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The Impact of Artificial Intelligence Tools on the Translation Performance of Undergraduate Translation Students

The Graduation Project Submitted to the Department of English and Translation, Faculty of Administrative science and Humanities, Azal University for Human Development, in Partial Fulfillment of the Requirement for the Bachelor Degree in Translation

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Dedication

To

The Almighty Allah

Our families

Our supervisor Dr. Yahya Mohammed Al-Marrani

Azal University for Human Development, Faculty of Administrative and

Humanities, Department of English Language and Translation

All the teaching staff in the Department of English Language and Translation

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All praise is due to Allah, the Lord of all worlds, for His guidance and blessings that enabled us to complete this research and accomplish this study. We would also like to express our sincere gratitude to our dear families for their continuous support and constant encouragement, as well as for their patience and assistance throughout the preparation of this research.

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English Abstract

This current study aims to investigate the impact of artificial intelligence (AI) tools on the translation performance of undergraduate translation students at Azal University for Human Development. It also examines the extent of students' reliance on these tools and explores their attitudes toward using them in English-Arabic and Arabic-English translation. The study emphasizes the importance of AI tools in supporting translation tasks and highlights their role in improving students' translation performance. The sample of the study consisted of (63) fourth-year translation students from Sana'a University, National University, and Queen Arwa University in Yemen. In order to achieve the objectives of the study, a questionnaire was used as a data collection instrument, and the data were analyzed using SPSS. The results of the study revealed that students moderately use AI tools and generally hold positive attitudes toward them, especially for saving time and simplifying translation tasks. However, students show only moderate trust in AI-generated translations. The results also indicated that while AI tools help improve terminology use and understanding of the source text, but excessive reliance on them may negatively affect students' independent translation ability and creativity. The study concludes that AI tools are valuable supportive resources in translation learning, but should not replace human effort. The study recommends promoting the balanced use of AI tools alongside developing students' linguistic and translation skills.

Arabic Abstract

تتناول هذه الدراسة الى تقصي أثر أدوات الذكاء الاصطناعي على أداء طلاب الترجمة في مرحلة البكالوريوس في جامعة أزال للتنمية البشرية. كما سعت الى فحص مدى اعتماد الطلاب على هذه الأدوات والتعرف الى اتجاهاتهم نحو استخدامها في الترجمة من الانجليزية الى العربية. تؤكد الدراسة أهمية أدوات الذكاء الاصطناعي في دعم مهام الترجمة، كما يبرز دورها في تحسين الأداء الأكاديمي لدى الطلاب في الترجمة. تكونت عينة الدراسة من (63) طالبا وطالبة من طلاب الترجمة في السنة الرابعة من جامعة صنعاء، والجامعة الوطنية، وجامعة الملكة أروى في اليمن. ولتحقيق أهداف الدراسة، استخدمت الاستبانة أداة لجمع البيانات، وتم تحليل البيانات باستخدام برنامج (SPSS) أظهرت النتائج أن الطلاب يستخدموا أدوات الذكاء الاصطناعي بدرجة متوسطة، كما أن لديهم اتجاهات ايجابية عامة نحوها خاصة بتوفير الوقت وتسهيل مهام الترجمة. ومع ذلك، أبدى الطلاب مستوى ثقة متوسطة فقط فيما يتعلق بشأن الترجمة التي تنتجها هذه الأدوات. كما أشارت النتائج الى أن أدوات الذكاء الاصطناعي تساعد في تحسين استخدام المصطلحات وفهم النص المصدر، الا أن الاعتماد المفرط عليها قد يؤثر سلبا في قدرة الطلاب على الترجمة المستقلة ومستوى الابداع لديهم. تستنتج الدراسة أن ادوات الذكاء الاصطناعي تعد ادوات داعمة مفيدة في تعلم الترجمة، لكن لا ينبغي أن تحل محل المترجم البشري. توصي الدراسة بضرورة تعزيز الاستخدام المتوازن بشأن هذه الأدوات الى جانب تنمية المهارات اللغوية ومهارات الترجمة لدى الطلاب.

Table of Contents

| | Page |
|--|-------------|
| Dedication | I |
| Acknowledgment | II |
| English Abstract | III |
| Arabic Abstract..... | IV |
| Table of Contents..... | V |
| List of Tables..... | VIII |
| List of Figures..... | IX |
| List of Abbreviations | X |
| | |
| Chapter One: Introduction | 1 |
| 1.1 Background of the study..... | 1 |
| 1.2 Statement of the problem | 2 |
| 1.3 Objective of the Study..... | 3 |
| 1.4 Questions of the study..... | 3 |
| 1.5 Significance of the study..... | 4 |
| 1.6 Limitation of the study..... | 4 |
| 1.7 Definition of Terms..... | 5 |
| | |
| Chapter Two: Literature Review | 7 |
| 2.1 Introduction..... | 7 |
| 2.2 Translation..... | 7 |
| 2.2.1 Definition of Translation..... | 7 |
| 2.2.2 Types and Strategies of Translation..... | 8 |
| 2.2.2.1 Translation Types..... | 8 |
| 2.2.2.2 Translation Strategies..... | 9 |
| 2.3 Translation performance | 10 |

| | |
|---|----|
| 2.3.1 Meaning of translation performance | 10 |
| 2.3.2 Factors influences translation performance..... | 11 |
| 2.3.3 Evaluating Translation Performance..... | 12 |
| 2.4 Artificial Intelligence (AI) Tools..... | 13 |
| 2.5 The Role of (AI) in Translation..... | 14 |
| 2.5.1 Artificial Intelligence and Translation..... | 14 |
| 2.5.2 Evolution AI in Translation..... | 15 |
| 2.5.3 Advantages of AI in Translation..... | 16 |
| 2.5.4 Challenges and Limitation of AI in Translation..... | 16 |
| 2.6 Undergraduate Translation Students and the use of AI Tools..... | 17 |
| 2.7 Previous study..... | 19 |
| | |
| Chapter Three: Methodology and Procedures | 26 |
| 3.1 Overview | 26 |
| 3.2 Methodology of the study..... | 26 |
| 3.3 Population and sample of the study..... | 26 |
| 3.4 Data collection and instrument..... | 27 |
| 3.4.1 Questionnaire..... | 27 |
| 3.4.2 Reliability of the questionnaire | 28 |
| 3.4.3 Validity of the questionnaire..... | 29 |
| 3.5 Data Analysis..... | 29 |
| 3.5.1 Data analysis of the Questionnaire | 29 |
| | |
| Chapter Four: Results and Discussion | 31 |
| 4.1 Introduction..... | 31 |
| 4.2 Data Analysis | 31 |
| 4.2.1 Gender Frequencies..... | 31 |
| 4.2.2 Age Frequencies..... | 32 |

| | |
|--|-----------|
| 4.2.3 Universities Frequency..... | 34 |
| 4.3 Descriptive Statistics..... | 34 |
| 4.3.1 Using AI Tools by Undergraduate Translation Students..... | 35 |
| 4.3.2 Attitudes toward using AI Tools among Undergraduate Translation Students..... | 40 |
| 4.3.3 The Impact of AI Tools on Translation Performance Undergraduates among Translation Students..... | 44 |
| 4.4 Discussion..... | 49 |
| | |
| Chapter Five: Summary and Recommendations..... | 52 |
| 5.1 Introduction..... | 52 |
| 5.2 Summary of the main results of the study..... | 52 |
| 5.2.1 Using AI Tools among Undergraduate Translation Students..... | 52 |
| 5.2.2 Undergraduate translation students' Attitudes Toward the Use of AI Tools in English – Arabic and Arabic - English Translation Tasks..... | 53 |
| 5.2.3 The Impact AI tools Usage on the Translation Performance of Undergraduate Translation Students..... | 53 |
| 5.3 Recommendations..... | 54 |
| 5.4 Suggestions for further studies..... | 54 |
| References..... | 55 |
| Appendix (A) Questionnaire..... | 61 |
| Appendix (B) List of the Questionnaire's Validators..... | 64 |

List of Tables

| | |
|---|----|
| Table 3.1: Reliability Analysis for Study Variables..... | 28 |
| Table 4.1: Frequency Distribution of Gender of Participants..... | 32 |
| Table 4.2 :Frequency Distribution of Age of Participants | 33 |
| Table 4.3: Frequency Distribution of University of Participants | 34 |
| Table 4.4 :Verbal Interpretation..... | 35 |
| Table 4.5: Descriptive Statistics of Using AI Tools by Undergraduate Translation students..... | 35 |
| Table 4.6: Frequency of Using AI Tools among Undergraduate Translation Students..... | 37 |
| Table 4.7 : Descriptive Statistics Attitudes toward Using AI Tools among Undergraduate Translation Students..... | 40 |
| Table 4.8 :Frequency of Attitudes toward Using AI tools among Undergraduate Translation Students | 42 |
| Table 4.9: Descriptive Statistics Impact of AI Tools on Translation Performance among Undergraduate Translation Student..... | 44 |
| Table 4.10 Frequency of the Impact of AI Tools on Translation Performance among Undergraduate Translation Student | 46 |
| Table 4.11 Correlation Analysis..... | 48 |

List of Figures

| | |
|---|----|
| Figure 4.1 Frequency of Gender of Participants..... | 32 |
| Figure 4.2 Frequency of Age of Participants..... | 33 |
| Figure 4.3 Frequency of University of Participants..... | 34 |

List of Abbreviations

| Abbreviation | Meaning |
|---------------------|-------------------------------------|
| AI | Artificial Intelligence |
| SL | Source Language |
| TL | Target Language |
| CAT tools | Computer assisted translation tools |
| ANI | Artificial Narrow intelligence |
| AGI | Artificial General intelligence |
| ASI | Artificial Super intelligence |
| NLP | Natural Language Processing |
| NMT | Neural Machine Translation |
| NNML | Neural Network Machine Translation |
| MT | Machine Translation |
| SMT | Statistical Machine Translation |
| M | Mean |
| SD | Standard Deviation |

Chapter one

Introduction

1.1 Background of the Study

Translation is essential for facilitating understanding in a world that is increasingly separated or divided (Bassnett, 2005). Specifically, translation refers to the product of linguistic and textual work, transforming a text from one language into another (House, 2014). Translation enables individuals from different linguistic and cultural backgrounds to communicate and understand one another.

Furthermore, translation has not remained limited to human effort. With the rapid development of technology, translation practice have been significantly influenced by machine translation and artificial intelligence (Henceforth referred to as AI) . According to Amini, et al. (2024); AI can be defined as the capability of machine to do tasks that usually need human intelligence, like understanding language, solving problem and recognizing pattern. In addition, AI can have a major impact on the field of translation. Additionally, they said in translation studies AI refers to the use of computer systems to convert text or speech from one language into another. Chen (2024) stated that, Traditional translation theories are facing notable difficulties due to the application of generative AI, and in the age of generative AI, traditional translation theories like equivalence are increasingly being challenged. Therefore, according to Nguyen et al. (2025) , AI translation has been integrated into translation education, AI technology has improved translation education by making learning easier and providing real-time assistance to both teachers and students through AI translation tools. In recent years, the advantages of translation tools and applications have greatly influenced both translation students and translators as a whole (Bala, 2024).

Moreover, in the English department, translation students have increasingly come to rely on AI tools in their translation, instead of manual translation. Thus, Chen (2024) mentioned that critical thinking and understanding communication between different cultures are getting more important in the age of AI.

In this context, the current study investigates the use of AI tools in English-Arabic and Arabic-English translation by undergraduate translation students. It focuses on understanding the extent to which students rely on these tools when translating texts from English into Arabic and Arabic into English. The study also examines students' attitudes toward the use of AI tools in translation tasks and how they perceive their role in the translation process. In addition, it seeks to assess the impact of using AI tools on the translation performance of undergraduate translation students. By examining these aspects, the study hopes to provide insights that may help educators better understand how technology is influencing translation learning and how AI tools can be used effectively in translation education.

1.2 Statement of Problem

Translators expected to master at least two languages and understand the cultures behind them in order to communicate meaning effectively. Translators serve as experts in intercultural communication, acting as mediators and bridges between different people, cultures, and perspective (Koksal and Yuruk, 2020). With technological progress, translation has been made easier through artificial intelligence (AI) tools that offer fast and accessible assistance. Although these tools are useful, many students tend to rely on them more than necessary, treating them as a replacement rather than a support. As a result, their basic translation skills are weakened, and they often pay

less attention to improving their linguistic knowledge or engaging with the cultural aspects of the language they translate. While the use of AI has some positive impact on the students, it still has a negative impact in that it may lead students to develop a habit of over-relying on AI, which could hinder their creativity and translation abilities (Bala, 2024). That is why having skilled translators with deep language and cultural knowledge is still crucial, a point confirmed by existing research (Gadd, 2024). The problem is represented by the increasing reliance of university translation students on AI tools, such as ChatGPT and Deepseek, during their studies. Although these tools provide speed and ease of use, their results are not always accurate, which may lead to loss of the text or errors in transferring text from English to Arabic and Arabic to English.

1.3 Objectives of the Study

1. To investigate the extent to which undergraduate translation students rely on AI tools when translating from English to Arabic and Arabic to English.
2. To examine undergraduate translation students' attitudes toward the use of AI tools in translation tasks from English to Arabic and Arabic to English .
3. To assess the impact of AI tools usage on the translation performance of undergraduate translation students.

1.4 Questions of the Study

1. To what extent do undergraduate translation students rely on AI tools when translating texts from English to Arabic and Arabic to English?
2. What are undergraduate translation students' attitudes toward the use of AI tools in translation tasks from English to Arabic and Arabic to English ?

3. How does the use of AI-assisted tools influence the translation performance of undergraduate translation students?

1.5 Significance of the Study

Translation plays an important role in sharing knowledge and building communication between different countries. With the growth of knowledge and the rapid development of artificial intelligence (AI), translation has become increasingly supported by AI tools, making it easier to apply in many fields, especially for undergraduate translation students. Many students rely on AI tools since they provide quick, simple, and time-efficient translations. However, these tools have both advantages and disadvantages. Students often depend on them because of challenges such as limited vocabulary, difficulty in expressing the exact meaning of word, lack of cultural background, and other related problems. Based on these issues, the significance of this study emerges and can be outlined as follows:

1. To guide undergraduate students in the proper use of AI tools when translating from English to Arabic and Arabic to English.
2. To increase students' awareness of the risks of depending only on machine translation.
3. To encourage students to exchange ideas and discuss the role of AI tools in translation.

1.6 Limitations of the Study

The current study is limited to a specific period of time, which may reduce the overall understanding of students' reliance on AI tools. The study includes fourth-year

translation students from three Yemeni universities, Queen Arwa University, National University, and Sana'a University, during the second semester of the 2025-2026 academic year. In addition, the current study is limited in terms of data collected. The data were collected using only one method, which is a questionnaire.

1.7 Definitions of Terms

❖ Undergraduate Students

Undergraduate students are people who are studying at a college or university to get their first degree, usually a bachelor's degree.

❖ Translation Performance

Translation performance is how good and clear a translation is, According to Alwathnani, et al.(2024), key performance standards include productivity, quality, mistake and mental effort.

❖ Translation

Translation is the process of transferring the meaning of a text from one language into another (Windle and Malmkjar, 2012).

❖ **Artificial Intelligence (AI)**

Artificial intelligence is commonly described as a branch of study that creates algorithms allowing machines to simulate thinking and perform mental activities like problem solving, identifying objects and words, and making decisions (Hashimoto,et al., 2018).

Chapter Two

Literature review

2.1 Introduction

This chapter discusses an introduction and provides information about translation, including its definition, types and strategies. It also covers translation performance, its meaning, the factors influencing it, and the evaluation of translation performance. Furthermore, it presents an overview of artificial intelligence (AI) tools and their role in translation , including a discussion of artificial intelligence and translation, the evaluation of AI in translation, its advantages, and the challenges and limitations . and It also involves the AI tools used by undergraduate students. In addition, this chapter reviews previous studies that have explored the impact of AI on translation and translation performance of undergraduate students.

2.2 Translation

2.2.1 Definition of Translation

Translation is the process of transferring the meaning of text from one language into another, while maintaining the original message and style. According to Mohammed (2022), translation helps deliver the meaning from the original language (SL) to another language (TL), so that the message is understood correctly. Translation as defined by Chaula (2024), translation means making a new text from the original one in another language. As stated by Cerle (2023), translation is an art that requires the translator to be skilled in both languages and to understand the culture and way of life of each one. Translation is the process of giving the meaning of a text from one language to another.

Translation is a difficult task that includes language, culture, and technical details. In the view of Sipahutar , et al .(2021), communicative translation is a translation that explains the meaning of the original text clearly, so the reader can understand the main ideas and content of the text.

2.2.2 Types and Strategies of Translation

Translation is divided into many types according to purpose and methods and these types can help the translators to select the most suitable way of translation. In addition, the main common types of translation are Medical, Legal, Literary, Technical, Political and Business , General translation. Moreover, translators also use several translation strategies according to (Chesterman,1997, as cited in Owji ,2013) Syntactic strategies are Literal, , Transposition, Borrowing , Paraphrase Structure Change Strategies and Semantic Strategies which are Synonymy, Antonymy, Hyponymy, Converses, Trope change.

2.2.2.1 Translation Types

- **Medical translation:** includes a lot of fields like pharmacology, surgical practice obstetrics, cardiology and psychiatry (Karwacka, 2015).
- **Legal translation:** refers to translating laws ,contracts, and legal documents from one language to another in a clear and accurate way.
- **Literary Translation :**refers to translating stories and poems while keeping their Feeling and style.

- **Technical Translation:** refers to translating instructions and manuals in a clear and simple way.
- **Political Translation:** refers to translating political content while keeping the same message and tone.
- **Business Translation:** refers to translating business texts in a clear and professional way.
- **General Translation:** refers to translating everyday texts using simple and natural language.

2.2.2.2 Translation Strategies

- **Syntactic strategies**

1. **Literal translation :** Following the source text closely while keeping acceptable structure in the target language.

2. **Borrowing :** borrow words or expressions directly from the source language.

3. **Transposition:** Changing the grammatical class of a word to fit the target language.

4. **Paraphrase Structure Change:** Changing the internal structure of phrases while keeping the same meaning.

- **Semantic strategies**

1. **Synonymy:** Using a similar meaning word instead of a direct translation.

2. **Antonym:** Using the opposite meaning with negation to keep the same idea.

3. **Hyponymy:** Using a more general or more specific word.

4. **Converses:** Using opposite pairs that express the same relation .

5. **Trope change:** Changing figurative language like metaphors.

Each type and strategy of translation has different function, so translator need to be professions to choose the most appropriate type and strategy according to the nature of the text and translation purposes.

2.3 Translation Performance

2.3.1 Meaning of Translation Performance

Translation performance means the overall capability of a translator to transfer the meaning of one language to another language accurately, fluently, and appropriately for the intended audience. According to Alwathnani, et al.(2024), key performance standards include productivity, quality, mistake and mental effort.

Koksal and Yuruk (2020) stated that translator is not just someone who changes words from one language to another, but a person who transfer main message to the target audience. They added that a translator is someone skilled in connecting different culture and helping others understand each other across language borders. Therefore, translator must be aware of history of a work that comes from completely different culture. As a result, translation performance is very important in conveying the message clearly to the audience.

With the development of technology, translation performance can be influenced by AI tools. According to Meneus and Al-wasy (2024), despite the characteristics of human translation, AI can assist in translation task. Even though, machine translation is quick and effective, human translation is more reliable for accuracy and culture comprehension.

Also a high quality translation make sure that people understand the real meaning and purpose of the message, helping communication and trust each other across languages and, to communicate successfully across nation, translator must be accurate and careful of culture differences.

2.3.2 Factors Influencing Translation Performance

Translation is not simple; it is a process of understanding meanings. It is not limited to transferring words from one language into another, but also includes paraphrasing them in a way that suits the target language and culture. Therefore, translation performance is affected by several linguistic and cultural factors. The first factor is quality of the original text. It is important and affects the performance of the translation.

There are texts that contain linguistic errors, which make the translation more difficult and affect its accuracy. As Mingwei Xi (2023) said, high-quality translation is not limited to language conversion; it also involves conveying cultural context, and therefore the quality of the final translation depends on the translator's professional competence. The second factor is linguistic and cultural differences. Linguistic and cultural differences affect translation performance. The translators need to rely on understanding the linguistic and cultural differences between the source and target languages.

In addition, there are differences in vocabulary, making it difficult to convey the same meaning, especially with some words that do not have a cultural equivalent. The third factor is translation tools and techniques. Modern translation tools and techniques, such as computer aided translation (CAT) tools and artificial intelligence (AI), play an

important role in improving the speed and accuracy of translation. As Nzuanke and Chinalca (2018), stated that technology in translation refers to the technical means that support the work of translators. This includes physical tools created through intellectual effort, such as translation memory, terminology management systems, and computer programs used to solve translation problems. Amini, et al. (2024), explained that Although AI may become more intelligent in the future, this good negatively affect the translator. The last factor is purpose and context. The purpose of the translation and the context text influence the translator's style.

Translating literal texts differs from translating a literary text due to each types of translation requires a specific translation. Ljioma (2017), mentioned that context can be defined as a word or sentence is expressed, also some differences affect the transfer of meaning such as text and socio-cultural knowledge of both the source and target audience.

2.3.3 Evaluating Translation Performance

Evaluating translation performance refers to the process of analyzing how accurate and effective the translated text is in transferring the original source. According to Koka et al (2023), evaluation and assessment of translation quality have an important role in translation process. Koponen (2010) noted that translation quality can be evaluated due to different sides like accuracy (honesty), fluency and suitability of purpose.

Additionally, the translation can be evaluated by various aspects precision of the main text, linguistic patterns, relevance of the source language, ideology, cultural context and logical terms (Wang, 2023). The evolution of translation performance can

be done by professional translators or by specialized machines to determine the accuracy and quality of translation and to identify the strengths and weaknesses of translators or translation student giving them opportunity to develop themselves in the areas where they are weak especially when translating from English into Arabic and Arabic into English due to the huge different in the cultural gap. Amini, et al.(2024) asserted that AI-based evaluation is now used in real-world contexts like machine translation testing, translation quality assessment and post-editing works. According to Čanžar (2024) evolution machine system is crucial because it determines their usability and effectiveness in real life situations.

2.4 Artificial Intelligence (AI) Tools

As reported by Alifa et al. (2024), AI is the technology that imitate the human mind in thinking, speaking, and in communication. According to Bansod (2023), AI means a technology that can think and solve problems as human beings. The main feature of artificial intelligence is that it has the ability of planning and making decisions to reach specific goals. In addition, AI tools are applications can assist human beings in many tasks such as writing letters, documents, providing new ideas, answering questions, and it can help in translation text from one language to another. As mentioned by Abbas (2025) the development of artificial intelligence has influenced translation studies in a good ways. It brings many innovations such as terminology management, translation memories, and automatic translation which powered by neural networks that leads to significant changes in the field of translation. (Abbas, 2025).

As stated by Kwid et al. (2024), artificial intelligence can be divided into three main types: Artificial narrow intelligence (ANI), artificial general intelligence (AGI),

and artificial super intelligence (ASI). (ANI) is designed to do one task at a time such as check whether or playing chess. Tools such as Google assistant, Siri, Google translate, and smart language tools. (AGI) is considered as the future form of AI, that might be more intelligence than human, which can think learn, and use knowledge to do a lot of things as human. (ASI) is described as the intelligence that is smarter than human in every area, such as scientific thinking, general understanding, and social abilities. This new type of (ASI) made a lot of serious worried about how society will deal with changes the (ASI) could cause. This type of intelligence developed to eradicating illiteracy of AI that includes all the different types of application and ethical constructions of AI.

2.5 The Role of (AI) in Translation

2.5.1 Artificial Intelligence and Translation

According to Amini, et al.(2024), artificial intelligence (AI) significantly affects the translation field by improving the speed, accuracy, and efficiency of translation processes, making communication between languages more accessible and effective for more people. As mentioned by Mohamed et al. (2024), (NLP) plays an important role in connecting human and computers by improving how languages is understood, processed, and generated for clearer communication. This demonstrate that AI does not only facilitates cross-languages communication, but also students' translation performance by improving accuracy, fluency, and cultural awareness.

2.5.2 Evolution of AI in Translation

Over recent decades, AI has undergone significant evolution in translation systems, progressing to modern neural-based approaches. Each developmental stage has enhanced machines' ability to process and translate human language more accurately. Machine translation (MT) refers to early systems developed in the 1950s that relied on word-for-word or rule-based approaches without contextual understanding. According to Peng (2018), machine translation is considered the fastest method available, providing immediate results in most scenarios since it employs a literal word-for-word approach and disregards other time-intensive factors. Statistical Machine Translation (SMT) appeared in the 1990s and used large bilingual text corpora with statistical models to predict the most likely translation.

As noted by Das et al. (2024), this translation method applies statistical algorithms to large bilingual text collections, enabling the system to learn translation patterns independently. Neural Machine Translation (NMT) emerged around 2014, using deep learning and neural networks that analyze entire sentences as a whole. As explained by Chu and Wang (2020), (NMT) represents an advanced machine translation methodology that utilizes deep learning techniques, showing better performance over traditional statistical systems and achieving optimal accuracy when large-scale parallel linguistic data is available. Understanding MT, SMT, and NMT reveals how these systems represent the practical applications that enhance translation accuracy and influence students' translation performance.

This foundation supports undergraduate students' translation improving their translation performance from English to Arabic and Arabic to English. As reported by

Owan et al. (2023), advances in data accessibility and machine learning algorithms enable AI to fundamentally transform educational approaches and students' progress assessment. These systems represent the practical applications of AI that enhance translation accuracy and influence students' translation performance.

2.5.3 Advantages of AI in Translation

AI assists in analyzing texts, enhancing translations quality, and supporting students in learning and producing accurate translation. The integration of artificial intelligence into translation has significantly influenced the evolution of language services. . It increases the speed of text processing, improves accuracy, and ensures translations that fit the meaning of the text. These benefits demonstrate AI is potential to enhance undergraduate students' translation working from English to Arabic and Arabic to English.

2.5.4 Challenges and Limitations of AI in Translation

While AI provides clear advantages in translation, it also has limitations that must be addressed. Understanding these challenges is crucial for evaluating the AI's comprehensive impact on undergraduate students' translation performance. AI continues to face translation challenges, including difficulties in understanding context or cultural meanings. It may generate literal translations and lacks comprehensive cultural awareness. Relying on AI for student's evaluation can reduce essential human contact during assessment, potentially negatively impacting the educational experience for learners. As stated by Kenechi (2024), AI-based translation continue to face problems and technical limits caused by natural language processing. Understanding both the

advantage and limitations of AI provides a clearer view of its overall role in translation performance.

2.6 Undergraduate Translation Students and the use of AI Tools

Artificial Intelligence (AI) has rapidly become an essential field that influences many aspects of life including work, education, and communication. According to Aslitdinova (2025), AI has become part of our daily lives, simplifying many tasks and offering new convenience. It enables machines to perform tasks that typically require human intelligence, such as learning and decision-making. In the field of translation, AI tools such as Google Translate, Deepseek, and ChatGPT provide faster and more accurate outcomes enhancing translation quality and accessibility. As mentioned by Shamerdanova (2025), the advent of AI-driven translation systems has significantly increased the accessibility of Google Translate.

AI tools assist students, particularly undergraduate translation students, in reviewing their translations by comparing them with machine-generated outputs. According to Belhassen and Hamda (2025), these tools function as valuable learning resources that enable students to compare their translations with machine-generated results, identify errors, and understand the strengths and limitations of automated systems. They also offer vocabulary and grammar suggestions, which contributes to improving both the speed and accuracy of the translation process. Using platforms like Google Translate, Deepseek, and ChatGPT, students can effectively refine their work.

Using AI tools in translation has many advantages. As stated by Bobro (2024), the application of AI technologies, including NLP, NNML, deep learning, and genetic

algorithms, has enabled the development of smart learning environment. These technologies are also used in various intelligent tools, such as translation programs, which can process and translate text quickly, saving time and effort while improving accuracy through advanced algorithm. AI tools also support numerous languages, which facilitates communication across different linguistic. According to Zong (2018), with the continuous development of AI technology, it has greatly influenced the translation industry, which plays an important role in communication and information exchange. AI tools increase productivity by processing translations quickly and accurately, allowing translators to on more complex and creative tasks. As noted by Bala (2024), AI helps translators by assisting with tasks such as checking word meanings and improving the final text.

However, translation produced by AI tools can sometimes lack accuracy or high quality, especially when the text is complex or specialized. While AI tools offer many benefits in education and translation, their excessive use can lead to negative consequences for students. According to Basha (2024), relying too much on AI tools can harm students' academic performance as well as their abilities in real-world situations. As mentioned by Amini, et al.(2024), a significant issue with AI translation tools is their difficulty in capturing cultural nuances in translation. These tools may fully grasp cultural or linguistic nuances, which can lead to misunderstandings. Overall, AI tools provide undergraduate students with valuable support in various academic tasks, including learning, and writing, and translation. However, to make the most of these tools, students need understand not only their advantages, such as efficiency and accuracy, but also their limitations.

2.7 Previous Studies

The following review highlights research that explores how artificial intelligence tools shape and influence translation performance. These studies offer clear insights into the growing use of AI in translation learning and help explain the factors that affect students' translation quality.

Shahmerdanova (2025) conducted a research on exploring the influence of artificial intelligence on the field of translation, with a particular focus on the opportunities it offers and the challenges linked to AI-based translation tools. The main aim of her study was to investigate the ways AI has reshaped translation practices, highlight the limitations found in current AI systems, and suggest possible solutions including hybrid models and ethical guidelines to enhance translation quality. In conducting the study, the researcher adopted a qualitative analytical method that relied on reviewing existing literature and examining modern AI translation technologies. The sample of the study included published academic articles, various AI translation models, and practical applications of machine translation in real contexts. The results indicated that AI significantly improves translation in terms of accessibility, speed, and scalability; however, it still faces difficulties with idiomatic expressions, cultural subtleties, and ethical issues, particularly within medical and legal translation. Overall, the study concluded that maintaining a balanced hybrid approach that merges AI capabilities with human expertise is crucial to Achieving accuracy, cultural appropriateness, and ethical trustworthiness in translation.

Belhassen and Hamda (2025); conducted a study titled Translation Students' Reliance on and Trust in Artificial Intelligence for Successful Translation Projects: Opportunities, Challenges, and Implications. The purpose of their research was to examine the benefits and difficulties of using AI in translation by exploring student' views, level of dependence, and trust in these tools. The study used a sample of (150) translation students who completed an organized questionnaire, and the data was analyzed with (SPSS). The results showed a wide use of AI tools as (90%) of students reported using them, and (66.7%) depended on them fully. In addition, (40%) reported that AI handled (41-60%) of their translation tasks. The result also revealed that (70%) of participants considered AI translations accurate, and (66.7%) were highly satisfied with the output. However, (33.3%) expressed doubts about AI ability to manage difficult or complex tasks. The study concluded that AI is viewed as a helpful tool that supports human translators rather than replaces them, emphasizing the essential need for human for human oversight in complex and culturally sensitive translations.

Bala (2024) conducted a study on the impact of using artificial intelligence tools on students' performance in the field of translation . The study aimed to explore the extent to which AI tools affect the quality of translations produced by students and to measure the difference between transitions generated using these tools and those completed manually, focusing on aspects related to accuracy, fluency, and lexical choice. There was also an interest in identifying the opinions of both students and professors regarding the use of AI in the field of translation, as well as the challenges that may arise as a result of excessive reliance of these tools in academic context. The study included forty translation-major students in addition to three professors from the University of

Misurata. The study used a mixed-method approach that included translation tasks To evaluate student performance with and without the use of AI. Two questionnaires were used: One for students and another for teachers, to investigate their attitudes and perceptions toward applying AI in translation tasks. The study found that students who used AI tools achieved better performance in terms of accuracy, fluency, and appropriate word choice. In contrast, students who relied on manual translation showed a higher level of cultural awareness and textual cohesion. However, the study warned the excessive dependence on AI tools might reduce students' creativity and critical thinking skills. The results also showed that both students and professors generally had positive attitudes toward the use of AI in translation, emphasizing the importance of maintaining a balance between the use of these technologies and traditional training the field of translation.

Moneus and Al-Wasy (2024); conducted a study on the impact of artificial intelligence tools on the translation quality of Saudi learners' performance in Saudi universities, and their attitudes towards using AI in the translation process. The main aim of the study was to examine how AI tools influence students' translation performance and to explore their attitudes towards the use of AI in translation. To achieve the objectives of the study, the researchers used a mixed-method approach combining both quantitative and qualitative data. A closed-ended questionnaire was used to assess the students' attitudes towards AI tools, while a translation test was used to evaluate the impact of AI on translation quality. The sample of the study consisted of 94 level 8 translation students from nine universities: King Khaled University, Jazan University, Imam Mohammed Ibn Saud Islamic University, Qassim University, Arab

Open University, King Saud University, Princess Norah bin Abdulrahman University, Najran University, and Taibah University. From these students, 40 were randomly selected for the translation test and divided into a control group (20 students) and an experimental group (20 students). The results of the study indicated that AI-based translation tools significantly improved the translation proficiency of the experimental group, whose performance surpassed that of the control group. The results also revealed generally positive attitudes towards the use of AI in translation process.

Wang (2023) carried out a study titled *The Impacts and Challenges of Artificial Intelligence Translation Tool on Translation Professionals*. The aim of the study was to compare AI translation with human translation in terms of quality and to understand how AI development affects the work of professional translators. The sample consisted of English major students and participants from non-English specializations who evaluated several translations taken from different types of texts, including business, news, and literary materials. The researcher used an experimental method based on the idea of the Turing Test, where the evaluators were asked to judge six translations without knowing whether they were produced by humans or AI tools. The study made use of translations generated by Dear Translate, Baidu Translate, and DeepL, in addition to human translations at expert, beginner, and standard levels. The results showed that human translators remained stronger in accuracy, clarity of ideas, and faithful meaning, while AI systems performed better in keeping a formal style in non-literary texts. In literary translation, human works as preferred. The participants also noted that AI still struggles with deeper context, but they viewed it as a supportive tool in human-machine translation collaboration.

Koka et al. (2023) conducted a study titled *Impact of Artificial Intelligence (AI) on Translation Quality: Assessment and Evaluation*. The research aimed to examine AI influence on translation quality assessment, investigate how source text quality affects AI evaluation accuracy, and determine whether different AI models yield different assessment results. Using a sample of (450) participants including professional translators, translation students, and language learners. The study employed a digital questionnaire with Likert-scale questions and analyzed data using descriptive statistics and t-test. The results showed that over (75%) of participants recognized AI's significant role in improving evaluation accuracy, emphasized the importance of source text quality, and acknowledged that the type of AI model used affects assessment reliability.

Khasawneh and Al-Amrat (2023) conducted a study on the role of artificial intelligence in advancing translation studies and its influence on translation education and graduate quality. The main aim of the study was to investigate stakeholders' perspectives on how integrating AI tools and models contributes to improving translation accuracy, teaching effectiveness, and overall development of translation studies. They used a quantitative approach based on a structured questionnaire designed with Google Forms, which measured participants' perceptions using a 5 point Likert scale. The sample of the study consisted of (367) participants (167) translation practitioners (100) postgraduate students in translation, (50) university lectures, and (50) university administrators. The study results indicated that more than (64%) of participants believed that integrating AI improves the quality of translation graduates, while more than (70%) agreed that AI enhances translation precision and accuracy. The results of the study also showed that over (53%) of participants affirmed that the use AI

models increases the global recognition of the translation industry and makes translation more effective field for students and investors.

Alhaj (2023) conducted a study on the challenges and obstacles encountered in using Artificial Intelligence Tools (AITs) in translation teaching at Saudi universities. The main aim of the study was to explore faculty members' perspectives regarding these challenges and to identify theoretical and practical ways to address them. To achieve this purpose, the researcher employed a quantitative research design using a (14) item questionnaire based on a five-point Likert scale. The sample consisted of (50) faculty members from several Saudi universities, including King Khalid University, Jazan University, Najran University, the University of Bisha, and Albaha University. The results revealed that faculty members generally held positive attitudes toward the use of AI tools, believing that they enhance teaching quality, improve students' performance, and provide innovative teaching and learning solutions. Additionally, the results showed that the challenges associated with using AI tools can be overcome and that AI is becoming increasingly integral to translation education, with educational level influencing instructors' ability to use these tools effectively.

Gonzalez Pastor (2021) conducted a study that strives at mapping how and what for translation students use machine translation (MT), and what are their attitudes and perceptions towards its use. The main aim of the study was to explore students' attitudes and perceptions toward MT and to identify how students adopt MT and translation technology tools and resources for their coursework, as expressed in the research questions: (1) What are students' attitudes and perceptions towards MT? (2) To what

extent students adopt MT and technology tools and resources? (3) In what way can MT help to improve translation? To achieve these aim, she used a qualitative method based on thematic and grounded theory analysis, and participants completed both a preliminary and a final questionnaire mainly open-ended questions. As for the sample of the study, results reported include a sample size of twenty-two undergraduate students (96% women) with ages ranging from (18) to (23) without previous training nor professional experience in MT. The results of the study revealed three main topics: benefits and drawbacks associated with MT, knowledge and use of MT by students and related professional aspects. Finally, the results show general positive attitude towards MT after the training. Generally, translation students view MT as a versatile tool. The results also revealed widespread preoccupation among students about how technology and MT affects professional work.

It can be concluded that many studies have examined the use of AI tools in translation focusing on their advantages and limitations . These studies generally showed that AI tools can support translation and improve translators' performance. However, there is still a lack of research that focuses on undergraduate translation students. Therefore, the current study aims to address this gap by exploring how AI tools used by undergraduate translation students and how these tools affect their translation performance.

Chapter Three

Methodology and Procedures

3.1 Overview

This chapter presents the methodology used in this study. It describes the research design, the population and the sample, and the tool used to collect the data. It also explains how the validity and reliability of the questionnaire were checked. Finally, the chapter shows how the data were analyzed.

3.2 Methodology of the Study

The current study uses only quantitative method to achieve the objectives of the study .The data collected through questionnaire after assuring their validity. To accomplished this methodology, some procedures have been carefully followed to develop the instrument of the study and selected the suitable tools for achieving the purpose of the study.

3.3 Population and Sample of the Study

The population of this study includes fourth-level students in the Department of English Language and Translation at three universities: Sana'a University, National University, and Queen Arwa University. The sample of the study consists of all fourth-level students (63 students). They were divided into three groups. The first group includes participants from Department of English and translation at faculty and languages at Sana'a University and consists of 47 students. The second group includes participants from Department of English and translation at Faculty of Humanities at National University which consists of 10 students. The third group includes participants from Department of English and translation at Faculty of Arts and Humanities at Queen

Arwa University and consists of 6 students. The researchers selected fourth-year students because their number is suitable for the study. Moreover, this level represents an appropriate stage to evaluate students' translation performance after they have spent four academic years studying English courses.

3.4 Data collection and Instrument

The data of the study were collected by using a questionnaire, which consisted of a questionnaire with 30 items .The questionnaire was designed to gather data related to the impact of artificial intelligence tools on the translation performance of university translation students.

3.4.1 Questionnaire

The questionnaire is developed to examine the impact of artificial intelligence tools on the translation performance of undergraduate translation students. It includes 30 items (see Appendix A), which were prepared in accordance with the objectives of the study. The participants were required to choose the response that best represented their views and personal experiences. The first section of questionnaire used a scale ranging as follows (Always, Often, Sometimes, Rarely, Never) in order to measure the extent to which students rely on AI tools during English–Arabic translation. The second and third sections employed likert scales as follows (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree) to explore students' attitudes toward AI tools and their perceptions of their impact on translation performance. The questionnaire is divided into three main sections as follows:

- 1- Students' reliance on artificial intelligence tools in English-Arabic and Arabic-English translation.

- 2- Students' attitudes toward the use of artificial intelligence tools in translation Tasks.
- 3- The impact of AI-assisted tools on students' translation performance.

3.4.2 Reliability of the Questionnaire

In this study, a reliability test is performed to check the consistency of the Items in the questionnaire and ensure that all variables, whether dependent or independent, are measured accurately. Reliability analysis is conducted to determine the internal consistency of the questionnaire items, which reflects how well the questions measure the same concept. Cronbach's alpha coefficient (α) is used as it is the most commonly applied index for assessing reliability and shows the average correlation among the items of a scale. This analysis is carried out for the questionnaire as a whole to ensure that all sections are consistent and dependable. The results of the reliability analysis are presented in the table below.

Table3.1:Reliability Analysis for Study Variables

| Number of Items | Alpha | Alpha^{1/2} |
|------------------------|--------------|----------------------------|
| 30 | 93.9% | 96.9% |

Table 3.1 shows that the Cronbach's alpha value for all items is 93.9%, which indicates a very high level of internal consistency. Therefore, the questionnaire is stable and its responses can be used confidently for analysis.

3.4.3 Validity of the Questionnaire

The questionnaire was reviewed by two reviewers from the faculty members specializing in translation at Azal University for Human Development, to verify its validity. They were asked to evaluate the clarity, usefulness, and appropriateness of the questionnaire items in relation to the objectives of the current study, and based on their observations and opinions, the questionnaire was revised and improved in the appropriate manner, ensuring the clarity of its items, ease of understanding, and their ability to collect accurate and reliable data that serve the objectives of the current study.

3.5 Data Analysis

The data collected through the questionnaire were analyzed using SPSS software to investigate the impact of artificial intelligence tools on undergraduates' students English into Arabic and Arabic into English translation performance. Descriptive statistical techniques, including means, standard deviations, and percentages, were employed to analyze students' responses across the questionnaire sections, which focused on the frequency of AI tool use, attitudes toward AI tools, and their perceived impact on translation performance.

3.5.1 Data Analysis of the Questionnaire

The responses of the participants were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequencies, percentages, means and standard deviations, were used to summarize the students' responses to the questionnaire items. The data gathered from the questionnaire were coded and entered into SPSS for statistical analysis.

The questionnaire employed two types of five-point Likert scales. The first type was used to measure the frequency of using AI tools and ranged from Never to Always. The second type ranged from Strongly Disagree to Strongly Agree and was used to measure students' attitudes toward AI tools and their perceived impact of AI on translation performance. The results of the questionnaire were presented in simple tables using frequencies, percentages, means ,and standard deviations, followed by brief explanations describing the content of the tables. Finally, the results were interpreted and discussed in the light of previous studies related to the use of AI tools in translation.

Chapter Four

Results and Discussion

4.1 Introduction

This chapter presents the data analysis and discussion of the results in order to answer the questions of the study, which investigates the impact of artificial intelligence tools on the translation performance of undergraduate translation students. The questions of the current study are as follows:

1. To what extent do undergraduate translation students rely on AI tools when translating texts from English into Arabic and Arabic into English?
2. What are undergraduate translation students' attitudes toward the use of AI tools in translation tasks from English to Arabic and Arabic to English?
3. How does the use of AI-assisted tools influence the translation performance of undergraduate translation students?

To answer these questions, the researchers analyze the data collected from the questionnaire as follows:

4.2 Data analysis

4.2.1 Gender Frequency

Table 4.1 presents the distribution of the sample members according to gender. The results indicate that the majority of participants in the study were female, numbering (51) students and representing (81.0%), while the number of males was (12) students, representing (19.0%). This disparity reflects the usual nature in English and translation departments where the number of female students is higher than that of male

students. Therefore, the results of this study are based primarily on the students' perspective regarding the impact of artificial intelligence tools on their performance in translating from English into Arabic. Thus, it is recommended that future studies use a more gender-balanced sample to enable more accurate generalization of the results.

Table 4.1 Frequency Distribution of Gender of Participants

| Gender (sample size n=63) | Frequency | Percent |
|----------------------------------|------------------|----------------|
| Male | 12 | 19.0% |
| Female | 51 | 81.0% |

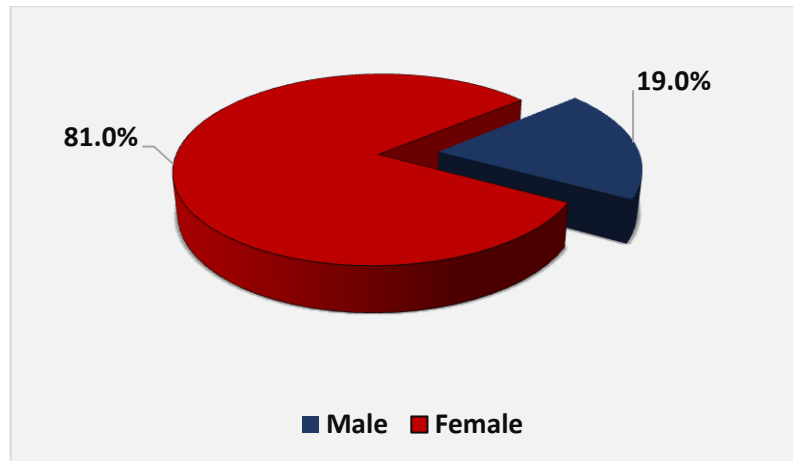


Figure (4.1) Frequency Distribution of Gender of Participants

4.2.2 Age Frequency

The age distribution detailed in table 4.2 indicates that the sample is composed entirely of young adults, typical of an undergraduate cohort. It demonstrates that the majority of the participants fall within the 22-24 age range, accounting for 84.1% of the total sample. The largest proportion of participants is aged 22 (38.1%) followed by those aged 23 (31.7%) and those aged 24 (14.3%). In contrast, the remaining age categories

constitute a relatively small segment of the sample. Participants aged 25 represent 9.5%, while those ages 21 and 26 account for only 4.8% and 1.6% the results indicate a highly homogeneous age distribution, typical of fourth-year undergraduate students. Such homogeneity enhance the internal consistency of the study and ensures that the participants share comparable academic background and levels of exposure to technological and AI-based tools.

Table 4.2: Frequency Distribution of Age of Participants

| Age (sample size n=63) | Frequency | Percent |
|------------------------|-----------|---------|
| 21 | 3 | 4.8% |
| 22 | 24 | 38.1% |
| 23 | 20 | 31.7% |
| 24 | 9 | 14.3% |
| 25 | 6 | 9.5% |
| 26 | 1 | 1.6% |

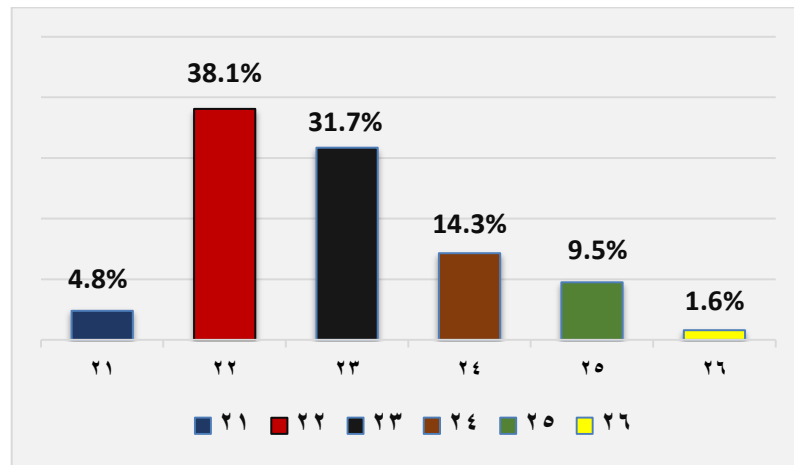


Figure (4.2) Frequency Distribution of Age of Participants

4.2.3 Universities Frequency

Universities are considered one of the important variables that describe the participants' academic institutions in the survey instrument. These data are presented in Table 4.3 and Figure 4.3. The results of the universities distribution in Table 4.3 reveal that the highest number of participants was from Sana'a University, with a total number of (47) participants representing (74.6%) of the total sample. The second highest number of participants was from National University with a total of (10) Queen Arwa University with a total of (6) participants representing (9.5%) of the total sample.

Table 4.3: Frequency Distribution University of Participants

| University (sample size n=63) | Frequency | Percent |
|-------------------------------|-----------|---------|
| Sana'a University | 47 | 74.6% |
| National University | 10 | 15.9% |
| Queen Arwa University | 6 | 9.5% |

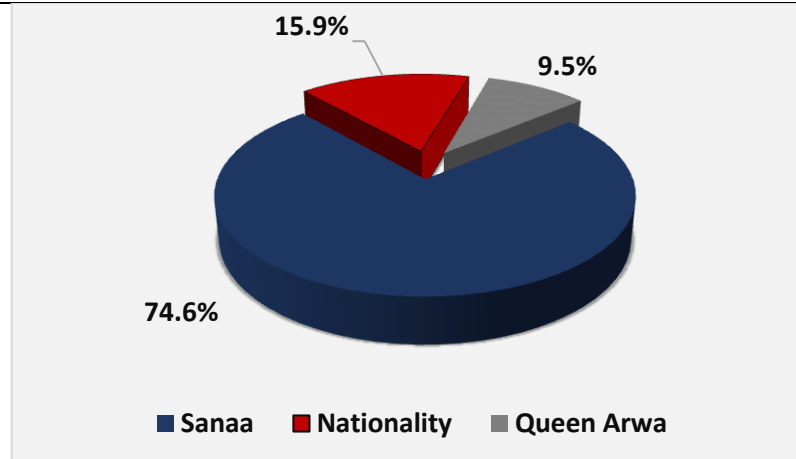


Figure (4.3) Frequency Distribution of University of Participants

4.3 Descriptive Statistics

Descriptive statistics is a method used to organize and summarize data in order to make it easier to understand. It uses measures such as the mean, standard deviation and

percent to describe the characteristics of the data. This type of analysis focuses on describing the collected data without making generalizations about a larger population. Table 4.4 illustrates how the mean values obtained from the SPSS output are interpreted in this study.

Table 4.4 Verbal Interpretation

| Mean Range | Verbal Interpretation | Percentage Range |
|---------------------------|-----------------------|---------------------------|
| Less than 1.8 | Strongly Disagree | Less than 36% |
| From 1.8 to less than 2.6 | Disagree | From 36% to less than 52% |
| From 2.6 to less than 3.4 | Neutral | From 52% to less than 68% |
| From 3.4 to less than 4.2 | Agree | From 68% to less than 84% |
| From 4.2 to 5 | Strongly Agree | From 84% to 100% |

4.3.1 Using AI Tools by Undergraduate Translation Students

Table 4.5 Descriptive Statistics of Using AI Tools by Undergraduate Translation Students

| Rank | N | Items | Mean | Std. Deviation | Percent | Verbal Result |
|------|---|---|------|----------------|---------|---------------|
| 1 | 1 | I use AI tools for English into Arabic and Arabic into English translation assignments. | 3.37 | 1.005 | 67.4% | Sometimes |
| 9 | 2 | I use AI tools during classroom translation activities. | 2.54 | 1.305 | 50.8% | rarely |
| 3 | 3 | I use AI tools when translating texts at home. | 3.30 | 1.087 | 66% | Sometimes |
| 2 | 4 | I rely on AI tools to understand difficult English sentences. | 3.32 | 1.268 | 66.4% | Sometimes |
| 4 | 5 | I use AI tools to find suitable Arabic equivalents. | 3.10 | 1.187 | 62% | Sometimes |
| 6 | 6 | I use AI tools to check grammar and spelling in Arabic translations. | 3.03 | 1.191 | 60.6% | Sometimes |
| 5 | 7 | I use AI tools to improve sentence structure in my translations. | 3.05 | 1.237 | 61% | Sometimes |

| | | | | | | |
|----|----|---|------|-------|-------|-----------|
| 7 | 8 | I use AI tools before submitting translation assignments. | 2.87 | 1.024 | 57.4% | Sometimes |
| 10 | 9 | I use AI tools even for short translation tasks. | 2.14 | 1.162 | 42.8% | rarely |
| 8 | 10 | I use AI tools as my primary translation aid. | 2.75 | 1.204 | 55% | Sometimes |

Table 4.5 presents that the highest ranked item 1 is “I use AI tools from English into Arabic and Arabic into English translation assignments” (M = 3.37, SD = 1,005, 67.4%, Sometimes), showing that students sometimes rely on AI tools when completing their English into Arabic and Arabic into English assignments. This indicates that AI tools are commonly used as supportive tools in academic translation tasks. Rank 2 was “I rely on AI tools to understand difficult English sentence (M = 3.32, SD = 1.268, 66.4%, Sometimes), indicating that students sometimes use AI tools to clarify complex sentence structures and improve their understanding of challenging English texts.

Rank 3 was “I use AI tools when translating texts at home” (M = 3.30, SD = 1.087, 66%, Sometimes), reflecting that students frequently use AI tools outside the classroom, especially during independent study. Rank 4 was “I use AI tools to find suitable Arabic equivalents” (M = 3.10, SD = 1.187, 62%, Sometimes), which shows that students sometimes depend on AI tools to select appropriate vocabulary and equivalents during translation. Rank 5 was “I use AI tools to improve sentence structure in my translation” (M = 3.05, SD = 1.237, 61%, Sometimes), suggesting that AI tools are moderately used to enhance sentence structure and overall translation quality.

Rank 6 was “I use AI tools to check grammar and spelling in Arabic translations” (M = 3.03, SD 1.191, 60.0%, Sometimes), indicating that students sometimes use AI tools as a proofreading aid. Rank 7 was “I use AI tools before submitting translation assignments (M =

2.87, SD = 1.024, 57.4%, Sometimes), showing that some students review their translations using AI before submission, although this practice is not very strong. Rank 8 was “I use AI tools as my primary translation aid” (M = 2.75, SD = 1.204, 55%, Sometimes), indicating that AI tools are not considered the main source of translation by most students, but are used as supportive tools.

Rank 9 was “I use AI tools during classroom translation activities” (M = 2.54, SD = 1.305, 50.8%, Rarely), suggesting that students rarely use AI tools inside the classroom, possibly due to classroom regulations or instructor control. Finally, rank 10, the lowest ranked item, was “I use AI tools even for short translation tasks” (M = 2.14, SD = 1.162, 42.8%, rarely), indicating that students generally do not rely on AI tools for simple or short translation tasks. Overall, the results show that students sometimes use AI tools in translation-related activities, particularly for assignments and understanding difficult sentences. However, their use is less frequent in classroom settings and for short tasks. This suggests a moderate and situational use of AI tools rather than full dependence on them.

Table 4.6 Frequency of Using AI Tools by Undergraduate Translation Students

| N | Items | always | often | Sometime | rarely | Never |
|---|---|--------|-------|----------|--------|-------|
| | | N (%) | N (%) | N (%) | N (%) | N (%) |
| 1 | I use AI tools for English into Arabic and Arabic into English translation assignments. | 15.9% | 27.0% | 34.9% | 22.2% | 0 |
| 2 | I use AI tools during classroom translation activities. | 11.1% | 11.1% | 25.4% | 25.4% | 27.0% |
| 3 | I use AI tools when translating texts at home. | 14.3% | 30.2% | 31.7% | 19.0% | 4.8% |
| 4 | I rely on AI tools to understand difficult English sentences. | 22.2% | 23.8% | 27.0% | 17.5% | 9.5% |
| 5 | I use AI tools to find suitable Arabic equivalents. | 12.7% | 23.8% | 36.5% | 14.3% | 12.7% |
| 6 | I use AI tools to check grammar and spelling in Arabic translations. | 11.1% | 23.8% | 36.5% | 14.3% | 14.3% |

| | | | | | | |
|----|--|-------|-------|-------|-------|-------|
| 7 | I use AI tools to improve sentence structure in my translations. | 12.7% | 27.0% | 25.4% | 22.2% | 12.7% |
| 8 | I use AI tools before submitting translation assignments. | 1.6% | 30.2% | 33.3% | 23.8% | 11.1% |
| 9 | I use AI tools even for short translation tasks. | 1.6% | 14.3% | 22.2% | 20.6% | 41.3% |
| 10 | I use AI tools as my primary translation aid. | 9.5% | 17.5% | 27.0% | 30.2% | 15.9% |

Table 4.6 shows that the use of AI tools for English into Arabic and Arabic into English translation assignments (Item 1), the results indicate that 15.9% of participants reported always using AI tools, while 27.0% reported often. The largest proportion (34.9%) selected sometimes, followed by 22.2% rarely, and none (0%) selected never. This suggests that AI tools are commonly used, though not consistently, in completing translation assignments. For the use of AI tools during classroom translation activities (Item 2), only 11.1% of students reported always using them, and an equal percentage (11.1%) indicated often. A higher proportion (25.4%) selected sometimes, while 25.4% rarely used them, and 27.0% never did so. These results indicate relatively limited use of AI tools in classroom contexts.

With respect to using AI tools when translating texts at home (Item 3), 14.3% of participants reported always using AI tools, and 30.2% often used them. The highest percentage (31.7%) was selected sometimes, followed by 19.0% rarely and 4.8% never. This demonstrates that AI tools are more frequently used in out-of-class contexts. In terms of relying on AI tools to understand difficult English sentences (Item 4), 22.2% of students reported always relying on them, and 23.8% often. Additionally, 27.0% selected sometimes, compared to 17.5% rarely and 9.5% never. This indicates a relatively high level of reliance on AI tools for comprehension support.

For finding suitable Arabic equivalents (Item 5), 12.7% of participants reported always using AI tools, while 23.8% reported often. The majority (36.5%) selected sometimes,

followed by 14.3% rarely and 12.7% never, suggesting moderate reliance on AI for lexical selection. Similarly, regarding the use of AI tools to check grammar and spelling in Arabic translations (Item 6), 11.1% reported always and 23.8% often. The largest proportion (36.5%) selected sometimes, while 14.3% reported rarely and 14.3% never, indicating occasional use for proofreading purposes. Concerning the use of AI tools to improve sentence structure (Item 7), 12.7% of students reported always using them, while 27.0% often did so.

About 25.4% selected sometimes, compared to 22.2% rarely and 12.7% never. This reflects moderate usage for stylistic improvement. With regard to using AI tools before submitting translation assignments (Item 8), only 1.6% reported always using them, while 30.2% reported often. The largest proportion (33.3%) selected sometimes, followed by 23.8% rarely and 11.1% never. This suggests the selective use of AI tools during the revision stage. For the use of AI tools even for short translation tasks (Item 9), only 1.6% of participants reported always using them, and 14.3% often. Meanwhile, 22.2% selected sometimes, 20.6% rarely, and the highest percentage (41.3%) never, indicating that most students avoid using AI tools for simple tasks.

Finally, regarding the use of AI tools as a primary translation aid (Item 10), 9.5% of participants reported always using them, while 17.5% reported often. About 27.0% selected sometimes, compared to 30.2% rarely and 15.9% never. This demonstrates that AI tools are generally not considered the main translation resource. Overall, the results show that the majority of responses across items fall within the sometimes category, indicating that undergraduate translation students adopt a moderate and selective approach to using AI tools. AI is primarily used as a supplementary resource rather than a primary translation tool.

4.3.2 Attitudes toward Using AI Tools among Undergraduate Translation Students

4.7 Descriptive Statistics Attitudes Toward Using AI Tools among Undergraduate Translation Students

| Rank | N | Items | Mean | Std. Deviation | Percent | Verbal Result |
|------|----|---|------|----------------|---------|---------------|
| 3 | 1 | AI tools make translation tasks easier. | 3.54 | 1.060 | 70.8% | Agree |
| 1 | 2 | Using AI tools saves time during translation. | 3.75 | 1.047 | 75% | Agree |
| 9 | 3 | AI tools increase my confidence in translation. | 2.81 | 1.242 | 56.2% | Neutral |
| 8 | 4 | I feel comfortable using AI tools for translation tasks. | 2.95 | 1.069 | 59% | Neutral |
| 5 | 5 | AI tools are useful for learning new vocabulary. | 3.30 | 1.240 | 66% | Neutral |
| 2 | 6 | AI tools help me understand complex English texts. | 3.59 | 1.026 | 71.8% | Agree |
| 6 | 7 | Using AI tools motivates me to translate better. | 3.24 | 1.146 | 64.8% | Neutral |
| 4 | 8 | AI tools reduce the difficulty of translation assignments. | 3.44 | 1.059 | 68.8% | Agree |
| 10 | 9 | I trust the translations produced by AI tools. | 2.67 | 1.257 | 53.4% | Neutral |
| 7 | 10 | I believe AI tools should be integrated into translation courses. | 3.06 | 1.162 | 61.2% | Neutral |

Table 4.7 shows that the highest ranked item is, Rank 1, “Using AI tools saves time during translation” (M = 3.75, SD = 1.047, 75% Agree), showing that students strongly believe AI tools help them complete translation tasks more quickly. Rank 2 was “AI tools help me understand complex English texts” (M = 3.59, SD = 1.026, 71.8%, Agree), indicating that students find AI tools useful for comprehension. Rank 3 was “AI tools make translation tasks easier” (M = 3.54, SD = 1.60, 70.8%, Agree), reflecting a positive perception of AI in simplifying translation work.

Rank 4 was “AI tools reduce the difficulty of translation assignments” ($M = 3.44$, $SD = 1.059$, 68.8%, Agree), which also demonstrate agreement among students. Rank 5 was “AI tools are useful for learning new vocabulary” ($M = 3.30$, $SD = 1.240$, 66%, Neutral), showing a neutral attitude. Rank 6 was “Using AI tools motivates me to translate better” ($M = 3.24$, $SD = 1.146$, 64.8%, Neutral), also indicating a neutral perception. Rank 7 was “I believe AI tools should be integrated into translation courses” ($M = 3.06$, $SD = 1.162$, 61.2%, Neutral), reflecting moderate agreement. Rank 8 was “I feel comfortable using AI tools for translation tasks” ($M = 2.95$, $SD = 1.069$, 59%, Neutral), showing a neutral response. Rank 9 was “AI tools increase my confidence in translation” ($M = 2.81$, $SD = 1.242$, 56.2%, Neutral), showing a neutral tendency.

Finally, Rank 10, the lowest ranked item, was “I trust the translations produced by AI tools” ($M = 2.67$, $SD = 1.257$, 53.4%, Neutral), suggesting that students are still cautious about fully trusting AI-generated translations. Overall, the mean score of students’ attitudes towards AI tools was 3.22 ($SD = 0.941$, 64.4%, Neutral), indicating a generally neutral tendency toward agreement. In summary, students perceive AI tools as helpful for saving time and simplifying translation tasks, but they remain somewhat cautious regarding their reliability and accuracy.

Table 4.8 Frequency of Attitudes Toward using AI Tools by Undergraduates Translation Students:

| N | Items | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|----|---|----------------|-------|---------|----------|-------------------|
| | | N (%) | N (%) | N (%) | N (%) | N (%) |
| 1 | AI tools make translation tasks easier. | 15.9% | 44.4% | 22.2% | 12.7% | 4.8% |
| 2 | Using AI tools saves time during translation. | 23.8% | 44.4% | 17.5% | 11.1% | 3.2% |
| 3 | AI tools increase my confidence in translation. | 11.1% | 22.2% | 25.9% | 38.1% | 12.7% |
| 4 | I feel comfortable using AI tools for translation tasks. | 9.5% | 17.5% | 39.7% | 25.4% | 7.9% |
| 5 | AI tools are useful for learning new vocabulary. | 17.5% | 33.3% | 20.6% | 19.0% | 9.5% |
| 6 | AI tools help me understand complex English texts. | 15.9% | 46.0% | 23.8% | 9.5% | 4.8% |
| 7 | Using AI tools motivates me to translate better. | 14.3% | 31.7% | 22.2% | 27.0% | 4.8% |
| 8 | AI tools reduce the difficulty of translation assignments. | 14.3% | 38.1% | 31.7% | 9.5% | 6.3% |
| 9 | I trust the translations produced by AI tools. | 9.5% | 17.5% | 23.8% | 28.6% | 20.6% |
| 10 | I believe AI tools should be integrated into translation courses. | 12.7% | 23.8% | 28.6% | 27.0% | 7.9% |

Table 4.8 shows that AI tools make translation easier (Item 1), the results indicates that 15.9% of participants reported strongly agree, while 44.4% reported agree. A considerable proportion 22.2% selected neutral followed by 12.7% disagree, and 4.8% selected strongly agree. This suggests a generally positive attitude toward the use of AI tools in translation. For the using of AI tools saves time during translation (Item 2), the results show that 23.8% of

participants strongly agree, and 44.4% indicated agree. A proportion of participants 17.5% were neutral, while 11.1% disagree, and 3.2% strongly disagree did so. This indicates AI tools are widely used to save time during translation tasks. AI tools increase my confidence in translation (Item 3). The results reveal that 11.1% strongly agree and 22.2% agree. However, 25.9% are neutral, while 38.1% disagree and 12.7% strongly disagree.

This suggests that students have a moderate level of confidence in using AI tools. I feel comfortable using AI tools for translation tasks (Item 4). The results indicate that 9.5% strongly agree and 17.5% agree. The largest proportion 39.7% are neutral, followed by 25.4% who disagree and 7.9% who strongly disagree. This indicates that students feel moderately comfortable using AI tools for translation tasks. AI tools are useful for learning new vocabulary (Item 5). The results show that 17.5% strongly agree and 33.3%. Meanwhile, 20.6% are neutral, 19.0% disagree and 9.5% strongly disagree. This suggests that AI tools are perceived as somewhat useful for learning new vocabulary.

AI tools help me understand complex English texts (Item 6). The results show that 15.9% strongly agree and 46.0% agree. In comparison, 23.8% are neutral, while 9.5% disagree and 4.8% strongly disagree. This indicates a positive perception of AI tools in helping students understand complex English texts. Using AI tools motivates me to translate better (Item 7). The results indicate that 14.3% strongly agree and 31.7% agree. However, 22.2% are neutral,

while 27.0% disagree and 4.8% strongly disagree. This suggests that AI tools have a moderate impact on students' motivation to translate.

4.3.3 The Impact of AI Tools on Translation Performance among Undergraduates Translation Students

Table 4.9 Descriptive Statistic of Impact of AI Tools on Translation Performance among Undergraduates Translation Students.

| Rank | N | Items | Mean | Std. Deviation | Percent | Verbal Result |
|------|----|--|------|----------------|---------|---------------|
| 7 | 1 | AI tools help me produce more accurate translations. | 2.95 | 1.156 | 59% | Neutral |
| 1 | 2 | AI tools improve my use of appropriate terminology. | 3.35 | 1.138 | 67% | Neutral |
| 7 | 3 | AI tools enhance my Arabic language accuracy. | 2.95 | 1.237 | 59% | Neutral |
| 1 | 4 | AI tools improve my understanding of the source text. | 3.35 | 1.065 | 67% | Neutral |
| 5 | 5 | Using AI tools improves my overall translation quality. | 3.08 | 1.154 | 61.6% | Neutral |
| 3 | 6 | AI tools help me avoid common translation errors. | 3.14 | 0.965 | 62.8% | Neutral |
| 6 | 7 | AI tools support my learning of translation strategies. | 3.03 | 1.231 | 60.6% | Neutral |
| 4 | 8 | Overreliance on AI tools reduces my independent translation ability. | 3.10 | 1.058 | 62% | Neutral |
| 3 | 9 | AI tools limit my creativity in translation. | 3.14 | 1.229 | 62.8% | Neutral |
| 2 | 10 | Overall, AI tools positively affect my translation performance. | 3.27 | 0.954 | 65.4% | Neutral |

Table 4.9 Shows that the highest ranked items Rank 1 is "AI tools improve my use of appropriate terminology" (M = 3.35, SD = 1.138, 67%, Neutral), "AI tools improve my understanding of the source text" (M = 3.35, SD = 1.065, 67%, Neutral), this indicates that

students perceive AI tools as most benefits in enhancing terminology use and improving comprehension of the source text. Rank 2 was “Overall, AI tools positively affect my translation performance” (M = 3.27, SD = 0,954, 65.4%, Neutral), showing that students generally believe AI has a positive overall impact on their translation performance. Rank 3 was shared by two items: “AI tools help me avoid common translation errors” (M = 3.14, SD = 0,965, 62.8%, Neutral), “AI tools limit my creativity in translation” (M = 3.14, SD = 1.229, 62.8%, Neutral), this reflects a balanced perception, where students acknowledge both the error-reduction benefits and potential creativity limitations of AT tools. Rank 4 was “Overreliance on AI tools reduces my independent translation ability” (M = 3.10, SD = 1.058, 62%, Neutral), indicating that students moderately recognize the risk of dependency on AI.

Rank 5 was “Using AI tools improves my overall translation quality” (M = 3.08, SD = 1.154, 61.6%, Neutral), suggesting a moderate perception of quality improvement. Rank 6 was “AI tools support my learning of translation strategies” (M = 3.03, SD = 1.231, 60.6%, Neutral), showing a slightly positive but overall neutral perception. Rank seven, the lowest ranked items, were: “AI tools help me produce more accurate translations” (M = 2.95, SD = 1.156, 59%, Neutral), “AI tools enhance my Arabic language accuracy” (M = 2.95, SD = 1.237, 59%, Neutral). Overall, the general mean score for the impact of AI on translation performance was 3.13 (SD = 0.907, 62.6%, Neutral), indicating a generally neutral tendency toward agreement. In conclusion, students perceive AI tools as moderately helpful in terminology use and text comprehension, while maintaining neutral attitudes toward other aspects of translation performance.

Table 4.10 Frequency of the Impact of AI Tools on Translation Performance among Undergraduate Translation Student

| N | Items | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---------|--|----------------|-------|---------|----------|-------------------|
| | | N (%) | N (%) | N (%) | N (%) | N (%) |
| 1 | AI tools help me produce more accurate translations. | 11.1% | 20.6% | 30.2% | 28.6% | 9.5% |
| 2 | AI tools improve my use of appropriate terminology. | 12.7% | 41.3% | 22.2% | 15.9% | 7.9% |
| 3 | AI tools enhance my Arabic accuracy. | 11.1% | 23.8% | 30.2% | 19.0% | 15.9% |
| 4 | AI tools improve my understanding of the source text. | 11.1% | 41.3% | 23.8% | 19.0% | 4.8% |
| 5 | Using AI tools improves my overall translation quality. | 7.9% | 34.9% | 25.4% | 20.6% | 11.1% |
| 6 | AI tools help me avoid common translation errors. | 3.2% | 39.7% | 30.2% | 22.2% | 4.8% |
| 7 | AI tools support my learning of translation strategies. | 12.7% | 25.4% | 27.0% | 22.2% | 12.7% |
| 8 | Overreliance on AI tools reduces my independent translation ability. | 6.3% | 34.9% | 27.0% | 25.4% | 6.3% |
| 9 | AI tools limit my creativity in translation. | 14.3% | 27.0% | 30.2% | 15.9% | 12.7% |
| 11 0 | Overall, AI tools positively affect my translation performance. | 7.9% | 34.9% | 36.5% | 17.5% | 3.2% |

Table 4.10 presents the impact of AI tools on students' translation performance from different perspectives. For the first item, which examines whether AI tools help students produce more accurate translations, only 11.1% of the participants strongly agreed and 20.6% agreed. However, the largest group (30.2%) remained neutral, while 28.6% disagreed and 9.5% strongly disagreed. This shows that students are somewhat uncertain about the extent to which AI improves translation accuracy.

When it comes to the use of appropriate terminology (Item 2), the results are more positive. A considerable percentage of students (41.3%) agreed, and 12.7% strongly agreed that AI tools help them use suitable terms. On the other hand, 22.2% were neutral, while smaller percentages disagreed (15.9%) or strongly disagreed (7.9%). This suggests that AI tools are generally seen as helpful in choosing the right terminology.

For improving Arabic language accuracy (Item 3), students' opinions appear more balanced. While 11.1% strongly agreed and 23.8% agreed, the highest percentage (30.2%) selected neutral. At the same time, 19.0% disagreed and 15.9% strongly disagreed. This indicates that students are not fully convinced of AI's role in enhancing Arabic accuracy. A clearer positive trend appears in Item 4, which focuses on understanding the source text. Here, 41.3% agreed and 11.1% strongly agreed that AI tools improve comprehension. In comparison, 23.8% were neutral, and fewer students disagreed (19.0%) or strongly disagreed (4.8%).

This suggests that AI tools are particularly useful for helping students understand difficult texts. Looking at overall translation quality (Item 5), 34.9% of the participants agreed and 7.9% strongly agreed that AI tools improve their work. Meanwhile, 25.4% were neutral, and some students expressed negative views (20.6% disagreed and 11.1% strongly disagreed). This reflects a generally positive, but not unanimous, perception. For avoiding common translation errors (Item 6), only a small percentage (3.2%) strongly agreed, but a larger group (39.7%) agreed. The rest were either neutral (30.2%) or disagreed to some extent. This indicates that AI tools can help reduce mistakes, although their effectiveness may not always be consistent.

Regarding the role of AI in supporting the learning of translation strategies (Item 7), 25.4% agreed and 12.7% strongly agreed. However, 27.0% remained neutral, and a noticeable portion of students expressed disagreement. This suggests that AI tools play a supportive but

limited role in developing translation skills. In Item 8, which addresses overreliance on AI, 34.9% agreed and 6.3% strongly agreed that depending too much on AI may reduce their independent translation ability.

Although some students disagreed, this result highlights a real concern among learners about becoming overly dependent on technology. As for creativity (Item 9), students' opinions are clearly mixed. While 27.0% agreed and 14.3% strongly agreed that AI tools limit creativity, the largest group (30.2%) chose neutral. Others disagreed to varying degrees. This shows that the effect of AI on creativity is still unclear for many students. Finally, in terms of the overall impact of AI tools on translation performance (Item 10), 34.9% agreed and 7.9% strongly agreed that AI has a positive effect. However, a large percentage (36.5%) remained neutral, while some students expressed negative views.

This indicates that, although AI is seen as beneficial, not all students are fully convinced of its overall impact. Overall, the results suggest that students tend to view AI tools as helpful, especially for understanding texts and using correct terminology. At the same time, their responses show a degree of hesitation, particularly regarding issues such as overreliance and creativity. This reflects a balanced attitude, where AI is seen as a useful support tool rather than a complete replacement for human effort in translation.

Table 4.11 Correlation Analysis

| Correlation | | Attitudes toward AI Tools | Impact of AI on Translation Performance |
|---|---------------------|---------------------------|---|
| Frequency of Using AI Tools | Pearson Correlation | .595** | .610** |
| | Sig. | .000 | .000 |
| | N | 63 | 63 |
| Impact of AI on Translation Performance | Pearson Correlation | .723** | |
| | Sig. | .000 | |
| | N | 63 | |

Table 4.11 Shows that the results of Pearson's correlation analysis in Table (9) showed positive relationships between study variables at (p .001). The results revealed a strong relationship between students' attitudes toward the use of artificial intelligence and its impact on their performance ($r = .723$), indicating that the improvement in performance is associated of the positive attitude. The results also showed a positive relationship between the frequency of artificial intelligence and its impact on performance ($r = .610$). This suggests that frequent use promotes perception of benefit. Additionally, there is a positive correlation between the frequency of use and the attitude towards artificial intelligence ($r = .595$), which means that increased use contributes to the formation of more positive attitudes. Overall, the results reflect a clear correlation among the variables, without indicating a direct causal relationship.

4.4 Discussion

The results of the current study demonstrate that undergraduate translation students use artificial intelligence tools at a moderate level. In general, they have positive attitudes toward these tools and believe that AI has a positive impact on their translation performance. However, students do not use AI all the time. Instead, they tend to use it more for translation assignments and difficult tasks, while they use it less for short or simple activities. This suggests that students use AI in a selective and purposeful way, especially when they feel that the task requires more effort or concentration.

These results are similar to the study conducted by Moneus and Al-Wasy (2024), who found that AI tools improved students' translation performance and that learners had generally positive attitudes toward AI-assisted translation. Like their study, the current research shows that students believe AI helps them improve their use of terminology and better understand the source text. This supports the idea that AI can play a helpful role in translation learning.

Regarding students' attitudes, the results indicate that most students agree that AI tools save time and make translation tasks easier. These items received the highest percentage of participants. On the other hand, trust in AI-generated translations received the lowest percentage (53.4) of participants. This means that although students find AI useful and efficient, they are still not fully confident in its accuracy. This result is in agreement with the study by Wang (2023), who found that AI performs well in formal and non-literary texts, but human translators are still better in terms of accuracy, clarity, and understanding deeper context. Therefore, students in the present study seem to view AI as a helpful tool, but not something they can completely depend on.

In terms of translation performance, students reported that AI tools mostly help them improve their use of appropriate terminology and their understanding of the source text. These results are in line with the study by Koka et al. (2023), which showed that participants believed AI improves evaluation accuracy and highlighted the importance of source-text quality. Similarly, Khasawneh and Al-Amrat (2023) found that integrating AI tools enhances translation accuracy and improves the quality of translation graduates. This supports the current study's conclusion that AI positively affects students' translation performance.

However, students also mentioned some negative effects of overusing AI. Many agreed that relying too much on AI may reduce their independent translation ability and limit their creativity. This result supports the results of Bala (2024), who warned that excessive dependence on AI may weaken students' creativity and critical thinking skills, even if it improves accuracy and fluency. In addition, Belhassen and Hamda (2025) emphasized that although students widely use AI and are satisfied with it, human supervision is still necessary, especially for complex translation tasks.

Moreover, the correlation analysis in this study showed strong positive relationships between frequency of AI use, students' attitudes toward AI, and their perceived translation performance. This means that students who use AI more often tend to have more positive attitudes and believe that AI improves their performance. This finding is similar to the study by Gonzalez Pastor (2021), which found that students developed more positive attitudes toward machine translation after training and experience with it.

Chapter Five

Summary and Recommendations

5.1 Introduction

This chapter presents a summary of the main results of the current study in relation to the research questions; furthermore, it provides recommendations and suggestions for further studies.

5.2 Summary of the Main Results of the Study

This study examined the impact of Artificial Intelligence tools on the translation performance of undergraduate translation students. To achieve the aim of the study, a questionnaire was used to collect data from the participants. The data were then analyzed using SPSS to determine the main results of the study.

5.2.1 Using AI Tools by Undergraduate Translation Students

The results of the current study revealed that the extent of undergraduate translation students' use of AI tools in English–Arabic and Arabic–English translation is generally moderate. The results revealed that students sometimes use AI tools in their translation activities, particularly for assignments and when dealing with difficult English sentences, reflecting their use of AI as a supportive academic tool. In addition, students reported using AI tools when translating texts at home and for checking grammar and sentence structure, which indicates a practical and purposeful use of AI tools in enhancing translation quality. However, lower use was reported in classroom activities and short translation tasks, indicating that students do not depend on AI tools in all situations. Overall, these results suggest that although students use AI tools to support them in translation tasks, their use remains moderate and selective rather than fully dependent.

5.2.2 Undergraduate Translation Students' Attitudes Toward the Use of AI Tools in English into Arabic and Arabic into English Translation Tasks.

Based on the data analysis of undergraduate translation students' attitudes towards the use of AI tools in English-Arabic translation text, the results revealed that students agreed that AI tools save time during translation and help them understand complex English texts, reflecting their perception of AI as a useful support tool. In addition, students agreed that AI tools make translation tasks easier and reduce the difficulty of translation assignments, which suggests a positive perception of the practical benefits of AI tools. However, several items, such as confidence in translation, comfort in using AI tools, and trust in AI-generated translations, received neutral responses, indicating that students are still careful about completely relying on AI tools. Overall, these results suggest that although students recognize the usefulness of AI tools in facilitating translation tasks, their attitudes remain balanced and moderately positive.

5.2.3 The Impact AI tools Usage on the Translation Performance of Undergraduate Translation Students

Based on the results, students had a slightly positive but mostly neutral attitude toward using AI tools in translation. Most of them said that AI helps them understand the source text better and improve terminology. However, students also mentioned some disadvantages. AI can reduce common mistakes, but it may also decrease creativity and make students less independent in translation. The lowest scores were related to translation accuracy and Arabic language accuracy. This may mean that students do not fully trust AI tools to produce completely accurate translations. Overall, AI tools are helpful, but they cannot replace human translation skills.

5.3 Recommendations

Based on the study's results, certain recommendations have been made. These recommendations are important to consider:

- 1- AI tools should be added to translation courses in a clear and organized way.
- 2- Students should use AI tools to help them, but not depend on them too much.
- 3- Students need clear instructions on how to use AI tools in translation tasks.
- 4- Students should learn how to check and correct AI translations carefully.
- 5- Teachers should guide students on how to use AI tools correctly in class.
- 6- Students should not accept AI translations without thinking about them.
- 7- Universities should provide training to explain the benefits and limits of AI tools.
- 8- Students should improve their own translation skills without always relying on AI.
- 9- Future research should study the long-term effects of using AI tools.
- 10- Future studies should examine how AI affects translation quality and students' academic performance.

5.4 Suggestions for Further Studies

Based on current study results, suggestions for further studies are presented as:

1. Future researchers are also encouraged to explore how AI tools perform when translating different types of texts, such as literary, technical, or academic texts, to see whether their effectiveness varies depending on the text type.
2. Future studies may focus on the common mistakes made by AI tools in translation and how these mistakes affect the quality of the translation.
3. Future studies may examine how well AI tools translate idioms and cultural expressions, and whether they can understand the intended meaning correctly.

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Appendix (A) Questionnaire

Dear Student,

This questionnaire is part of a research work carried out in the Department of English and Translation at Azal University for Human Development. This research is intended to shed light on the impact of artificial intelligence tools on the translation performance of undergraduate translation students. Your responses will be confidential and will be only used for research purposes.

Part A: Personal Information:

| |
|------------------------|
| Name (optional): |
| Age: |
| Sex: |
| University: |
| Department: |

Part B: Frequency of Using AI Tools

| No. | Items | Never | Rarely | Sometimes | often | always |
|-----|---|-------|--------|-----------|-------|--------|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | I use AI tools for English–Arabic and Arabic-English translation assignments. | | | | | |
| 2 | I use AI tools during classroom translation activities. | | | | | |
| 3 | I use AI tools when translating texts at home. | | | | | |
| 4 | I rely on AI tools to understand difficult English sentences. | | | | | |
| 5 | I use AI tools to find suitable Arabic equivalents. | | | | | |

| | | | | | | |
|---|--|--|--|--|--|--|
| 6 | I use AI tools to check grammar and spelling in Arabic translations. | | | | | |
| 7 | I use AI tools to improve sentence structure in my translations. | | | | | |

| | | | | | | |
|----|--|--|--|--|--|--|
| 7 | I use AI tools to improve sentence structure in my translations. | | | | | |
| 8 | I use AI tools before submitting translation assignments. | | | | | |
| 9 | I use AI tools even for short translation tasks. | | | | | |
| 10 | I use AI tools as my primary translation aid. | | | | | |

Part C: Attitudes toward AI Tools

| No. | Items | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-----|---|-------------------|----------|---------|-------|----------------|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | AI tools make translation tasks easier. | | | | | |
| 2 | Using AI tools saves time during translation. | | | | | |
| 3 | AI tools increase my confidence in translation. | | | | | |
| 4 | I feel comfortable using AI tools for translation tasks. | | | | | |
| 5 | AI tools are useful for learning new vocabulary. | | | | | |
| 6 | AI tools help me understand complex English texts. | | | | | |
| 7 | Using AI tools motivates me to translate better. | | | | | |
| 8 | AI tools reduce the difficulty of translation assignments. | | | | | |
| 9 | I trust the translations produced by AI tools | | | | | |
| 10 | I believe AI tools should be integrated into translation courses. | | | | | |

Part D: Impact of AI on Translation Performance

| No. | Items | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|-----|--|-------------------|----------|---------|-------|----------------|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | AI tools help me produce more accurate translations. | | | | | |
| 2 | AI tools improve my use of appropriate terminology. | | | | | |
| 3 | AI tools enhance my Arabic language accuracy. | | | | | |
| 4 | AI tools improve my understanding of the source text. | | | | | |
| 5 | Using AI tools improves my overall translation quality. | | | | | |
| 6 | AI tools help me avoid common translation errors. | | | | | |
| 7 | AI tools support my learning of translation strategies. | | | | | |
| 8 | Overreliance on AI tools reduces my independent translation ability. | | | | | |
| 9 | AI tools limit my creativity in translation. | | | | | |
| 10 | Overall, AI tools positively affect my translation performance. | | | | | |

Thank you for you cooperation

Appendix(B) List of the Questionnaire's Validators

| Name of the Validator | Position | Specialization | Place of Work |
|------------------------------|---------------------|-----------------------|--|
| Dr. Ali Al- Haidari | Associate Professor | English literature | Department of English, AL-Mahweet University |
| Dr. Ali Al Shehrah | Assistant professor | Applied linguistics | Department of English, Sana'a University |