الرئيسي حول وقف الانتاج هو سبب قرار رئيس مجلس المؤسسة الوطنية للنفط بإقالة مدير شركة أكاكوس للمعاملات النفطية، مما أدى إلى توترات بين أفراد حرس المنشآت النفطية الذين ينحدرون من مدينة الزنتان، وهي نفس المدينة التي ينتمي إليها المدير المغال.	وقالت مصادر التي طلبت عدم الكشف عن هويتها ان سبب الحصار هو قرار رئيس مجلس الادارة المؤسسة الوطنية للنفط بإقالة مدير شركة أكاكوس لتوزيع النفط والغاز ما أدى إلى زيارة التوتير بين اعضاء حرس المنشآت النفطية الذين من الرئيس المضروب على.	وصرحت مصادر مجهولة. أن السبب الحقيقي وراء الحصار هو قرار المؤسسة الوطنية للنفط بإقالة مدير عمليات الشركة النفطية أكاكوس. مما أدى إلى توترات بين اعضاء حرس الموانئ النفطية الذين قدموا من الزنتان. ويجب اقالة نفس المدير المسؤول على ذلك.	مصادر تشارت لاتار مجهولة. قالت السبب الحقيقي وراء الحصار هو قرار الشركة الوطنية للنفط لصرف مدير الشركة من شركة عمليات أكاكوس النفطية. مقدم الجهود في مايبها اعضاء حامية الوداعات البترولية الذين اتوا من الزنتان: نفس الاداره المسروقة.	مصادر التي قامت بالتأول للإصلاح مجهولة الهوية قائلة بان السبب الحقيقي وراء الاغلاق هو قرار الشركة الوطنية للنفط لصف شركة الاتحاد الدولي للنفط برئاسة تشيرمان وذا اكاكوس الذي اتوا من الزنتان: نفس الإدارة المصرية.	مصادر قبلت ليقايا مجهول. قال السبب الحقيقي وراء الحصار هو قرار الشركة الوطنية للنفط لصف شركة أكاكوس مقدم للجهود بين اعضاء ال pfg الذي اتوا من الزنتان: نفس الإدارة المصرية.	مصادر التي طلبت ان تبقي مجهولة قالت ان السبب الحقيقي وراء الاغلاق هو قرار مجلس ادار المنظمة الوطنية للنفط بطرد مدير شركة اكاكوس للمعاملات النفطية، مما أدى إلى توترات بين اعضاء حرس المنشآت النفطية من الزنتان: مثل الزميل المطرود.	من بعض المصادر التي قامت بالسؤال لتذكر الاعضاء كائلة: السبب الحقيقي وراء الإغلاق هو قرار رئيس الاتحاد الليبي للنفط تشيرمان الي سؤال على بعض من اعضاء الاتحاد الليبي للنفط الذين اتوا من الزنتان. وهو ذات الامر الذي تم سوله بإلتارة.	Missing translation
Automatic Assessment	METEOR Quality Scores		0.757	0.327	0.442	0.402	0.468	0.354	0.791	0.362	0.728	0.866
	Translation Feedback		Score: 0.757; Acceptable quality; Terminology – Inconsistent use of terminology	Score: 0.327; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.442; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.402; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.468; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.354; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.791; Acceptable quality; Terminology – Inconsistent use of terminology	Score: 0.362; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.728; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.866; High quality; Terminology – Inconsistent use of terminology
2.	Libya's National Oil Corporation (NOC) has declared force majeure on crude exports from Ai-Zawiya and Mellia terminals, a document sent to traders and seen by Reuters showed on Monday.	أعلنت المؤسسة الوطنية للنفط في ليبيا حالة القوة القاهرة على صادرات الخام من محطتي الزاوية ومليتا. وأظهرت الوثيقة أرسلت إلى التجار واطلع عليها وكالة رويترز يوم الاثنين.	أعلنت مؤسسة النفط الوطنية الليبية حالة القوة القاهرة على صادرات النفط الخام من محطتي الزاوية ومليتا. وأظهرت وثيقة أرسلت إلى التجار واطلع عليها وكالة رويترز يوم الاثنين.	أعلنت المؤسسة الوطنية للنفط عن وجود اقتحام قاهر لصادرات الخام من قبل محطتي الزاوية ومليتا. حيث تم رؤيتها من قبل وكالة رويترز وحرضت يوم الاثنين.	أعلنت المؤسسة الليبية الوطنية للنفط قد صرحت لقوة صادرات الخام من المحطتين الزاوية ومليتا وقد أرسلت مستند الاطلاع عليه من قبل الرويترز يوم الاثنين.	أعلنت المؤسسة الوطنية للنفط في القاهرة على صادرات الخام من طرفي الزاوية ومليتا. قد أرسل المستند إلى الباخرة وقد رأى من قبل فاحصي الجودة.	صرحت الهيئة الليبية الوطنية للنفط في تصدير المواد الخام من طرفي الزاوية ومليتا. قد أرسل المستند إلى الباخرة وقد رأى من قبل فاحصي الجودة.	أعلنت مؤسسة النفط الوطنية الليبية حالة القاهرة على صادرات النفط الخام من محطتي الزاوية ومليتا وأظهرت وثيقة أرسلت إلى التجار واطلع عليها رويترز يوم الاثنين.	أعلنت المؤسسة الوطنية للنفط الليبية في القاهرة على صادرات النفط الخام ووثيقة أرسلتها إلى التجار واطلعت عليها رويترز يوم الاثنين.	وقد أعلنت المؤسسة الوطنية للنفط أن القوة القاهرة (NOC) في القاهرة على صادرات النفط من محطتي الزاوية ومليتا، ووثيقة المرسله الي التجار و ينظر من قبل رويترز يوم الاثنين.	الشركة الليبية النفطية وقد أعلنت القوات العسكرية من تصدير مواد الخام من الزاوية ومليتا وتم إرسال الوثائق إلى التجار وتم رؤيتها صباح يوم الاثنين.	شركة النفط الوطنية الليبية أعلنت عن قوة الانتاجية على تصديرات الخام من محطتي الزاوية ومليتا. وثيقة أرسلت إلى تجار وشهدت بواسطة رويترز في يوم الاثنين.

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Automatic Assessment	METEOR Quality Scores	0.724	0.697	0.323	0.334	0.728	0.594	0.373	0.328	0.304	0.369
	Translation Feedback	Score: 0.724; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.697; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.323; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.334; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.728; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.594; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.373; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.328; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.304; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.369; Poor quality; Accuracy – Mistranslation / Omission
3.	Reuters reported Monday evening that the NOC said it had declared the force majeure because the Petroleum Facilities Guard (PFG) prevented the company from carrying out oil production operations at the Sharara and Wafa Oilfields. The force majeure does not apply to loadings of petroleum products, NOC said.	ذكرت وكالة رويترز مساء يوم الاثنين أن المؤسسة الوطنية للنفط أعلنت حالة القوة القاهرة بسبب قيام حرس المنشآت النفطية بمنع الشركة من تنفيذ عمليات إنتاج النفط في حقل الشراة والوفاء. وأضافت المؤسسة أن حالة القوة القاهرة لا تنطبق على تحميل المنتجات البترولية	أبلغت رويترز مساء اليوم الاثنين بأن منشأة النفطية للنفط قالت بأنه تم إعلان القوى العظمى بسبب منع حرس منشآت النفطية للشراكة بمعالجة عمليات إنتاج النفط في حقل شراة و الوفاء. وقد قالت منشأة النفطية للنفط بأن القوى العظمى لاتكافئ تحميل منتجات نفطية	أبلغت وكالة رويترز مساء يوم الاثنين أن المؤسسة الوطنية للنفط قد صرحت أنها أعلنت عن وجود اقتحام قاهر وذلك لان حرس المنشآت النفطية قاموا بمنع الشركات النفطية من تنفيذ عمليات إنتاج النفط في حقل الشراة والوفاء. وأضافت المؤسسة من حفظ المنتجات النفطية هي التي قامت بمنع الشركة من تنفيذ عمليات إنتاج النفط على حقل الصحراء النفطية. من حيث اخبرت المؤسسة النفطية ان هذه القوات لاتسمح بتنفيذ تحميل المنتجات النفطية	قامو الزويترز باصدار بيان مساء يوم الاثنين موضع فيه انه المؤسسة الوطنية للنفط ذكرت فيه سبب تصريحها لقوة الماجوري لان حرس المنشآت النفطية هي التي قامت بمنع الشركة من تنفيذ عمليات إنتاج النفط على حقل الصحراء النفطية. من حيث الماجوري لم تسمح بتحميل البضائع من انتاجات النفط ذكرت للمنتج النفطي	أفادت رويترز مساء يوم الاثنين إن المؤسسة الوطنية للنفط قالت أنها أعلنت القوة القاهرة لأن حرس المنشآت النفطية منعت الشركة من القيام بعمليات إنتاج النفط في حقل الشراة والوفاء. وأضافت المؤسسة رفض تحميل المنتجات النفطية	قاهي الجودة أفرد مساء الاثنين أن الهيئة العامة للنفط صرحت لحرس التسهيلات النفطية ضد الشركة من تحميل المنتجات النفطية الى الخارج في حقل الشراة والوفاء النفطية، حرس الموائى رفض تحميل المنتجات النفطية	تقلت رويترز مساء يوم الاثنين أن مؤسسة النفط الوطنية قالت انها أعلنت القوة القاهرة لان حراسة المنشآت البترولية منعت الشركة من القيام بعمليات إنتاج النفط في حقل الشراة و الوفاء و لا تنطبق القوة القاهرة على تحميل المنتجات البترولية	أفاد تقرير رويترز مساء يوم الاثنين الذي اعلنت فيه المؤسسة الوطنية للنفط (NOC) أن القوة القاهرة بسبب تسهيلات حرس النفطية لمنه الشركة من تنفيذ عمليات الموائى النفطية التي منعت الشركة من نقل نفط الخام في حقل الصحاري و الوفاء والقوات العسكرية لايطبق عليها حمل الخاد. هذا ما قالته الشركة النفطية	بيان وكالة الانباء مساء يوم الاثنين، وأن الشركة النفطية صرحت للقوات العسكرية بسبب التسهيلات الدفاعية للنفط ولحمایة الشركة من عمليات نقل نفط الخام في حقل الصحاري و الوفاء والقوات العسكرية لايطبق عليها حمل الخاد. هذا ما قالته الشركة النفطية	شركة النفط الليبية رويترز أعلنت في مساء يوم الاثنين ان شركة النفط الوطنية قالت انها أعلنت القوة الانتاجية لان من اخراج عمليات الانتاج النفطية في حقل الشراة و الوفاء. القوة الانتاجية لم تستعمل مولات الانتاجية البترولية
Automatic Assessment	METEOR Quality Scores	0.886	0.703	0.511	0.837	0.584	0.446	0.478	0.741	0.556	0.586
	Translation Feedback	Score: 0.886; High quality; No major error detected	Score: 0.703; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.511; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.837; High quality; Terminology – Inconsistent use of terminology	Score: 0.584; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.446; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.478; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.741; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.556; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.586; Low quality; Linguistic conventions – Grammar / Word order
4.	Libya's NOC declares force majeure on oil exports in two ports.	تعن المؤسسة الوطنية للنفط في ليبيا حالة القوة القاهرة على صادرات النفط في ميناءين نفطيين	صرحت منشأة النفطية للنفط باستخدام القو العظمى لتصدير نفط في مينائين	تعن المؤسسة الوطنية للنفط الليبية عن وجود قوة لصادرات النفط في المنائين	المؤسسة الوطنية للنفط الليبية أعلنت القوة القاهرة على صادرات النفط في مينائين	حرس الموائى لليبية الليبية الوطنية للنفط تنلى بصريح على انها قاندره على تصدير النفط في مينائين	تعن مؤسسة النفط الليبية عن قوة قاهرة على صادرات النفط في مينائين	تعن المؤسسة الوطنية للنفط الليبية عن وجود قوة قاهرة على صادرات النفط في الجزيرى	تعن المؤسسة الوطنية للنفط الليبية عن وجود قوة قاهرة في ارداد النفط في ائتئين من الموائى النفطي.	Missing translation	تصريحات القوة الانتاجية لشركة النفط الوطنية الليبية على تصدير النفط في منفدين

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<b>Automatic Assessment</b>	<b>METEOR Quality Scores</b>	<b>0.673</b>	<b>0.498</b>	<b>0.445</b>	<b>0.711</b>	<b>0.851</b>	<b>0.581</b>	<b>0.429</b>	<b>0.831</b>	<b>0.377</b>	
	<b>Translation Feedback</b>	Score: 0.673; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.498; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.445; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.711; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.851; High quality; No major error detected	Score: 0.581; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.429; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.831; High quality; Terminology – Inconsistent use of terminology	Missing Translation	Score: 0.377; Poor quality; Accuracy – Mistranslation / Omission
<b>5.</b>	<b>The NOC said the maintenance and repairs were completed on Wednesday after working for 48 hours without a break, thus finishing the job a week earlier than the deadline.</b>	أعلنت وكالة النفط العالمية أن الصيانة والإصلاحات قد اكتملت يوم الأربعاء بعد 48 ساعة دون راحة لذلك انتهت العمل بأسبوع أبكر من الموعد المحدد.	Missing Translation	وقالت الشركة الوطنية للنفط أنه قد تم الانتهاء من أعمال الصيانة والإصلاحات على تمام يوم الأربعاء بعد العمل لمدة 48 ساعة بدون انقطاع وبهكذا تم الانتهاء من العمل مبكراً قبل أسبوع من الموعد المحدد للانتهاء.	صرحت الشركة الوطنية للنفط أن الصيانة والتعديل اكتملت في يوم الأربعاء بعد 48 ساعة متواصلة دون الحصول على راحة أو انقطاع وبالتالي الانتهاء من العمل قبل أسبوع من الموعد المحدد للانتهاء.	أفادت الهيئة العامة للشركات النفط العالمية أن العمال والحظين انهيوا من عمل أسبوع قبل الموعد المحدد.	الشركة الوطنية للنفط قالت بأن صيانة والتجديد اكتملت في يوم الأربعاء بعد العمل لمدة 48 ساعة بدون استراحة لهذا تم انتهاء من العمل بأسبوع من الموعد النهائي.	وصرحت الشركة الوطنية للنفط (NOC) أنه تم الانتهاء من صيانة والإصلاحات يوم الأربعاء بعد العمل لمدة 48 ساعة دون انقطاع وهكذا تم الانتهاء من العمل في وقت سابق من الموعد النهائي.	ان NOC قالت الصيانة والإصلاحات اكتملت يوم الأربعاء بعد العمل لمدة 48 ساعة دون انقطاع وبالتالي الانتهاء من الخدمة قبل أسبوع من الموعد النهائي.	ذكرت المؤسسة الوطنية للنفط أن الصيانة والتصيلجات اكتملت يوم الأربعاء بعد ماتم على تشغيلها الي 48 ساعة متواصلة لذلك كان اخر موعد للعمل في الأسبوع السابق	Missing Translation
<b>Automatic Assessment</b>	<b>METEOR Quality Scores</b>	<b>0.718</b>	<b>0.456</b>	<b>0.485</b>	<b>0.671</b>	<b>0.326</b>	<b>0.458</b>	<b>0.655</b>	<b>0.369</b>	<b>0.701</b>	<b>0.741</b>
	<b>Translation Feedback</b>	Score: 0.718; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.476; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.485; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.671; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.326; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.458; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.655; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.369; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.701; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.741; Acceptable quality; Style – Awkward / Unidiomatic style

### 3.2 Results of the Post-test

As illustrated in Table 2 below, the feedback of the post-test assessment demonstrates notable progress in the trainees' performance on excerpts (1). Three trainees' translations have received positive feedback, with the number of detected errors being negligible. The highest score in the METEOR assessment achieved for this excerpt was 0.836, while the second highest were 0.813 and 0.814. Meanwhile, the feedback for the other four trainees' translations was constructive, indicating an acceptable level of quality. Their METEOR scores ranged from 0.644 to 0.783, with minor errors that do not alter the original meaning of the text. This suggests that editing and refining the translation would not be a major obstacle. However, three trainees did not achieve the quality standards set by this excerpt. One prefers to not translate this excerpt.

Regarding Excerpt 2, the quality of the translations was also assessed, utilizing both human evaluations and the METEOR score. Based on human feedback, this excerpt translation contains various types of errors that affect linguistic conventions, including issues with grammar and word order. While the number of errors affects the accuracy of the translation, only one was presented as a mistranslation and omission. Style was one of the detected errors identified in the translations; these are awkward and unidiomatic styles. Such errors lead to misunderstanding of the source excerpt, which may lead to misinterpretation of the original. The highest METEOR score recorded was 0.851. Five trainees produced

translations deemed acceptable with scores of 0.712, 0.674, 0.636, 0.603, and 0.603. Accordingly, three were rated as low quality with scores of 0.570, 0.566, and 0.485. Only one was classified as poor with a score of 0.306. These findings suggest a varied level of improvement among trainees; at the same time, they highlight areas where additional support and refinement might be beneficial, specifically in translations that were classified as low quality. This score rating indicates the need for extensive training.

The human and METEOR assessments of the translation quality for excerpt 3 revealed that two translations received positive feedback. METEOR classified it as high translation quality; its score reached 0.853 and 0.854. Six translations were rated as acceptable, with scores ranging from 0.662 to 0.647 to 0.706 to 0.712 to 0.735 to 0.761. The other two translations were also rated as low, with 0.557 and 0.596. Only one is classified as poor, with 0.306, and one is untranslated. Furthermore, the errors in this excerpt are minor and don't change the original text's meaning. This finding clarifies why human feedback was positive.

Excerpt 4's assessment demonstrated a marked improvement, with three translations achieving a high-quality score ranging from 0.813 to 0.828 to 0.891, representing significant progress compared to the pre-test findings. Three translations were rated as acceptable, with scores between 0.668, 0.675, and 0.798, and three were classified as low quality. No evidence for poor-quality translation was recorded for this excerpt, and one translation was missing, possibly due to timing or other factors.

Human and METEOR assessments and feedback on the last excerpt's translation identified two translations of high quality, with METEOR scores reaching 0.839 and 0.844. On the other hand, two achieved acceptable translations, their scores ranging from 0.671 to 0.789. Three translations were rated as low quality with scores of approximately 0.538, 0.565, and 0.590. Human feedback given to the last trainees' work surpassed 0.372, reaching 0.397. The outcomes of the post-test demonstrate a crucial and commendable advancement in the trainees' translation performance. Overall, 11 translations were evaluated as high quality, 16 as acceptable, 16 as low, and only 5 as poor. Importantly, the observed deficiencies in the low and poor translations were limited in scope and did not compromise the integrity or meaning of the original.

One can say that the adaptation of the cooperative learning strategies makes a difference in students' post-test results, since in all received training sessions the instructor applied the cooperative learning approach. During the translation task, trainees analyzed the texts, held discussions in peer work or in small groups of 5. This assists weak students in strengthening their skills and extending their knowledge of translation, as well as enhances their performance on the post-test.

AI-empowered tools were also adopted in the feedback process as pedagogical tools in this research. To evaluate each excerpt's translation, specific prompts were given to ChatGPT 4.0, along with a specific framework to analyse trainees' translations and evaluate their quality. This framework

encompasses terminology consistency, fluency, naturalness, grammar, and punctuation. The results revealed its effectiveness in providing immediate and consistent reflections on the quality of their translation. However, human guidance accompanies this success. It enhances both instructors' and trainees' performance. However, its feedback can be considered a first step to improving the translation quality, as it can easily identify linguistic issues such as spelling, structure and grammar. In contrast, issues such as accuracy and coherence still need human guidance. Therefore, AI-empowered tools can be adopted as pedagogical tools in providing initial reflection on the translation work and its effectiveness coupled with human reinforcement. One can say that both create synergistic effects; ChatGPT 4 addresses mechanical accuracy and enables instructors to focus on high-level and deep nuances.

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Post-Test Data-driven Feedback												
	Excerpts	Reference Translation	Feedback – Detected Errors									
			Accuracy (AC)			Fluency (FL)			Style (ST)			
			TR <sup>1</sup>	TR <sup>2</sup>	TR <sup>3</sup>	TR <sup>4</sup>	TR <sup>5</sup>	TR <sup>6</sup>	TR <sup>7</sup>	TR <sup>8</sup>	TR <sup>9</sup>	TR <sup>10</sup>
1.	Sources, which asked to remain anonymous, said the real reason behind the blockade is the decision of NOC Chairman to sack the manager of Alkajkus Oil Operations Company, leading to tension among the PFG members who come from Zintan; the same as the sacked manger.	ذكرت مصادر طلبت عدم الكشف عن هويتها أن السبب الحقيقي وراء الإغلاق هو قرار رئيس المؤسسة الوطنية للنقط بإقالة مدير شركة أكاكوس للعمليات النفطية، مما أدى إلى توترات بين أفراد حرس المنشآت النفطية الذين ينحرون من مدينة الزنتان، وهي نفس المدينة.	مصادر التي طلبت ان تبقى مجهولة. قالت ان السبب الرئيسي خلف اغلاق ان القرار الرئيس وكالة النقط العالمية بصرف مدير شركة أكاكوس النفطية. مما أدى الي توتر بين أعضاء مجموعة العمليات النفطية القادمين من الزنتان. مثل المدير المصروف	مصادر قد طالبت بعدم كشف هويتهم. وقالت أن السبب الرئيسي حول وقف الانتاج هوسيب قرار رئيس مجلس المؤسسة الوطنية للنقط بإقالة مدير شركة أكاكوس لإنتاج النقط من منصبه. ما أدى الي توترات ضمن أفراد حقل إنتاج النقط الذين جاءوا من الزنتان مثل ماتم الاشراف علي اقالته	وقالت مصادر التي طلبت عدم الكشف عن هويتها ان سبب الحقيقي وراء الحصار هو قرار رئيس مجلس الادارة المؤسسة الوطنية للنقط بإقالة مدير شركة الكاكوس لتوزيع النقط والغان التوتير بين اعضاء حرس المنشآت النفطية الذين من منطقة الزنتان مثل الرئيس المعزور	و صرحت مصادر مجهولة , أن السبب الحقيقي وراء الحصار هة قرار رئيس المؤسسة الوطنية للنقط لإتقالة مدير عمليات الشركة النفطية كاكوس. مما أدى الي توترات بين اعضاء حرس المواني النفطية الذين قدموا من الزنتان. ويجب اقالة نفس المدير المسؤول . على ذلك	مصادر نشرت لاتار مجهولة. قالت السبب الحقيقي وراء الاعاقه هو قرار الشركة الوطنية للنقط لصفحة مدير الشركة من شركة عمليات كاكوس للنفطية. اقدم للجهود في ماينها اعضاء عملية الوداحات البيرونية الذين اتو من الزنتان. نفس الاداره المعسوفة	مصادر التي قامت بالتأؤل للإصلاح مجهولة الهوية كائلة بان السبب الحقيقي وراء الاعاقه هو قرار الاتحاد الدولي للنقط برئاسة تثيرمان ودا لاجل مدير حقل أكاكوس للنقط بقيادة الي توترات تفودها أعضاء الاتحاد الدولي للنقط تبعاً للذين اتوا من الزنتان وهو ذاته المرتبط بالادارة	مصادر قيلت ليغايا مجهول. قال السبب الحقيقي وراء الحصار هو قرار الشركة الوطنية للنقط بصرف مدير شركة الكاكوس النفطية. مقدم للجهود بين أعضاء ال PFG الذي اتوا من الزنتان: نفس الإدارة المصرية	مصادر التي طلبية ان تبقى مجهولة قالت ان السبب الحقيقي وراء الاعلاق هو نقاش رئيس الاتحاد الليبي للنقط تثيرمان الي سوال علي بعض من اعضاء الاتحاد الليبي للنقط الذين اتوا من الزنتان . وهو ذات الامر الذي تم بواله لإدارة	من بعض المصادر التي قامت بالسؤال لتذكر الاعضاء كائلة: السبب الحقيقي وراء الاعلاق هو نقاش رئيس الاتحاد الليبي للنقط تثيرمان الي سوال علي بعض من اعضاء الاتحاد الليبي للنقط الذين اتوا من الزنتان : مثل الزميل المطرود	Missing Translation
Automatic Assessment	METEOR Quality Scores	0.644	0.664	0.813	0.682	0.783	0.836	0.441	0.544	0.414	0.814	
	Translation Feedback	Score: 0.644; Acceptable quality; Linguistic conventions – Grammar / Word order	Score: 0.664; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.813; High quality; Terminology – Inconsistent use of terminology	Score: 0.682; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.783; Acceptable quality; Terminology – Inconsistent use of terminology	Score: 0.836; High quality; Terminology – Inconsistent use of terminology	Score: 0.441; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.544; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.414; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.814; High quality; Terminology – Inconsistent use of terminology	
2.	Libya's National Oil Corporation (NOC) has declared force majeure on crude exports from Ai-Zawiya and Melliah terminals, a document sent to traders and seen by Reuters showed on Monday.	أعلنت المؤسسة الوطنية للنقط في ليبيا حالة القوة القاهرة على صادرات النقط الخام من محطتي الزاوية وملية. وثيقة أرسلت إلى المتعاملين واطلعت عليها وكالة رويترز يوم الاثنين.	أعلنت المؤسسة الوطنية للنقط عن وجود اقتحام قاهر لصادرات الخام من قبل محطتي الزاوية وملية. حيث تم رؤيتها من قبل وكالة رويترز وعرضت يوم الاثنين	المؤسسة الليبية الوطنية للنقط قد صرحت لقوة الماجوري على صادرات الخام من المحطتين الزاوية وملية. وقد أرسلت مسك الي تجار العالمية وتم الاطلاع عليه من قبل رويترز يوم الاثنين	أعلنت المؤسسة الوطنية الليبية للقاهرة على صادرات الخام من محطتي الزاوية وملية. وأظهرت وثيقة أرسلت إلى التجار وأعلنت عليها رويترز يوم الاثنين.	صرحت الهيئة الليبية الوطنية للنقط في تصدير المواد الخام من طرفي الزاوية وملية. قد أرسل المسند الي الباخره وقد رأى من قبل فاحصي الجودة	أعلنت مؤسسة النقط الوطنية الليبية حالة القوة القاهرة على صادرات النقط الخام من محطتي الزاوية وملية. وهي وثيقة أرسلتها الي التجار واطلعت عليها رويترز يوم الاثنين	اعتنت المؤسسة الوطنية للنقط الليبية حالة القوة القاهرة على صادرات النقط الخام. وهي وثيقة أرسلتها الي التجار واطلعت عليها رويترز يوم الاثنين	وقد أعلنت المؤسسة الوطنية للنقط (NOC) أن القوه القاهرة في الصادرات النقط من محطات الزهاوى الي مليتيم و الوثيقة المرسله الي التجار و ينظر من قبل رويترز يوم الاثنين	الشركة الليبية النفطية وقد أعلنت القوات العسكرية من تصدير مواد الخام من الزاوية وملية وتم ارسال الوثائق الي التجاري وتم رويتها صباح يوم الاثنين	شركة النقط الوطنية الليبية أعلنت عن قوة الإنتاجية على تصديرات الخام من محطات الزاوية وملية. وثيقة أرسلت الي تجار وشهدت بواسطة رويترز في يوم الاثنين	

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Automatic Assessment	METEOR Quality Scores	0.570	0.712	0.306	0.485	0.636	0.851	0.603	0.566	0.674	0.603
	Translation Feedback	Score: 0.57; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.712; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.306; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.485; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.636; Acceptable quality; Linguistic conventions – Grammar / Word order	Score: 0.851; High quality; No major error detected	Score: 0.603; Acceptable quality; Linguistic conventions – Grammar / Word order	Score: 0.566; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.674; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.603; Acceptable quality; Linguistic conventions – Grammar / Word order
3.	Reuters reported Monday evening that the NOC said it had declared the force majeure because the Petroleum Facilities Guard (PFG) prevented the company from carrying out oil production operations at the Sharara and Wafa Oilfields. The force majeure does not apply to loadings of petroleum products, NOC said.	وذكرت وكالة رويترز مساء يوم الاثنين أن المؤسسة الوطنية للنفط أعلنت حالة القوة القاهرة بسبب قيام حرس المنشآت النفطية بمنع الشركة من تنفيذ عمليات إنتاج النفط في حقل الشرارة وأضاف أن حالة القوة القاهرة لا تنطبق على تحميل المنتجات البترولية	أبلغت وكالة رويترز مساء يوم الاثنين أن مؤسسة الوطنية للنفط أعلنت حالة القوة القاهرة بسبب قيام حرس المنشآت النفطية بمنع حرس منشآت النفطية للسلامة بمتابعة عمليات إنتاج النفط في حقل الشرارة والوفاء. وقد قالت منشأة الوطنية للنفط بأن القوى العظمى لا تكفي تحميل منتجات نفطية	أبلغت وكالة رويترز مساء يوم الاثنين أن مؤسسة الوطنية للنفط أعلنت عن وجود اقتحام قاهر وذلك لأن حرس المنشآت النفطية قاموا بمنع نفطية الانتاج النفطية هي التي قامت بمنع الشركة من تنفيذ عمليات إنتاج النفط في كل من حقل الشرارة والوفاء الفطرين. من حيث اخبرت المؤسسة النفطية ان هذه القوات لا تسمح بتنفيذ تحميل المنتجات النفطية	قامو الزويترز باصدار بيان بمساء يوم الاثنين موضح فيه انه المؤسسة الوطنية للنفط ذكرت فيه سبب تصريحها لقوة الماجوري لان المنشآت النفطية هي التي قامت بمنع الشركة من تنفيذ عمليات إنتاج النفطية هي التي قامت بمنع الشركة من تنفيذ عمليات إنتاج النفط على حقلين الصحراء والوفاء. قوة الماجوري لم سمح بتحميل البضائع من انتاجات النفط ذكرت المؤسسة الوطنية للنفط	أفادت رويترز مساء يوم الاثنين إن المؤسسة الوطنية للنفط أعلنت أنها صرحت لحرس المنشآت البترولية منع الشركة من تنفيذ عمليات إنتاج النفطية الى الخارج في حقل الشرارة والوفاء النفطية. وقالت المؤسسة القاهرة لا تنطبق على بضمنه منتجات البترولية	فاهي الجودة اقرو مساء الاثنين أن الهيئة العامة للنفط صرحت لحرس التسهيلات النفطية ضد الشركة من تحميل المنتجات النفطية الى خارج في حقل الشرارة والوفاء النفطية، حرس الموائى رفض لحمل المنتجات النفطية	نقلت رويترز مساء يوم الاثنين ان مؤسسة النفط الوطنية القاهرة لان حراسة المنشآت البترولية منعت الشركة من القيام بعمليات انتاج نفط في حقل الشرارة والوفاء. وان القوة القاهرة لا تنطبق على تحميل المنتجات البترولية	أفادت رويترز مساء يوم الاثنين الذي أعلنت فيه المؤسسة الوطنية (NOC) للنفط القاهرة بسبب تمهيلات حرس الموائى النفطية التي منعت الشركة من تنفيذ عمليات انتاج النفط في حقل الشرارة والوفاء. وأضاف الى ذلك أن القوة القاهرة لا تنطبق على تحميل المنتجات النفطية وهذا ما صرح به المؤسسة الوطنية للنفط	بيان وكالة الانباء مساء يوم الاثنين. وأن الشركة النفطية صرحت للقوات العسكرية بسبب التسهيلات الدفاعية النفطية لحماية الشركة من عمليات نقل نفط الخام في حقل الصحاري و الوفاء والقوات العسكرية لا يطبق عليها حمل الخام. هذا ما قالته الشركة الليبية النفطية	شركة النفط الليبية رويترز أعلنت في مساء يوم الاثنين ان شركة النفط الوطنية قالت انها أعلنت القوة الانتاجية لان من اخراج عمليات الانتاج النفطية في حقل النفط الشرارة والوفاء. القوة لانتاجية لم تستعمل حمولات الانتاجية البترولية
Automatic Assessment	METEOR Quality Scores	0.647	0.662	0.712	0.557	0.761	0.853	0.735	0.854	0.706	0.596
Automatic Assessment	Translation Feedback	Score: 0.647; Acceptable quality; Linguistic conventions – Grammar / Word order	Score: 0.662; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.712; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.557; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.761; Acceptable quality; Terminology – Inconsistent use of terminology	Score: 0.853; High quality; No major error detected	Score: 0.735; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.854; High quality; No major error detected	Score: 0.706; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.596; Low quality; Linguistic conventions – Grammar / Word order

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4.	Libya's NOC declares force majeure on oil exports in two ports.	تعلن المؤسسة الوطنية للنفط في ليبيا حالة القوة القاهرة على صادرات النفط في ميناءين نفطيين	صرحت مؤسسة النفط باستخدام القو الحظمي لتصدير نفط في ميناءين	تعلن المؤسسة الوطنية للنفط الليبية عن وجود قوة لصادرات النفط في المينائين	المؤسسة الوطنية للنفط الليبية صرحت القوة الماجوري على صادرات النفط في المينائين	المؤسسة الوطنية للنفط الليبية أعلنتت القوة القاهرة على صادرات النفط في مينائين	حرس المواني للهيئة الليبية للنفط بتصريح على انها قادره على تصدير النفط في مينائين	تعلن مؤسسة النفط الوطنية الليبية عن قوة القاهرة على صادرات النفط في مينائين	المؤسسة الوطنية للنفط الليبية تعلن ان القوة القاهرة على صادرات النفط في المواني النفطي.	تعلن المؤسسة الوطنية للنفط على وجود قوة القاهرة في ارداد النفط في التين من المواني النفطي.	Missing translation	تصريحات القوة الانتاجية لشركة النفط الوطنية الليبية على تصدير النفط في منفدين	
	METEOR Quality Scores	0.675	0.891	0.828	0.480	0.813	0.555	0.467	0.668			0.798	
Automatic Assessment	Translation Feedback	Score: 0.675; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.891; High quality; No major error detected	Score: 0.828; High quality; Terminology – Inconsistent use of terminology	Score: 0.480; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.813; High quality; Terminology – Inconsistent use of terminology	Score: 0.555; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.467; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.668; Acceptable quality; Style – Awkward / Unidiomatic style	Missing translation	Score: 0.798; Acceptable quality; Terminology – Inconsistent use of terminology		
5.	The NOC said the maintenance and repairs were completed on Wednesday after working for 48 hours without a break, thus finishing the job a week earlier than the deadline.	قالت المؤسسة الوطنية للنفط ان أعمال الصيانة والإصلاح قد اكتملت يوم الأربعاء بعد العمل المتواصل لمدة 48 ساعة دون توقف، وبذلك تم إنجاز المهمة قبل الموعد النهائي بأسبوع كامل.	أعلنت وكالة النفط العالمية أن الصيانة والإصلاحات قد انتهت يوم الأربعاء بعد العمل لمدة 48 ساعة دون راحة لذلك انتهت العمل بأسبوع أبكر من لأموعد المحدد	Missing Translation	وقالت الشركة الوطنية للنفط انه قد تم الانتهاء من اعمال الصيانتى الإصلاحات على تمام يوم الأربعاء بعد العمل لمدة 48 ساعة بدون انقطاع وبهكذا تم الانتهاء من العمل مبكراً قبل أسبوع من الموعد المحدد للانتهاء	صرحت الشركة الوطنية لنفط ان الصيانة و التصليح اكتملت في يوم الأربعاء بعد ساعات عمل شاقة استغرقت 48 ساعة متواصلة دون الحصول على راحة او انقطاع وبالتالي الانتهاء المهمة	أفادت الهيئة العامة للشركات النفط العالمية ان العمال والحظين انهو العمل يوم الأربعاء بعد عمل دام ل48 ساعة من دون استراحة. هكذا انتهى من عمل أسبوع قبل الوقت المحدد	الشركة الوطنية للنفط قالت بأن صيانة والتجديد اكتملت في يوم الأربعاء بعد العمل لمدة 48 ساعة بدون استراحة لهذا تم انتهاء من العمل بأسبوع من الموعد النهائي	وصرحت الشركة الوطنية (NOC) للنفط أنه تم الانتهاء من صيانة والإصلاحات يوم الأربعاء بعد العمل لمدة 48 ساعة دون انقطاع. وهكذا تم الانتهاء من العمل في وقت سابق من الموعد النهائي	ان NOC قالت الصيانة والإصلاحات اكتملت يوم الأربعاء بعد العمل لمدة 48 ساعة دون انقطاع وبالتالي إنهاء من الختمة قبل أسبوع من الموعد النهائي	ذكرت المؤسسة الوطنية للنفط أن الصيانة والتصليحات اكتملت يوم الأربعاء بعد ماتم على تشغيلها الي 48 ساعة متواصلة لذلك كان اخر موعد للعمل في الأسبوع السابق	Missing Translation	
	METEOR Quality Scores	0.538	0.671	0.565	0.397	0.844	0.372	0.590	0.839	0.394		0.789	
Automatic Assessment	Translation Feedback	Score: 0.538; Low quality; Accuracy – Literal Translation / Under translation	Score: 0.671; Acceptable quality; Style – Awkward / Unidiomatic style	Score: 0.565; Low quality; Linguistic conventions – Grammar / Word order	Score: 0.397; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.844; High quality; Terminology – Inconsistent	Score: 0.372; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.590; Low quality; Linguistic conventions – Grammar	Score: 0.839; High quality; Terminology – Inconsistent use of terminology	Score: 0.394; Poor quality; Accuracy – Mistranslation / Omission	Score: 0.789; Acceptable quality; Terminology – Inconsistent		

#### 4. Conclusion and Recommendations

In conclusion, the translation quality assessment of the post-test and its feedback were entirely different from the pre-test. Fewer trainees achieved a low level in each excerpt compared to the pre-test. Additionally, more trainees' translations were acceptable and achieved a higher quality. Over time, the data show progress in trainees' proficiency. Such feedback moves away from subjective, one-time grading to continuous, evidence-based improvement. In short, Data-Driven Feedback (DDF) and feedback based on actual performance metrics are effective and beneficial for advancing and tracking the progress of trainees' levels. For example, METEOR is effective and beneficial in enhancing and tracking the progress of trainees' performance. This achievement can also be considered a result of the application of cooperative learning methodologies in the training workshops, which helps in honing the trainees' skills during the training sessions and ultimately contributes to refining them.

Additionally, AI-empowered tools may also be adopted as pedagogical instruments for providing preliminary feedback and increasing productivity in translation workshops; however, their efficacy is contingent upon human reinforcement. This was an essential step for guiding trainees in applying feedback and enhancing their learning outcomes. ChatGPT 4 provides a more effective role in the assessment process, particularly when employed as a Socratic tutor; the research fosters metacognitive skills. This study proves that involving a

human-in-the-loop model transforms AI into an active learning tool, enables trainees not only to defend their linguistic choices but also to focus on translating high levels of nuances.

#### Generalizability and Future Applications

The research is relevant not only to teaching a specific field. The study offers a systematic roadmap for AI-human integration and a transferable methodology for teaching other high-stakes translation settings, such as legal, journalistic, religious, medical, etc. It would further demonstrate the model's efficiency and establish it as a fundamental framework for modernizing specialized translator education in the digital era.

#### Conflict of Interest:

The author declares no conflict of interest

#### Declaration of AI Use

The authors declare that they used QuillBot solely for language editing and paraphrasing. The authors also confirm that AI was not used in writing this paper but was an essential component of generating feedback.

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## أثر التغذية الراجعة المعتمدة على البيانات والذكاء الاصطناعي والمعرفة على أداء المتدربين في مجال الترجمة

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### ملخص البحث:

بالرغم من الدور المحوري الذي تلعبه التغذية الراجعة في تحسين نتائج التعلم، لا سيما في التعليم الجامعي، إلا أن تقديمها للمتدربين لا يزال يعتمد بشكل كبير على المدرب المختص، مما يضع عبئاً كبيراً على الأساتذة الجامعيين. ومع التطور التكنولوجي المتسارع، فإن دمج أدوات الذكاء الاصطناعي في تقديم التغذية الراجعة - خاصة تلك الناتجة عن نماذج اللغة المتقدمة - لم يحظَ بالاهتمام الكافي في سياق التعليم الأكاديمي. إن تعزيز هذا النوع من التغذية الراجعة يمكن أن يسهم بشكل كبير في تحسين فعالية التعلم وتقليل العبء على الأستاذ الجامعي، خصوصاً عند تدريس مواد اللغات والترجمة. يهدف هذا البحث إلى دراسة تأثير التغذية الراجعة المعتمدة على البيانات في تحسين أداء المترجمين المتدربين بقسم الترجمة في جامعة طرابلس. كما يسعى لاستكشاف دور أدوات الذكاء الاصطناعي في دعم وتحليل مهام الترجمة؛ بهدف تعزيز كفاءة المتعلمين وتحقيق نتائج تعلم أفضل. اعتمدت الدراسة على إجراء اختبارات قبلية وبعديّة لتقييم أداء (20) متدرباً، مع استحداث برنامج تدريبي يركز على التعليم التعاوني ودعم المتدربين بمعرفة المجال الترجمي، من خلال تعزيز المعرفة المسبقة عبر القراءة والنقاش البناء حول موضوع الترجمة أولاً. تمت الاستعانة بنموذج ChatGPT-4 لتحليل وتبيان الأخطاء في النصوص المترجمة من قبل المتدربين. وفي المرحلة الأخيرة، ومن أجل تأكيد موثوقية العمل، تم تقييم جودة الترجمة باستخدام مقياس METEOR الآلي. أظهرت النتائج أن النهج الأكثر فعالية لتمكين مدربي الترجمة من تحقيق أهدافهم ومتابعة تقدم المتدربين يتمثل في توظيف الأدوات التكنولوجية الحديثة. وبناءً على نتائج الاختبارات، يمكن تكيف أدوات الذكاء الاصطناعي ومقاييس التقييم لتكون مورداً توبياً فعالاً يوفر تقييماً أولياً لعملية الترجمة، ويقاس فعاليتها عند دمجها مع التعزيز البشري.

**الكلمات المفتاحية:** التغذية الراجعة المعتمدة على البيانات؛ الأدوات المدعومة بالذكاء الاصطناعي؛ تقييم؛ الطلاب المتدربون؛

الأداء؛ مقياس التقييم METEOR.