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Prifysgol Abertawe

# Translation Technology Training in Saudi Arabia: Aligning BA Programmes with Industry Requirements

**Abdelalah Alsolami**

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**Abstract**

The modern translation industry is characterised by rapid evolution of technologies, the growth of collaborative projects and an expansion in the roles of translators. The Saudi Vision 2030 calls for a transition to a knowledge-based economy and the elevation of the higher education sector to global rankings. This thesis provides recommendations to improve BA programmes in Saudi Arabia by aligning them with the technology-related requirements of the translation industry and aims to fill a literature gap around industry needs and translators' technological competence. The first to incorporate all BA programmes responsible for preparing future translators, this research comprises three studies with different stakeholder groups (translators, employers, programme directors, and trainers), along with three research questions serving one overarching research question and was carried out with a mixed-methods design. Industry requirements (RQ1) were determined through the perspectives of translators and employers, who agreed on the importance of five competencies: Machine Translation (MT), Computer-Assisted Translation (CAT) tools, terminology, multimedia and desktop publishing (DTP), adding the growing influence of Generative Artificial Intelligence (GenAI). Google Translate and Microsoft Translator were rated as most important, along with eight CAT tools, with Trados Studio and memoQ the most frequently used. Translators' technological competence (RQ2) was found to lie from early to advanced conscious competence on Howell's (1982) model. Saudi BA programmes (RQ3) do not currently align with the requirements identified in RQ1. Challenges are evident in translation technology integration, lab infrastructure, trainer expertise, curriculum variations, teaching strategies, and industry involvement. To improve these programmes, a Translation Accreditation Council (TAC) should be established to facilitate industry-academia partnerships and encourage accreditation through standardisation based on best practices. Universities must invest in infrastructure to equip labs, gain access to tools, and improve off-campus access via cloud-based integration. This should also incorporate a move to student-centred teaching strategies (e.g., Simulated Translation Bureaus) to expose students to real-world working experiences.

## DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed .....Abdelalah Salem Alsolami…… [redacted]. (candidate)

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## STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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I hereby give consent for my thesis, if accepted, to be available for electronic sharing after expiry of a bar on access approved by the Swansea University.

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## Acknowledgements

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# Thesis Dedication

To my father:

Salem Abdulmuti Alsolami (1954-2013)

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## List of Abbreviations

| | |
|---|---|
| AVT | Audiovisual Translation |
| CAT | Computer-Assisted Translation |
| CPD | Continuing Professional Development |
| DTP | Desktop Publishing |
| EMT | European Master's in Translation |
| ETEC | Education and Training Evaluation Commission |
| HCDP | Human Capability Development Programme |
| ISO | International Organisation for Standardisation |
| LPTC | Literature, Publishing, and Translation Commission |
| LSP | Language Service Provider |
| MENA | Middle East and North Africa |
| MT | Machine Translation |
| NCAAA | National Centre for Academic Accreditation and Assessment |
| NTP | National Transformation Programme |
| OPTIMALE | Optimising Professional Translator Training in a Multilingual Europe |
| PACTE | Process of Acquisition of Translation Competence and Evaluation |
| QA | Quality Assurance |
| SATA | Saudi Arabian Translation Association |
| TB | Termbase |
| TC | Translation Competence |
| TM | Translation Memory |
| TMS | Translation Management Systems |
| TS | Translation Studies |
| WTO | World Trade Organisation |

# Chapter 1 Introduction

## 1.1 Overview

> *For some time now, we have been witnessing a gradual momentum which is remodelling the translation profession and transforming it from service into industry, that is to say, an economic activity concerned with the output of a specific product and which manages complex processes, develops synchronized goods, and which is based on teamwork, leverage of existing material (corpus), and information technology. In this sense, the translation industry is pointing to a new set of skills translators have to deploy if they are to act in a context of larger translation volumes, faster delivery times, stricter customization demands, and global production teams. The translator needs to develop the expertise of a project manager, a computer scientist, a documentalist, a DTP [desktop publishing] specialist, a terminologist, a language engineer, an evaluator, a localizer, and a technical writer.*
>
> (Rico Pérez, 2002, p. 1)

Although written over two decades ago, Rico Pérez's (2002) perception of the translation profession remains relevant, anticipating many of the changes that still define the translation industry today, such as technology-mediated workflows and team-based production. However, the nature of these changes is not static, with the profession now marked by new challenges, including automation, ethical debates, and sustainability concerns. Current developments in translation technology, particularly the proliferation of *Generative Artificial Intelligence* (GenAI), mean that the tools, processes, and professional roles involved in translation continue to evolve in new ways. Translators are now expected to work in socio-technological environments where technological competence is essential for success. The relevance of the quotation to this thesis lies in its portrayal of the complex, digitalised, industrialised nature of the translation profession, which exceeds simply transferring a source text from one language into a target text in another. It highlights translation as a collaborative, technology-mediated profession entailing the working input of a whole team carrying out tasks adjacent to the translation across several stages of pre-production, production, and post-production, each with its own specialised tools and project management principles (ISO 17100:2015; Walker, 2023).

Rico Pérez (2002) additionally provides a reminder of the role of translation in a knowledge-based economy in which success depends on the efficient management of information, working across socio-political borders, and leveraging technologies to operate effectively in an environment of fast-paced international communication. Translation, as both an intellectual and an economic activity, directly contributes to knowledge exchange and international cooperation

in an information-driven world, and by facilitating informed decision-making, can bring about significant economic benefits.

Translation technology now plays a central role in the understanding, execution and delivery of translation work across various domains and professional settings, having become embedded at nearly every stage of the process (O'Hagan, 2019), with the growing human-machine interaction described as a 'dance of agency' (Olohan, 2011, p. 343). Cronin (2010) calls this evolution the "technological turn" in Translation Studies (TS), requiring current and future translators to develop a wide range of competencies beyond language and culture to succeed in the globalised translation industry. The sub-discipline of translation technology now represents a core element of the field, reflecting the growing reliance on technology (Jiménez-Crespo, 2023; O'Brien, 2023), and the translation industry across the world has seen changes to workflows, expectations, and the skill sets required from professional translators. For the purposes of this thesis, *translation technology* is understood in its broadest sense, as proposed by O'Brien and Rodríguez Vázquez (2019, p. 264), "to include a large array of computer tools that help translators do their jobs, including word processors; spell, style, and grammar checkers; the World Wide Web; corpus compilation and analysis tools; terminology management tools; translation memory tools (TM); translation management systems (TMS); and machine translation (MT)". Building on this definition, the thesis also treats audiovisual translation (AVT), localisation, and desktop publishing (DTP) as other components covered under the umbrella term of translation technology, since professional practice increasingly requires translators to operate in environments in which they are expected to comfortably work with multimedia workflows as well as layout, formatting, and other extra-linguistic features. Together, these represent the main technology-related areas investigated in this research. This working definition is used consistently throughout the thesis and is developed further later (see Chapter 2, Section 2.2), with the profound and growing influence of GenAI cutting across them.

GenAI systems are defined by Pavlik (2023) as tools capable of generating new content from user input. These have quickly become widespread, with ChatGPT alone surpassing 100 million monthly users by 2023 (Reuters, 2023). GenAI in this thesis denotes computational tools not specifically designed for the translation industry that can generate language by processing a huge amount of data in a very short time. The way these tools work is unique: they are marked out from any other software currently in use in the translation industry, and their impact cannot be understated. AI must be included as a foundational element of translation

technology because its use is now integral to professional workflows. Translations can be generated by AI almost instantly, saving translators time and improving their overall productivity. However, its adoption and evolution have been so rapid that significant ethical, social, and environmental questions emerge (see also Section 2.2).

The confidentiality and ownership of the resources and data processed by GenAI have been the focus of considerable controversy. As they trawl the internet for data, and are initially trained with data from a wide array of sources, determining the ethical implications is a challenge: for several years in the last decade, a key feature of AI training was cat images posted by users online – these users were not compensated for their help in AI training, nor were they acknowledged or credited. Those training the AI simply took data and employed it to their own ends (Harari, 2024). Chen and Wu (2025) refer to such a process as "data colonialism, where tech corporations extract linguistic resources from marginalized communities without equitable compensation" (p. 14). An additional problem with these models, discussed by Tymoczko (2020), is that the cultural context in which they are trained influences their output. For example, a GenAI tool trained in the United States, using data from the English-speaking world (traditional and social media, academia, literature, etc.), will necessarily exhibit different emphases and biases from a tool trained in China. The question then arises of which tool to use for translation and interpreting purposes, especially in countries like Saudi Arabia for whom neither an American nor a Chinese bias may be desired. In a competitive environment, it may even be the case that rather than diversifying, GenAI tools will homogenise, with one particular tool coming to all but monopolise the industry (in the same way that the Microsoft Windows operating system came to dominate in the 1990s). This would create a cultural hegemony from which it may be difficult or impossible to break free. A third pressing concern, highlighted by Lambert and Walker (2022), is the effect that the increasing use of MT and AI tools is having on the status and remuneration of professional translators. Clients or even employers might mistakenly consider a translator's job to be less demanding than ever, disempowering translators and increasing competitiveness in the industry, driving wages and working conditions down. The speed at which technological change is affecting the translation industry, however, makes evaluation of these concerns a moving target for any stakeholder involved in the training of translators – by the time a consensus has been reached, the technology or industry has developed in another direction, and the process needs to start again. In this context, this thesis contributes to existing knowledge by offering a structured template for evaluating

how translation technology training can adapt to such ongoing change, helping programmes (in Saudi Arabia and other countries) remain responsive to industry developments.

The foundational nature of technological competence means translators are expected to employ CAT tools, MT systems, and, recently, GenAI in their work, manage terminology databases, and navigate multimedia workflows (Kenny, 2019; Rothwell & Svoboda, 2019; Al-Batineh & Al Tenaijy, 2024). Details on 'technological competence' as a concept can be found in Chapter Two, as it represents a key element of the work carried out for this thesis. A major evolution of the role of translator is therefore underway, with a universal movement toward MT post-editing and GenAI tools, and those responsible for academic programmes to prepare future translators increasingly find themselves pressured to incorporate the requirements of the translation industry into curricula to enhance graduate employability.

In this kind of technological environment, global research interest has been sparked on the role of the translator and on how industry requirements are served by higher education (HE) translator training. The ways in which the profiles of professional translators are moulded by academic curricula and the extent to which these curricula improve graduates' employability and competitiveness have been evaluated in studies such as Gümüş (2017) in Turkey, Do (2020) in Australia and Vietnam, Man et al., (2020) in China, Marczak and Bondarenko (2021) in Poland and Ukraine, and Sánchez-Castany (2022) in Spain. Despite variations between them in scope and design, these illustrate a common challenge: translation technology is taught at the HE level, but inconsistently and with little depth or meaningful integration with real-world professional practices. Such conclusions have also been drawn in the Arab world: a recent study by Al-Batineh and Al Tenaijy (2024) analysed online job advertisements and academic study plans, and although they found an encouraging increase in CAT training in the surveyed Arab programmes, they also revealed notable gaps in MT and localisation training, suggesting that a disconnect still exists between current curricula and emerging regional industry requirements.

Within the narrower context of Saudi Arabia, some studies have explored the extent to which translator training programmes prepare students for professional translation roles (e.g., Fatani, 2009; Alenezi, 2015; Abu-ghararah, 2017; Alzamil, 2024). While these studies have provided valuable insights into the overall preparedness of translation graduates and the link between BA training and industry requirements, they tend to approach the issue from a broad curricular perspective, without in-depth investigation of how translation technology training is delivered in these programmes. In Saudi Arabia, a small number of studies have addressed translation

technology training directly, but these tend to operate within a narrow methodological scope and focus only on a single university (King Saud University in Aljarf, 2017), one particular technology (CAT in Al-Rumaih, 2021), or the views of a specific group (students in Abu-ghararah, 2015), seldom engaging with the perspectives of multiple stakeholders.

To the best of my knowledge, there is currently no study in the Saudi context that holistically explores the perceived importance, competence levels, and BA teaching of translation technology, so this thesis proposes to address these gaps via a multi-perspective examination of translation technology training in Saudi BA programmes, incorporating both industry (i.e., professional translators and translation employers) and academic stakeholders (i.e., BA programme directors and trainers of translation technology-related courses). Its contribution to existing knowledge comes from identification of the technology-related requirements of the Saudi translation industry, assessment of the technological competence of translators, and evaluation of BA curricula and training practices, forming in sum a comprehensive investigation into the state of translation technology in both professional practice (importance and competence levels) and academia (curricula and training), in the underexplored context of Saudi Arabia. It is hoped that a further contribution will emerge from this thesis's evidence-based recommendations to improve the delivery of translation technology training in Saudi BA programmes, which include ways in which the existing infrastructure, curricula, teaching strategies, trainer development, and continuing professional development (CPD) practices in the Saudi translation industry can be enhanced. Other broader values of this thesis for the wider TS community and the literature can be found in the Conclusion Chapter (See Chapter 8).

This chapter begins with the current overview. Section 1.2 situates the research in its national context, focusing on Saudi Vision 2030 and the current structure and state of the translation industry and translator training in Saudi Arabia. Section 1.3 discusses the academic and professional relevance of this research through an explanation of its rationale and significance, before Section 1.4 describes its overarching aim and specific objectives. Section 1.5 lists the research questions guiding the thesis, and Section 1.6 outlines the full thesis structure, including a brief summary of each chapter.

## 1.2 Research Context: Saudi Arabia

The 2.15 million $km^2$ land area of the Kingdom of Saudi Arabia (henceforth 'Saudi Arabia') occupies most of the Arabian Peninsula in southwest Asia, making it the largest country in the Middle East and the $11^{th}$ largest in the world (Vassiliev, 2013). Saudi Arabia is bordered to the

North by Jordan, Iraq, and Kuwait, to the east by the United Arab Emirates (UAE), Qatar, and Bahrain, by Yemen and Oman to the south and by the Red Sea to the west (Figure 1.1, below). This commanding strategic location at the crossroads of Asia, Africa, and Europe makes it a considerable regional and global geopolitical and economic influence and gives direct access to global shipping trade routes, making Saudi Arabia a global commerce and cooperation hub.


Figure 1.1 Map of Saudi Arabia (www.worldatlas.com)

The religious and cultural importance of Saudi Arabia in the Muslim world cannot be overstated: it is the birthplace of Islam and the custodian of its two holiest sites, Mecca and Medina, the first of which houses the Kaaba, toward which a billion Muslims worldwide turn to pray five times a day. Each year the country hosts millions of Muslims from all linguistic and cultural backgrounds making the minor and major pilgrimages (Umrah and Hajj, respectively) to the sacred cities. These are linguistic and cultural melting pots with unique communication requirements, creating a growing demand for professional translators and interpreters to enable meaningful interactions between pilgrims, religious authorities, service providers, and governing bodies by bridging language barriers and facilitating accurate communication. Taibi (2014, p.59) notes that "research conducted into the needs of pilgrims shows that there are still many gaps to be filled and […] pilgrims face significant challenges in administrative procedures as well as in access to information on public services". Skilled translators can mitigate these challenges by supporting pilgrims during their time in Saudi Arabia, ensuring smooth navigation of religious and administrative settings.

The urgency of effective cross-linguistic and cultural communication is therefore clear in the context of Saudi Arabia's religious, cultural, and commercial ties with other countries.

Successful dialogue in all of these areas and understanding between nations and sectors is made possible through translation, and so it functions not merely as a language service but as a strategic necessity for the continuation and growth of Saudi Arabia's global engagement and influence.

The population of Saudi Arabia in 2024 was estimated to be 35,300,280, with a large proportion under the age of 30 (General Authority for Statistics[1] 'GASTAT', 2024). The implications of this youthful demographic profile for national development planning are primarily felt in education, employment, and human capital investment. With a population of over 7.6 million and a land area of around 1,973 km², Riyadh, the capital city, is the largest metropolitan area in the Arabian Peninsula (GASTAT, 2024). Table 1.1 (below) illustrates that the resident population comprises both Saudis and non-Saudis. The gender balance for Saudi nationals is almost equal, with 50.1% male and 49.9% female, but the majority of the non-Saudi population is male, at 77.2% against only 22.8% female, reflecting the fact that male expatriates are frequently recruited to work in sectors across the Saudi economy as part of larger labour migration trends (GASTAT, 2024).

Table 1.1 Population by gender and nationality (source: GASTAT, 2024)

| Nationality | Male | Female | Total | (%) |
|---|---|---|---|---|
| Saudi | 10,575,895 | 10,192,732 | 19,626,156 | 55.6% |
| Non-Saudi | 8,665,061 | 3,979,972 | 15,674,124 | 44.4% |
| Total | 19,626,956 | 14,172,704 | 35,300,280 | 100% |

Al-Khatib (2008) conducted one of the earliest studies into the Saudi translation industry and observed that both the Saudi economy and its translation industry rely heavily on foreign labour. The work notes that the role of labour in the supply side of the translation industry is poor (p.128) and suggests that the workforce is affected by broad structural challenges related to quality, training, and sustainability, in addition to being dominated by non-Saudis. A year after this, Fatani (2009) supported Al-Khatib's observations, stating that translation tasks in many Saudi organisations, particularly in the private sector, are often performed by bilingual employees rather than trained professional translators. Fatani attributes this practice to the marketplace's awareness of "the deficiencies of Saudi translators who were graduates of local translation and language programmes". This reliance on unqualified labour has led to inconsistencies in translation quality and hindered the professionalisation of the field (Fatani,

[1] https://www.stats.gov.sa/en/web/guest/home (last accessed July 2025)

2009). To address these issues, Saudi Arabia has recently taken measures to regulate the translation profession and increase national participation, most notably through the implementation of the 'Saudisation' policy, which since May 2022 has officially restricted translation jobs in Saudi Arabia to Saudi nationals in an effort to address quality issues and enhance the reputation of the profession. This sweeping policy and its implications for the translation industry are discussed further in Section 1.2.2.

Transformative policies like Saudisation form part of a larger national strategy called Vision 2030, "an ambitious yet achievable blueprint" with the aim of reshaping Saudi Arabia's economic, social, and institutional landscape (Saudi Vision 2030[2]). An overview of this agenda is provided in the following section, which explains its pillars, objectives, and relevance to the present thesis.

### 1.2.1 Saudi Vision 2030

Saudi Arabia has depended heavily on oil as its main source of income and economic development for decades, so its economic structure is largely shaped by oil production, petrochemical exports, and domestic consumption of fossil fuels (Khorsheed, 2015). Through this market positioning it has become a key player in global energy markets and a leading global oil exporter, and it was a founding member and is the current leader of both the Organisation of the Petroleum Exporting Countries (OPEC) and OPEC+. However, instability in oil prices and the general global shift toward sustainable energy and renewables have rendered a sole reliance on oil untenable in anything but the very short term. Recognising that this dependence needs to be gradually reduced while oil revenues remain strong enough to support an economic transformation plan, the Saudi government developed a wide-ranging national agenda to transform "the country's economy and society from their traditional reliance on oil revenue to a more diverse economy and a society that is willing to engage with the rest of the world with open attitudes" (Alqahtani, 2022).

Spearheaded by His Royal Highness Crown Prince Mohammed bin Salman (MBS) and given official assent by King Salman bin Abdulaziz Al Saud on April 25, 2016, the Saudi Vision 2030 is a strategic framework to improve Saudi Arabia's global status and secure sustainable development in the long term through its three interlinked pillars of building a vibrant society, a thriving economy, and an ambitious nation (Figure 1.2, below).

[2] www.vision2030.gov.sa/en (last accessed July 2025)

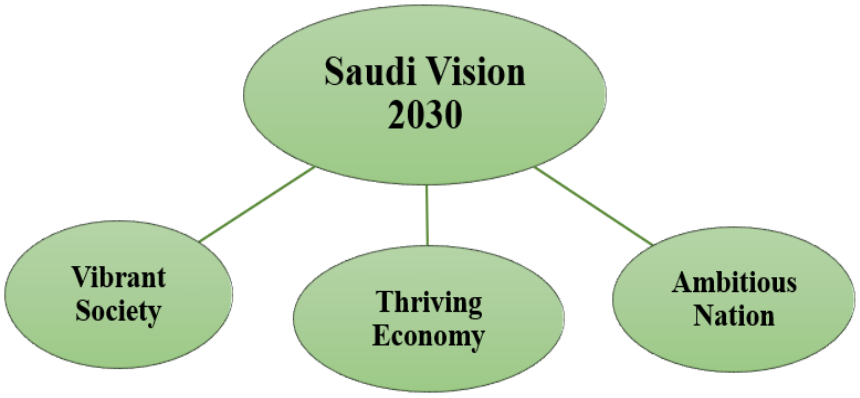



Figure 1.2 Main Pillars of Vision 2030

Each pillar incorporates strategic objectives that reflect the country's ambition to empower its people, diversify its economic revenues, and elevate its global standing. To achieve this, the general ideas of the Vision are translated into a practical and measurable set of plans and outcomes through twelve Vision Realisation Programmes (see Figure 1.3, below) dealing with core areas such as education, health, housing, finance, and culture. Two of these are especially relevant to this thesis: 'National Transformation Programme[3]' (NTP) and 'Human Capability Development Programme[4]' (HCDP), designed to build and prepare a skilled workforce that is ready for the future and bring academic programmes into alignment with industry requirements.


Figure 1.3 Vision realisation programmes (Saudi Vision 2030)

The NTP, launched in 2016 as the first Vision programme, has played a major role in reforming the country's digital infrastructure, labour market, and public service delivery systems. It aims

[3] https://www.vision2030.gov.sa/en/explore/programs/national-transformation-program (last accessed July 2025)
[4] https://www.vision2030.gov.sa/en/explore/programs/human-capability-development-program (last accessed July 2025)

to promote government excellence, empower the private sector, and develop economic partnerships with key actors in both the local and global markets (NTP Delivery Plan, 2021–2025, p. 8). The advancement and progress of e-government services with the Saudi National Portal (www.my.gov.sa) stands as one of the programme's major achievements, as access to official procedures is now simpler and bureaucratic obstacles have been reduced. Citizens, residents, and businesses now have access to more than 900 integrated digital services through this portal, including national ID cards, birth certificates, electronic visas for tourism and religious pilgrimages, as well as services in the areas of healthcare, education, and the law. The NTP Achievements Report (2023) noted that these services have reduced bureaucracy, enabled and enhanced citizen engagement, increased government efficiency, and provided remote and rural communities with access to efficient services. However, Mihoubi (2025, p. 604) has recently highlighted challenges related to data privacy and digital trust, emphasising that transparent communication and user training are essential to make digital platforms accessible, trusted, and inclusive. This is where the role of professional translation becomes critical: digital platforms designed for use by the general public must present clear and accessible language to ensure inclusivity and reliability in services that can be understood by all users (i.e., Saudis and non-Saudis). Academic programmes, therefore, become urgent to build a cohort of translators sufficiently well-qualified to deliver accurate, culturally appropriate translation and localisation services.

The move toward a knowledge-based economy in Saudi Arabia has also been facilitated by the NTP's creation of new economic sectors for which language and translation services are essential. Under the supervision of the Ministry of Culture (MoC), established in 2018 to lead cultural development and creative industries across the country, 11 commissions have been formed, each tasked with encouraging and promoting a particular domain of culture and creativity (see Figure 1.4, below). Two of these are relevant to the translation profession: the Literature, Publishing and Translation Commission (LPTC) and the Film Commission. The LPTC is responsible for regulating and advancing the publishing and translation sectors in Saudi Arabia (more detail in Section 1.2.2), while the Film Commission supports the development and international reach of the Saudi film industry. As Saudi Arabia seeks to position itself as a regional hub for creative industries and international communication, the need for well-trained translators with sufficient technological competence is becoming increasingly urgent. This reinforces the central drive of this thesis: that BA programmes

responsible for preparing professional translators in Saudi Arabia must adapt to the technology-related requirements of the translation industry.


Figure 1.4 Cultural Commissions (MoC's official website[5], 2025)

The HCDP is another Vision programme relevant to this thesis, launched in 2021. Its primary aim is to develop the knowledge, skills, and values needed to compete in a rapidly changing global industry by prioritising the development of education and vocational training by closing the gap between industry requirements and academic programmes in order to prepare a competitive, future-ready workforce. It encourages BA programmes to modernise their curricula and training practices in line with national needs while promoting lifelong learning to ensure that professionals across sectors maintain relevant and up to date competencies. The HCDP supports the transition toward a knowledge-based economy, where the value of human capital, rather than oil, is recognised as the country's most important asset. As Crown Prince MBS asserts, "the real wealth of the Kingdom [Saudi Arabia] lies in the ambition of its people and the potential of its younger generation" (Saudi Vision 2030, p. 8). Under Saudi Vision 2030, national development revolves around HE institutions, the translation industry, and translator training, as the country's global engagement and cultural diplomacy efforts expand. This transformation is expected to be led by Saudi universities producing graduates with competencies aligned with industry requirements, as laid out in Pillar 2 of the HCDP, which aims to "align […] higher education and technical and vocational training with labor market needs, working with the private sector to ensure maximum alignment" (HCDP, p. 12). Therefore, to enhance graduates' professionalisation and employability, BA programmes must realign their curricula and training practices with the reality of the Saudi translation industry.

[5] https://www.moc.gov.sa/en/Modules/Pages/Cultural-system (accessed July 2025)

The present thesis contributes to this national effort by examining how translation technology is taught in Saudi BA programmes responsible for preparing translators and exploring ways curricula and training practices can be reformed.

### 1.2.2 The Translation Industry in Saudi Arabia

The Saudi translation industry is growing rapidly, yet it remains largely under-documented. Currently, no official statistics outline the industry's economic size or the number of working translators, due to the lack of systematic investigation and formal tracking (Fatani, 2009; Abu-ghararah, 2017). Al-Amri (2025) estimates that the Saudi translation industry was valued at approximately US$28.99 million in 2024, with an expected average annual growth rate of 13.14%. This forecast, cited from Statista in 2024, place the industry's 2030 value at US$60.82 million (Al-Amri, 2025), whereas a later study by Seddaig (2025) reported the value of the Saudi translation market to be $1.5 billion in 2022, and cited a Statista projection of a 22.8% increase up to 2032. While such figures serve as a useful reference point, their dramatic disparity illustrates the lack of definitive figures or sources for this. Further validation is therefore required by more comprehensive and locally grounded research that can offer a clearer understanding of the industry' size and scope.

A series of historical and policy developments has influenced the expansion of the Saudi translation industry. An early major example of this is Saudi Arabia's accession to the World Trade Organisation (WTO), which dramatically increased demand for legal, governmental, and commercial translation and interpreting services, offering "excellent employment opportunities for trained interpreters" (Fatani, 2009, p. 2). The most profound recent driver of growth in the industry is Vision 2030, as it proceeds and advances the country's agenda of economic diversification, increased tourism, foreign investment, and global cultural exchange. Further momentum has been provided by successful international bids to host Expo 2030 and the FIFA World Cup 2034 and national mega-projects (e.g., NEOM and the LINE) to the growth in demand for high-quality translation and localisation services across the whole economy, including law, finance, tourism, religion, and media. This unprecedented internationalisation has raised translation from a place of mainly cultural or religious interest in transferring texts from one language into another to an essential element of economic development and global communication, with translators branching into content specialisations ranging from legal contracts to promotional materials.

This growth has been supported by generous investment from the Saudi government. To regulate the translation sector and position Saudi Arabia as a regional and global leader in translation, in 2020, the MoC established the LPTC, which supports cultural production and exchange and increases the visibility of Saudi literature around the world (LPTC, 2025). Since 2021, the LPTC has organised the Saudi Translation Forum four times, holding this event to open channels of dialogue between interested parties, including translators, publishers, employers, and academic stakeholders. The first edition of this Forum coincided with the data collection period for this thesis in December 2021 and was attended by the researcher. The professionalisation of Saudi translation was further cemented by the launch of the Saudi Arabian Translation Association (SATA), the first professional association in this field in the country. However, SATA is still in its early stages of development, with its official website lacking detailed information about its services, activities, and long-term strategy, and its visibility among industry professionals remains limited, as observed in this thesis (see Section 7.3.3).

Saudisation policy represents another significant force shaping the translation industry, and as it relates to graduate employability and industry readiness, is a core policy to this thesis. Saudisation aims to increase the employment of Saudi nationals in the workforce across various sectors (e.g., retail, banking, accounting) and forms a primary element of the human capital development goals outlined in Vision 2030. The policy came into effect in the translation sector in May 2022 after a ministerial decision[6] (No. 52764) to ensure translation jobs are reserved exclusively for Saudi nationals. This measure was taken, firstly, to meet the Vision 2030 goals of halving the unemployment rate of Saudis from 14% in 2015 to 7% by 2030, and secondly, to address the long-standing dependence of the Saudi economy on foreign labour (in this instance, non-Saudi translators) contracted in the short-term, as a proliferation of short-term workers leads to inherent instability in the sector (Al-Khatib, 2008). Third, it paves the way for regulating the translation profession in the Saudi context and ensuring that translators' competencies are aligned with the national priorities and industry-specific requirements. Given that Saudi graduates are now the only eligible candidates for translation jobs, the role of Saudi universities becomes even more central in preparing the next generation of qualified translators. This reinforces the significance of the present thesis, which investigates how translation

[6] Ministry of Human Resources and Social Development. Retrieved from Microsoft Word - الدليل الإجرائي لتوطين المهن الإدارية المساندة[16].docx (last accessed July 2025)

technology training in Saudi universities can be better aligned with the requirements of the translation industry in the context of these national developments.

It is important to clarify that a BA degree is sufficient for employment as a professional translator in Saudi Arabia. Postgraduate qualifications are rarely required for translation-related jobs, as recent findings confirm (Alharbi, 2024; AlShaye & BinSultan, 2024). This highlights the need to regularly evaluate BA programmes to ensure that graduates are prepared to meet industry requirements, particularly in the use of translation technology. Salamah (2022, p. 248) observes that "the majority of employment opportunities [in the Saudi translation industry] are available to graduates of any relevant or language-related degree, with less than 10% of the opportunities restricted to translation-degree holders", and research by Alharbi (2024) supported this with a finding that 66% of translation-related job advertisements in Saudi Arabia desire candidates possessing language-related degrees (like English language or linguistics). This raises questions for programme directors, curriculum designers and trainers about whether or not the programmes should prepare students for professional translation roles, teach translation courses, and, importantly, incorporate translation technology training into their curricula. Much of the previous literature in this area has been concerned with evaluating dedicated translator training programmes (e.g., Alenezi, 2015; Abu-ghararah, 2017; Alzamil, 2024), so these questions remain, for the most part, unanswered. Past studies have overlooked the fact that a significant proportion of translators graduate from language-related programmes which lack a central focus on translator training. With these considerations in mind, the next section comprises an overview of the current structure of translator training in universities in Saudi Arabia.

### 1.2.3 Translator Training in Saudi Universities

Translator training is an important part of HE institutions in many countries, especially where translation is considered a professional career. Some scholars have looked at where translation students go after graduation (e.g., Toudic, 2017a, 2017b; Hao & Pym, 2023), attempting to understand how well their academic training supports students' career paths and whether this training aligns with industry requirements (thereby enhancing graduate employability). However, the training of translators in Saudi universities is not always clear, and the types of BA programmes that lead to translation careers remain underexplored. An overview of the current structure of Saudi universities would therefore be useful.

Ministry of Education[7] (MoE, 2025) figures show that there are twenty-nine public universities and thirty-eight private universities currently operating in Saudi Arabia. Of these, twenty-five public and six private universities offer BA programmes relevant to the translation profession, which may be dedicated translator training programmes (n=13) or more general language-related programmes, predominantly in English language or linguistics (n=18). These BA programmes are listed in Tables 1.2 (public universities) and 1.3 (private universities). The official websites of these BA programmes (n=31) were reviewed as a part of this research to examine their public presentation (to students, trainers, researchers, and employers). Considerable variation was found in the clarity and availability of information on these websites, with some providing objectives, study plans, course descriptions, and learning outcomes as part of their clear, detailed, and up-to-date content, while others offered only vague, general descriptions of the programme with no detail about its objectives or curriculum. Another set of websites presented only very limited or outdated information, and no study plans or course descriptions could be easily found. Variation of this kind creates uncertainty for prospective students and researchers alike, especially when trying to understand each programme's intended objectives and outcomes. Two critical points further contribute to the uncertainty of where and how translators are prepared in Saudi universities. During the website review, it was observed that a number of language-related programmes claim a main objective of preparing students for a career in professional translation. Students are likely to have their expectations shaped by this public information and use it to determine the suitability of the programme to equip them with the competencies needed to succeed in the translation industry. Second, the Saudi translation industry does not differentiate between graduates of specialised translator training programmes and those who graduated from broader language-related programmes; both are accepted as eligible professional translators, as noted in the previous section. Despite differences in programme focus, this equal treatment of the two graduate groups in the industry raises questions about how well these programmes prepare students to meet the requirements of the translation industry, particularly in terms of technological competence. The present thesis further investigates these questions.

[7] https://moe.gov.sa/en/education/highereducation/pages/universitieslist.aspx (last accessed July 2025)

Table 1.2 Public universities offering translator training or language-related programmes

| No | University Name | Abbry. | Year Founded | Programme Type | Faculty/College |
|---|---|---|---|---|---|
| 1 | King Saud University | KSU | 1957 | Translator Training | College of Languages & Translation |
| 2 | King Abdulaziz University | KAU | 1967 | Translator Training | Faculty of Arts & Humanities |
| 3 | Princess Nourah University | PNU | 2009 | Translator Training | College of Languages |
| 4 | Imam Mohammad bin Saud University | IMSU | 1974 | Translator Training | College of Languages & Translation |
| 5 | University of Jeddah | UJ | 2014 | Translator Training | College of Languages & Translation |
| 6 | Qassim University | QU | 2003 | Translator Training | College of Languages & Social Studies |
| 7 | Najran University | NU | 2007 | Translator Training | College of Languages & Translation |
| 8 | Saudi Electronic University | SEU | 2014 | Translator Training | College of Science and Theoretical Studies |
| 9 | University of Hofr Al-Barin | UHB | 2014 | Translator Training | College of Arts |
| 10 | University of Tabuk | TKU | 2006 | English Language | College of Education & Arts |
| 11 | King Faisal University | KFU | 1975 | English Language | College of Arts |
| 12 | Umm Al-Qura University | UQU | 1981 | English Language | College of Social Sciences |
| 13 | King Khalid University | KKU | 1998 | English Language | Faculty of Languages |
| 14 | Taibah University | TBU | 1999 | English Language | College of Arts & Humanities |
| 15 | Northern Borders University | NBU | 2007 | English Language | College of Education & Arts |
| 16 | Taif University | TFU | 2003 | English Language | College of Arts |
| 17 | Jouf University | JUF | 2005 | English Language | College of Arts |
| 18 | University of Hail | UoH | 2005 | English Language | College of Arts & Sciences |
| 19 | Jazan University | JZU | 2006 | English Language | College of Arts & Humanities |
| 20 | Imam Abdulrahman University | IMU | 2009 | English Language | College of Arts |
| 21 | University of Bisha | UoB | 2014 | English Language | College of Arts |
| 22 | Al-Baha University | BU | 2006 | English Language | College of Arts |
| 23 | Prince Sattam bin Abdulaziz University | PSAU | 2009 | English Language | Science & Humanities Studies |
| 24 | Shaqra University | SU | 2009 | English Language | Science & Humanities |
| 25 | Majma'ah University | MJU | 2011 | English Language | College of Education & Arts |

Table 1.3 Private universities offering translator training or language-related programmes

| No | University Name | Abbry. | Year Founded | Programme Type | Faculty/College |
|---|---|---|---|---|---|
| 1 | Prince Sultan University | PSU | 1998 | Translator Training | College of Humanities & Sciences |
| 2 | Prince Fahad bin Sultan University | PFU | 2003 | Translator Training | College of Science & Human Studies |
| 3 | Effat University | EU | 1999 | Translator Training | College of Humanities |
| 4 | Gulf Colleges | GC | 2016 | Translator Training | Arts & Humanities |
| 5 | Mustaqbal University | MSU | 2006 | Applied Linguistics | College of Human Sciences |
| 6 | Arab Open University | AOU | 2002 | English Language | Faculty of Language Studies |

> *We will close the gap between the outputs of higher education and the requirements of the job market. We will also help our students make careful career decisions, while at the same time training them and facilitating their transition between different educational pathways. In the year 2030, we aim to have at least five Saudi universities among the top 200 universities in international rankings. We shall help our students achieve results above international averages in global education indicators*
>
> (Saudi Vision 2030, p. 36).

Under Council of Ministers Resolution No. (94), the Saudi government established an official body responsible for quality assurance in the education and training sectors, called the Education and Training Evaluation Commission (ETEC[8]), to fulfil the ambitious national goals cited in the quotation above. This body is independent, both financially and administratively, and is linked directly to the Prime Minister. As Saudi Arabia transforms its economy into a knowledge-based one under Vision 2030, the primary goal of ETEC is to align educational outcomes with industry requirements. Several specialised centres comprise the Commission, each dealing with one demarcated area of training and education. The most important of these for this thesis is the regulatory body, the National Centre for Academic Accreditation and Assessment (NCAAA[9]), set up to advance the goal of improving the reputation and global recognition of Saudi university qualifications, which includes in its remit the evaluation, accreditation, and quality assurance of public and private universities' academic programmes.

The NCAAA sets the national quality standards for academic programmes, covering curriculum design, teaching quality, learning outcomes, programme management, and the extent of alignment with industry requirements. Academic programmes only gain accreditation by adhering to codified standards of self-evaluation and external review, and doing so

[8] https://www.etec.gov.sa/en/etec/foundation (last accessed July 2025)
[9] etec.gov.sa/en/ncaaa (last accessed July 2025)

demonstrates that the programme meets national educational expectations. All academic programmes in Saudi Arabia are therefore encouraged to apply for it by the Ministry of Education. Despite these efforts, accreditation lists show a distinct underrepresentation of translator training programmes, with only one BA translator training programme (King Saud University [KSU]) having received full NCAAA accreditation as of July 2025. The fact that no other such programme has been accredited is of significant concern, particularly with regard to the current state of Saudi translator training and how far it aligns with the requirements of the translation industry. Further questions are raised about the extent to which these BA programmes include translation technology training in any form as a key element of the curriculum. Such concerns are central to this thesis, which takes as its major guiding elements the technology-related requirements of the translation industry (RQ1), an evaluation of the competence of current translators in meeting these requirements (RQ2), and assessment of the extent to which the BA programmes responsible for preparing future translators align with these requirements (RQ3). The answers to the questions formed from these elements answer the overarching research question, in which recommendations are proposed to improve translation technology training in Saudi Arabia in line with industry requirements.

## 1.3 Rationale and Significance of the Research

This research began with a personal question: Are BA programmes in Saudi Arabia really preparing translators for the requirements of today's translation industry, especially regarding translation technology? As someone with considerable experience across several dimensions of the HE system, I ask this not only as a researcher but also as a student and a lecturer. Translation technology was never compulsory during my BA studies in King Abdulaziz University (KAU) but was only introduced briefly as part of a wider course (Introduction to Translation). Exposure on such a limited scale does not provide industry-level technological competence to students, a fact of which I grew increasingly aware when pursuing MA studies at the University of Leicester, UK. Later, as a lecturer at the University of Jeddah (UJ), I noticed the persistence of many of the challenges I had experienced as a student. Even though it is considered essential in the profession, translation technology remains underrepresented in curricula, with students often completing their BA studies with little knowledge of it. Now, as a researcher, reviewing previous literature reveals a gap between the content taught in BA translator training programmes and the requirements of the translation industry (Fatani, 2009; Abu-ghararah, 2017; Alzamil, 2024). While this partly explains why many Saudi programmes have not yet received NCAAA accreditation, further research is needed to understand where,

how, and to what extent translation technology is taught in Saudi BA programmes relevant to the translation profession (including both translator training and language-related programmes). This thesis intends to address this research gap.

The significance of the thesis lies in its clear focus, comprehensive design, and broad scope. To answer the research questions, two main areas are explored: the Saudi translation industry and the BA programmes that aim to prepare future translators for the industry. Unlike previous studies, this thesis expands its scope to include all BA programmes in Saudi Arabia relevant to the translation industry, listed in Tables 1.2 and 1.3, providing a comprehensive view of how translation technology training is delivered and identifying the improvements necessary to ensure that BA programmes align closely with industry requirements. The focus lies on three key research areas: the primary technology-related requirements of the translation industry, the level of translators' technological competence, and the current state of translation technology training in BA programmes. To achieve this, four participant groups participated in three studies for this research: the Translator Study, the Employer Study, and the Academic Study. The groups comprised translators, employers, BA programme directors, and trainers of translation technology-related courses, and each contributed a different perspective to provide a multifaceted analysis of perceptions, implementation and support of translation technology across academic and professional contexts. This research compares these groups where appropriate to identify gaps and areas of alignment between BA programmes and industry requirements. Additionally, this thesis builds on and extends previous research, particularly Alshaikhi (2018), offering a quasi-longitudinal perspective on the development of technological competence among Saudi translators over time. It is worth noting that this area has not been previously explored through quasi-longitudinal studies in the Saudi context. This type of comparison can generate practical recommendations based on evidence gathered from the field.

## 1.4 Research Aim and Objectives

This thesis aims to investigate how translation technology is taught in BA programmes across Saudi universities and how far this training aligns with the requirements of the translation industry. The research addresses concerns about the academia-industry gap, particularly regarding technological competence, and the findings are used to identify areas where translation technology training can be improved and to suggest practical recommendations for aligning BA programmes with industry requirements. To achieve this, a number of research objectives, i.e., the steps taken to move towards the overall aim, should be addressed.

- To identify the primary technology-related requirements of the translation industry, in terms of competencies and software tools, based on the perspectives of both translators and employers.

- To assess the current level of Saudi translators' technological competence in the competencies and software tools identified as primary in the industry, based on the perspectives of both translators and employers.

- To investigate the current state of translation technology training in BA programmes across Saudi universities and evaluate the extent to which these programmes align with industry requirements.

- To provide evidence-based recommendations for improving translation technology training in Saudi Arabia, addressing any identified gaps to better align BA programmes with industry requirements.

## 1.5 Research Questions

Three research questions guide this thesis and together aim to answer the main overarching research question. This frames an investigation of the technology-related requirements of the Saudi translation industry, the level of technological competence of Saudi translators, how Saudi BA programmes currently incorporate industry requirements into their curricula, and how this could be improved. The questions are formulated as follows:

RQ1: What are the technology-related requirements (i.e., competencies and software tools) expected from translators in the Saudi translation industry, from the perspectives of both translators and employers?

RQ2: What is the current perceived level of translators' competence in the technology-related requirements identified in RQ1, from the perspectives of translators and employers?

RQ3: What is the current state of translation technology training in Saudi Arabia, and to what extent do BA programmes align with the technology-related requirements of the translation industry identified in RQ1?

Overarching RQ: How should translation technology be taught in BA programmes across Saudi universities based on the requirements of the translation industry?

## 1.6 Thesis Structure

Each of the eight chapters in this thesis builds on the previous one to logically present the research background, methodology, findings, discussion and conclusions. **Chapter 1** consists of a project overview including a background on Saudi Arabia, developments in the translation industry, and the structure of translator training, in the context of the goals of the Saudi Vision 2030. The chapter outlines the thesis rationale and its significance, overall aim, objectives and research questions. This thesis structure concludes the chapter.

A thorough literature review comprises **Chapter 2**, incorporating evaluation of studies on developments in translation technology, translation competence, and the relationship between translator training programmes and the needs of the translation industry, particularly in Saudi Arabia and the wider Arab world. An exploration of the existing research on CPD and the translation industry around the world and in Saudi Arabia round off the review.

**Chapter 3** details the methodology carried out for this research, consisting of the overall research approach, the research design, data collection tools, participant groups and sampling, and the procedures employed for analysis across the three studies carried out for this thesis, finishing with a discussion of ethical considerations.

The findings of the Translator study are presented in **Chapter 4**, including both quantitative and qualitative results from translators' perceptions of the technology-related requirements of the translation industry, their self-assessed technological competence, and their engagement with CPD planning and the support provided by employers.

**Chapter 5** provides the quantitative results of the Employer Study, with employers' perceptions of the technology-related requirements of the translation industry, their evaluations of the technological competence of translators, and the perceived extent to which they support CPD in the workplace.

**Chapter 6** gives the quantitative and qualitative findings of the Academic Study, incorporating perceptions of the current state of translation technology training in Saudi universities from the perspectives of BA programme directors and course trainers.

The key findings are discussed in detail in **Chapter 7** in relation to the research questions. This chapter pulls together perspectives from all participant groups, explores the gaps identified between BA programmes and the technology-related requirements of the Saudi translation industry, and further examines the role of CPD in technological competence development.

Proposals and recommendations to align BA programmes with industry requirements are made in the final sections of this chapter.

This thesis concludes with **Chapter 8**, which supplies a summary of the answers to the research questions and discusses its contributions to stakeholders and the literature before acknowledging its limitations and suggesting avenues for future research.

# Chapter 2 Literature Review

## 2.1 Introduction

Translation has historically been viewed as a language teaching tool employing memorisation and sentence-level translation, particularly through the grammar-translation method (Cook, 2010, pp. 6-26). It was not until the second half of the twentieth century that it began to be considered an independent academic discipline (Munday, 2016, p. 11), and the field has since grown to become a rich, interdisciplinary arena of endeavour which increasingly combines theory, practice, and research.

Situating this thesis within its broad academic context of Translation Studies (TS) is important before commencing a full literature review, as this helps frame the research conceptually and supports understanding of how it contributes to the field. Holmes's (1972/1988) influential map remains a widely recognised framework for classifying translation research, dividing TS into the two broad categories of 'pure' and 'applied', and further dividing these into sub-branches. The former category focuses on theoretical and descriptive aspects of translation, while the latter comprises 'translator training', 'translation aids', 'translation policy', and 'translation criticism'. Holmes (1988/2000, p. 181) defines TS as addressing "the complex problems clustered round the phenomenon of translating and translations," and views applied research as aiming to "render informed advice to others in defining the place and role of translators […] in society" (p. 182). His map laid the foundation for understanding both theoretical inquiry and professional practice within the discipline

This map was picked up and developed further by scholars such as Toury (1995, p. 10) and Quah (2006, p. 42), evolving alongside translation itself as both a profession and a discipline. In *Translation and Technology*, Quah (2006) expands Holmes's map to incorporate translation technology developments, making it particularly relevant to this thesis. While Holmes originally used the term 'translation aids', Quah updates this to 'translation technology' and includes emerging tools such as automatic translation (mainly MT), translation memory (TM), terminology management tools, and localisation tools (see Figure 2.1, below). She emphasises that the four applied branches are interrelated, explaining that they "are not independent but feed material to one another" (p. 9). To illustrate this, developments in translation technology directly affect how translators are trained in BA programmes, while the effectiveness of training has implications for translation policy and quality. Therefore, this thesis is situated within the applied category of TS and contributes to the three sub-branches of translator training,

translation technology, and translation policy. First, it contributes to translator training by investigating how translation technology is currently taught in BA programmes across Saudi universities and whether this training aligns with industry requirements. Second, it contributes to translation technology by identifying the specific tools and competencies required in the Saudi translation industry and assessing the competence of Saudi translators in these areas. This includes evaluating the technological competence of current translators in Saudi Arabia across various domains (including MT, CAT, localisation and other essential tools). Third, it provides evidence that can inform policy decision-making on how translation technology training can be improved in Saudi Arabia. This process reveals the gaps between the content of BA programmes and the requirements of the translation industry, which directly impacts on national goals such as the Saudisation of the translation industry. This thesis provides insights and proposals that support policy development at both institutional and national levels by facilitating the alignment of Saudi BA programmes with industry requirements, with a focus on programme accreditation, curriculum development, teaching practices, trainer development, infrastructure, and the overall level of graduates' preparedness to enter the translation industry.

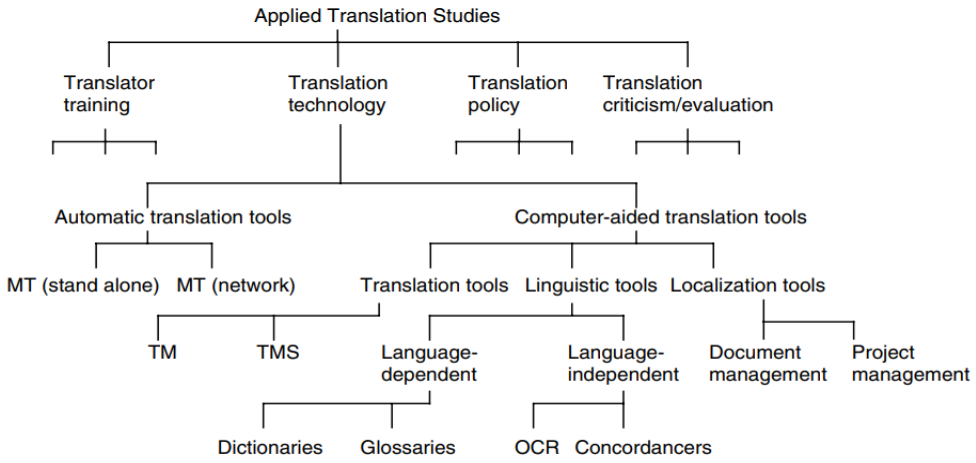



Figure 2.1 Quah's refined schema of Holmes's map (adapted from Quah, 2006, p.42)

The remainder of this chapter reviews the literature relevant to the present thesis. Section, 2.2, examines the key tools, emerging trends, and pedagogical implications of translation technology in the profession, before a review of relevant issues with translation competence, translation technology training, and teaching strategies pertaining to translation technology. The focus then moves to the translation industry, especially on global trends and the Saudi context, and concludes with a summary of the key points made and the gaps identified in the literature that inform the current research.

## 2.2 Translation Technology

Technology has profoundly transformed our understanding of the way translation is performed today. With the growing need for fast and high-volume translation services, the translation industry depends on various technologies to improve efficiency and meet deadlines (Kenny, 2019). The translation process is, therefore, no longer limited to manual work; instead, it "has become increasingly technology-driven and technology-dependent" (Rothwell & Svoboda, 2019, p. 26). In fact, translation technology has "changed the way we process, teach and study translation" (Chan, 2015, p. xxvii), affecting both professional workflows and pedagogical frameworks in translator training. This means that translators, employers, programme directors, curriculum developers, and course trainers must rethink traditional approaches to translation tasks. The work of a translator is made easier and more efficient by technological advancements, which now play an essential role in the practice of translators and their research and teaching activities. The impact of technological innovations of this kind is in many ways comparable to that of translation theories in reshaping understanding of concepts such as translation equivalence and segmentation: both have changed the practice and study of translation.

Throughout the years, translation, as a profession and discipline, has witnessed rapid changes due to the development of a wide range of technologies that assist human translators' work. Building on earlier works of Hutchins and Somers (1992) and Bowker (2002), Quah (2006) outlines four types of translation activities along a spectrum: fully human translation, fully MT, human-aided MT, and machine-aided human translation (later known as CAT tools). These categories illustrate the interdependent relationship between humans and machines in translation processes. As O'Brien (2020, p. 1) aptly characterises it, translation is "without a doubt, a form of human–computer interaction (HCI)", shaped by high volumes of work and time constraints. Chapter One (pp. 2-3) defined translation technology as including a range of tools and areas relevant to this thesis, comprising MT, CAT, terminology, multimedia, and DTP, as well as GenAI tools that are coming to characterise typical workflows across the industry. This range reflects how far the field has evolved from simple word-processing to sophisticated systems now central to both the profession and the classroom. Translation no longer takes place in isolation but within a combination of multiple tools referred to as 'augmented translation' (see Jiménez-Crespo, 2023; O'Brien, 2023). This trend of technological integration has proven irreversible despite resistance among some translators (see Pérez-Macías, 2020), and it has

redefined the profession, enriched translation processes, and accelerated the rate at which translator training must keep pace with industry requirements.

The notion of the use of machines for translation dates back to Warren Weaver's discussions on the subject with Andrew D. Booth in 1947, so a brief historical overview of MT can clarify its development and current status in the translation industry. Early conversations like this one led to the first practical experiment in 1954, in which Leon Dostert from Georgetown University collaborated with Peter Sheridan from IBM to translate Russian texts into English using the IBM701 machine (Hutchins, 1997; Chan, 2004). After the 1966 ALPAC report concluded that MT was slow, expensive, and produced poor-quality translations, optimism declined despite initial interest. This reduced funding and investment in MT both in the US and abroad, but the report's recommendations around how computers could play a supporting role in translation helped with the later development of CAT tools.

Advancements in computational linguistics and the dramatic rise in the use of personal computers in the 1980s and 1990s led to a renewed interest in and a resumption of MT research. It subsequently saw a rapid evolution from early rule-based systems to statistical MT (SMT), then hybrid models, and later neural MT (NMT) in the 2010s and then GenAI in the 2020s (Chen et al., 2023). NMT has made notable improvements in fluency and readability, though its outputs still often require human intervention, so post-editing has become standard in many workflows. This is a practice by which "a text that has been pre-translated using MT is corrected by human linguists/editors rather than translating from scratch, with the aim of saving time and money" (Lambert, 2023, p. 152). Post-editing is faster and less cognitively demanding than translating from scratch, making it a practical solution in many workflows (Jia et al., 2019). MT systems such as 'Google Translate' and 'Microsoft Translator' are now commonly used in the industry, but evaluation of these systems' English-Arabic capabilities has found notable issues including syntactic, lexical, and cultural inaccuracies (see Almahasees, 2021, 2023; Ben Milad, 2021). This serves as a reminder that the fluency of MT output may be offset by its low level of domain specificity and requirement for competent post-editors to meet professional standards.

The strengths and limitations of MT tools should therefore be understood, especially for language pairs such as English and Arabic, which present complex linguistic challenges. The work of a translator now routinely includes preparing texts for MT systems (pre-editing), reviewing MT outputs (post-editing), managing MT workflows (configuration), deciding when

it is ethically and strategically appropriate to use MT, and how this should be done (Bonyadi, 2020). These developments have led many (e.g., González Pastor, 2021; Samman, 2022) to call for the integration of MT and post-editing into academic programmes to better prepare students for the requirements of the translation industry.

The use of CAT tools has become a defining feature of modern translation work, alongside MT. In the early 1980s, Martin Kay was pivotal in advancing the idea of using computers to support, rather than replace, human translators. In a paper written in 1980 and republished in 1997, he proposed that many parts of the translation process are repetitive and mechanical even while as a whole it is a complex and creative activity. He posited (1997, p. 3) that these routine elements could be carried out by machines so translators could work more efficiently and spend more time and attention on the creative aspects of the job:

> *Translation is a fine and exacting art, but there is much about it that is mechanical and routine and, if this were given over to a machine, the productivity of the translator would not only be magnified but his work would become more rewarding, more exciting, more human.*

This view contributed to interest in tools that could assist human translators, a direction supported by the ALPAC report's advice against funding full MT systems, instead encouraging the development of CAT tools (Bowker, 2002, p. 20). CAT tools include as core components TM, term base (TB), and alignment tools, systems which by storing, organising, and retrieving linguistic resources can support a wide range of translation tasks. TM, for example, stores previously translated segments to be reused in future projects, considering the surrounding text to offer matches which are, depending on the level of similarity, exact, fuzzy, or even in-context. TB assists with maintaining consistent terminology, particularly in technical and specialised texts, forming part of an indispensable suite of tools when, for example, consistency is required across large volumes of text or when multiple translators are working on the same project. Alignment tools allow users to match up source and target segments from previous translations and convert them into usable TM content. However, an ethical issue around this, as discussed by Lambert (2023, p. 154), is the high-pressure environment within which many translators are increasingly working means they may be tempted to share their TM databases to quickly maximise their size and breadth, leaving every translator with the same set of shared resources that nullify the value of the work done in compiling them and the asset value of the database itself. This leads to questions around whether or not to share technological resources at all, including those relating to more recent CAT products.

CAT tools have developed rapidly since the 1990s, with products such as Trados Studio, memoQ, Phrase (formerly known as Memsource), Déjà Vu, Wordfast, and OmegaT becoming translation industry standards and all including features such as MT, project management (PM) functions, and quality assurance (QA) tools. Déjà Vu was the first to offer MT suggestions with TM (Lagoudaki, 2008), and tools like Trados Studio can, when no TM match is found, supply MT outputs. For those working in Arabic translation, however, challenges remain when using CAT tools despite these advancements and conveniences. Some of these, identified by Breikaa (2016), include processing difficulties with Arabic texts, right-to-left alignment problems, and punctuation and tagging errors. In a comparison between Trados and MultiTrans for Arabic-English translation, Moujaes (2016) concluded that the former demonstrates greater speed, usability, and reliability. Such findings reinforce the importance of CAT training by showing that employing CAT tools for languages like Arabic requires extra effort and support. Alotaibi (2014), for example, found in the Saudi context that her students grew more eager to learn to use CAT tools as they gained more practice, despite initial concern and uncertainty. The use of CAT tools is, however, not without problems. Overreliance on translation technology can raise questions about confidentiality and privacy surrounding translated content, especially pertinent when translators use cloud-based or free CAT tools as they may not be aware of the risks involved (Bowker, 2020).

Terminology represents a dominant aspect of translation practice, particularly when high levels of accuracy, consistency, and precision are needed in specialised fields. High-quality translations are only produced when terminology is effectively managed, and this depends on access to extensive, reliable linguistic resources. Many of the previously discussed technologies (e.g., SMT, TM, TB) largely depend on corpora as a source of authentic language data, and these corpora have grown in importance in recent years as a tool in both translation research and professional practice (Mikhailov, 2022). Mona Baker (1993) is frequently credited with applying corpus-based approaches to TS, as she was among the first to demonstrate the use of corpora in identifying the distinctive features of translated texts by laying the groundwork for using corpora to support translation decisions about word choice, structure, and register. Corpus linguistics has since contributed to disciplines including terminology, natural language processing (NLP), lexicography, and MT (Taylor, 2008). Corpus tools offer functionalities like concordance searches, frequency analysis, and contextual examples, supporting more accurate, idiomatic, and stylistically coherent target texts (Bowker & Pearson, 2002; Cerutti, 2017). ‘WordSmith Tools’, ‘SketchEngine’, and ‘ParaConc’ allow personal

corpora to be compiled or existing ones consulted, helping with specialised terminology management and giving translators the option to customise corpora to their needs. Frankenberg-Garcia (2015) observes, however, that linguistic awareness and proper training are needed to work with corpora, rather than just basic searching skills, as many lack coverage for certain text types or domains relevant to a translator's work. In some cases, translators may need to construct domain-specific corpora for projects involving underrepresented genres or specialised subject matter. Despite their value, corpus tools remain underused in professional translation, partly due to a lack of training or confidence among translators (Zaretskaya, 2017). For this reason, the need to integrate corpora as part of translator training is often highlighted (see Mikhailov, 2022), including the ability to locate, evaluate, and use relevant language resources, referred to by Neubert (2000) and Mackenzie (2004) as 'research competence'. This need has in fact been recognised by the European Commission (EC) (2022), reflected in the inclusion in its translator profile areas such as terminology management, corpora use, research strategies, and data protection and intellectual property issues (cited in Svoboda & Sosoni, 2023). Developments like this mean academic curricula should integrate corpora training and data-mining techniques so students are prepared to manage their terminology databases and embrace the related requirements of the translation industry.

Multimedia translation, which includes AVT and localisation, is another area of growing importance in translation technology. O'Hagan (2013, p. 506) notes that there is often a "blurring [of] the boundary between localisation and audiovisual translation," referring to how both areas increasingly overlap in digital media environments. The rapid growth of multimedia content has placed increasing pressure on the translation industry to keep up with global demand. These developments have made AVT and localisation highly profitable and essential areas of practice, with ever-increasing demand for non-English content and simultaneous global releases, operating within a global language industry which by 2029 is expected grow by $20 billion, a more than 20% increase (Nimdzi, 2025, p. 8) (see Section 2.5 for a more in-depth exploration of the global translation industry). Such growth is, however, creating a 'talent crunch': a global dearth of translators qualified to meet ever-increasing and diversifying demands (Iyuno SDI Group, 2022; Marking, 2022).

Some argue that the future of translation is audiovisual. Georgakopoulou (2019, p. 3), for instance, states that "the ability to handle video source content is becoming a key skill for the translators of the future", indicating an expectation for translators to become proficient in working with multimedia formats. This is supported by the European Language Industry

Survey (ELIS, 2024), which documents a marked rise in demand for translators able to handle AVT and localisation projects.

In response to these challenges, the translation industry has embraced hybrid workflows and automation tools, particularly in high-volume areas of AVT and localisation. AVT, also known as 'screen' or 'film' translation, refers to the translation of content that combines visual and auditory elements, such as films, TV shows, online videos, and even live events (Mangiron, 2022). Subtitling, for example, is one of the most widespread modes of AVT and involves displaying written translations of spoken dialogue on screen. As Valdeón (2022, p. 371) explains, subtitling "allows the viewer to listen to the original soundtrack while reading a written version in the target language, typically at the bottom of the screen". This requires close attention to timing, space constraints, and audience readability, making it highly technical and one of the most challenging forms of AVT (Thawabteh, 2011; Bywood & Nikolić, 2024). Translators (i.e., subtitlers) should ensure that the translation (i.e., subtitles) does not distract from the visual experience while remaining accessible and natural, and there are specialised software tools which can manage these technical requirements (e.g., Aegisub). Dubbing is another common mode of AVT, in which voice recordings in another language replace the original dialogue audio, and audio description, which assists those with visual impairments by providing verbal narration of the visual elements shown on the screen.

Products, content, or services requiring adaptation to a new context, not just linguistically but also culturally and technically, undergo a process known as localisation to fit the needs of a specific target industry (Esselink, 2000; Jiménez-Crespo, 2024). This exceeds simple translation as meeting the expectations of different users may demand changes to layouts, interfaces, images, and even legal content (Singh, 2012), and localisation now covers websites, video games, mobile applications, and multimedia content even though it originally applied to software products (O'Hagan & Mangiron, 2013; Jiménez-Crespo, 2024). Like subtitling, localising presents complex challenges: in video game localisation, for instance, narratives, dialogue, and visual elements must be adapted to the socio-cultural norms of the target audience (Mangiron, 2016; Bernal-Merino, 2020). Right-to-left languages like Arabic also require advanced bidirectional support to prevent problems like disconnected letters, which adds further complexity to localisation, although this is still absent from many digital products (Al-Batineh, 2021). Its increasing importance and widespread nature as a result of the digital shift in translation practices have raised localisation from a specialised niche to the level of a core competence. This represents the broader evolution of the profession, as translators must now

be capable of managing technology-driven workflows and addressing non-linguistic issues (Gambier, 2023), among other growing demands that highlight the urgency of integrating AVT and localisation training into academic programmes. Navigating multimedia workflows has become a core requirement for a translator, so both areas are viewed as central in this thesis to support a better understanding of what future translators need to succeed in the globalised translation industry.

In recent years, GenAI has reshaped the landscape of translation technology. AI is increasingly integrated into modern translation workflows through forms such as MT (currently dominated by adaptive NMT), CAT tools, terminology (Pierce, 2023), and more recently, generative applications and chatbots like ChatGPT, which is powered by OpenAI's language models. Recent investigations into the impact of LLMs on the translation industry have found that interpreters and translators are among those most exposed to this technology, although they are not necessarily at risk of full automation (Felten, Raj & Seamans, 2023). In practice, automation does not completely replace human translators; instead, it changes the nature of their tasks and creates new forms of collaboration between humans and machines (Eloundou et al., 2023), although how this will appear even in the relatively near future seems very difficult to predict. According to the Future of Jobs Report published by the World Economic Forum (WEF 2025), the overall share of work performed by humans is projected to decline mainly due to automation, with nearly 82% of this reduction attributed to advancing automation and 19% to expanded human-machine collaboration (pp. 26–27). This suggests that, across professions including translation, the focus is gradually shifting toward greater integration of human–machine workflows. This interpretation aligns with recent research (e.g., Moorkens, Way, & Lankford, 2024; Poláková et al., 2023), which indicates that human translators will use the new technologies to augment their workflows to boost their productivity. In this evolving landscape, the concept of 'augmented translation' can be presented as relevant to this thesis (see Jiménez-Crespo, 2023; O'Brien, 2023). This approach envisions a translation environment in which "[h]uman translators will gain deeper levels of insight and context into their work, while machines eliminate a labour-intensive but inefficient set of project management tasks" (Lommel & DePalma, 2021, p. 7). O'Brien (2023) lists seven existing technologies which comprise augmented translation (TM, Adaptive MT, Quality Estimation, Automated Content Enrichment, Terminology Management, Lights-out Project Management, and TMS) in an integrated infrastructure designed to enhance and support the work of a translator. However, critical questions about value, risk, and the environmental and social sustainability of

translation practices have been raised in response to the increasing use of AI (Moorkens & Guerberof-Arenas, 2024), and although bringing about clear efficiency gains, they are not yet capable of replacing human expertise in ensuring translation quality, cultural sensitivity, and ethical responsibility. The inevitable evolution of AI will mean that future translators should not only be equipped with technological competence but with critical awareness of the capabilities and limitations of these technologies as well as the implications for professional translation practice.

The next section shifts focus to translator training, encompassing translation competence (TC), the role of translation technology training in academic programmes, and approaches to teaching translation technology.

### 2.3 Translator Training

Translators have traditionally acquired their skills relatively informally, through trial-and-error, apprenticeships, or informal mentoring during the learning of foreign languages (Caminade & Pym, 1998; Kelly, 2005). Munday (2016, p. 14) states that "the gearing of translation to language teaching and learning may partly explain why academia considered it to be of secondary status". This marginalisation had two main effects: reducing the perceived importance of translation as a professional activity and slowing its progress toward becoming an independent academic discipline.

Pym (2009) discusses how formal translator training can be traced back to early institutions, such as the Chinese centres for Buddhist text translation between the 4th and 9th centuries and the House of Wisdom in Baghdad in the 9th century. Institutional translator training emerged later in Europe, in 12th-century Toledo, and grew in importance during the colonial period, at which time the quality of a translation was perceived as less important than loyalty to one's empire. The wars of the first half of the twentieth century, particularly WWII, sharply increased the need for professional translators, with German-speaking countries leading the way on the establishment of specialised training institutions in Heidelberg, Geneva, Vienna, Graz, and Germersheim. There was a dramatic acceleration in the growth of translator training programmes around the world in the 1960s, not only as a consequence of political factors but of rapid economic globalisation. An explosion in demand for translation services and training in the Arab region has come about due to more recent developments like Arabisation policies and the changing needs of international bodies such as the WTO and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) (Al-Faifi, 2000; Fatani, 2009;

Al-Batineh & Bilali, 2017). By 2009, there were 300 translator training programmes around the world (Pym, 2011), and since then the most significant national expansion has taken place in China: by the end of 2022, the country had 301 Bachelor of Translation and Interpreting (BTI) programmes and 316 Master of Translation and Interpreting (MTI) programmes (Li & Zhang, 2023, p. 44). These figures illustrate the rate at which translator training is continuing to grow, albeit with considerable variation in the quality, focus, and orientation of programmes between countries and regions.

In Saudi Arabia, the structure of translator training is complicated. The boundaries between language teaching and translator training are not always clearly defined. While specialised translator training programmes exist in several universities, it is common to find language-related programmes publicly presenting professional translation as one of their objectives even while lacking dedicated courses on translation technology (see Section 1.2.3). A diagnostic study of translator training within English language programmes across Arab universities by Atari (2012, p. 104) identifies four issues. First, translation is widely seen as a language learning tool rather than a professional activity requiring specialised training. Second, the absence of a shared understanding among teachers of the objectives of translator training makes it difficult to design courses that build translation industry-relevant competencies. Third, there is a persistent assumption that language competence alone qualifies students as translators, overlooking the need to develop other essential competencies (including technological competence). Finally, Atari highlights a mismatch between academic training and industry requirements. This issue has become even more pressing with the rapid integration of new translation technologies into modern workflows (as clarified in the previous section). Al-Ahdal et al. (2017) conducted a similar study in Saudi Arabia focusing on a single English language programme, offering important insights and highlighting the need for broader research across other universities. Although course descriptions claimed that translation courses "introduce the translation theory to the students to understand the methods and approaches and train them as competent translators" (p. 174), teaching practices fell short of these objectives. Translation courses were observed to be taught "without any scientific system, making them purposeless for end use" (p. 176). The authors further discuss the limited professional orientation of the courses, concluding that "teaching the craft of translation should, at least at this point, be left to specialised establishments, where training is professional rather than academic" (p. 182). Findings like this suggest that translation teaching remains academic in focus and unable to prepare students for professional translation careers despite their publicly stated objectives, but

Al-Ahdal's conclusions were drawn from a single university, so more wide-ranging research is required to determine if similar issues exist in other Saudi universities. This supports the aim of this thesis to explore the extent to which translation technology training in Saudi BA programmes aligns with industry requirements.

Atari (2012) and Al-Ahdal (2017) focused on language-related programmes, but reviewing research that has evaluated specialised translator training programmes in Saudi universities is equally important to gain insight into the alignment of current curricula with the requirements of the translation industry, as these programmes claim to be specifically designed to prepare translators for professional work.

In the broader Arab context, two related studies by Al-Batineh and colleagues on translator training must be examined. The first, by Al-Batineh and Bilali (2017), surveyed 61 BA and MA translator training programmes in 17 Arab countries (including Saudi Arabia) and compared their curricula with industry requirements found in 50 job descriptions. They found that professional and instrumental competence was the most frequently required area, accounting for 50% of all mentions in job advertisements, but translation technology training only represented only 10% of all course offerings. In a more recent follow-up study, Al-Batineh and Al Tenaijy (2024) focused more specifically on technological competence, analysing 145 job advertisements and 23 translator training programmes in 11 Arab countries (again including Saudi Arabia). This reaffirmed the growing demand for translation technology in the Arab industry, including CAT tools, MT, and localisation. The authors note that, while some progress has been made in integrating CAT training, MT and localisation remain underrepresented in curricula, and some course titles and descriptions appear outdated or lacking specificity. As shown in Figure 2.2 (below), the number of translation technology-related courses has nearly doubled since 2017, but overall provision still falls short of industry requirements. The findings of Al-Batineh and Al Tenaijy (2024) can be summarised as follows:

- "most translation-technology courses are geared toward developing students' skills in three main areas: creation and management of TM, creation and management of TB, and the use of corpora in translation practice" (p. 6).
- "translator training programs in the Arab world still place minimal emphasis on this area [localisation], due to the lack of trainers who possess both theoretical knowledge and practical experience" (p. 7).

- “Notably, none of the institutions offering localization courses includes video game localization in the curriculum” (p. 7).
- “MT courses offered by seven institutions focus on providing theoretical background to MT, including its historical development, types of MT systems, and limitations of MT” (p. 8).

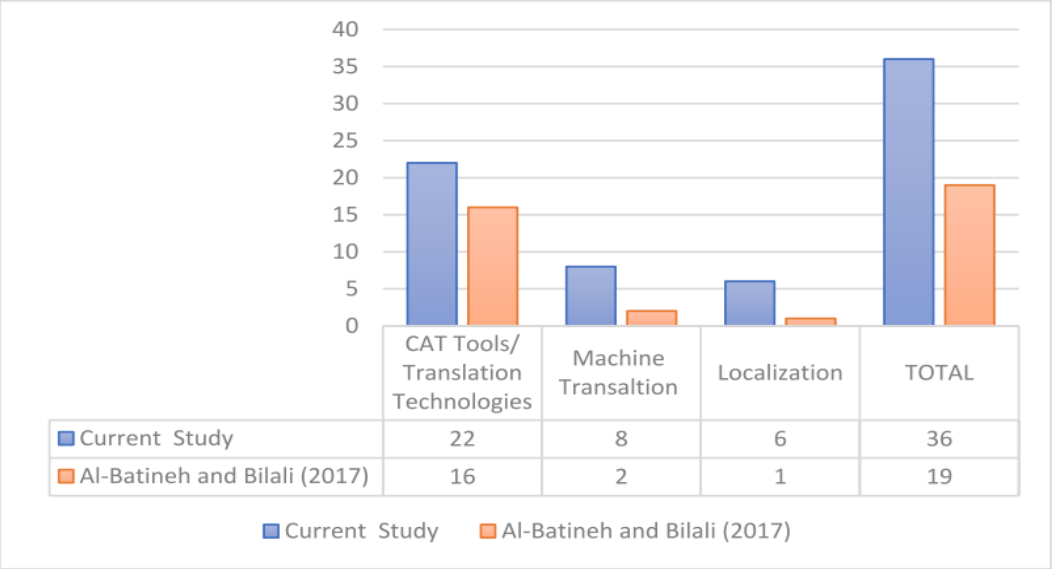



Figure 2.2 Growth of technology-related courses in some Arab universities between 2017 and 2024 (adapted from Al-Batineh & Al Tenaijy, 2024)

These studies have limitations that should be acknowledged. First, they include only programmes with detailed course descriptions available online, which may exclude relevant programmes less transparent in their public-facing materials, particularly in the Saudi context as the clarity and availability of programme information varies widely (see Section 1.2.3). Second, the analyses provide no in-depth focus on the national context, although Saudi Arabia was part of the sample, so context-specific conclusions are difficult to draw. Third, both studies rely on course descriptions and do not examine how translation technology is actually taught in the classroom. These gaps highlight the need for the present thesis, which focuses specifically on translation technology training in Saudi Arabia and its alignment with the requirements of the translation industry.

Some studies in Saudi Arabia have investigated how BA translator training programmes prepare students for the profession and address industry requirements, but only a few have focused specifically on translation technology training (reviewed separately in Section 2.3.2). In his PhD thesis, Alenezi (2015) evaluated three BA translator training programmes in Saudi universities (mainly KSU, IMSIU, and Effat), using surveys and interviews with students,

trainers, and professional translators and employing Gabr's (2002) model of curriculum development, which stresses the importance of identifying student and market needs to develop effective translation curricula. The findings reveal a misalignment between the content of the three programmes and the demands of the Saudi translation industry, highlighting the dissatisfaction of students with the training they received. While 76% of the surveyed trainers believed their students were ready for the workplace, only 31% of the surveyed students felt the same. The students reported unclear learning outcomes, weak language proficiency, and minimal exposure to authentic industry-oriented tasks. Translation technology training was either lacking or outdated; many students had no practical training on CAT tools such as Trados or Wordfast, and the trainers themselves were often unfamiliar with using these tools. As Alenezi (2015, p. 292) explains, "they might be unaware of how useful this tool can be for them". This explanation would not be convincing today, a decade later, as such tools are now considered standard in modern workflows. Alenezi (2015) further observes that translation curricula were developed without investigating student or market demands, concluding that the programmes failed to equip students with what the translation industry really required.

At the time, Alenezi (2015) found that the BA translator training programme at Effat University was the only one accredited by the NCAAA, whereas today, only the programme at KSU has successfully obtained full NCAAA accreditation. This raises questions about why so few translator training programmes have met this national standard. Although the NCAAA is long-established, its accreditation requirements focus primarily on general academic quality, with limited attention to the translation profession or the specific demands of the industry. While the author acknowledged this limitation, no solution was proposed for how it should be resolved, a gap that this thesis also seeks to address.

Another study investigating the gap between translator training and the requirements of the Saudi translation industry was conducted later by Abu-ghararah (2017). It showed the growing demand for skilled translators and outlined 14 general competencies deemed essential for professional practice, including 'bilingual proficiency', 'self-awareness', 'subject expertise', 'research competence', 'specialisation' and 'time management', but only two were directly related to translation technology (i.e., 'project management' and 'computer skills'). However, even these were discussed only generally and with no reference to specific competencies, software tools, or platforms. Abu-ghararah's research represents a useful contribution to the state of knowledge on aligning BA training with industry requirements but fails to clarify how its competencies were identified or provide actionable suggestions as to how they could be

incorporated into translation curricula. It lacks clarity in the methodology used to assess industry demands and curriculum content. Abu-ghararah also refers to 'Chapter Six', where BA programmes would be analysed, suggesting that the paper was adapted from an unpublished thesis. Since access to the full thesis is still restricted, it is not possible for BA programmes to fully benefit from its findings or evaluate the relevance and applicability of its recommendations. The study concluded that "the results show evidence of how translator training programmes in the Kingdom [of Saudi Arabia] have failed to keep up with developments in translation studies" (p. 117), making it clear that further research is needed to investigate the current state of translation technology training in Saudi universities and how it aligns with industry requirements.

A very recent study by Alzamil (2024) provides a much-needed fresh perspective on the current state of BA translator training programmes at four Saudi universities (mainly KSU, PNU, EU, and PSU). The study is in two parts: an analysis of 91 online job descriptions from the Saudi translation industry and a survey of final-year students enrolled in the four programmes, with the aim of exploring how well-equipped students are with the knowledge and skills required in the industry. Drawing on the PACTE (2003) TC model, the research compares industry needs with students' perceptions of the BA training they receive and found that students generally feel their programmes help them develop key skills linked to professional translation. However, they also believe this training does not sufficiently cover important areas, including 'language proficiency', 'field-specific knowledge', 'research skills', and 'professional collaboration'. Concerningly, while job descriptions highlight the importance of some technology-related competencies (e.g., QA, productivity tools, information-seeking skills, and project management), students reported only moderate or limited exposure to them during BA training. This study is considered a valuable contribution, yet questions remain about how translation technology is integrated into BA curricula from the perspectives of both programme directors and trainers and what the translation industry requires, based on the perspectives of both translators and employers.

This section has provided an overview of how translator training has developed globally, regionally, and within the Saudi context. While many programmes in the Arab world and Saudi Arabia have made progress in responding to industry requirements, previous literature reveals challenges in preparing future translators for the translation industry. Since the notion of TC forms the foundation for designing translation curricula, it is beneficial to look at how it is

defined and developed, and to review the most widely used TC models that inform the structure and objectives of translator training programmes.

### 2.3.1 Translation Competence (TC)

A key question arises when considering the global increase of translator training programmes and the growing complexity of the translation profession: which competencies should future translators acquire during their academic studies? This question lies at the heart of the concept known as translation competence (TC).

> *When planning a programme intended to achieve the ultimate aim of developing translation competence as something far more complex than simply improving performance, the overall structure of the curriculum, the stages of progression and development of different sub-competences, the choice and timing of specific modules, components and courses all need to be taken into account.*
>
> (Schäffner and Adab, 2000, p. xi)

TC has become a central focus of theoretical discussion, empirical research, and pedagogical frameworks in the discipline of TS (specifically in translator training and curriculum design). While earlier perspectives often equated TC with bilingual proficiency alone (e.g., Bell, 1991), recent approaches conceptualise it as a multicomponent construct that far exceeds mere language knowledge. Several terms have been proposed to label this evolving concept, such as translation performance (Wilss, 1996), translational competence (Pym, 1992, 2003; Neubert, 1994, 2000), and translator competence (Kiraly, 2000). TC is not a single, fixed notion but a combination of interrelated cognitive, linguistic, cultural, technological, and strategic competencies required for professional translation, a growing consensus belied by this varied terminology (see Hurtado Albir, 2017, for a comprehensive review of TC models). The ongoing move from a linguistic activity to one marked by an increasing reliance on technology means previous literature has focused on identifying and modelling the sub-competencies that make up TC, with the most widely recognised TC models those proposed by PACTE[10] (2003/2011/2018), Kiraly (2000//2013/2018), and EMT[11] (2009/2017/2022). Each model presents a slightly different structure, but all share a multi-component view of TC and acknowledge the central role of technological competence in preparing future translators. This section reviews these three influential models that have contributed to shaping how TC is

[10] PACTE (Process of Acquisition of Translation Competence and Evaluation) is a research group founded in 1997 at the Universitat Autònoma de Barcelona, known for its empirical studies on TC acquisition.
[11] EMT (European Master's in Translation) is a network initiated by the European Commission's Directorate-General for Translation (DGT) to establish reference standards for MA translator training programmes across Europe.

defined, understood, and taught. They have been selected in accordance with their impact, relevance to translator training, and inclusion of technological competence, which is the central focus of this thesis. Special attention is given to the EMT model, and the reasons for selecting it as the guiding framework are clarified at the end of this section.

- **The PACTE's TC Model (2000/2011/2018)**

The PACTE research group has developed one of the most influential and empirically validated models of TC. Their first was introduced in the early 2000s (PACTE, 2000, 2003), and this has since been refined through a series of experimental studies (e.g., PACTE, 2005, 2011, 2014, 2017, 2018, 2020). The PACTE model defines TC as "the underlying system of knowledge, skills, and attitudes required to translate", and conceptualises it as a communicative and problem-solving activity (PACTE, 2003, p. 58). Organised into five interrelated sub-competencies, the system represents a combination of declarative and procedural knowledge (see Figure 2.3, below):

- Bilingual sub-competence (pragmatic, textual, grammatical, and lexical knowledge in two languages)
- Extralinguistic sub-competence (encyclopaedic, cultural, and subject-field knowledge)
- Knowledge of translation (theoretical and professional awareness, including familiarity with text types, translation strategies, and industry practices
- Instrumental sub-competence (the ability to effectively use tools and resources related to translation, such as documentation, electronic corpora, and translation technology)
- Strategic sub-competence (the capacity to manage the translation process and solve problems by coordinating the other sub-competences)

Psycho-physiological components like attention, memory, and perseverance support these, as they represent cognitive and attitudinal traits which in practice can coordinate the five sub-competencies.

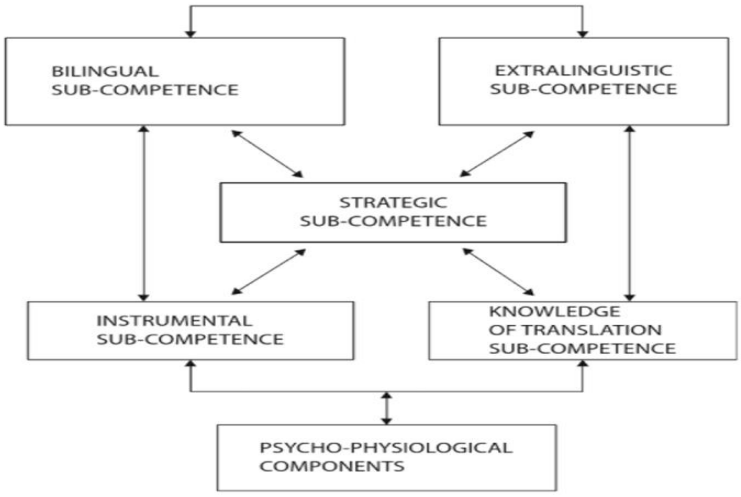



Figure 2.3 PACTE model (adapted from PACTE, 2003, p.60; 2020, p. 103)

The PACTE model was developed through two main research phases. The first aimed to empirically define and validate the components of TC by conducting comparative experiments (PACTE, 2003, 2005, 2011), which involved analysing the translation processes of professional translators and comparing them with the processes employed by foreign language teachers with no translation experience. The researchers were able to identify the cognitive behaviours, decision-making patterns, and problem-solving strategies which characterised the expert translators as a result of this comparative design. In 2014, the second phase built on this foundation with the Acquisition of Translation Competence (ATC) project, launched with the objective of understanding the development of TC over time in trainee translators. In this phase, the PACTE group proposed a framework of five performance levels (A1 to C), inspired by the structure of the Common European Framework of Reference (CEFR) for language learning, to describe progressive stages in developing TC (PACTE, 2018). These levels represent a gradual progression from basic awareness of translation problems to the ability to manage specialised and complex translation tasks with the effective use of translation technology.

The PACTE group later formulated a set of pedagogical recommendations for translator training based on their findings (PACTE, 2020), which included prioritising the development of strategic sub-competence; improving L1 writing skills; encouraging students to use internal cognitive strategies; helping them automate problem-solving processes; training students under time pressure; enhancing students' proficiency with tools and resources; and increasing deliberate practice opportunities. Multi-component models have been criticised for being compartmentalised and rigid (e.g., Pym, 2003; Malmkjær, 2009), but the empirical foundation, clarity, and contribution to understanding of how TC can be taught, learned and assessed means PACTE remains widely recognised. The model further highlights that the process of becoming

a professional translator is gradual, takes time and involves the development of a varied set of competencies beyond the mastery of two languages.

- **Kiraly's TC Model (2000/2013/2018)**

Kiraly approached TC from a different perspective, drawing from social constructivism. Kiraly's early model was introduced in 2000, in which translator competence (as he calls it) is described as a combination of three interrelated competencies: social competence (e.g., teamwork, negotiation), personal competence (e.g., autonomy, responsibility), and translation competence (e.g., language, culture, strategies, and technology). This model begins suggesting a broader vision of competence development extending beyond cognitive or procedural skills despite emulating the common multi-component structure used by others (e.g., PACTE). Kiraly's thinking has more recently evolved in response to developments in complexity theory and his own classroom experiences, leading him to question multi-component models and became critical of their limitations:

> *[N]one of them suggests or reveals anything at all about the learning process. They are all static box-like representations of an ideal(ised) relationship between dispositions, abilities and skills that professional translators can be expected to possess and be able to use when translating. In and of themselves, they say nothing about how these features should or might be acquired or developed in an educational setting.*
>
> (Kiraly, 2013, p. 201).

Kiraly felt that listing a set of isolated sub-competencies did not fully capture how translators actually grow and learn in real-world contexts. Drawing on complexity theory, Kiraly (2013) emphasised that translator competence "is not built up bit by bit through the accretion of knowledge but creates itself through the translator's embodied involvement (habitus) in actual translation experiences" (p. 203). For this reason, he proposed a paradigm shift: conceptualising "both learning and competence as holistic and autopoietic (dynamic, unpredictable, self-generating, and self-maintaining) **processes** [emphasis in original] in which the whole is far more than, and very different from, the sum of the parts" (Kiraly et al., 2018, p. 21).

Kiraly expanded this dynamic view of learning by introducing two visual models that reflect his post-positivist approach. The vortex model (Figure 2.4, below) represents translator competence as a swirling, upward trajectory of experience shaped by learners' interactions with various sources of affordances (e.g., tasks, projects, personal dispositions, textual and cultural resources). In this model, competencies (e.g., instrumental, intercultural, communicative, and

interpersonal skills) do not develop separately but emerge in relation to one another as learners engage in authentic translation projects. Complementing this, the holon model (Figure 2.5, below) presents co-emergent learning as a shared process among students, trainers, and industry mentors, each represented as interconnected wholes contributing to one another's development. As Kiraly (2012, p. 87) explained, the aim is to blur the boundaries between academia and industry, encouraging students to co-learn "with their fellow learners, their teachers, the institutions they attend, and the entire community of translation practice with which and whom they interact".

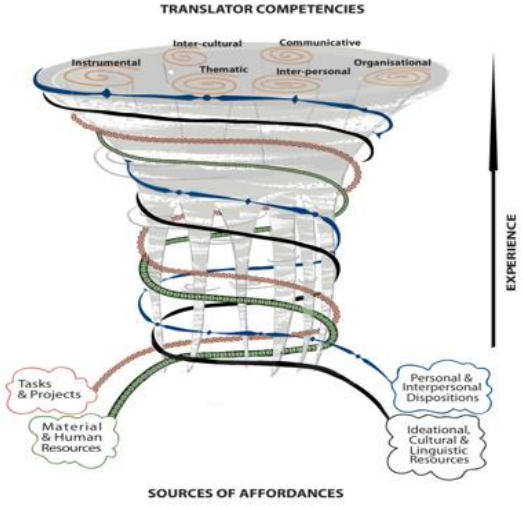



Figure 2.4 A proposed model of the emergence of translator competence (adapted from Kiraly, 2016)

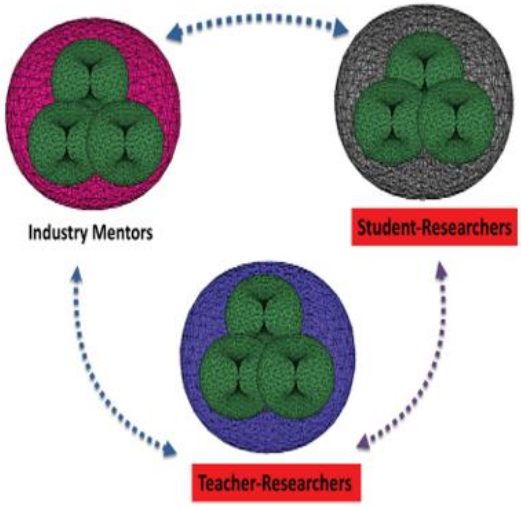



Figure 2.5 A holarchic model of co-emergent learning (adapted from Kiraly et al., 2018)

In a later work, Kiraly (2018, p. 25) linked this conceptual shift to curriculum design, advocating for learning that progresses "not in conventional, reductionist building-block fashion, but instead in terms of movement from less to more complex". This envisions students as first acquiring basic skills and moving gradually to scaffolded problem-solving activities, which allow them to apply what they have learned in authentic translation situations. Project-based learning represents the final study stage at which, guided by facilitators rather than traditional teachers, students work on real or realistic translation assignments. Kiraly sees this as a shift in didactic style "from more instructive to more constructive and facilitative" (2018, p. 25), where students are "encouraged to construct their knowledge of the profession and their understanding of their responsibilities and rights as professionals through experience" (Kiraly, 2000, p. 46). Together, these views form Kiraly's social constructivist approach, which treats translator training not as a matter of transmitting knowledge but as a process of co-constructing it through authentic, collaborative experience. From this review, several questions arise about

how translation technology training is integrated into BA curricula in Saudi Arabia, specifically at what stage such training is introduced and whether it follows a scaffolded and collaborative structure that gradually leads students from simple skills to more complex, project-based work. It also remains unclear whether translation technology is embedded within authentic (or near authentic) translation scenarios, or if it is still taught in isolation, disconnected from real-world workflows. These questions are part of this thesis's exploration, as part of investigating how translation technology training is delivered in BA programmes across Saudi universities and whether this aligns with industry requirements.

Drawing on the student-centred training approach, the simulated translation bureau (STB) has gained growing attention in many translator training programmes as an effective method for developing TC, specifically technological competence. Thanks to its holistic design, the STB enables students to engage with translation technologies in simulated real-world workflows. Within these settings, students collaborate in teams, manage translation projects, and complete authentic or near authentic tasks (Buysschaert et al., 2017). A leading example of this approach is the International Network of Simulated Translation Bureaus[12] (INSTB), which brings together 21 European universities[13] that integrate STB into their curricula to enhance practice-oriented learning and improve graduate employability. Although the STB concept originated in 1984 at Zuyd University in the Netherlands, the INSTB formally emerged from a collaborative meeting in Maastricht in 2008 and was officially launched in 2015. Since then, INSTB has served as a shared platform for member universities to exchange best practices, co-develop translation tasks, and award certificates that validate students' hands-on experience in simulated bureau settings (Buysschaert et al., 2017).

INSTB members are free to organise their STBs to local industry requirements, but all adhere to simulating the core phases of professional translation workflows, including client contact, project management, the use of translation technologies, revision and QA procedures, and final product delivery (INSTB website, n.d.). In this way, students engage with various translation technologies (e.g., CAT, MT, TMS) in a meaningful way that reflects the reality of industry practices, rather than being taught in isolation. As Buysschaert et al. (2018, p. 126) emphasise, this integrated environment "brings together multiple technological skills" that "would be less successful if they were taught in separate course units". Supporting this approach, Paradowska (2021, p. 41) maintains that engaging students in authentic, collaborative translation projects

[12] For more information about the INSTB initiative, see www.instb.eu (last accessed July 2025)
[13] As of July 2025

helps bridge the academia-industry gap by fostering both practical expertise and professional awareness. The findings of this study also demonstrate that such experience enhances students' technological competence and prepares them for industry-relevant roles aligned with ISO 17100 standards (e.g., translator, reviser, project manager). These settings provide students with "the opportunity to gain experience in multiple aspects of translation workflows that are typically kept separate in academic modules" (Buysschaert et al., 2018, p. 126). Although INSTB currently remains a European initiative, its model offers valuable insights into how simulation-based training can help address the growing demand for industry-ready graduates. This is particularly relevant in the Saudi context, where Saudisation policy increases the pressure on BA programmes to produce professionally competent and industry-ready graduates.

- **The EMT's TC Model (2009/2017/2022)**

The EMT initiative was first introduced in 2009 through a collaboration between the European Commission's (EC) Directorate-General for Translation (DGT) and a group of universities. It emerged as a response to the demand for highly-qualified translators capable of handling multilingual communication across Europe, partly due to the enlargement of the EU in 2007 from 11 to 23 languages. From its inception, the EMT has aimed to improve the quality of MA-level translator training by proposing a reference framework of competencies essential for translation graduates, with emphasis on enhancing professionalisation and employability, two goals that strongly resonate with the current thesis.

The EMT expert group published the initial model in 2009 (Gambier, 2009), which was graphically represented as a 'competence wheel' composed of six competencies: language, culture, information mining, technology, thematic, and translation service provision (Figure 2.6, below). In this model, the translation service provision competence is represented at the centre, symbolising its key role in coordinating the other five competencies and underscoring the EMT's view that professional translation extends beyond language competence to include the ability to deliver a complete service, which involves managing client relationships, meeting deadlines, ensuring quality, and understanding industry requirements.

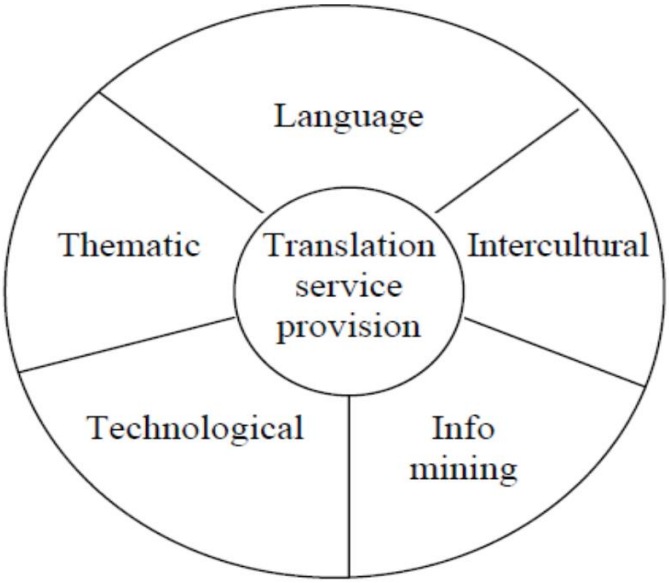



Figure 2.6 The initial EMT model in 2009 (adapted from the EMT Expert Report, 2009)

However, this model has since been reviewed as to implement in curriculum design. As Thunnissen (2015, p. 2) observed, the EMT wheel model "only sums up all competences [...] but it doesn't show the forms the competences take on at different levels", which makes it challenging to apply in guiding programme structure and supporting learner progression (see also Torres-Simón and Pym, 2019). In response to these concerns, along with technological and societal changes influencing the translation profession, the EMT Board revised the model and released a new, simplified version in 2017 aimed at improving clarity, applicability, and alignment with industry requirements. In this EMT version, Toudic and Krause (2017, p. 2) explained:

> *In October 2016, with future translation graduate employability firmly in mind, the EMT Board was given the remit of producing a new EMT competence framework. The new framework was expected to embody the founding principles of the EMT network while incorporating the key competences and skills required of future translation graduates. The remit also included producing a* ***simple, functional competence framework*** *[emphasis added] that could be used to assess the delivery of a common set of learning outcomes by universities wishing to join the EMT network in the next round of applications. Following a consultation process involving the network membership and language industry stakeholders, a draft framework was produced.*

The EMT Board introduced a revised model in 2017, built in a new structure around five competencies instead of the six in the earlier wheel model. These include language and culture, translation, technology, personal and interpersonal, and service provision (Figure 2.7, below). Unlike the wheel model, which placed translation service provision at the centre, the updated model suggests these five competencies should "be considered as complementary and equally

important in providing the translation service, which is the ultimate goal of the translation process" (EMT, 2017, p. 5). This reflects the EMT's shift towards a more balanced and integrative view of TC. Another notable change is the reorganisation of the competence categories, merging information mining with technological competence to reflect how research and technological tools are now used closely together in real-world translation practice. The updated model also introduced a list of 35 descriptors, distributed across the five competencies (six of them about technology, see Table 2.1, p. 47). These descriptors were provided to help MA translator training programmes design or revise their curricula more clearly, and to bring them into line with industry requirements. The aim is to make the model more practical, transparent, and easier to implement in curriculum development, especially for new applicants to the EMT network.

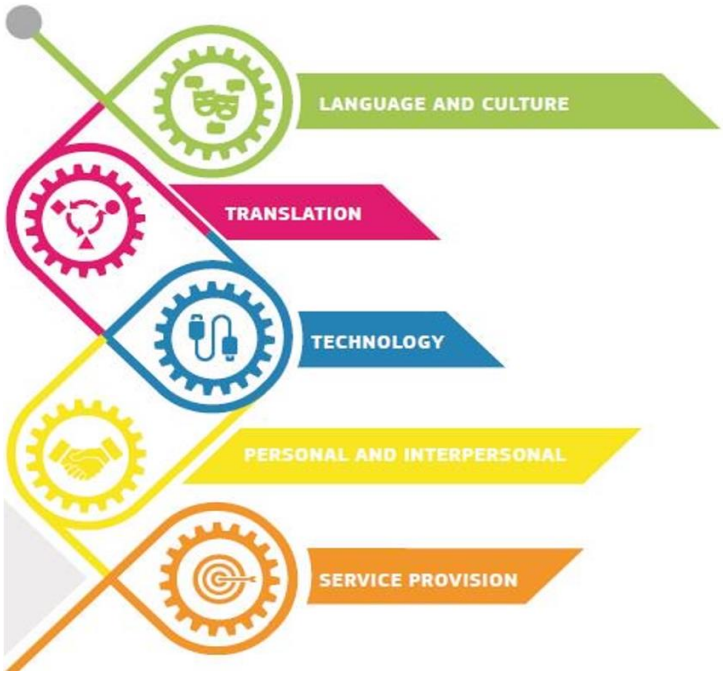



Figure 2.7 The EMT model 2017/2022 (adapted from the EMT Board, 2022)

The EMT Board recognises that their model has now become "one of the leading reference standards for translator training throughout the European Union and beyond, both in academia and industry" (EMT, 2022, p. 2). The expansion of the network outside Europe, as shown by the recent inclusion of Saint Joseph University of Beirut, the first university from the Arab world to join the EMT network, indicates that the model is gaining global recognition, so Esfandiari et al. (2017) conducted a study to examine its applicability beyond Europe. Their survey, shared via Proz.com, collected responses from professional translators in different countries, giving the study an international scope, and shows that many translators agree on the importance of the model's competencies, especially technological competence, QA checks, and

service provision. The EMT model can therefore offer a relevant reference framework for translator training around the world, but especially in countries like Saudi Arabia where professional standards and translator training programmes are still developing.

The model was updated again in 2022 to line with developments in the translation industry and to reflect the increasing importance of technology on translation work. The five main competencies are unchanged, but several descriptors, especially those under technological competence, have been revised with practicality and alignment with industry requirements in mind. In the 2017 version, the focus was primarily on using basic tools such as CAT, multimedia handling, and MT, but the 2022 update takes the model a step further by expecting students not only to use these tools but also to "critically assess the relevance and the impact of change on their work practices" (EMT, 2022, p. 9). This means students should understand how these tools affect their future work, choose the best tools for each task, and stay flexible as tools continue to change. The 2022 version gives more attention to QA, as descriptor 16 now directly mentions QA tools, along with CAT tools. This indicates that QA procedures are now part of the core skills that students should learn. Another important update is found in descriptor 18, which says students should "integrate MT into a translation workflow" (EMT, 2022, p. 9), showing that MT is no longer viewed as a separate tool but an integral part of a translator's work. Descriptor 19 contains a new point, expecting students to "recognise the importance and value of translation and language data" (EMT, 2022, p. 9), highlighting that data mining literacy is now considered a part of technological competence. To see these changes more clearly, Table 2.1 (below) compares the six technological descriptors (15 to 20) of the 2017 and 2022 EMT models, showing how the EMT Board is responding to the changing nature of the translation profession, especially with the rise of AI and automation, and helps ensure that translator training remains in line with industry requirements.

Table 2.1 Technological descriptors of the EMT model (2017/2022)

| Competence Category | No. | Descriptors (Know-how) EMT (2017) | Descriptors (Know-how) EMT (2022) |
|---|---|---|---|
| **Technological** | 15 | Use the most relevant IT applications, including the full range of office software, and adapt rapidly to new tools and IT resources. | Use the most relevant IT applications, including the full range of office software, and adapt rapidly to new tools and IT resources having critically assessed their relevance and the impact of change on their work practices |
| | 16 | Make effective use of search engines, corpus-based tools, text analysis tools, and CAT tools. | Make effective use of search engines, corpus-based tools, text analysis tools, computer-assisted translation (CAT) tools and quality assurance (QA) tools where appropriate. |
| | 17 | Pre-process, process and manage files and other media/sources as part of the translation, e.g. video and multimedia files, handle web technologies. | Pre-process, process and manage files and other media/sources as part of the translation workflow, e.g. web and multimedia files. |
| | 18 | Master the basics of MT and its impact on the translation process. | Understand the basics of MT systems and their impact on the translation process, and integrate MT into a translation workflow where appropriate. |
| | 19 | Assess the relevance of MT systems in a translation workflow and implement the appropriate MT system where relevant. | Recognise the importance and value of translation and language data, demonstrating data literacy. |
| | 20 | Apply other tools in support of language and translation technology, such as workflow management software. | Apply other tools in support of language and translation technology, such as workflow management tools. |

These changes were made as the result of thoughtful discussion in EMT meetings and working groups, especially during 2023, when the EMT Board "closely monitored and adopted the rapid technological changes and put AI on its agenda" (EMT Annual Report, 2023, p. 3). The report explains that many EMT programmes are now updating their curricula to include more training in translation tools and technologies (see also Rothwell et al., 2025). It also recommends the integration of translation technologies, including MT and AI tools, in all phases of translator training (p. 7). However, Krause (2024) notes that there are still gaps between academic training and industry requirements (based on the ELIS 2022 and 2023 reports), especially in

the areas of "information handling, translation competence, professional ethics and project management", suggesting that the 2022 model needs further improvement to "maintain its twofold function as a guide for designing programmes in the field of translation, [and] a benchmark for the needs of the language industry and thus for the employability of graduates" (p. 12-14). These insights are important for this thesis, which looks at how technological competence is developed in Saudi BA programmes and whether it meets industry requirements.

The EMT model (2017/2022) is adopted in this research as a guiding framework to investigate how translation technologies are perceived in the Saudi translation industry, in terms of their importance and translators' competence levels, and how the technologies are taught in Saudi BA programmes. The detailed structure and descriptors present in the model are relevant to BA programmes despite the fact that it was originally designed for MA-level translator training. Unlike in Europe, where the profession is commonly entered via MA-level training, in Saudi Arabia, most translators begin their professional careers as soon as they have completed their BA degree (Salamah, 2022, Alharbi, 2024). This makes BA training an important stage for translators to acquire and develop TC, including technological competence. Given that BA programmes in Saudi universities often last four to five years, this gives sufficient time and flexibility to introduce, develop, and assess the technological descriptors in the EMT model in a structured way, more so than in one- or two-year MA programmes.

The decision to adopt the EMT model is also methodologically appropriate. The three survey instruments used in this thesis, targeting translators, employers and programme directors, were adapted from EMT-related projects: Toudic (2012), which is part of the OPTIMALE[14] project (see Section 2.5) and Rothwell and Svoboda (2019), part of a broader EMT-led project to track the evolution of translation technology training over time (see Section 2.3.2). All of the authors (Danial Toudic, Andrew Rothwell, Tomáš Svoboda, and Joss Moorkens) have participated in EMT model development and contributed to its working groups, so the guiding framework (the EMT model) and the research instruments (surveys) are aligned, providing consistency between this thesis' aims and data collection.

Finally, the EMT model is not used as a fixed training standard or curriculum benchmark in the present thesis but as a flexible guiding framework to evaluate whether Saudi BA programmes are aligned with the technology-related requirements of the translation industry. This approach

[14] OPTIMALE stands for Optimising Professional Translator Training in a Multilingual Europe

is supported by Krause (2024), who argues that the EMT model should not be applied rigidly, but adapted to local contexts and evolving industry demands to remain relevant and effective.

### 2.3.2 Translation Technology Training

This section reviews previous research that has focused specifically on investigating how translation technology is taught in academic programmes. It aims to provide an overview of global and local translation technology training approaches and to identify challenges and gaps in the literature, beginning with selected international studies, followed by two EMT-related studies that have shaped this thesis, and finishing with a focus on relevant Saudi studies.

Through a review of curricula, Şahin (2013) evaluates translation technology integration into BA translator training programmes across 17 universities in Turkey and reveals a lack of consistency in how translation technology-related courses are offered; some programmes include them as compulsory, others make them electives, and some do not offer them at all. The author highlights this issue by stating that "there does not seem to exist any standard among universities as to what is needed in terms of technological competence in the translation programmes in Turkey" (p. 179). The second part of the study presents a three-year case study involving 62 students who took a translation technology course and completed post-course surveys. The findings show that students were generally positive about the training and felt more confident using translation technology. However, over two-thirds believed that "one course on translation technologies would not be enough to learn all is needed to be fully competent in using necessary tools and software in the translation profession" (p. 186). Students also reported challenges including high software costs, limited technical support, and "being uninformed about where to find information about tools" (p. 182). The study concluded that "technology deserves to have a more important place in the translation curriculum in Turkey" (p. 187) and emphasised that "a stronger collaboration among higher education institutions is needed so as to take necessary steps to create a common ground concerning the integration of technology into translation teaching and practice" (p. 187). Şahin advocated for a more coordinated approach to teaching translation technologies across Turkish BA programmes, arguing that without clear standards and collaboration, students may not receive equal or sufficient opportunities to acquire and develop their technological competence during BA studies. These findings raise important questions about the situation in Saudi Arabia, where no BA translator training programme (except at KSU) has yet achieved the standards set by the NCAAA, and the coordination between these programmes is less explored.

In Spain, Sánchez-Castany (2022) investigated how translation technologies are taught in BA translator training programmes, analysing 994 course syllabi from 32 translation curricula across 29 Spanish universities to understand the extent to which translation technology is covered both in dedicated translation technology-related courses and practical translation courses. The findings show that although present in most programmes, translation technology training is often limited to separate courses rather than being integrated throughout the curriculum. The study notes that translation technology-related courses are often introduced in the early stages of the programme (Year 1 or 2), with less emphasis in later years when students are closer to entering the translation industry. Sánchez-Castany argues that this approach limits students' ability to see the practical value of translation technologies, particularly if these tools are not revisited in later stages of the programme, and that practical translation courses often include generic technology references rather than translation-specific tools like CAT or MT. She stated that "the technology incorporated into most of these modules is more general and common in other fields […] and their application to translation is not as frequently taught" (p. 39). In many courses, references to technology were vague, with phrases such as 'mastering basic translation tools' or 'familiarisation with translation tools' used without specifying which tools or how they would be taught. This lack of clarity is also seen in the way technologies are integrated into other courses, which are described as fragmented and lacking pedagogical focus so "students fail to internalise the habit of using these technologies in specific translation contexts that emulate the work they will be commissioned to undertake in the future" (p. 39). While this study provides a valuable description of the ways in which translation technologies are taught in Spanish BA programmes, it does not propose any specific reforms or curriculum development that help improve the situation in Spain. In contrast, the present thesis goes further by not only describing the current state of translation technology training in Saudi Arabia but also by proposing context-specific recommendations for improving this training and aligning BA programmes with industry requirements.

In the broader European context, the EMT network has conducted a series of semi-longitudinal studies to investigate translation technology training across MA programmes (i.e., what is taught, who teaches it, and in what way). This began with the OPTIMALE project in 2012, led by Daniel Toudic, as part of which a survey was distributed by Rothwell and Svoboda to programme directors to understand how translation tools and technologies were integrated into EMT programmes. The results, based on 50 responses, provide an initial overview of the teaching situation at the time. The survey was repeated five years later, in 2017, to update the

mapping of translation technology training in MA programmes across Europe, as "translation technology seems to be taken for granted nowadays" (Rothwell & Svoboda, 2019, p. 26). This second survey received 55 responses and reflected approximately three-quarters of all EMT programmes at the time.

Rothwell and Svoboda (2019) compared the findings of the 2012 and 2017 surveys, tracking the changes in curriculum design, teaching strategies, and tool coverage. One of the most notable developments was the increased integration of translation technologies into practical courses, as the authors explained: "tools are now more closely integrated with practical translation, and in some cases professional development modules" (p. 36). To illustrate this, the teaching of TM, TB, and data mining became compulsory in over 90% of the surveyed programmes in 2017, compared to 60-70% in 2012 (p. 36). Similarly, MT-related activities (e.g., pre-editing and post-editing) were more widely included in curricula, with post-editing taught as compulsory in 71% of the programmes in 2017, up from 32% in 2012. Regarding teaching strategies, lectures and demonstrations (i.e., trainer-led teaching) remained dominant and rated "important or very important by 80% of respondents" (p. 43), although project-based training had become more widespread. In terms of tool coverage, Trados Studio continued to lead, being taught as a compulsory tool in 82% of the programmes, while memoQ and Phrase also saw notable rises. Free tools, such as OmegaT and Wordfast Anywhere, also gained popularity, improving accessibility for students. At the same time, access to remote and cloud-based CAT tools expanded, and technical support improved, with more programmes now providing general IT support for translation tools (p. 49). These findings reflect a growing commitment among EMT programmes to train students on various translation technologies to better prepare them for the translation industry. The study concluded that there is "a clear trend towards greater uptake and professionalisation of tools and technologies training" (p. 26). The authors further noted that while this progress cannot be attributed solely to the EMT network, it has likely acted as "a catalyst […] for the exchange of good practice between academic programmes" (p. 54), helping bridge the academia-industry gap in Europe.

The third iteration of the survey was conducted in 2023 and published by Rothwell, Moorkens and Svoboda in March 2025, marking a further development in the EMT's effort to "build longitudinal data to track the changes in technology teaching over time" (Rothwell et al., 2025, p. 1). The survey received 62 responses from 60 universities, with 60% of them from EMT programmes. The findings show that many of the positive trends identified in the previous surveys (i.e., OPT2012 and EMT2017) had continued, with further progress in several areas.

These include the increased compulsory teaching of CAT tools, MT, QA procedures, and a rapid response to the emergence of LLMs and other GenAI tools. Among these, CAT training remains central in translator training. The authors predicted that "CAT tools as represented by the scores for TM and TB use […] will continue to dominate as they have done over the past decade" (p. 7). The findings further show a growing focus on data mining-related competencies (i.e., search strategies and source evaluation), which the authors describe as "reinforcing the central role played by research and data-gathering skills" (p. 7). Another encouraging trend is the increased teaching of MT-related activities, which "suggests very significant expansion in the centrality of MT in today's translator training programmes" (p. 7). Post-editing is now taught as a compulsory activity in 77% of the programmes, up from 71% in 2017, which reflects a broader movement towards a more "sophisticated and rigorous approach to MT quality" (p. 7).

The findings expose a shift away from trainer-led strategies and toward more student-centred and autonomous learning, although some programmes preserve trainer-led methods. This shift has been partly attributed to sweeping changes brought about by the COVID-19 pandemic, which accelerated the adoption of autonomous, blended, and e-learning formats, greater independent use among students of their own personal devices for training, and the improved availability of remote access to tools. Trainers responded to the pandemic with "resilience and inventiveness", leading to improvements in flexible delivery and independent learning opportunities (p. 17). Trados Studio, MultiTerm, and memoQ remain the top three compulsory CAT tools, but cloud-based tools (e.g., Phrase and Matecat) have seen wider adoption, reflecting consolidation around cloud-based tools with cost-free academic access. Similarly, GenAI tools (e.g., ChatGPT) had already begun to be incorporated into technology-related courses in a variety of ways. Ethical and legal concerns related to NMT and LLMs have increased in prominence, with generic file management and data security skills now rated as important by 61% of the programmes, up from 29% in 2017 (p. 12). Importantly, the study asked the participating programmes whether they were affiliated with any other academic or professional networks, and found that most were widely networked, with CIUTI[15] being the most common (20 members), followed by APTIS[16], with five. According to the authors, this "arguably [shows that networking] is a means of ensuring they [programmes] remain academically current and industry-relevant" (p. 17). This raises questions about the situation in

[15] CIUTI (Conférence Internationale Permanente d'Instituts Universitaires de Traducteurs et Interprètes), see www.ciuti.org
[16] APTIS (Association of Programmes in Translation and Interpreting Studies, UK and Ireland, see www.aptis-translation-interpreting.org

countries like Saudi Arabia, where no equivalent local or regional network currently exists to support BA translator training programmes through collaboration, resource sharing, curriculum development, and the exchange of best practices.

In the specific context of Saudi Arabia, a few studies have explored how translation technology is taught in BA programmes. A decade ago, Alotaibi (2014) investigated the expectations and attitudes of translation students towards CAT tools in a single BA programme (KSU), employing a mixed-methods design (surveys, interviews, and classroom observations) to gain in-depth insights into students' learning experiences. The students initially had "very poor and confused knowledge about the use of technology in translation in general", but many showed "high levels of motivation to learn" (p. 72). Students' attitudes were found to change as they engaged with hands-on activities throughout the course, from anxiety and doubt to confidence and enthusiasm, and they were describing the experience as "useful" and "eye-opening" by the end of the semester (p. 71), reporting greater awareness of the role of technology in translation. Practical training, it was concluded, plays a crucial role in shaping students' perceptions so "we should be aiming at integrating more hands-on activities and meaningful tasks rather than focusing on theoretical aspects" (p. 72).

A year later, Abu-ghararah (2015) conducted a similar study into the availability and actual use of translation technologies and learning resources across four BA programmes (TBU, KSA, KSU, and IMU). The views of 200 students were collected through questionnaires to gain their thoughts about their experiences in these programmes. The findings reveal a notable lack of technology-related infrastructure and practical translation training. 84% of the surveyed students reported that translation labs were completely unavailable at their universities, while only a minority (13%) confirmed their existence (p. 85). 80% confirmed the absence of MT systems, and CAT tools were reported to be rarely available by 57%. Findings on the actual use of these tools reflect similar limitations: none of the students reported regular use of translation labs, MT systems, or CAT tools. In each case, 80% or more said they rarely use these tools, and none selected 'always' as a response. Abu-ghararah (2015) concludes that many translation courses in these four programmes are still "fixed in a traditional teaching methodology" (p. 82), which does not guarantee developing technological competence or producing competent translators for the translation industry, and recommends increasing the investment and support for BA translation programmes to help them integrate translation technology into the curriculum. These two studies raise concerns about how translators are currently prepared in these four programmes and across Saudi Arabia, and how students can develop technological

competence if they are not given sufficient tools and opportunities to engage practically with translation technologies during BA studies.

A valuable contribution that deepens our understanding of the state of translation technology training in Saudi Arabia has been provided by Al-Jarf (2017), although her study focuses only on a single BA translator training programme (i.e., at KSU). Al-Jarf interviewed 72 recent graduates from the programme to elicit their views on the translation technology training they received. Most described the training as poor and insufficient to equip them with the technology-related competencies required in the industry. The students reported that MT was discussed at a general theoretical level without any practical exposure to MT systems (e.g., Google Translate). This aligns with Abu-ghararah's (2015) findings, which also indicated the unavailability of translation labs and the absence of practical training in MT systems. Many students lacked even basic typing skills and were unfamiliar with online resources, specialised dictionaries, terminology databases, or corpora. The study notes that students were not introduced to essential CAT tools like Trados, OmegaT and subtitling tools, despite their growing use by employers. Al-Jarf concludes that the existing training failed to prepare students for professional translation roles, as many face difficulties when entering the industry, especially in satisfying the expectations of their employers. Some years later, Al-Rumaih (2021) carried out a similar study specifically on how CAT tools are taught in Riyadh-based BA translator training programmes (KSU, PNU, IMSIU, PSU, and SEU). The study employed a mixed-methods design, combining curriculum analysis, student surveys (n=318) and interviews (n=34), finding that translation technology courses were offered only in four of these programmes (no course in IMSIU). In each case, CAT tools were often taught in isolation, without integration into other translation courses, and "the scope of the practice was very limited" (p. 355). The survey results confirm the limited impact of this training. 45% of the surveyed students reported never using CAT tools in translation tasks, and 58% stated that these tools were not used in any course beyond the CAT course. More concerningly, many reported that trainers did not encourage them to use CAT tools or offer clear guidance (p. 353). These findings are reinforced by the interview results, with the CAT course described as too theoretical and lacking practical training (p. 355), and issues discussed including limited lab access, reliance on free trial versions, and underqualified trainers. These echo the findings of previous studies and highlight structural and curriculum gaps that call for the integration of translation technology training into BA programmes.

Unlike these individual studies, the current thesis adapts the EMT survey, conducted in 2012, 2017, and most recently in 2023, to investigate how and to what extent translation technologies are currently integrated into Saudi BA programmes and assess the extent to which this training aligns with the technology-related requirements of the translation industry. Inspired by the EMT's longitudinal approach, this thesis contributes to the existing body of knowledge by mapping the current state of translation technology training in Saudi Arabia and serves as a first step toward building a longitudinal record of translation technology training in this context, following the EMT network's goal to "track the changes in technology teaching [in Europe] over time" (Rothwell et al., 2025, p. 1). In this way, this thesis follows the approach of established international research practices and extends the EMT model into a new context (Saudi Arabia) and at a different academic level (BA programmes). While most previous studies have relied on curriculum analysis or student feedback, this thesis addresses the topic from the perspectives of both programme directors and course trainers, two key stakeholder groups directly involved in designing and delivering translation technology-related courses. In addition to the Academic Survey, some questions from the EMT survey, and the OPTIMALE employer survey (Toudic, 2012), were adapted to design the other two industry surveys (targeting professional translators and employers), which aim to identify the technology-related requirements of the translation industry and assess translators' current level of technological competence in Saudi Arabia (further details provided in the Methodology Chapter).

## 2.4 Continuing Professional Development (CPD)

> *Training in translation technology happens not just in universities and other higher education institutes but also as part of the continuous professional development [CPD] of individual translators working in the translation departments of large organisations or for language service providers.*
>
> (Kenny, 2019, p. 5).

Kenny's quote highlights the key role that CPD plays in developing TC among translators beyond formal academic training. Many academic programmes provide translation technology training as part of the curriculum, but CPD has increasingly become an integral part of translators' professional lives worldwide, especially as technology changes rapidly. In a survey of Finnish translators, Salmi (2021, p. 125) notes that "language and translation technology [...] is a matter of continuous learning", providing a reminder of the need for translators to update their skills continually to stay competitive in a professional landscape which has linguistic, cultural, and technological challenges at every level. This thesis, therefore, considers

definitions, understandings, and approaches to CPD in Saudi Arabia to determine its role in improving Saudi translators' technological competence. This section provides an overview of the topic and reviews relevant studies on CPD at both international and Saudi levels.

Friedman (2013) defines CPD from a wider perspective as "the systematic maintenance, improvement, and broadening of knowledge and skills, and the development of personal qualities necessary for the execution of professional duties throughout the individual's working life" (p. 9). This presents CPD as a principle of lifelong learning that involves the continuous expansion of professional capabilities alongside the personal attributes essential for effective performance. Almost all service-oriented professions now recognise the importance of CPD, including teaching (e.g., Al Asmari, 2016), healthcare (e.g., Ngenzi et al., 2021), librarianship (e.g., Rehman et al., 2024), and engineering (e.g., Polovinko & Arbuz, 2021). The process is equally vital in professional translation (Simkova, 2018), as the reputation and success of the individual translators themselves and language service providers (LSPs) can be directly affected by the quality of a translator's output.

Taebi and Razavi (2020, p. 319) define CPD in the context of translation as

> *constantly preparing the right conditions for the gradual, coordinated, and balanced emergence of translation sub competences over time and in the larger mould of translation competence [TC], in such a way that the translator be evolutionarily prepared to optimally and autonomously perform his/her responsibilities in his/her unique (or desired) professional ecology*

This definition agrees with Friedman's view by emphasising the systematic, continuous, and structured nature of CPD, and further stresses the need to update translators' competencies in line with industry demands. In their study of the Iranian context, Taebi and Razavi (2020) state that CPD has not been fully recognised or systematically implemented in the translation profession and propose a five-stage CPD framework for translators based on the core concepts of TC, Kiraly's notion of TC emergence, and reciprocal mentoring. This outlines a developmental path from foundational knowledge (level one) to professional autonomy (level five), highlighting the importance of mentoring by experienced translators to support and guide novice translators in their careers and bridge the generational gap in the profession through CPD.

The recently published *Institutional Translator Training* (edited by Svoboda, Biel & Sosoni, 2023), contains six chapters (10 to 15) that explore the CPD landscape in various geographic and institutional contexts, including the EU, the European Parliament (EP), the EC, the United

Nations (UN), and the China Foreign Languages Publishing Administration (CFLPA). A brief overview of these chapters is helpful to understand how CPD is implemented in these major institutional settings.

In Chapter 10, Mossop (2023) draws on his long experience running revision workshops as a form of internal CPD, originally designed for Canada's Translation Bureau and later adapted abroad. These workshops include exercises, group discussions, and peer feedback, and primarily aim to help formulate translators' thinking about the diversity of roles they need to play (e.g., translator, revisor) to succeed professionally, encouraging them to reflect on their routine habits and consider and explore new working methods. As Mossop puts it, the workshops help translators "hear others describe their work procedures, which may lead them to try a new approach" (p. 184).

Chapter 11 by Li (2023) explores how CPD is organised and implemented in the CFLPA, China's leading institution responsible for translating official government texts into foreign languages. The chapter explains that CFLPA is unique because it handles politically sensitive texts, which require translators to follow standardised processes. CPD at CFLPA focuses on three main areas: 1) standardised language use, 2) domain-specific knowledge, and 3) awareness of new translation technologies. One of the most important and frequently practised forms of CPD is the 'tutorial-style' training system, where experienced translators act as mentors to novices. However, this mentoring approach "certainly cannot operate on a large scale due to the lack of qualified mentors" (p. 199). It is noted that CPD "is mainly carried out from an administrative perspective" and still needs to be "implemented at micro levels" (p. 200) to support individual translators. Overall, the chapter highlights that political requirements and traditional methods deeply shape CPD at CFLPA, and that more progress is needed to meet global CPD standards.

In Chapter 12, Mavrič (2023) examines how the EP's DG TRAD has expanded its CPD efforts to support new translator profiles and evolving tasks, explaining that DG TRAD plays a key role in making EU documents accessible in all 24 official EU languages, with CPD ensuring this multilingual work is done accurately and clearly. The findings reveal that the DG TRAD recognises the importance of updating its translators' competencies to meet the demands of digital communication with citizens. As Mavrič notes, "training needs include keeping up to date with developments in all areas of technology, […], such as localisation, audiovisual translation, and adaptation in three formats: text, audio, and video" (p. 210). The study also

shows that CPD is delivered through internal activities led by experienced staff or external experts, demonstrating a responsive approach that aligns with new technology-related requirements and communication goals.

The CPD practices of the EC's DGT, one of the largest institutional translation services in the world, are explored by Ilja (2023) in Chapter 13, which outlines how DGT supports its translators through a wide range of CPD activities, combining formal, informal, and on-the-job training. CPD at DGT is shaped by the need to "ensure the quality of content delivered" (p. 206) and to equip translators with the competencies required to handle complex translation tasks across all 24 official EU languages. DGT's CPD priorities include language-specific and thematic domain training, keeping up with translation technologies, and developing key competences such as revision, terminology management, and drafting. Ilja also highlights how translation technologies have become central to DGT's CPD activities. For example, DGT has developed a CAT environment training structure and launched the 'DGT Innovation Lab', which explores GenAI tools in translation workflows (p. 222). This helps enhance translators' technological competence through CPD and ensures that no one is left behind in technology use. Additionally, the findings show that translators are frequently provided with other forms of CPD, such as induction/orientation programmes, peer mentoring, knowledge sharing sessions, and job shadowing. DGT's CPD model helps translators progressively and flexibly build competencies over time as it is organised and technology-oriented.

Chapter 14, by Vunder and Lacroix (2023) discusses CPD for lawyer linguists at the Court of Justice of the EU (CJEU). These individuals translate legal documents and ensure they align with EU legal systems, a serious role for which they must continually develop both their legal awareness and translation competencies. At the CJEU, CPD begins with a formal induction programme of 35-40 hours of CAT tool training (e.g., Trados Studio), terminology work, and legal research. This is followed by regular CPD activities conducted within and outside the institution to keep translators updated with industry trends. A key form of CPD is the 'referent' system, where senior translators guide newcomers (p. 230). CPD also includes training on legal drafting and EU law, and can be offered through workshops, seminars, or e-learning.

Finally, in Chapter 15, Lafeber (2023) provides insights into CPD at the UN Headquarters in New York, describing how the UN provides induction programmes to help new translators understand the wide range of topics they will work on, the translation tools they will use, and the overall institutional context (p. 236). The training includes guided self-study, mentoring by

experienced colleagues, and sessions on key areas such as CAT tools, legal and political translation, and specialised subject knowledge. The chapter discusses how CPD at the UN continues beyond induction and is offered in different ways, including in-person workshops, online courses, revision-based feedback, and on-the-job training. Translators often start by working under conditions of close revision and, over time, may progress to what is called "monitored self-revision" (p. 238), where they take greater responsibility for the quality of their work. Digital platforms like SPOT (Self-paced Online Training) and Athena are also used to support CPD, offering access to many training materials and e-learning resources. The study highlights how UN translators are encouraged to take part in research, join professional communities, and attend external CPD activities when possible.

CPD is viewed as essential across all of these institutions for maintaining translation quality and keeping pace with changing institutional requirements and technological developments. There is a clearly shared conception of the role of CPD in updating translators' competencies and helping them adapt to new tools, grow in their professional roles, and meet industry requirements, despite some differences in approach and delivery modes across settings. The international examples provided in this section reinforce the importance of considering approaches to CPD in the Saudi context, and help us explore how CPD contributes to Saudi translators' professional development and the extent to which they are supported in improving their translation competencies (including technological competence).

The review of the literature reveals little research with a specific focus on CPD in Saudi Arabia, although it is mentioned as part of some broader studies. One relevant study is that of Alkhatnai (2022), who investigated professional translators' training needs at Riyadh-based translation agencies. Through a survey, Alkhatnai found the lack of CPD to be among the top three challenges affecting translator performance and industry development alongside inadequate financial resources and limited access to electronic media (p. 171). The study stresses that while some employers offer informal CPD support, many "simply let [translators] enhance and grow their competencies by themselves" (p. 170). Similarly, AlShaye and BinSultan (2024) report from their interviews with two employers that "no official orientation takes place at the beginning of a translator's employment period: translators and interpreters begin working immediately following the supervisor's guidance" (p. 41). This may indicate that CPD is not systematically or regularly provided for translators in many Saudi workplaces, potentially leaving them underprepared to meet their employers' expectations. These findings raise serious concerns about the status of CPD among translators and employers in Saudi Arabia, and how

and to what extent CPD is understood, delivered and supported, if at all. In this thesis, some of these questions are explored by investigating how CPD is currently approached in the Saudi translation industry and what role it plays in helping translators keep up with the technology-related requirements of the industry.

## 2.5 The Translation Industry

In 2024, Nimdzi (2025, p. 8) valued the global language industry as a whole at over $71.7 billion, and despite revising their forecast slightly downwards as a result of GenAI and global economic concerns, still expected this to grow to $92.3 billion by 2029 (see Figure 2.8, below). There is, however, some disagreement on how to value such a diverse and fragmented industry, and other organisations like Slator and CSA Research have provided a less optimistic outlook (Walker & Lambert, 2025). In Europe, the ELIS (2025, p. 5) reports pessimism among "small language companies and independent professionals", with one in four of the latter "considering ending their freelance career", but that international language service companies are coping better and AVT and interpreting services are on an upward trajectory. Overall, the present situation is one of uncertainty and change, and predictions are difficult to make with a high degree of accuracy, but it is nevertheless the case that the industry is a multi-billion dollar one.

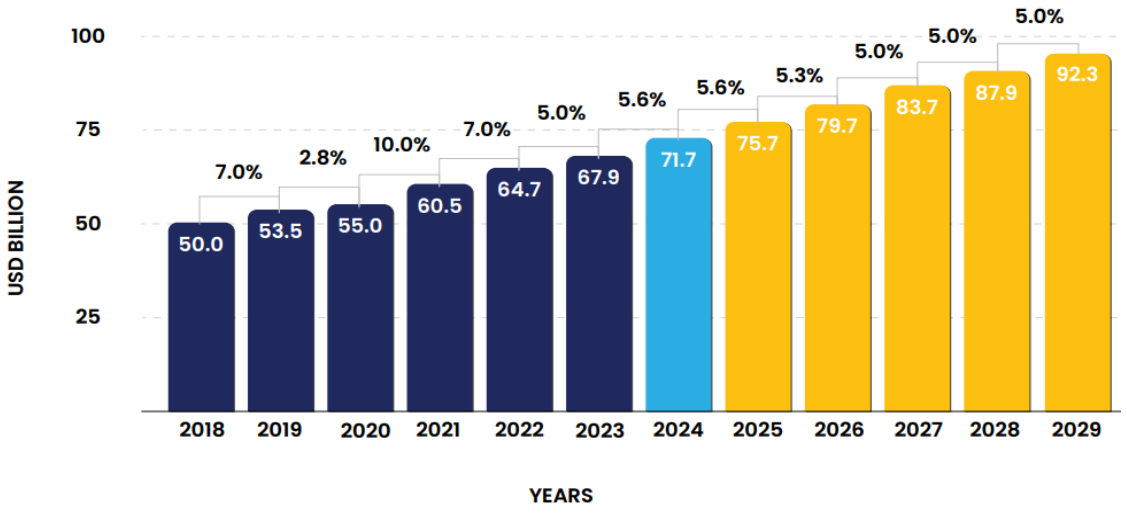



Figure 2.8 Nimdzi Insights (2025) of the language industry global growth projection (2018–2029)

Distinguishing the global language industry from what I refer to as the translation industry does not currently follow a scholarly or professional consensus. Walker and Lambert (2025) determined that the term "translation industry" is the most widely employed by publication abstracts by far when compared to alternatives like "language industry". However, they acknowledge that this comprises a nested element of the greater language services industry, in which the profession itself (related to translators themselves as opposed to the economic

elements) is situated. In their recent Handbook, they relate their definition of the translation industry only to text-based translation, AVT, and various forms of localisation, and this thesis adopts the same perception because the technologies used in these fields are different to those used in, for example, interpreting. This narrowed focus allows for more specific investigation of the under-explored topic of translation technology training in Saudi BA programmes.

The Saudi translation industry (discussed in detail in Section 1.2.2) shows some similarity with the global industry but also considerable differences that must be acknowledged. Figures presented earlier show that growth is predicted in both, with uncertainty characterising the forecasts, but in the Saudi case, the disparity between estimates is far more dramatic, with one source citing a market value of $28 million in 2024 and another citing $1.5 billion for 2022. Additionally, the reduced projections found in many global outlooks are not found in the Saudi case, with growth predicted without qualification. This reflects the low level of industry monitoring and documentation in Saudi Arabia compared to other countries and other industries, which makes it very difficult to obtain accurate and current data. It is plausible, however, that the Saudi translation industry is in fact growing more reliably than those in many other countries. There are a number of reasons that this may be the case, not least significant investment and initiatives from the Saudi government in large tracts of the economy and society. The Vision 2030 focus on a knowledge-based economy is in direct agreement with the overall trends toward industry professionalisation and digitalisation, and could provide an impetus for growth. The imperatives of the Vision are also driving demand for institutional translation, which comprises the majority of translation work in Saudi Arabia, as opposed to the commercial work carried out in much of the global industry.

This distinction marks one of the points of departure between the global and Saudi translation industries. Institutional translation requires a high level of accuracy and appropriateness, and often contains unique or fixed terms that must be rendered precisely. Biel (2017, p. 34) notes that translation quality operates on two interrelated dimensions: the quality of the product at the textual level and the quality of the processes that support translation as a service (i.e., the management of workflows, human resources, and linguistic and extra-linguistic resources). This, combined with the Saudisation policy of reducing unemployment among Saudi nationals, has led to an increased demand for human translators in a world which is seeing a decline in such demand. The complexity of the Arabic language and historically slower technological development has brought about a low level of trust in MT (described by some Saudi translation agencies as “a joke” in 2015) and a strong belief in the capabilities of human translators in

Saudi Arabia (Almutawa & Izwaini, 2015) that is likely to explain why this trend persists in the age of GenAI (Alharbi, 2025). This slower adoption of MT and GenAI in the Arabic-speaking world can be attributed to the limited availability of large and high-quality Arabic datasets. Arabic is widely recognised as a less-resource language, and researchers have noted the shortage of standardised and domain-diverse corpora that can be used to train and evaluate MT systems effectively. Zakraoui et al., (2021) identify the lack of available datasets and lexical resources as a key challenge for Arabic MT, emphasising that existing corpora are often fragmented and focused on specific domains. A recent study by Al Moaiad et al., (2024) found that the scarcity of annotated and parallel Arabic data (especially in dialectal and non-news genres) limits the performance of NLP and MT models. This restricts the accuracy, reliability, and scalability of MT and GenAI tools for Arabic and represents a significant technical reason for their slower adoption and development in the region. Similar cultural circumstances may be behind the preference of Saudi employers for graduates from language-related programmes noted by Salamah (2022) and Alharbi (2024), which is in stark contrast with the requirement in developed countries and many other modern markets for translation-related jobs to be held by those with specialised degrees. Such a practice indicates that the Saudi translation industry is still at a developing level of professionalisation, which carries through into academic programmes, an observation that motivated this thesis to examine how these programmes align with the requirements of the Saudi translation industry.

The importance of a connection between academic programmes and these requirements, and the need for research on this, has been emphasised for some time:

> *If we want our products and services to be accepted by the market, we must conduct survey research among market participants. If we want to investigate the efficacy of the translator education programmes we offer, one of our main sources of information will be the translation services market.*
>
> (Kiraly, 2005, p. 1099).

This view is even more relevant today, as the pace of evolution in the translation industry continues to accelerate in response to translation technology developments and the introduction of new technologies (e.g., NMT and GenAI). In this context, the translation industry represents not only a venue of employment for graduates, but a valuable source of feedback for designing and improving academic programmes to better prepare students for professional roles after graduation (i.e., to produce industry-ready graduates, especially under the Saudisation policy). Studies have explored the requirements of the translation industry through job description

analysis (e.g., Al-Batineh & Al-Tenaijy, 2024) or graduate surveys (e.g., Hao & Pym, 2023), but little attention has been paid to the direct views of translators and employers on these requirements. In this section, three such studies, each from a different geographical context and period: Europe (Toudic, 2012), East Asia (Liu, 2023), and Saudi Arabia (Alshaikhi, 2018), will be discussed in much detail. The studies by Liu and Alshaikhi both adapted the employer survey originally developed by Toudic (2012) as part of the OPTIMALE project.

- **The case of Europe**

A prominent industry surveys was conducted in 2012 by Daniel Toudic, the leader of the OPTIMALE project. Its main aim was to support and enhance translator training across EMT programmes by identifying the most important competencies that European employers seek when recruiting newly graduated translators. To achieve this, a consultation survey based on the EMT model was designed and distributed to a wide range of translation companies and LSPs across Europe. The survey covers a broad set of competencies (34 items) that reflect the descriptors of the EMT competence areas (i.e., language, culture, information mining, technology, thematic, and service provision). Among them, 13 items focus specifically on technology-related competencies. Respondents were asked to rate the importance of each item in their recruitment decisions using a four-point scale: not required, not so important, important, or essential. 580 valid responses were received, making this one of the most extensive employer-based studies at the time. In this review, the focus is limited to the findings related to the technological section of the survey, which is particularly relevant to the current thesis.

The surveyed employers placed the highest importance on CAT-related competencies. Specifically, the ability to use TM was rated as essential or important by over three-quarters of the respondents, making it the top-valued competence. Following this was the ability to process and convert files to different formats (73%) and the ability to extract and manage terminology (69%), making it clear that at this time the core functions of CAT tools were considered indispensable by most European employers, suggesting that such tools were central to the industry. Pre-editing (18%), post-editing (28%), and configuring MT systems (28%), the MT-related competencies, however, received relatively low importance ratings, which could be because in 2012, MT technology was in earlier stages of development compared to current NMT systems. A moderate level of importance was attached to multimedia-related competencies (i.e., website localisation 42%, mobile technologies 39% and software/video game localisation 32%). These areas were recognised as valuable but not necessarily required

for all entry-level translator roles. Overall, the findings indicate that, at the time of the OPTIMALE survey, European employers were primarily focused on foundational CAT-related competencies when recruiting new translators. More advanced competencies, particularly those associated with MT, localisation, DTP, and speech recognition tools, had not yet become mainstream recruitment criteria.

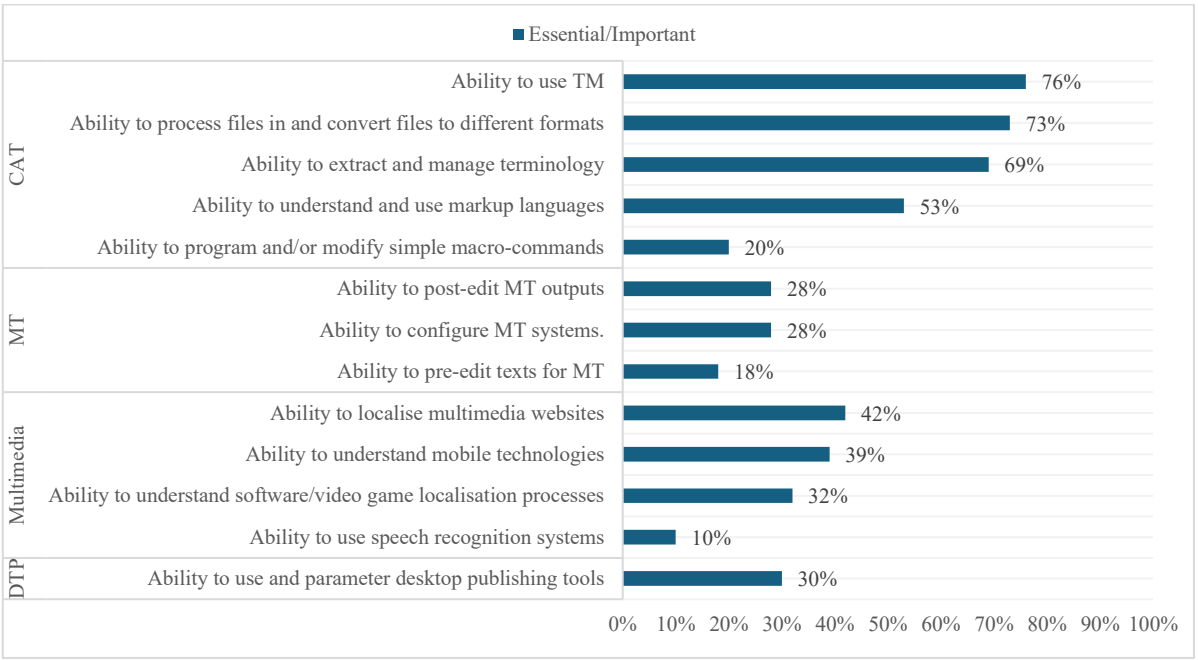



Figure 2.9 The results of the technological section of the OPTIMALE survey (Toudic, 2012)

Figure 2.9 (above) shows the priorities of European employers in the early 2010s around technology-related competencies in translator recruitment. These results likely reflect the technological landscape of the time and the varying levels of tool adoption across different companies. The OPTIMALE survey has been adapted in subsequent research in other regions, including East Asia and Saudi Arabia, to explore local industry requirements.

### ❖ The Case of East Asia

A similar study was conducted by Christy Fung-ming Liu in the Eastern Asian industry, with data collected in 2016 and published in 2023. The study adapted the OPTIMALE survey (Toudic, 2012) to explore the requirements of the translation industry as perceived by 64 employers in that region, with most responses coming from China, Japan, and Hong Kong. The surveyed employers were asked to rate the importance of the same thirty-four competence items using the same four-point scale (from not required to essential). In reporting the findings, the mean score of each item was calculated. Figure 2.10 (below) illustrates the results of the

technological section of Liu's study, showing how East Asian employers prioritised the technology-related competencies in their recruitment decisions.

The findings highlight two notable trends. First, the top four technology-related competencies rated as essential or important by the employers are identical across both studies (i.e., Toudic, 2012 and Liu, 2023): the ability to use TM, process and convert files, extract and manage terminology, and understand markup languages. This alignment suggests a stable, cross-regional consensus regarding the core CAT-related competencies (particularly TM and TB and their associated functions) expected of newly graduated translators. The second trend is that MT-related competencies were assigned relatively limited importance in both studies. This may be explained by the timing of the data collection of Liu's study, which was conducted in 2016 before the widespread integration of NMT into industry practices. At that time, MT systems were still associated with lower output quality and heavier post-editing needs, which may have reduced their perceived importance among the surveyed employers. From the findings, it is clear that the competencies adopted in the East Asian translation industry are the same as those required in Europe, demonstrating a growing trend toward use of translation technologies. Insights like this can help that region's academic programmes monitor changes in industry requirements and incorporate them into curricula and training practices.

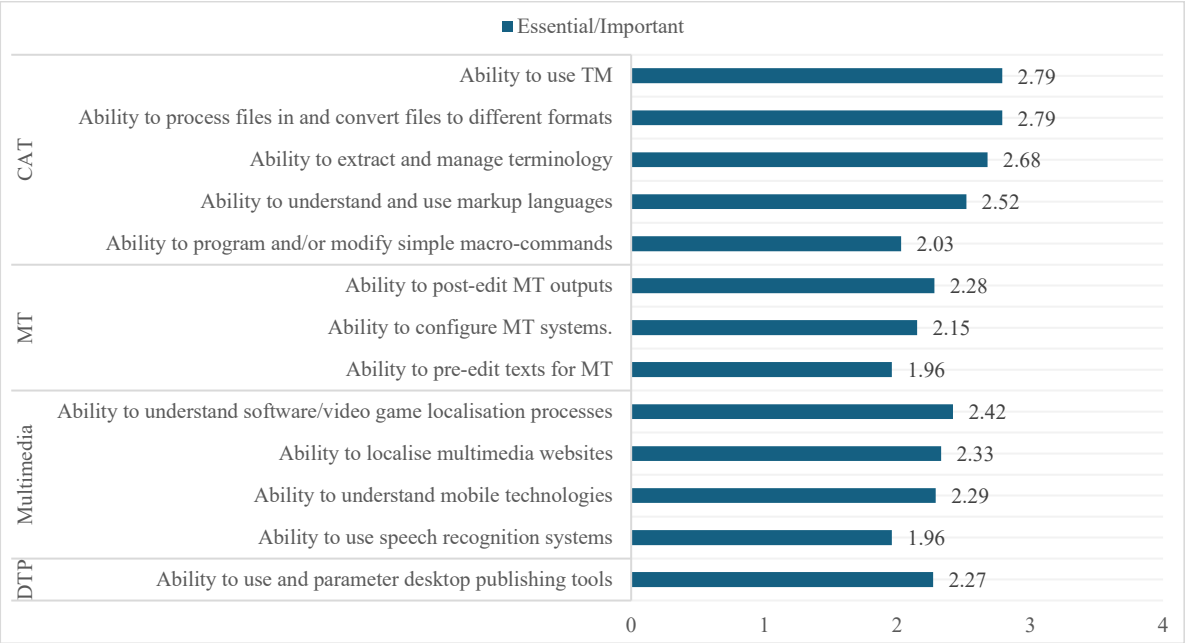



Figure 2.10 The results of the technological section of Liu's study (Liu, 2023)

### ❖ The case of Saudi Arabia

In Saudi Arabia, Alshaikhi (2018) evaluated students' readiness for the translation industry by examining the link between language competence and translation competence, using industry surveys and competence-based tests (i.e., XK-Lex, Arabic-Lex and translation tests). Although this study primarily focused on measuring students' vocabulary size as an indicator of language competence, part of the research also investigated the requirements of the Saudi translation industry from employers' perspectives and evaluated translators' competence through self-assessment. The author adapted the OPTIMALE survey to achieve these two purposes. In the employer survey, the same set of items was used, and respondents were asked to rate the importance of each competence item using the same four-point scale (from not required to essential). While the original OPTIMALE survey included 13 technology-related competencies, only 11 items were included in Alshaikhi's study. Responses were collected from 45 Saudi employers. In parallel, another survey was developed for translators to self-assess their competence in just five technology-related competencies, also adapted from the OPTIMALE survey. This reveals that technological competence did not form the main focus of the study, and the status of translation technology was not explored in detail, a gap that this thesis aims to fill. The surveyed translators self-evaluated along a five-point scale: weak, sub-competent, average, competent or excellent. Responses from 73 translators were collected (more details and findings of this survey are discussed in Chapter 4, Section 4.6.4).

The technological section of Alshaikhi's employer survey reveals two notable trends. First, CAT-related competencies were perceived as highly important among Saudi employers, aligning with the trend observed in the studies of Toudic and Liu, where the same three competencies consistently ranked among the top four. This indicates general agreement across the three regions on the importance of CAT tools in translator recruitment. Interestingly, while both Toudic and Liu identified the ability to use markup languages as the fourth most important competence, this item was not included in Alshaikhi's study. As shown in Figure 2.11 (below), the three MT-related competencies were assigned a relatively high importance, which may seem unexpected because the data for Alshaikhi's study were collected in 2015, before the rise of NMT in late 2016. At that time, MT systems were still rule-based or statistical, and the output quality was often low for the English-Arabic language pair (Almutawa & Izwaini, 2015). Despite this, Saudi employers already seemed to view MT as a relevant area for translators, suggesting an early awareness of the growing role of MT in the industry even before NMT became widely used. Findings of this kind can help academic programmes remain up-to-date and responsive to technological developments and emerging industry requirements by

demonstrating the evolution of translation technologies and the value of regularly tracking changes and how employers perceive technology-related competencies over time.

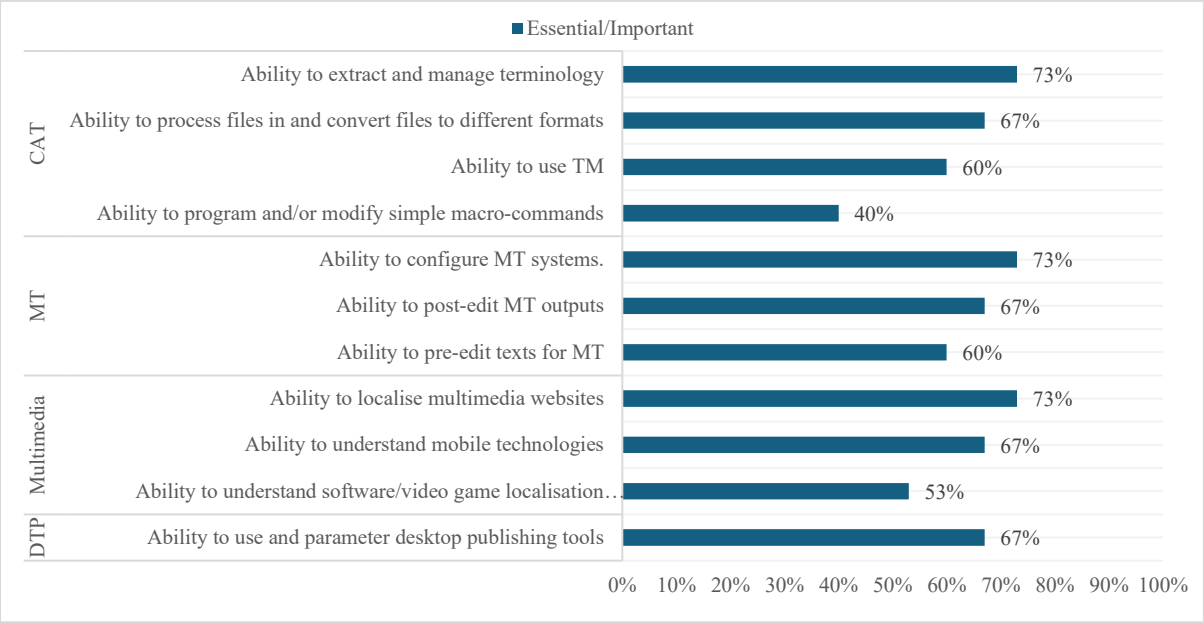



Figure 2.11 The results of the technological section of Alshaikhi's study (Alshaikhi, 2018)

The three industry studies in this section reveal how translation technology has become increasingly integrated into the daily work of a translator, supporting the notion that translation is no longer performed in isolation from machines but represents a form of interaction between human translators and computers (O'Brien, 2020). As technological developments continue to influence how translation work is carried out, the tools adopted, and the competencies expected from translators, Kiraly (2005) reminds us, as researchers and academic stakeholders, to consult industry stakeholders to understand their requirements and respond accordingly. In doing so, we can minimise (or even bridge) the academia-industry gap by ensuring that curricula and training practices in academic programmes align with the actual requirements of the translation industry.

## 2.6 Chapter Summary

This chapter has reviewed the literature on the topics that inform the current thesis. It began by situating the thesis within the applied branch of TS, drawing on Holmes's influential map and its later developments. Within this branch, the thesis contributes to the interrelated areas of translator training, translation technology, and translation policy, with a particular focus on practical improvements in Saudi BA programmes. The chapter then provided an overview of translation technology developments and reviewed how translator training has developed over time, before presenting three approaches to defining and modelling TC by PACTE

(2003/2011/2018), Kiraly (2000/2013/2018) and the EMT Board (2009/2017/2022). These TC models help explain what knowledge and skills future translators should develop during their BA studies. The chapter has discussed how translation technology training is delivered in academic programmes, and described several international and Saudi-specific studies, as well as studies and observations on international CPD practices. Studies from Saudi Arabia reveal that CPD is still limited, and many translators are left to improve their competencies on their own. However, further research is needed to map out the current CPD landscape in the Saudi translation industry. Finally, the chapter has reviewed three key studies from different regions that investigated the requirements of the translation industry from employers' perspectives. As noted, there is an urgent need to investigate the technology-related requirements of the Saudi translation industry, assess the technological competence of Saudi translators, and evaluate how translation technology training is taught in Saudi BA programmes. By contributing to an understanding of these three areas, this thesis contributes to bridging the gap between BA programmes and industry requirements, supporting efforts to improve translation technology training and produce effective, industry-ready graduates in Saudi Arabia.

# Chapter 3 Methodology

## 3.1 Introduction

This chapter outlines the methodological approach adopted in this thesis to investigate how translation technology is currently taught in BA programmes and to what extent this training aligns with the requirements of the translation industry in Saudi Arabia. Concerns about the technology-related requirements that future translators need to meet to maximise their employability and competitiveness in modern workflows reflect the academia-industry gap in BA translator training, and this research aims to address these concerns through three empirical studies, each exploring a specific element of the research problem by collecting and analysing quantitative and qualitative data from stakeholders. This chapter first introduces the research design and provides a rationale for the choices made in relation to each element, and then describes the two research phases through which data were collected for this thesis:

1. Three surveys targeting translators, employers, and BA programme directors.
2. Three focus group discussions with translators, programme directors, and trainers of translation technology-related courses.

All methodological dimensions of this research are detailed in this chapter, including the design of the three survey instruments, the three focus group discussion arrangements, participant selection, and data analysis procedures, along with acknowledgment of the ethical considerations made for this research to preserve and secure the confidentiality, anonymity, and safety of the participants.

## 3.2 Research Design

This thesis seeks to answer three empirical research questions and one overarching research question. In this context, empirical means that, in order to improve BA programmes, it is first important to investigate how industry stakeholders perceive translation technology-related requirements and the current levels of technological competence among translators, as industry feedback is necessary for evaluating the extent to which BA programmes equip students with the competencies required for translation jobs. The formulation of research questions is also crucial in determining an appropriate research design, as these guide the direction of a study and determine the data that is to be collected to best investigate the phenomena of interest (Saldanha & O'Brien, 2013). The credibility, validity, reliability, and value of the findings are determined almost entirely by the way in which a piece of research is designed and conducted.

Considering the three archetypal research approaches is the starting point, and these are quantitative, qualitative, and mixed methods. Each offers its own methods of gathering, analysing, and interpreting data to answer the stated research questions and achieve the objectives of the study. The mixed methods approach has been deemed appropriate for this thesis as the research questions require both broad (offered by quantitative elements) and deep (offered by qualitative elements) understanding. The quantitative and qualitative approaches "represent different ends on a continuum", with mixed methods situated "in the middle of this continuum because it incorporates elements of both quantitative and qualitative approaches" (Creswell, 2022, p. 4). Mixed methods research, therefore, "focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2007, p. 5). The combination of approaches is useful to compensate for the limitations held by each individually, which in this case will furnish the study with a more nuanced understanding of the state of translation technology in both the translation industry and BA programmes in Saudi Arabia.

This research was conducted at two sites (i.e., industry and academia) and encompasses aspects including the technology-related requirements of the Saudi translation industry, how translators' technological competence is perceived, what is currently taught in BA programmes, and how translation technology training is delivered. The nature of this research means that an explanatory sequential research design is the most beneficial (Creswell, 2022; Creswell & Creswell, 2023), involving the collection of data in two phases, as relying on a single-method design would not adequately address the research objectives. In the first phase, conducted in 2022, three distinct surveys were distributed to three groups: translators, employers, and BA programme directors. These aimed to identify the primary technology-related requirements, evaluate current levels of technological competence, and understand the extent of BA programmes in translation technology training. The results gathered and analysed for this phase were used to inform the questions and participant selection for the second phase, which was conducted the following year and consisted of focus group discussions held separately with translators, programme directors, and trainers of translation technology-related courses. These discussions were carried out to furnish the quantitative results with greater depth and detail to more clearly understand the participants' views, challenges, and experiences. Creswell (2022, p. 7) suggested that such explanations "may help to understand unusual or surprising

quantitative responses or to understand the quantitative statistical results in more detail". The interpretation and integration of these two datasets help inform the development of translation technology training in BA programmes, so this design was selected because it fits the structure and purpose of this thesis.

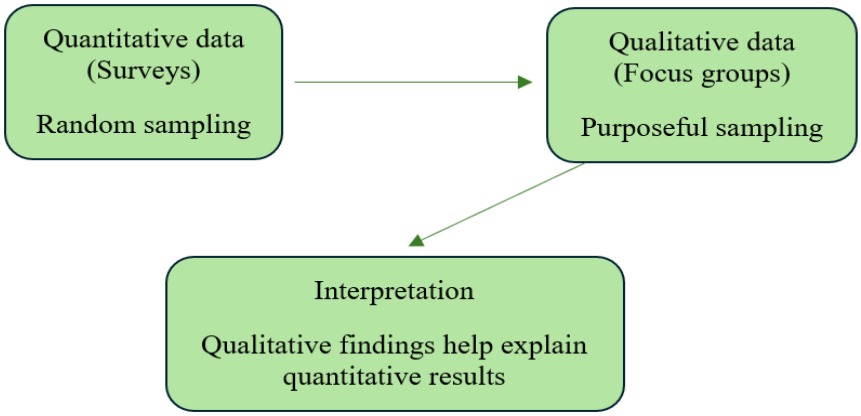



Figure 3.1 The explanatory sequential design (Creswell, 2022)

The explanatory sequential research design is considered particularly useful for this thesis for several reasons. First, the nature of the research questions, which seek both breadth and depth, aligns well with this design. Second, it enables a wide range of perspectives to be captured through large-scale surveys and the meaning behind numerical data to be interpreted through qualitative discussions and individual experiences. Third, according to Creswell (2022, p. 58), "the explanatory sequential design is a good choice when the researcher has an existing instrument (with good validity and reliability checks) to use." This is highly relevant to the present thesis, which adapts two validated survey instruments developed in EMT-related research (i.e., the OPTIMALE employer survey by Toudic 2012, and the EMT academic survey by Rothwell & Svoboda, 2019). Triangulation is integral to the design of this research, as it enhances the credibility, reliability, and depth of the findings. Saldanha and O'Brien (2013, p. 24) defines it as follows: "when two methods are used to collect and analyse data on the same research question, this is called triangulation […] cross-checking the results one set of data provides with results from another". In this thesis, triangulation was achieved by combining quantitative survey data and qualitative focus group data across four stakeholder groups (i.e., translators, employers, BA programme directors, and course trainers). This integration produces a more comprehensive and credible picture of how translation technology is taught and perceived in Saudi Arabia. Creswell (2022, p. 9) notes that "integration is the process in which the researcher brings the quantitative and qualitative databases together," and the resulting metainferences "provide a broader integration beyond the qualitative and quantitative

databases." Through this process, this thesis draws interpretive conclusions which support the development of informed recommendations to help Saudi BA programmes align their translation technology training with industry requirements.

### 3.3 Phase One: Surveys

In this phase, three separate surveys were developed based on the well-validated EMT-related studies by Toudic (2012) and Rothwell and Svoboda (2019). In survey design, Robson (2011) advises researchers to adapt existing survey instruments rather than create entirely new ones, especially when the original surveys demonstrate validity and relevance to the research context. This is reflected in this thesis, where the two EMT-related surveys have recently been used for similar research objectives in other regions (e.g., Rothwell et al., 2025). In this thesis, the first two surveys targeted key stakeholders in the Saudi translation industry (i.e., translators and employers), with the aim of collecting as much data as possible about the industry. The third survey targeted the directors of all BA translator training programmes or language-related programmes across Saudi universities. All the public and private BA programmes presented in Tables 1.2 and 1.3 were surveyed with the aim of collecting plentiful data about the state of translation technology training they offer.

Several steps were followed in the design of these three surveys, and before describing each survey individually it is useful to outline these. First, the Qualtrics[17] software tool was employed for the survey design, and all three were carried out simultaneously in 2021-2022 to ensure data collection was timely and coordinated. Second, cover sheets were supplied with each of the three surveys that explained the research focus and aims, with an attached consent form for respondents to indicate their understanding of their right to withdraw and the voluntary nature of their participation. Third, before distribution, each survey was carefully piloted by experts from the relevant group to test the clarity, relevance, and appropriateness of the questions. Fourth, the surveys were developed in English and translated into Arabic by the researcher to maximise their accessibility to the target groups. It was at this piloting stage that the translated versions were reviewed to check for clarity and accuracy. Further detail on the development, piloting, and distribution of the surveys, and participant recruitment, can be found in the following sections.

[17] https://www.qualtrics.com/en-gb/ (last accessed July 2025)

### 3.3.1 The Translator Survey

This survey was developed to collect data from professional translators working in the Saudi translation industry. It aimed to investigate their perceptions of the importance of translation technology-related activities, their self-assessed ability to use translation tools and perform technology-related competencies, and their views on the extent of CPD provision and support. The survey instrument was adapted from EMT-related studies by Toudic (2012) and Rothwell and Svoboda (2019), with some modifications and the addition of new items to better suit the Saudi context.

- **Survey Instrument Design**

The Translator Survey consisted of five main sections (see Appendix 1). The first (Demographic Information) was written by the researcher and comprised six questions to gather basic demographic details (e.g., gender, age, work experience, employment sector) about respondents, and to learn more about their engagement with the wider professional community, they were asked about their membership of any translation associations. This information was intended to gain an understanding of the respondents' personal and professional characteristics, and to assess the representativeness and diversity of the sample.

The second section (Academic Background) included five questions (also written by the researcher) to gather information about the educational background of the respondents. Questions aimed to determine their highest level of qualifications, the university from which they gained their BA degree, and the type of BA programme they studied (translator training or language-related). The respondents' perceptions of the translation technology training they had received during their BA studies were also explored in this section to provide a clear picture of the academic background that current Saudi translators bring to the profession and the extent to which they had been exposed to translation technology before entering the industry.

The third section (Importance of Technology-related Activities) was adapted from the EMT academic survey developed by Rothwell and Svoboda (2019), which asked the programme directors to rate the teaching status of a list of twenty-six translation technology-related activities in their programmes. In this thesis, this question was adapted to investigate how translators perceive the importance of this set of technology-related activities in their daily work. This section aimed to identify the primary technology-related requirements in the Saudi translation industry from the perspective of translators. To answer this question, the respondents were given a four-point Likert scale: not required, not so important, important, or

essential. An additional 'I do not know this technology' option was also provided for the benefit of respondents who had never heard of or had any contact with a particular activity.

The fourth section (Competence Self-assessment) was divided into two parts. In the first, respondents were given a list of MT and CAT tools and asked to select those they frequently use in their work (adapted from Rothwell and Svoboda, 2019). For each selected tool, they were asked to self-assess their level of competence using a five-point Likert scale: weak, sub-competent, average, competent, or excellent. A not applicable (N/A) option was also provided to respondents to allow them to skip the tools they do not use. N/A responses were treated as missing data in the analysis process. This part of the survey helps identify the most widely used tools among Saudi translators and their confidence in using them. In the second part, the respondents were asked to assess themselves in performing a set of 13 technology-related competencies adapted from the OPTIMALE employer survey (Toudic, 2012). The purpose of this was to understand how Saudi translators self-perceive their technological competence and highlight the areas where further training may be needed (i.e., competence gaps)

The final section (CPD Provision and Support), consisting of two parts, was developed by the researcher based on the literature review in Chapter 2 (see Section 2.4). The first part comprised short questions that asked respondents about their personal engagement with CPD, including whether they had any personal plan in place for professional development. In the second part, respondents were presented with a list of internal and external CPD activities (e.g., workshops, seminars, orientation, mentoring, conference attendance, short courses, guest speakers) and asked to indicate how often their employer provided or supported them in each of these activities using a three-point Likert scale: never, occasionally, or regularly. This section aimed to determine how Saudi translators develop their competence after entering the profession and how CPD is approached and supported in the Saudi translation industry from the perspective of translators.

- **Piloting the Translator Survey**

After preparing, revising and translating the survey content, expert views were considered. Professional translators who had worked for many years in the Saudi translation industry and were familiar with different types of translation technology were invited to take part in a pilot study. Five agreed to review the survey and share their feedback, closely examining the survey's content and design to ensure the questions were easy to understand, comprehensive, and relevant to the Saudi context. They were encouraged to highlight unclear wording, potential

bias, or questions that might lead respondents' answers in a certain direction. This improved the survey in several ways: for example, the 'I do not know this technology' option was added to the question about the importance of the technology-related activities on the recommendation of one of these reviewers, as he felt some translators might be unfamiliar with certain of the listed items, and allowing them to register this would itself potentially supply useful data. Other reviewers gave feedback on the wording and clarity of the survey, and this led to adjustments to sharpen the clarity and readability of all questions. After these changes were made and the final version of the instrument was agreed upon, the survey was distributed to professional translators in the Saudi translation industry. The five translators who participated in the pilot study were requested not to complete the survey during the real distribution, as they had already reviewed the questions.

To ensure the reliability of the survey, Cronbach's alpha value was statistically calculated for each of the four Likert-scale sections. The results showed that all sections had a Cronbach's alpha value higher than the commonly accepted threshold of 0.70, indicating a high level of reliability (George & Mallery, 2024): importance of technology-related activities ($\alpha = 0.88$), self-assessed competence in using translation tools ($\alpha = 0.92$), self-assessed competence in technology-related competencies ($\alpha = 0.89$), and CPD provision and support ($\alpha = 0.87$). These values mean that, within each section, the survey items consistently measured the intended constructs and confirmed the reliability of the instrument overall for use with professional translators in the Saudi context.

- **Participant Recruitment**

The survey targeted professional translators working in the Saudi translation industry. The number of these is not officially or accurately recorded (Abu-ghararah, 2017; see Section 1.2.2), so this research could not seek a predetermined sample size based on a fixed population. Instead, to ensure that responses reflected a diverse group in terms of gender, experience, work sector, and geographical location, the aim was to reach as many translators as possible. Data collection began during a key moment in the Saudi translation industry: the first edition of the Saudi Translation Forum was organised by the LPTC and held in Saudi Arabia in December 2021, which I travelled from the UK to attend. This was Saudi Arabia's first event of this kind, and a large number of translators, employers, technology providers, and academic stakeholders were brought together for its duration. This event represented an opportunity for personal distribution of the two industry surveys (i.e., one for translators and one for employers) and to

connect directly with potential respondents. At this time, the purpose of this research was explained to the organisers and their permission gained to distribute surveys to attendees. During the Forum, across three days, QR codes linking to the online survey were distributed to translators and employers along with explanation of the research and its aims. This was an effective starting point for data collection as most of those asked expressed interest in taking part.

To access translators and employers who had not attended the Forum and to achieve broader coverage across different work settings, the two surveys were distributed in several translation offices and departments in the public and private sectors during this visit to Saudi Arabia. I personally introduced the research, explained the focus and aims of the surveys, and encouraged translators and employers to participate. Many attendees at the Forum recommended that the two surveys be shared online through two professional platforms widely used by translators and employers in Saudi Arabia: X (formerly Twitter) and LinkedIn. I employed a snowball sampling technique when following this advice by encouraging respondents to share the survey around their networks. The survey was open from December 2021 to March 2022, and reminders were sent out when necessary to maximise the response rate. Responses were eventually received from a range of translators and employers across different sectors and regions of Saudi Arabia. In total, 248 valid responses were received for the Translator Survey, and 46 for the Employer Survey. Since both were distributed in parallel and through the same channels, the details presented here apply to the recruitment of participants for both.

### 3.3.2 The Employer Survey

This survey was developed to gather insights from Saudi translation employers responsible for recruiting translators in their work settings. Their perspectives are valuable in designing and improving academic curricula and training practices as they are directly involved in evaluating translators' professional readiness and deciding which competencies are most required in the workplace. The survey explored the technology-related competencies and software tools that employers seek when recruiting translators, how they evaluate the technological competence of their translators, and how they support their translators with CPD activities in the workplace.

- **Survey Instrument Design**

The Employer Survey is very similar to the Translator Survey in terms of its overall structure and design. It was divided into four main sections (see Appendix 2), and several items were

adapted from the same EMT-related studies by Toudic (2012) and Rothwell and Svoboda (2019). The first section (General Information) was designed by the researcher and included a small set of questions to gather background details about respondents. They were asked to indicate the type of organisations they represent (i.e., government, semi-government, private sector, or LPS) to understand the diversity of work sectors involved in this research.

The second section (Importance of Technology-related Competencies) was adapted from the OPTIMALE employer survey developed by Toudic (2012). In this section, respondents rated the importance of 13 technology-related competencies when looking for new translators using a four-point Likert scale: not required, not so important, important, or essential. This list of competencies is identical to that used in the Translator Survey, in which translators were asked to self-assess their level of ability. The aim here was to identify the technology-related requirements of the Saudi industry from the perspective of employers and determine the level of alignment between what employers expect and how translators self-perceive their level of competence.

The third section (Competence assessment) was adapted from the EMT survey developed by Rothwell and Svoboda (2019) and divided into two parts to evaluate how employers perceive the technological competence of their translators. The first part presented employers with 26 technology-related activities and for each they were asked to assess their translators' level of competence along a five-point Likert scale: weak, sub-competent, average, competent, or excellent. A not applicable (N/A) option was provided, and during analysis these responses were considered as missing data. The Translator Survey, in which translators rated the importance of these activities in their daily work, used an identical list. This shared list enabled meaningful comparisons to be drawn between how translators value these activities and how employers perceive the level of competence of their translators. In the second part, the employers were asked to indicate on a list of MT and CAT tools which were frequently used by their translators and to assess their translators' competence in using each selected tool using the same Likert scale. For the corresponding section in the Translator Survey, translators self-assessed their competence with the same set of tools. The aim of this section was to understand which MT and CAT tools are most relevant in the Saudi industry (i.e., industry requirements that should be taught in BA programmes) and how employers perceive translators' level of competence in using them.

The final section (CPD Provision and Support) was developed by the researcher based on previous literature and asked respondents a set of questions to explore how CPD is supported by employers in the Saudi translation industry. Respondents indicated competence areas that they believe their translators require further training in, and whether CPD activities specifically designed to enhance technological competence were provided to translators. Respondents were additionally given a list of internal and external CPD activities and required to indicate the frequency with which they offer or support these activities along a three-point Likert scale: never, occasionally, or regularly. Including this section in both the Employer and Translator Surveys allowed for a comparative understanding of how CPD is implemented and supported in the Saudi translation industry from the perspectives of both translators and employers.

- **Piloting the Employer Survey**

A pilot study took place after the Employer Survey was fully prepared and revised to ensure the clarity, relevance, ease of comprehension, and appropriacy of its design and content. This involved contacting translation employers involved in recruitment, management, and research in the European translation industry, some of whom had been invited as guest speakers at the Translation Department at Swansea University, and others I had met at translation conferences. To the five who agreed to help, a brief explanation of the focus of the research, the aims of the survey, and information about how their feedback would be used to improve it were sent along with the survey link. This was a convenience sample, which was appropriate for piloting purposes as the goal was to refine the survey instrument rather than to produce generalisable results. Once they had completed the survey and provided suggestions (e.g., adjusting the phrasing of certain CPD items to reduce ambiguity), revisions were carefully made to ensure the survey could be well understood by employers in the Saudi context. Upon completion of these refinements, the final version of the Employer Survey was ready for distribution.

To assess the reliability of the survey instrument, Cronbach's alpha values were calculated for the Likert scale sections, indicating high levels of internal consistency: importance of technology-related competencies ($\alpha = 0.94$), competence self-assessment ($\alpha = 0.96$), and CPD provision and support ($\alpha = 0.95$). The accepted threshold of 0.70 is clearly exceeded by these values (George & Mallery, 2024), confirming that each item in the sections reliably measured the intended constructs.

❖ **Participant Recruitment**

The Employer Survey was distributed in parallel with the Translator Survey and followed the recruitment strategy described in Section 3.3.1. As noted earlier, both instruments were circulated during the first Saudi Translation Forum in December 2021, and QR codes linking to the online survey were shared with attendees. I also visited translation companies and departments in the public and private sectors to reach employers who had not attended the Forum and encouraged participation through direct engagement and shared the survey via X and LinkedIn to expand its reach. In total, 46 valid responses were returned and ready for analysis. Compared to the number of responses collected from translators (n=248), the number of employers participating in this research is considered representative and sufficient to identify industry requirements and competence levels, given that the population of employers is smaller than that of professional translators.

### 3.3.3 Discussing the Competence Assessment Sections: Howell's (1982) Model of Competence Development Stages

In this research, the technological competence of translators is assessed from two perspectives: their own self-assessment (via the Translator Survey) and the external assessment provided by their employers (via the Employer Survey). While this dual approach is useful for cross-validating the findings of each group, the aim of this thesis is not merely to compare the two sets of responses but to develop a deeper understanding of how technological competence is perceived, developed, and demonstrated by translators within the Saudi translation industry. To achieve this, Howell's (1982) model of competence development was used as an interpretive lens to guide the discussion of the competence assessment findings. This model helps us understand where Saudi translators currently stand in their competence development and how they progress, or struggle to progress, through various stages. The model, developed by William Howell (1982), is based on the two dimensions of consciousness (i.e., awareness of ability) and competence (level of ability) to describe how individuals progress through four stages of competence development, beginning with unawareness of a competence deficiency and culminating in effortless, intuitive performance. Table 3.1 (below) outlines these four stages that describe not only what an individual can do at each stage but also how aware they are of their current limitations and strengths.

Table 3.1 Howell's model of competence development (1982, pp. 29-33)

| | Unconscious | Conscious |
|---|---|---|
| Incompetence | Students seek to solve problems intuitively with little or no insight into the principles driving their solutions. **Stage 1** | Students seek to solve problems logically, recognizing problems with their intuitive analysis, but not yet knowing how to fix them. **Stage 2** |
| Competence | Students solve problems logically, but they understand the analyses on an intuitive level and can adapt them creatively and spontaneously to fit new situations. **Stage 4** | Students learn to solve problems logically, but mechanically, still having difficulty adapting their analyses creatively and spontaneously to new situations. **Stage 3** |

At the first stage, 'unconscious incompetence', individuals lack the necessary competence and are unaware of their limitations. They are "unable to regulate or self-correct mistakes" and rely heavily on guidance, often expressing a desire for direct instruction: "Tell me what to do, and how to do it" (Beggs, 2018, p. 18). In the second stage, 'conscious incompetence', individuals become aware of their limitations and recognise the need for improvement. Flower (1999, p. 64) noted that this stage is often characterised by thoughts such as "this is impossible. I will never learn this…", reflecting the discomfort that comes with realising one's deficiencies. According to Beggs (2018, p. 19), at this stage, individuals "must focus on the task at hand, and closely self-monitor, but [are] able to self-correct mistakes". This recognition of limitation is often what initiates learning and development. The third stage, 'conscious competence', refers to the point at which individuals can carry out their tasks competently, albeit with effort and concentration. Flower (1999, p. 64) describes this stage as full of "lists, rules of thumb, mnemonics, procedures, guidelines", indicating that competence is present but not yet effortless. The final stage, 'unconscious competence', is where the competence becomes internalised and automatic. At this stage, individuals can perform with confidence and do not require conscious effort. Flower (1999, p. 64) calls this the "just do it" stage, where individuals no longer need to consciously think about each step. They are often seen as experts who can intuitively adapt to new or complex situations.

This model was originally proposed to explain learning processes in intercultural communication and professional development. Since then, it has been widely adopted across

various disciplines to explore competence acquisition and developmental progression. For example, it has been used to explain cultural awareness in healthcare (Crandall et al., 2003), learning strategies in information security (Thomson & von Solms, 2006), and competence development in simulation-based education (Cannon et al., 2010). Beggs (2018) used the model to evaluate competence development among nurse practitioners. These studies confirm that Howell's model is both flexible and adaptable in differing professional contexts, including the development of translators' technological competence. Of the similar available models, Howell's was selected as the most appropriate for its explicit relationship with competence and consciousness and its broad base of use across different fields.

This model is employed to explain the findings of the competence assessment sections in the Translator and Employer Surveys, in which both groups ranked technological competence along the same five-point Likert scale ranging from 1 (weak) to 5 (excellent). It allows intuitive conceptualisation of Saudi translators' competence and their awareness of it by aligning their scores with the stages described in this section, the original four of which have been modified to reflect the five-point scale used (see Table 3.2, below). This approach provides greater nuance for understanding the areas in which translators need further training and development, both in terms of awareness and competence.

The Likert scale used in the surveys maps onto Howell's model, with equal-width intervals of 0.80 mapped following the general formula for interval width: (highest score - lowest score) ÷ Number of categories, with each step representing the same degree of difference (Gay et al., 2012; Sullivan & Artino, 2013). A mean score between 1 and 1.79 corresponds to unconscious incompetence, whereby an individual lacks the required competence and may not yet be aware of their limitations or how to improve. 1.80 to 2.59 reflects conscious incompetence, where competence gaps and the need for improvement are recognised but others are still relied upon for support or guidance. The next two intervals represent conscious competence, but this is divided between 'early' at 2.60 to 3.39, at which competence with deliberate effort and focus begins to develop but support is still needed in unfamiliar contexts or when under pressure, while 3.40 to 4.19 represents a more advanced stage of conscious competence. Here, tasks can be completed independently and reliably with growing confidence, although deliberate focus is still required. Finally, a score from 4.20 to 5 aligns with unconscious competence, the highest stage in Howell's model, where the required competence is fully internalised and performed intuitively, confidently, and effectively across a variety of contexts.

Table 3.2 Mapping of mean scores adapted from Howell's (1982) competence stages

| Mean Score | Label | Competence Stage | Description |
|---|---|---|---|
| 1.00–1.79 | Weak | Unconscious Incompetence | Translators lack the necessary competence and may not yet be fully aware of their limitations or how to improve. |
| 1.80–2.59 | Sub-competent | Conscious Incompetence | Translators are aware of their limitations and the need for improvement but still require external support or guidance. |
| 2.60–3.39 | Average | Conscious Competence (early) | Competence is developing, but translators still require focus, effort, and possibly guidance, especially under pressure. |
| 3.40–4.19 | Competent | Conscious Competence (advanced) | Translators can perform their tasks effectively and with confidence, but conscious effort is still required. |
| 4.20–5.00 | Excellent | Unconscious Competence | Competence is fully internalised and performed intuitively, efficiently, and confidently across different contexts. |

In applying this model, this thesis goes beyond just reporting the competence ratings given by translators and employers but contributes to existing knowledge by providing an in-depth understanding of how Saudi translators currently demonstrate technological competence in the translation industry and how they move through different stages of development. It helps reveal whether a low score indicates that the translator lacks competence, or if they are also unaware of what they need to improve. This model is relevant to the training and ongoing CPD of translators because it distinguishes competence and consciousness, so BA training effectiveness can be determined by their knowledge or lack of knowledge about their own competence or deficiencies.

Splitting conscious competence into two categories and using intervals of 0.80 means that the extreme ends of the spectrum (unconscious incompetence and unconscious competence) are less frequent than they would be on a (for example) 0 - 0.99 scale, therefore a score of below 0.80 shows consistently weak ratings, whereas a score of above 4.20 shows consistently strong ratings. This kind of balanced structure is both mathematically consistent and conceptually consistent with Howell's four stages. The model can further illuminate the difference between translators who can work well with support from their peers or employers and those who can work confidently on their own (see the Discussion Chapter).

### 3.3.4 The Academic Survey

The third survey in this research was developed for the academic side, with the aim of gathering data from BA programme directors about where, how, and to what extent translation tools and technologies are taught in their programmes. This survey was adapted from the EMT academic survey by Rothwell and Svoboda (2019), with some modifications made to better suit the aims and focus of the current research (specifically, its emphasis on the BA level).

- **Survey Instrument Design**

The Academic Survey was structured into seven main sections (see Appendix 3). While the full EMT survey was adapted, it was essential in this research to add an introductory section to explore the nature and objectives of BA programmes in Saudi universities. The EMT survey was originally designed to investigate MA translator training programmes; however, in Saudi Arabia, some BA programmes are explicitly dedicated to translator training, while others are more broadly language-related but still claim to prepare graduates for professional translation roles (see Section 1.2.3). Therefore, the first section (Programme Background) was developed by the researcher to identify which BA programmes aim to prepare professional translators, determine if translation technology training is present in these programmes, and find which respondents were eligible to proceed to the full survey.

The remaining six sections were adapted from the original EMT survey and carefully revised to fit the BA context. These aimed to explore several key areas, including the overall approach to translation technology training, the types of translation technology-related activities offered, the specific translation tools taught, and the licensing arrangements available to students. Further sections investigated the teaching and assessment strategies employed in teaching translation technology, the qualifications and experience of trainers, the availability of IT facilities and technical support, and students' access to tools both on and off campus. The survey concluded with a forward-looking section that asked respondents about the opportunities and challenges they expected to face their programmes in the coming years. Collectively, these sections map of the current state of translation technology training in BA programmes across Saudi universities, enabling evaluation of the alignment of these programmes with the technology-related requirements of the translation industry.

- **Piloting the Academic Survey**

A pilot study was carried out with a sample of six current or former programme directors based in the UK, Ireland, and the Czech Republic, to gain their perspectives on the clarity, validity, and appropriateness of the survey. All six were intentionally contacted as a result of their known expertise in developing, coordinating, and evaluating translator training programmes, so their familiarity with the EMT model and its application in training settings made this feedback especially valuable. The group included three key figures from the EMT Board who were also directly involved in designing the original EMT survey (Professor Andrew Rothwell, Assistant Professor Tomáš Svoboda, and Associate Professor Joss Moorkens). In addition, three MA programme directors from UK universities generously agreed to participate. I sent them the survey link to provide their feedback on the structure, content and phrasing of the questions, ensuring that the final version of the survey was well-organised, comprehensive, and appropriate for investigating translation technology training at the BA level. One reviewer suggested asking about the number of translation courses (excluding technology-related ones) offered in the curriculum to learn more about the programme's orientation in the first question. This and other comments led to minor adjustments to improve the clarity and validity of the survey. The final version of the survey was ready for distribution to BA programme directors in Saudi universities after completion of these revisions.

- **Participant Recruitment**

To ensure a comprehensive mapping of translation technology training in Saudi universities, I made a list of all BA programmes relevant to the translation profession (see Tables 1.2 and 1.3). This list included both programme types (i.e., translator training and language-related). All BA directors of these 31 Saudi BA programmes were contacted and invited to take part in this research. During my visit to Saudi Arabia in December 2021, I personally visited some of these universities located nearby and was able to meet with potential respondents to explain the purposes of the research in detail and discuss the importance of their participation. Other programme directors were contacted via personal connections or through their department's email. Participant information sheets and consent forms were shared in each case, along with an explanation of the purpose of the survey and details on the use of the collected data. The survey ran from December 2021 to March 2022, and the occasional reminder was sent to improve the response rate. Of the 31 programme directors approached, 30 completed the survey, representing a high level of participation and providing a sufficient basis for evaluating how translation technology is currently taught in Saudi BA programmes (full details in Chapter 6).

### 3.3.5 Quantitative Analysis Procedures

All survey responses were collected and managed through the Qualtrics software tool. Once the three surveys were closed, each dataset was separately prepared for analysis. The Statistical Package for the Social Sciences (SPSS, version 28) was chosen for analysis of the quantitative data gathered from the three surveys, so to enhance my use of this software to correctly handle and interpret the data, I attended the 'Introduction to SPSS' and 'Advanced Use of SPSS' training sessions offered by Swansea University. These allowed me to understand how to effectively enter, clean, code, and analyse the data. The university's PGR training centre offered one-to-one consultation sessions with an SPSS specialist during the analysis phase, which addressed specific questions related to the analysis and helped keep procedures appropriate and on track. The raw data were exported into Excel for initial cleaning (i.e., checking for incomplete responses, checking for consistency, and coding) after the end of the survey period, and the datasets were then prepared for analysis and imported into SPSS. The responses were summarised using descriptive statistics, with tables and figures employed to illustrate trends in the calculated frequencies and percentages. Mean scores were calculated in specific cases involving comparisons to support analysis of trends over time and between respondent groups (see, e.g., Sections 4.6.1, 4.6.3, and 4.6.4).

## 3.4 Phase Two: Focus Group Discussions

The explanatory sequential design of this research led to the collection of qualitative data from three focus group discussions to provide greater depth to and expand on the responses gathered from the survey in the first phase. Morgan (1996, p. 130) defines focus grouping as "a research technique that collects data through group interaction on a topic determined by the researcher". Saldanha and O'Brien (2013, p. 173) describes focus groups as typically involving "6 to 10 participants" whose discussions "centred around a small number of issues". This participant-to-participant interaction represents one of the major strengths of this method, as meaning is co-constructed through spontaneous, unpredictable responses and the meeting and comparing of perspectives. Dialogue which takes place in this relatively natural setting can generate richer data than one-to-one interviews, as participants can sound each other's contributions out, clarify and question certain positions, and discuss shared requirements and real-life experiences. According to Denscombe (2010, p. 177), focus groups "make a particular use of group dynamics", enabling the researcher to act as a moderator, not an interviewer, with the aim of allowing the discussion to flow naturally. This method is useful for exploring a range of views and shared understandings through qualitative data.

The rationale for choosing focus group discussion is rooted in its capacity to create dialogue between participants who can rarely meet or exchange views. As the survey results indicate, over three-quarters of the participating translators were not affiliated with any professional association (see Section 4.2), and there are no academic networks in Saudi Arabia (such as APTIS in the UK) that bring together programme directors or course trainers to share experiences or discuss curriculum content and teaching strategies. For this reason, three focus group discussions were conducted, allowing each group to reflect on issues relevant to their roles and explain trends identified in the survey responses. Each session involved nine participants from one of the key groups: translators (n=9), BA programme directors (n=9), and trainers (n=9). A focus group discussion with employers was initially planned as well, but there were not enough participants who agreed to take part when invited in the Employer Survey.

All three sessions were held online via Zoom during this second phase for several reasons. While all participants were based in various regions across Saudi Arabia, I was based in the UK, rendering travel to Saudi Arabia or planning face-to-face meetings with participants financially impossible, and require considerable reserves of time and effort. Additionally, to attend in-person meetings, most of the participants would have had to arrange time off from full-time work commitments, which would have caused a dramatic reduction in the number who would be willing and able to participate. These problems are fortunately partly solved by online programs such as Zoom, which allow meeting sessions to be scheduled at any time convenient to the participants, including in the evenings or on weekends. This eliminated the need for travel for both parties, thus improving participation. Zoom and similar platforms also offer an environment far more flexible and inclusive than the formal setting of a meeting space, as participants can join the discussion from home or their own office using their personal devices and settings. This more comfortable, accommodating atmosphere encourages a greater level of open and honest discussion. However, such platforms also have limitations that must be acknowledged and considered: technical disruptions (e.g., unstable internet connections, delays, or poor audio quality) occasionally interrupt the flow of discussion, and the absence of a shared physical space reduces opportunities to observe participants' body language and non-verbal cues. Participants may also face distractions in their own environments, and the use of third-party online platforms inevitably raises questions about data security and confidentiality. Despite these downsides, the benefits of using Zoom in terms of accessibility, inclusivity, and convenience outweighed the costs, making it the most practical and effective solution for this research.

The purpose of the research was explained to the participants before the start of each session, and their questions were addressed in advance. Participants' permission for the discussion to be recorded for subsequent transcription and analysis was sought at the same time, and all recordings made were later transcribed and used for qualitative thematic analysis in accordance with the ethical guidelines of Swansea University.

### 3.4.1 Interview Guide Design

This phase required the design of questions that would be asked to each of the three participant groups. To this end, three interview guides were developed to focus the discussions on the topics that were explored in the quantitative phase. Creswell (2022, p. 54) clarified that "the quantitative results can help form the qualitative follow-up questions", especially when the results are unexpected, significant, or in need of further explanation. Each guide was designed using a semi-structured format, allowing flexibility for participants to discuss each topic in detail and share personal experiences and insights. Creswell also stated that "the follow-up questions build on the results and ask why a particular result occurred or how it can be explained" (p. 55), which was precisely the purpose of the three guides. For example, many of the surveyed translators reported limited MT training during their BA studies, so the translator interview guide included questions to ask why this was the case and how it could be improved. Across all three guides, the wording of the questions was shaped by the survey responses and adapted to suit the role and experience of each group (see Appendices 4, 5, 6). This link between the two phases ensured continuity and complementarity in the overall research design.

### 3.4.2 Participant Recruitment

> *Often, in studies where interviews [focus groups in this thesis] are used to expand on results previously obtained from questionnaires, participants are asked to indicate in the questionnaires whether they are willing to be interviewed at a later date. This self-selection process does limit the potential bias exerted by the researcher in approaching participants.*
>
> (Saldanha & O'Brien, 2013, p. 182)

To recruit participants for this phase, I followed the recommendation of Saldanha and O'Brien by concluding each of the three surveys with a brief invitation asking participants if they were willing to take part in the second phase of the research, which involved an online focus group. Respondents could choose 'Yes' and provide their contact details or decline participation. After collecting the survey responses, I made two lists of potential participants (one for translators and one for programme directors) who had agreed to participate in the focus groups and shared

their contact details. From employers, the response was unfortunately very limited, as only four expressed interests in taking part in the focus group. When these were later contacted, no responses were received, so conducting an employer focus group was not possible. For course trainers, I used a slightly different approach. Since the trainer group was not directly targeted in the surveys, I asked the programme directors to help by connecting me with colleagues in their departments responsible for teaching translation technology-related courses. I considered it important to include trainers in this research because they are directly involved in classroom teaching and are likely able to speak about challenges and experiences of which programme directors are not always aware.

- **Selection of Professional Translators**

Purposive sampling resulted in nine professional translators participating in the focus group. Selection was based on specific criteria to provide representation of as wide a segment of the population of professional translators in Saudi Arabia as possible. First, participation was encouraged from different employment sectors (i.e., LSPs, private, government, and semi-government), as work context influences perceptions and use of translation technology. As I considered the participants' levels of experience in the translation profession, translators ranging from novices to mid-career and experienced translators with over 15 years of experience were involved, thereby encompassing a broader range of views in the discussion. Coordinating a time that suited all participants was a significant challenge at this stage, as differing availability was a practical obstacle in the selection process. Participant confidentiality and data presentation clarity were maintained during the analysis and write-up of the findings by assigning each translator a unique identifier code (e.g., PT1, PT2, etc.), where 'PT1' refers to the first professional translator in the list (Table 3.3, below). These codes persisted throughout the transcription and analysis and are referenced in the quotes in the findings chapter. This system enabled the easy referencing of individual contributions without revealing personal identifiers.

Table 3.3 Translator coding list

| Participant Code | Work Sector | Work Experience |
|---|---|---|
| PT1 | Freelance | +15 years |
| PT2 | Private | 6–10 Years |
| PT3 | Private | Less than a year |
| PT4 | Private | 1–5 Years |
| PT5 | Freelance | Less than a year |
| PT6 | Freelance | 1–5 Years |
| PT7 | Government | 1–5 Years |
| PT8 | Government | 6–10 Years |
| PT9 | Semi-government | 1–5 Years |

- **Selection of Programme Directors**

Recruiting programme directors for the focus group was not without its challenges. Since there are only 31 BA programmes in total across Saudi Arabia, the number of potential participants was inherently limited. When asked during the survey phase, 12 programme directors expressed an interest in participating in the second phase. However, coordinating the session presented greater difficulty than anticipated due to the directors' busy academic schedules, so it took a great deal of time and patience to accommodate everyone. Each participant was individually presented with date and time suggestions, but inevitable delays meant this process underwent several changes. Eventually, availability was confirmed with nine participants, who took part in the scheduled session. The final group included a mix of perspectives despite the organisational difficulties, and the discussion provided valuable data from the academic side. All nine participants were directors of BA programmes whose curricula include translation technology-related courses, which meant each had direct experience with planning and delivering such courses in their programmes. In addition, I ensured that directors from both translator training and language-related programmes were included, as well as representation of both public and private universities. Including this variety helped ensure that different institutional contexts were represented in the discussion. For confidentiality and clarity, I followed the same procedure used with the translator group. Each programme director was assigned a unique identifier code to protect their identity and facilitate the organisation and presentation of the data. For example, PD1 refers to the first programme director in the list, and

so on (see Table 3.4, below). These codes were used throughout the transcription, analysis, and when presenting quotes in the findings chapter.

Table 3.4 Programme director coding list

| Participant Code | University Type | Programme Type |
|---|---|---|
| PD1 | Public | Translator Training |
| PD2 | Public | Translator Training |
| PD3 | Private | Translator Training |
| PD4 | Public | Translator Training |
| PD5 | Public | Translator Training |
| PD6 | Public | Language-related |
| PD7 | Public | Translator Training |
| PD8 | Public | Language-related |
| PD9 | Public | Translator Training |

❖ **Selection of Course Trainers**

Unlike the other two groups, course trainers were contacted through the programme directors who had participated in the research. I asked each director if they could suggest potential trainer participants from their programmes. All directors were supportive and willing to help, and within a short time I was provided with names and contact details for trainers who fit the criteria (i.e., responsible for teaching translation technology-related courses). Each of these was contacted individually, during which time I introduced myself, described the purpose of the research, and asking if they would extend their participation to the second phase. Participants were at this point informed that this discussion was scheduled to last between 60 and 90 minutes and would take place on Zoom. However, coordinating this focus group presented several difficulties. Some trainers showed interest but had scheduling conflicts, while others did not respond immediately, but after several follow-ups, nine participants confirmed they were able to participate. The insights gained in this session complemented those of the programme directors, with a greater focus on the challenges the participants faced in teaching these courses. Confidentiality and clarity were maintained by assigning each trainer a unique code (e.g., CT1, CT2, etc.), where “CT1” refers to the first course trainer in the list (Table 3.5, below).

Table 3.5 Trainer coding list

| Participant Code | University Type | Programme Type |
|---|---|---|
| CT1 | Public | Translator Training |
| CT2 | Public | Translator Training |
| CT3 | Private | Translator Training |
| CT4 | Public | Translator Training |
| CT5 | Public | Translator Training |
| CT6 | Public | Language-related |
| CT7 | Public | Translator Training |
| CT8 | Public | Language-related |
| CT9 | Public | Translator Training |

With the selection process complete, three separate focus group discussions were successfully conducted. Each took place online via Zoom and lasted from 60 to 90 minutes. All discussions were recorded with the participants' consent and then transcribed for analysis. The following section outlines the procedures used to analyse the qualitative data collected in this phase.

### 3.4.3 Qualitative Analysis Procedures

The first step after gathering the qualitative data was to transcribe the recordings. Each session was carefully listened to and full, verbatim transcripts were produced for analysis. This process familiarised me with the data, as close listening to each participant allowed me to understand how ideas were shared and developed within the group. I made notes during this stage to highlight interesting points and initial thoughts about possible patterns and repeated topics. Saldanha and O'Brien (2013, p. 128) advised that "doing the transcription oneself has the advantage that it allows one to get to know the data thoroughly and helps to inform decisions that have to be taken regarding the subsequent coding of the data". At this early stage, such close engagement with the full transcripts significantly guided the later analysis phases.

The most appropriate method to analyse the transcripts was deemed to be manual thematic analysis, following the six steps laid out by Braun and Clarke (2006), who defined thematic analysis as "a method for identifying, analysing and reporting patterns (themes) within data" (2006, p. 79). Thematic analysis best fits the explanatory design of this research, as the reason for collecting qualitative data is to gain a deeper, more comprehensive understanding of the survey results through detailed exploration of participants' views. In addition, the method is

commonly used in research which requires deeper engagement with the data and transparency in the development and presentation of themes.

The first step of the six involved familiarising myself with the data by reading the transcripts several times and noting initial ideas. This helped me identify interesting parts of the discussions and begin thinking about possible patterns. Participants' statements, their manner and delivery, the flow of discussion, areas of agreement or disagreement, and any concerns that recurred were closely monitored, and as this proceeded, it became useful to make comments in the margins and highlight certain statements if they seemed surprising or particularly relevant to the survey findings. In the second step, I generated initial codes by highlighting key ideas and assigning descriptive labels to parts of the text. Braun and Clarke (2006, p. 88) defined a code as "a feature of the data that appears interesting to the analyst, and refers to the most basic segment, or element, of the raw data […] that can be assessed in a meaningful way". In the third step, I began sorting the initial codes into main themes by grouping related ideas. Braun and Clarke (2006) emphasised that themes do not simply emerge from the data; the researcher creates them through careful engagement and interpretation, and the researcher should play an active role in "identifying patterns/themes, selecting which are of interest, and reporting them to the readers" (p. 80). Review and refinement of these themes fell in the fourth phase, during which it was noted if they were supported by the data and accurately reflected the content of the discussions. This was done through re-reading all quotes and data extracts associated with each theme to determine whether each represented the meaning that was intended for capture. The fifth step focused on defining and naming the themes. Here, brief descriptions were written for each, ensuring they encapsulated the core idea and linked to the research objectives. Finally, the sixth phase involved producing the report by selecting illustrative quotes and discussing how each theme contributed to explaining the patterns observed in the quantitative phase.

### 3.5 Ethical Considerations

Prior to commencing any form of data collection in Saudi Arabia, ethical approval was sought and obtained from the Ethics Committee at Swansea University. The first phase (surveys) gained approval under reference number SU-Ethics-Student-171220/3529, and the second phase (focus groups) gained approval under reference number SU-Ethics-Student-240123/6048. Swansea University ethical rules and guidelines were strictly adhered to at all times during this research. All participants were given an information sheet and a consent form that fully informed them of the study's purpose, aims, and scope, as well as the voluntary character of their participation, its extent, what would be expected of them, their right to

withdraw, and the handling of all data collected. All data were securely stored and password-protected on the researcher's personal computer, to which the researcher has sole access. Therefore, participants' privacy and confidentiality were protected.

## 3.6 Chapter Summary

This chapter described the methodological approach and research design used in this thesis. A mixed-methods approach was adopted, using an explanatory sequential design where quantitative data were collected and analysed first, followed by a qualitative phase to help explain and expand on the survey results. This design was selected to provide a more complete understanding of how translation technologies are taught in Saudi BA programmes and how these practices relate to the requirements of the translation industry. For the first phase, three separate surveys targeting professional translators, translation employers, and BA programme directors were designed, piloted, and distributed. Descriptive statistics were used to analyse the results and identify patterns and trends. The second phase built on the survey results, with three focus group discussions using participants selected from the same groups. These discussions were intended to provide deeper explanation of the reasons behind the patterns found in the survey data and to gather more detailed perspectives and were carried out online via Zoom. The gathered data were analysed using the six-step process of thematic analysis described by Braun and Clarke (2006). Interview guide development is described in this chapter along with participant sampling and recruitment methods and the ethical considerations regarding voluntary participation, anonymity, and data confidentiality.

The next three chapters present the results of the analyses: Chapter 4 reports the findings from the Translator Study, Chapter 5 presents the findings from the Employer Study, and Chapter 6 shows the findings from the Academic Study.

# Chapter 4 Findings of the Translator Study

## 4.1 Introduction

This chapter details the findings of the Translator Study, which was conducted with several key aims in mind, all focused on improving translation technology training in BA programmes in Saudi Arabia by analysing the requirements of the translation industry and the technological competence of translators within that industry. As explained in Chapter Three, both quantitative and qualitative data were collected from professional translators using surveys and a focus group discussion.

This chapter is organised into several sections. It begins with the demographic profiles and educational backgrounds of the survey respondents (Section 4.2), followed by their prior academic backgrounds (Section 4.3). From Section 4.4 onwards, the survey results are presented first, followed by qualitative insights to elaborate further on the survey data and provide a more comprehensive and nuanced understanding of the study findings. Section 4.4 examines the respondents' BA training experiences in CAT tools and MT, shedding light on the effectiveness of this academic training. The findings are then presented on the primary technology-related requirements in the Saudi translation industry (Section 4.5). Section 4.6 focuses on translators' self-assessed competence, covering their performance in both translation tools (4.6.1) and technology-related competencies (4.6.2). The chapter finishes with Section 4.7, which reports on CPD engagement, including individual planning and employer support. Both the quantitative and qualitative results are integrated throughout the chapter to provide in-depth explanations and the participants' personal experiences.

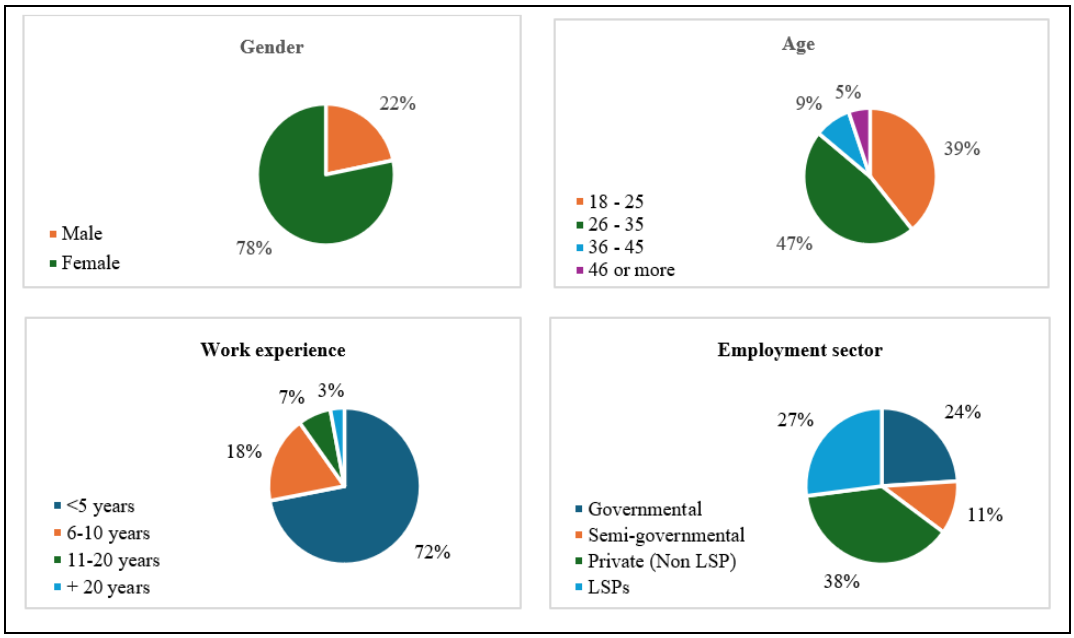
## 4.2 Demographic Information of the Survey Respondents

Several demographic and professional characteristics were assessed from the respondents via the survey (n=248) in order to help draw conclusions and provide context on those working in the Saudi translation profession in terms of relationships between the study topic and respondents' demographic variables. Table 4.1 (below) details the statistics gained from this process along four dimensions: gender, age, work experience and employment sector.

The analysis shows that a large majority of respondents were female, with 78% (n=193) compared to 22% (n=55) male respondents. This is consistent with trends in the translation profession around the world, as discussed by Pym et al. (2012) that language-related careers attract a disproportionate number of women. In the 1990s, most female translators in Saudi

Arabia who had graduated between 1991 and 1996 were found not to be working as translators due to personal, familial, social, and cultural factors, despite the fact that translation jobs were readily available across the economy at the time (Al-Jarf, 1999). The situation for women working in translation-related professions has since then dramatically improved, and it is now a female-dominated profession.

Table 4.1 Characteristics of the survey respondents

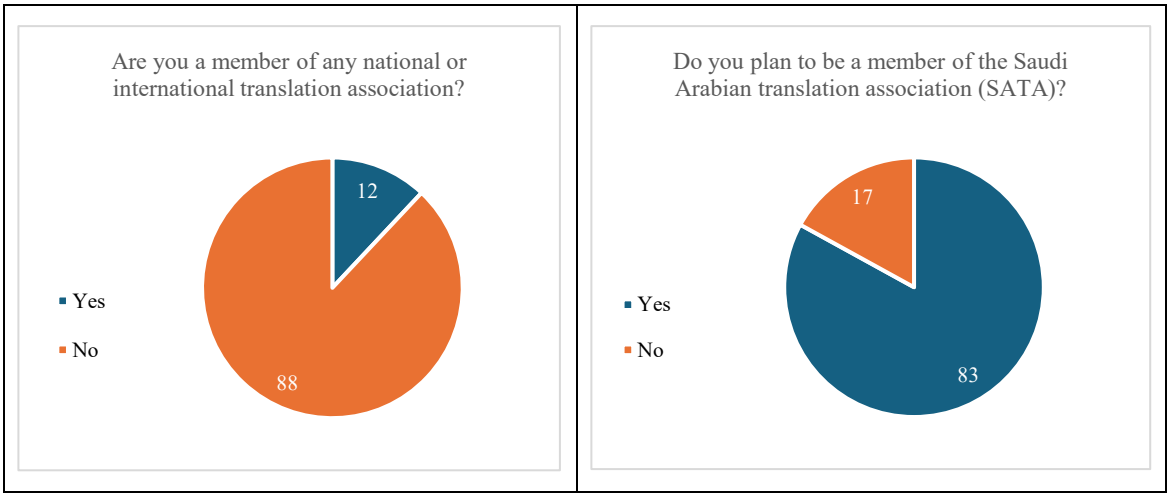



The ages of the respondents varied from those at the beginning of their careers, through those in mid-career and up to more experienced translators. Almost half were between 26 and 35 (47%, n=116), with slightly fewer 18- to 25-year-olds (39%, n=97), while only 14% (n=35) were older than 36. This type of spread means that the survey results represent a reasonable approximation of the actual Saudi workforce in this area of employment. The respondents' length of experience, another demographic factor in the survey, aligns with the age group findings, for understandable reasons. Almost three-quarters of the respondents (72%, n=178) had fewer than five years of experience, indicating a considerable influx of new translators into the industry in recent years. This may, to some extent, be the result of the recent implementation of Saudisation policy, which aims to reserve certain jobs, such as translation, specifically for Saudi nationals in order to decrease the unemployment rate of natives. Those in mid-career, with work experience ranging from 6 to 10 years, represented 18% (n=44) of the respondents, while the remaining 10% (n=26) were translators who had been in the industry for more than a decade.

The final demographic variable in the survey related to work sectors: 38% (n=95) of the respondents worked in the private sector (non-LSP), 27% (n=66) in LSPs, 24% (n=60) in government entities, and 11% (n=27) in semi-governmental bodies. This is a representative range of work sectors, reinforcing the relevance of the findings to the Saudi translation industry as a whole. The overall sample size (i.e., n=248) is very satisfactory, especially when compared with similar studies in the region (e.g., Alshaikhi, 2018).

The survey explored the respondents' professional affiliations by asking whether they were members of any national or international translation association and whether they intended to join SATA[18]. It is useful to learn about how engaged and connected the respondents are with the broader professional community, as this can influence their use of translation technology, technological competence development and participation in CPD. The results showed that only 12% (n=30) of respondents were current members of a translation association, while the significant majority, 88% (n=218), were not. This result should come as no surprise, given the absence of an official translators' association in Saudi Arabia prior to the launch of SATA in 2020 (see Section 1.2.2). When asked about future membership, 83% (n=206) expressed interest in joining SATA[19]. This indicates a strong willingness among translators to engage in professional networks when such opportunities become available.

Table 4.2 Professional membership status




## 4.3 Academic Backgrounds of the Survey Respondents

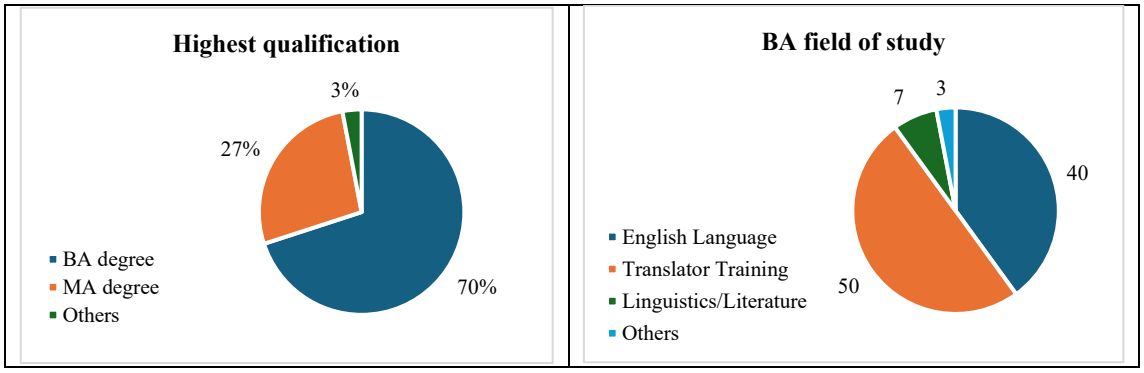
Educational background plays a considerable role in developing a translator's familiarity with translation technology and can contribute to the development of professional identity. Table 4.3

[18] SATA: Saudi Arabian Translation Association
[19] It should be recalled that the survey data were collected in December 2021, i.e., prior to the formal membership selection commencing. Given this timeline, the question was formulated to reveal the respondents' intentions regarding future membership of SATA.

(below) shows that 70% (n=174) of the respondents, a significant majority, hold a BA degree, while 27% (n=67) hold an MA degree. It is worth noting that a BA degree is the minimum requirement for a professional translation role in the Saudi translation industry, making this result expected and relevant.

In terms of their BA fields of study, interestingly, 50% (n=124) of the surveyed translators graduated from translator training programmes, and 40% (n=100) came from English language programmes. The remaining respondents hold degrees in linguistics/literature (7%, n=17) or other fields such as Arabic or Islamic studies (3%, n=7). This means that nearly half of the respondents entered the translation profession through related but non-specialised BA pathways. This finding aligns with the results from the academic survey (see Chapter 6, Section 6.2), which showed that many language-related programmes aim to prepare students for translation careers, despite not all offering translation technology training in their curricula. The existence of this gap suggests that a graduate may enter this profession without the appropriate level of academic preparation in the relevant technologies, which undoubtedly impacts their ability to compete and professionalise in their role.

Table 4.3 Academic backgrounds




The respondents were further asked to select from a drop-down list of all universities in Saudi Arabia the university from which they had obtained their BA degree. Table 4.4 (below) illustrates a wide distribution of graduates from over 25 universities. KSU produced the most respondents (20.5%, n=51), followed by PNU (12.5%, n=31) and IMSU (11.6%, n=29). This broad spread encompasses most of the country, so the survey can be said to capture diverse experiences of BA training, again supporting the representativeness of the sample and boosting this study's reliability and credibility.

Table 4.4 Distribution of the respondents' BA universities

| University | No. of Respondents | Percentage |
|---|---|---|
| KSU | 51 | 20.5% |
| PNU | 31 | 12.5% |
| IMSU | 29 | 11.6 |
| QU | 29 | 11.6 |
| KAU | 13 | 5.2 |
| UJ | 11 | 4.4 |
| KKU | 9 | 3.6 |
| TBU | 9 | 3.6 |
| IMU | 8 | 3.2 |
| SU | 7 | 2.8 |
| SEU | 7 | 2.8 |
| TFU | 5 | 2 |
| UQU | 5 | 2 |
| JUF | 4 | 1.6 |
| JZU | 3 | 1.2 |
| BU | 3 | 1.2 |
| PSU | 3 | 1.2 |
| MJU | 3 | 1.2 |
| KFU | 3 | 1.2 |
| NU | 3 | 1.2 |
| UHB | 3 | 1.2 |
| TKU | 2 | 0.8 |
| AOU | 2 | 0.8 |
| EU | 2 | 0.8 |
| PSAU | 2 | 0.8 |
| UoB | 1 | 0.4 |
| **Total** | **248** | **100** |

## 4.4 Reflections on BA Translation Technology Training

This section explores the nature and depth of translation technology training the respondents received during their BA studies to understand how such training is delivered in Saudi BA programmes and whether it adequately prepares students to meet the technology-related requirements of the translation industry. Both the quantitative findings from the survey and qualitative insights from the focus group discussion are presented, offering a clearer picture of

the current state of translation technology training from the perspective of current translators (i.e., former students in Saudi BA programmes).

### 4.4.1 Survey Findings

The respondents were asked about the type of training they had received in MT and CAT tools during their BA studies. They could choose whether the training included theory only, practice only, both, or no training at all. As shown in Figure 4.1 (below), only about one-third of the respondents reported receiving both theoretical and practical training, 31% (n=77) for MT and 26% (n=64) for CAT tools. The majority, however, indicated limited or no training. Put another way, 45% (n=112) reported having received no training in MT, and an even higher proportion, (57%, n=141), reported having received no training in CAT tools. It can be seen from many responses that training contained either major elements of theory or practice, but not both. 64% (n=160) of the combined respondents stated that they had no practical training in MT, and 72% (n=178) reported no practical training in CAT tools. This means that a majority of new translators entering the industry from university lack real-life experience in the actual use of essential translation technologies.

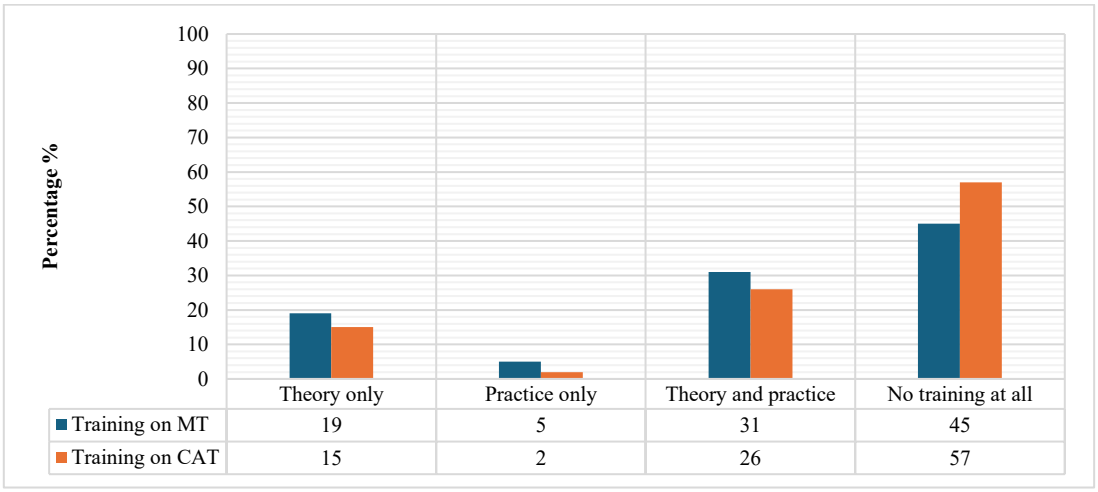



Figure 4.1 BA training in MT & CAT

For comparison purposes, the respondents were grouped by BA background: graduates from specialised translator training programmes (50%, n=124) and graduates from language-related programmes (50%, n=124). This comparison helps evaluate the extent to which various BA pathways prepare students for the technology-related requirements of the translation industry. Clear disparities stood out between these groups, but notably, both BA pathways lack training. 42% (n=124) of translator-training graduates had received both theoretical and practical MT training, and 40% (n=124) had received this for CAT tools. However, 23% (n=57) of this group

reported receiving only theoretical training in MT, and 21% (n=52) said they had received only theoretical training in CAT, representing a notable proportion. Around a third, worryingly, had received no training of any kind in MT (30%, n=74) or CAT tools (36%, n=89).

Graduates from language-related programmes reported notably less training. Only 18% (n=45) had received both theoretical and practical MT training, with just 12% (n=30) having this training in CAT tools. Considerably more than half of this group reported having undergone no training at all, with 61% (n=151) for MT and 77% (n=191) for CAT tools. It is evident, then, that substantial gaps exist along both BA pathways, although it is clear that translator training programmes somewhat more reliably offer students training in MT and CAT tools.

Table 4.5 Comparison of training experiences in MT & CAT tools by BA pathways

| Programme type | Theory & practice | | Theory only | | Practice only | | **No training** | |
|---|---|---|---|---|---|---|---|---|
| | MT | CAT | MT | CAT | MT | CAT | **MT** | **CAT** |
| Translator training | 42% | 40% | 23% | 21% | 5% | 3% | **30%** | **36%** |
| Language-related | 18% | 12% | 16% | 9% | 5% | 2% | **61%** | **77%** |

The findings reveal that, although both BA pathways in many ways prepare future translators, there is a general lack of training in translation technologies. This gap can be seen with respondents from universities across Saudi Arabia, rather than being limited to any particular programme, strongly suggesting that broader issues exist in how MT and CAT tools are taught in Saudi BA programmes. Given that graduates from a wide range of universities participated in the study, the findings highlight a general concern that may be linked to curriculum design and training practices in these programmes.

### 4.4.2 Qualitative Findings

BA training experiences emerged as a topic in the discussion, and two main themes were identified during the analysis, each reflecting key issues raised by the participants regarding the presence or absence of translation technology in their BA studies.

#### 4.4.2.1 Absence of Translation Technology Training in Language-related Programmes

This theme reflects the shared experiences of four participants who graduated from language-related programmes. All reported that their academic training lacked any courses or content related to translation technology. Their programmes focused mainly on language skills,

linguistics, and literature, with minimal attention to translation, and no exposure to tools such as CAT or MT. PT4 noted:

> *I graduated from an English language programme at the BA level, where I only studied two translation courses. Neither of these courses included any topics or training in translation technologies, as they were not part of the curriculum*.

PT5 added:

> *The BA curriculum included three translation courses while the rest focused on language skills, linguistics and literature. Translation technology was totally absent from the curriculum*.

All four participants agreed that their programmes offered no form of translation technology training. These experiences highlight a gap between academic training in non-specialised programmes and the technology-related requirements of the translation profession. It is most likely that these programmes fail to develop students' technological competence and expose them to essential translation technologies, so graduates from such pathways may enter the industry underprepared and struggle to effectively use translation technologies. It is worth mentioning that the four participants represented different career stages, with work experience ranging from less than a year to over 15 years, yet all reported the same absence of translation technology training. This indicates that this training gap is not limited to a particular graduate generation but reflects a broader and persistent issue within language-related programmes.

#### 4.4.2.2 Challenges Affecting Translation Technology Training in Translator Training Programmes

The experiences and perceptions of five participants who graduated from translator training programmes form the foundation of this theme. They agreed that the training was limited and considered it insufficient for equipping them with the necessary technological competence needed in the industry, despite having studied a course on translation technology as part of the curriculum.

- **Overemphasis on Theory**

All five participants reported that their technology-related courses were heavily theoretical, with limited practical training. This imbalance left them without the skills to use translation technologies in real-world settings. The issue was not isolated to one programme but was mentioned by graduates from different universities:

*[…] but unfortunately, the course did not include any practical training in translation technologies, as this course was theoretically taught only* (PT3).

*The teaching quality of this course was quite poor. The course was predominantly theoretical, with practical training being infrequent and limited to only two or three times using the free version of the software tool. We [students] were unable to purchase the paid software versions due to their high cost* (PT9).

As students, the respondents severely lacked hands-on experience with translation technology, despite being introduced to the relevant theoretical concepts in many cases. This would make it extremely difficult for them to effectively apply the tools required by their employers in a professional setting, showing that current translation technology training in Saudi BA programmes falls critically short.

- **Limited Access to Translation Software Tools**

The participants highlighted the absence of valid software subscriptions in their programmes, which affected their ability to receive proper practical training. Some reported being asked to rely on free trial versions, which restricted access to important features. This lack of tool access may also lead some trainers to skip practical training altogether. PT8 highlighted this issue:

*I enrolled in a Master's programme at Princess Nourah University, where we had to study a course on translation technologies. However, the trainer told us that the University's subscription with 'Trados' had ended, and neither the BA nor MA students benefited practically from the course that year, as it was taught theoretically only. A question always comes to my mind whether universities renew their subscriptions to translation software tools to ensure that students receive practical training on these tools*.

PT3 also echoed this concern, noting its persistence.

*Unfortunately, the situation remains unchanged regarding the non-renewal of the University's subscriptions to translation tools at Princess Nourah University, where I am currently pursuing my Master's degree. They [trainers] still ask us to subscribe to a 30-day trial for training purposes*.

In cases where practical training was attempted, the above excerpts indicate that trainers had to depend on free versions of software tools, which often come with limited features. This limitation reduced the effectiveness of training and raised concerns about whether students were gaining sufficient familiarity with industry-standard tools.

Adding to this discussion, PT7 who had previously worked as a part-time trainer shared their perspective:

*I had an experience teaching translation at one of the universities. From that experience, I can say that universities tend to focus on renewing their software subscriptions during the academic accreditation period. Once this period ends, interest in following up on these software tools fades*.

This participant articulated a key reason why these universities do not maintain valid software subscriptions: the focus on subscription renewal was often linked to achieving academic accreditation (e.g., NCAAA) rather than a sustained commitment to providing students with effective translation technology training and enhancing their technological competence.

- **Lack of Specialised Trainers**

Some participants described a shortage of qualified trainers in translation, particularly those with expertise in translation technology. As a result, courses were sometimes delivered by trainers with backgrounds in linguistics or literature rather than in translation. This may leave gaps in students' technological competence and overall professional readiness. PT3 remarked that:

*Translation courses were taught in a traditional manner without a focus on translation as a profession. This may be due to the shortage of trainers specialising in translation in our department, as most of them were either specialised in linguistics or literature*.

This reveals that translation is sometimes taught by trainers who are insufficiently qualified, lacking both academic qualifications and professional expertise in translation. Even worse, such trainers can be assigned to teach translation technology-related courses in these programmes. This challenge may impact both the content and delivery of these courses and limit students' exposure to current industry practices.

These qualitative findings support the survey results by elaborating on the existing gaps in translation technology training across both types of BA pathways. While translator training programmes are intended to prepare students for professional work, participants reported that they often fail to provide comprehensive training in MT and CAT tools. The situation appears more limited in non-specialised programmes, where translation technology is often not integrated into the curriculum. These findings indicate consistent training deficiencies that may impact graduates' readiness to meet the technology-related requirements of the Saudi translation industry.

## 4.5 Importance of Translation Technology-Related Activities

This section examines how professional translators in Saudi Arabia perceive the importance of translation technology-related activities in their work. By collecting both quantitative and qualitative data, the aim is to identify the primary technology-related requirements of the Saudi translation industry and to explain why these activities hold such importance. The results help inform recommendations for curriculum development in the BA programmes.

### 4.5.1 Survey Findings

The survey asked respondents to rate the importance of various translation technology-related activities in their daily work, using the following scale: not required, not so important, important or essential. An additional option, 'I don't know this technology', was provided for unfamiliar items. The list of activities (i.e., 26 items) was adapted from Rothwell and Svoboda (2019) and reflected key areas of translation technology.

For the purposes of this study, the analysis focused on the top 12 activities based on their mean importance scores. These represent what translators perceive to be the primary technology-related requirements of the translation industry so that relevant stakeholders (e.g., programme directors, policymakers, trainers) can prioritise these competencies in their curricula and ensure that training reflects the workplace. A focus on the top 12 activities aligns this analysis with the approach used by Rothwell and Svoboda (2019), who prioritised the same number, allowing for methodological consistency and meaningful comparison. This list of activities further serves as a reference point for the triangulation method used in this research. In the Employer Survey (Chapter 5, Section 5.4.3), employers were asked to assess their translators' competence in these same activities. In the Academic Survey (Chapter 6, Section 6.3.3), BA programme directors reported whether these top-rated activities are included in their curricula and how they are taught. Triangulating the results of these surveys can highlight areas of alignment and reveal gaps between perceived importance, competence levels, and curriculum coverage, thereby enabling a holistic understanding of the current state of translation technology training in Saudi Arabia.

The top-rated translation technology-related activities are presented in Table 4.6 (below), indicating their perceived importance and the respondents' familiarity with each. All 12 activities received mean scores above 3.00, placing them within the important to essential range of the scale. The highest-rated activity was data mining – search strategies (3.58), followed by MT post-editing (3.48) and use of TB (3.35), reflecting a strong emphasis on the activities that

support translation quality and efficiency. In terms of familiarity, the table also shows the percentage of respondents who were unfamiliar with each of these activities. While core activities such as use of TB (9%, n=22), use of TM (9%, n=22), and subtitling (8%, n=20) showed high levels of familiarity among the respondents, more specialised ones such as DTP (27%, n=67), and corpus construction (21%, n=52), revealed more limited awareness, reflecting differences in BA training exposure. The results suggest potential knowledge gaps that may limit translators' ability to meet specific industry requirements and affect their involvement in wider projects.

Table 4.6 The top-rated technology-related activities (12 items)

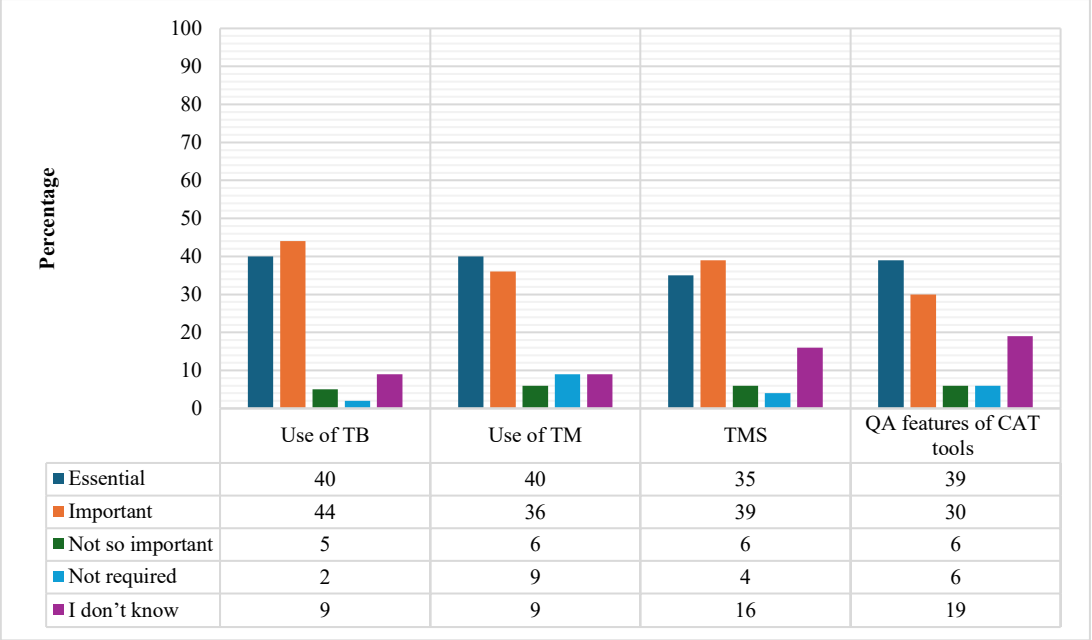
| | **List of activities** | **Percentage of respondents** *(I don't know this technology)* | **Mean score of importance** (1-4 scale) |
|---|---|---|---|
| 1 | Data mining – search strategies | 11% | 3.58 |
| 2 | MT post-editing | 16% | 3.48 |
| 3 | Use of TB | 9% | 3.35 |
| 4 | Data mining – evaluation of sources | 11% | 3.26 |
| 5 | QA features of CAT tools | 19% | 3.26 |
| 6 | Audiovisual translation (subtitling) | 8% | 3.25 |
| 7 | TMS | 16% | 3.25 |
| 8 | Use of TM | 9% | 3.18 |
| 9 | Text/corpus analysis using concordancers | 20% | 3.11 |
| 10 | Website localisation | 17% | 3.10 |
| 11 | Corpus construction (mono-, bi- or multilingual) | 21% | 3.04 |
| 12 | DTP | 27% | 3.04 |

The next part of this section examines these top-rated activities in more detail by grouping them into five categories: CAT tools, MT, terminology, multimedia, and DTP. This grouping is used in the Literature Review Chapter (see Section 2.2) and later in the Discussion Chapter, helping to present the survey results in a way that focuses on related types of translation technology. For each group, a figure is provided to show the full distribution of responses across the Likert scale, followed by an interpretation of how the surveyed translators perceived the importance of each activity and their familiarity with it. This helps highlight the primary

technology-related requirements of the Saudi translation industry from the perspective of professional translators.

Figure 4.2 (below) presents the results for four CAT-related activities: use of TB, QA features, TMS, and use of TM. These items represent core components of modern CAT tools and are widely used in professional translation workflows. 40% (n=99) of the respondents selected TB as essential, 44% (n=109) rated it as important, 5% (n=12) considered it not so important, and 2% (n=5) rated it as not required, indicating a high ranking of importance. There was also a high level of familiarity with this activity, as only 9% (n=22) indicated that they were unfamiliar with it. The results demonstrate the importance of using TB, particularly in fields that necessitate the consistent use of specialised terms. The use of TM received similarly high importance ratings, with a combined three-quarters of the respondents describing it as essential (40%, n=99) or important (36%, n=89). 6% (n=15) rated TM as not so important and 9% (n=22) as not required; the same proportion (9%, n=22) reported unfamiliarity. A large majority of the respondents may have perceived this activity as necessary to their daily work, as TM tools enable translators to store and reuse previously translated segments, helping them work more efficiently.

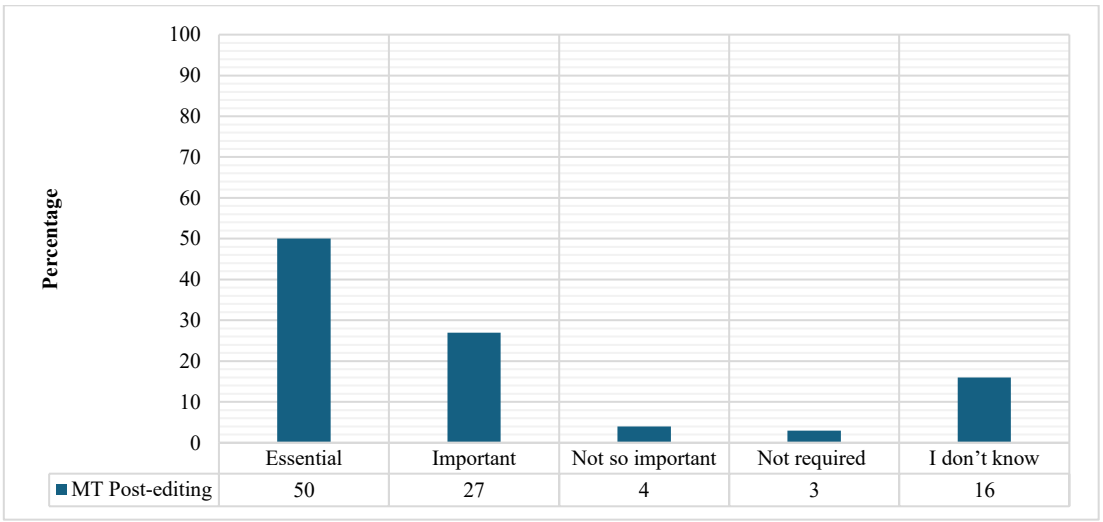
A positive rating was also observed with TMS, again with three-quarters of respondents rating it as either essential (35%, n=87) or important (39%, n=97), indicating that many translators recognise the role of TMS in enhancing their work. Smaller numbers described this activity as not so important (6%, n=15) or not required (4%, n=10), suggesting that its use may vary depending on specific work environments or job roles (e.g., senior translators or project managers). A minority of respondents (16%, n=40) reported being unfamiliar with TMS, suggesting that they may not have received adequate training in this area during their BA studies. A similar pattern can be seen with QA features: more than two-thirds of the respondents considered this activity either essential (39%, n=97) or important (30%, n=74), revealing a high level of recognition of the importance of this activity and suggesting translators frequently carry it out to support the quality of their translations and deliver a successful product. However, 19% (n=47) were unfamiliar with QA features, representing the highest level of unfamiliarity in the group. These findings suggest that while most respondents value and use TMS and QA, a considerable proportion still lack familiarity with these tools, pointing to gaps in BA curricula and differences in training opportunities.




| | Use of TB | Use of TM | TMS | QA features of CAT tools |
|---|---|---|---|---|
| Essential | 40 | 40 | 35 | 39 |
| Important | 44 | 36 | 39 | 30 |
| Not so important | 5 | 6 | 6 | 6 |
| Not required | 2 | 9 | 4 | 6 |
| I don't know | 9 | 9 | 16 | 19 |

Figure 4.2 Perceived importance of CAT-related activities

One MT-related activity is included in the top-rated list. Exactly half of the translators surveyed (50%, n=124) rated MT post-editing as essential in their daily work, and a further 27% (n=67) considered it important. This implies that many translators consider MT post-editing an integral element of their current translation workflows, as these results place it among the highest-rated activities in the survey. Reinforcing this, only 4% (n=10) rated it not so important, and 3% (n=7) as not required. Despite the clear usefulness of MT post-editing to the work of a translator, however, some respondents (16%, n=40) indicated that they were unfamiliar with it, suggesting either no exposure to this activity in their BA programmes or that MT tools are not commonly used in their field of work.

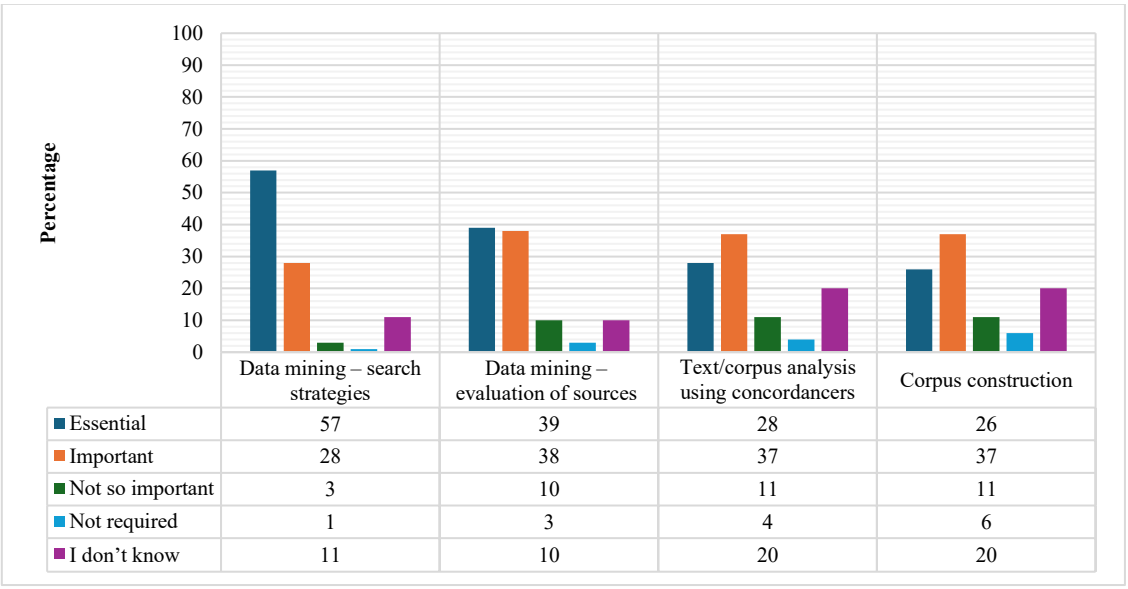



| | Essential | Important | Not so important | Not required | I don't know |
|---|---|---|---|---|---|
| MT Post-editing | 50 | 27 | 4 | 3 | 16 |

Figure 4.3 Perceived importance of MT post-editing

The respondents identified four terminology-related activities among the top-rated activities in the list. As illustrated in Figure 4.4 (below), over three-quarters of the respondents highly valued the two data mining-related activities, with 85% (n=211) rating data mining - search strategies as either essential or important in their work. Similarly, data mining - evaluation of sources was highly rated by most respondents (77%, n=191), demonstrating that not only is information retrieval crucial, but critical evaluation of sources is a highly valued activity in modern translation workflows. In data-driven translation approaches, it could be said that effective search strategies and critical evaluations of datasets are integral to the success of translation processes.

In addition, the results show that corpus analysis using concordancers is highly valued by roughly two-thirds of the respondents (65%, n=161), showing the role of concordance searches in allowing translators to access a specific word, structure or equivalent in corpora for producing more contextually appropriate translations. Similarly, corpus construction was rated as either essential or important by the majority of respondents (63%, n=156), indicating that the creation and management of corpora are critical in locating accurate and context-appropriate terminology, especially in fields requiring consistent and precise language use. It should be noted that both activities registered higher unfamiliarity rates, with one-fifth (20%, n=50) of respondents reporting that they were unfamiliar with each of these corpora-related activities.




| | Data mining – search strategies | Data mining – evaluation of sources | Text/corpus analysis using concordancers | Corpus construction |
|---|---|---|---|---|
| Essential | 57 | 39 | 28 | 26 |
| Important | 28 | 38 | 37 | 37 |
| Not so important | 3 | 10 | 11 | 11 |
| Not required | 1 | 3 | 4 | 6 |
| I don't know | 11 | 10 | 20 | 20 |

Figure 4.4 Perceived importance of terminology-related activities

The rising demand for AVT and digital content translation in the Saudi translation industry can be seen from the result that subtitling and website localisation rank among the top-rated

multimedia-related activities in this survey. Subtitling was considered either essential or important by more than three-quarters of the respondents (79%, n=196), with only 8% (n=20) rating it not so important and 6% (n=15) as not required, illustrating the prevalence of subtitling as a professional practice service. 8% (n=20) of respondents indicated unfamiliarity with this activity. These results reveal that the vast majority of translators widely use and recognise subtitling as part of their regular work. A positive rating was also afforded to website localisation, though it was lower than subtitling, with a combined importance level of 67% (n=166). This was comprised of 33% (n=82) of respondents who thought website localisation was essential and 34% (n=84) who considered it important. However, 7% (n=17) of the respondents viewed the activity as not so important and 9% (n=22) as not required, with 17% (n=42) indicating unfamiliarity with it. Figures like this support the observation that the localisation industry is seeing rapid global growth, with Saudi Arabia as no exception, but the relatively high unfamiliarity rate may be the result of less frequent use of localisation in certain sectors of the Saudi translation industry.


| | Subtitling | Website localisation |
|---|---|---|
| Essential | 43 | 33 |
| Important | 35 | 34 |
| Not so important | 8 | 7 |
| Not required | 6 | 9 |
| I don't know | 8 | 17 |

Figure 4.5 Perceived importance of multimedia-related activities

The majority of respondents (56%, n=139) regarded DTP as either essential or important in their daily work (Figure 4.6, below). Due to the linguistic and typographical characteristics of Arabic script, most notably its right-to-left orientation, DTP is especially relevant to translators working in the English <> Arabic language pair. Translated materials must faithfully reflect the original document while ensuring that both linguistic accuracy and visual coherence are maintained. However, inherent differences between Arabic and English inevitably affect the layout, design, and formatting of these materials. Despite these considerations and the

perceived importance of DTP, over one-quarter of the respondents (27%, n=67) reported unfamiliarity with it, making it, among all items on the list, the least known. This may contribute to some translators' perception that DTP tools are less important than they really are in professional practice.

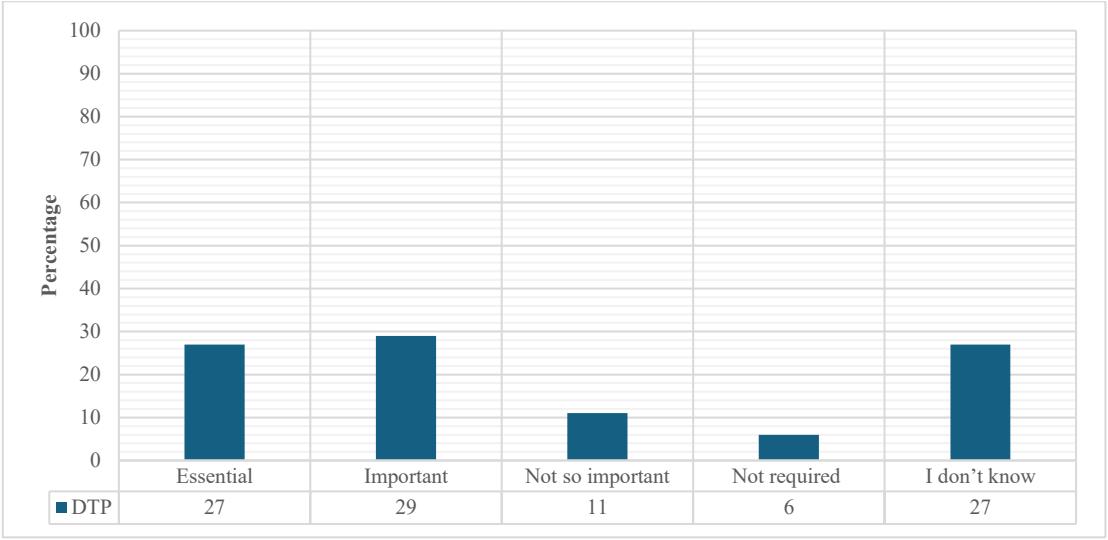



Figure 4.6 Perceived importance of DTP

This section has provided an overview of how professional translators in Saudi Arabia rate the importance and familiarity of translation technology-related activities and identifies the top 12 ranked in order of perceived importance. The findings both reveal the areas with which translators are unfamiliar and highlight the main technology-related requirements of the translation industry in Saudi Arabia. The qualitative findings are presented in the next section, giving further explanation for why these activities received the importance ratings they did in the survey.

### 4.5.2 Qualitative Findings

Considering the importance of translation technology-related activities as a main theme in the discussion, all participants (n=9) showed a high level of awareness of the importance of these technology-related activities in daily work, describing them as integral to modern translation practices. Such a consensus implies that future translators' employability and competitiveness in the industry require the acquisition and development of technological competence prior to graduation. The participants discussed how each activity benefits and impacts their work, in many cases emphasising how these technologies enhance productivity, time efficiency, work quality and adaptability to the requirements of clients and the industry.

❖ **Time Efficiency and Productivity**

All of the participants recognised the increased productivity and time-saving benefits offered by translation technologies, and they considered CAT tools and TMS indispensable for modern translation workflows, as they help manage strict deadlines and noticeably improve efficiency by automating elements of the translation process. Segment matching, auto-suggestions, and built-in QA checks were cited as especially useful, as they handle routine tasks and provide translators with more time to focus on content quality. PT4 explained:

> *Translation technologies are very important for translators to save them time and effort and increase their productivity, especially using CAT tools has helped me a lot to save time and increase productivity*.

PT9 shared a similar view:

> *Using translation technologies is extremely important, as time constraints often make it difficult for me to make revisions. In such cases, one of the advantages of TMS is to allow me to make necessary revisions quickly and efficiently without much manual effort. This helps me in saving time, increasing productivity and delivering high-quality translations even under pressure*.

Accounts like this reveal the participants' strong belief that translation technologies are crucial to their work efficiency and productivity, particularly with CAT and TMS, as they find themselves able to deal with more assignments, stick to deadlines, and maintain consistent quality. The time and efficiency savings made possible by these technologies are now widely regarded as essential for achieving a competitive advantage in a fast-paced industry.

❖ **Consistency and Quality Improvement**

Translation technologies were valued by the participants as aids for consistency and overall quality improvement, facilitating high standards across multiple different kinds of projects. Specifically mentioned was the usefulness of domain-specific TMs, QA features in CAT tools, and MT post-editing. These were seen as required for ensuring accuracy, especially when working under pressure or handling specialised content. PT3 commented:

> *Since my clients usually return to request my services, I have created TMs in several different domains to save time and effort and to ensure the consistency and high quality of the work.*

PT7 noted:

> *[…] even when working under tight deadlines, QA check is one of the essential steps in my translation work; I rely heavily on the CAT tool's QA features to detect spelling and grammar errors and ensure that my translation is both accurate and consistent*.

Comments such as these indicate that not only can translators work more efficiently when using translation technology, but they also feel more confident that their work is of reliably high quality. For specialised texts like legal or medical documents, for which consistency and terminological accuracy are critical, such benefits may be considered a necessity. Even in cases where they are under time pressure, the participants felt that these tools help them maintain professional standards in their translations.

- **Adaptation to Client Requirements and Industry Trends**

The participants also discussed the importance of using various translation technologies to meet client expectations and respond to changes in the translation industry. In many cases, clients request the use of certain tools or expect the translator to be familiar with specific technologies. Recent developments in the translation industry require translators to continually develop their technological competence to remain competitive. Mainly as a result of the growing presence of international companies in Saudi Arabia, localisation-related activities are more and more common, as PT7 noted:

> *I worked on multiple localisation projects, which are now expanding in Saudi Arabia due to the presence of international businesses in the country. These companies need translators to be familiar with adapting their websites, products, and services into the local market*.

PT8 observed a shift in professional practice where MT is used to create a first draft, which is then post-edited:

> *I believe that the translation profession is increasingly leaning towards post-editing rather than translating from scratch. Many translators start translating by pre-editing the ST for MT to produce a useful initial draft, then post-edit it and add their personal touch to the final product*.

These examples show that technology-related activities now form part of the expectations of many employers and clients. In addition to improving speed and quality, these technologies help translators adapt to new types of translation work. The trend suggests that, rather than being an optional extra, translation technology now represents a requirement of the industry, so BA programmes must adequately equip students with technological competence that is

relevant to what is actually needed by translators starting out in their translation careers to help graduates meet the expectations of both clients and potential employers.

## 4.6 Translators and Technology: Competence Self-assessment

This section reports the findings on the self-assessed technological competence of the translators surveyed, focusing on two key areas of inquiry: their ability to use MT and CAT tools (section 4.6.1) and their ability to perform a range of technology-related competencies adapted from Toudic's survey (section 4.6.2). Valuable insights can be drawn from this self-assessment into the translators' existing strengths and weaknesses in technological competence. Identification of those areas in which translators do not feel sufficiently competent can supply evidence to inform the development of BA curricula to prepare students with the competencies and adaptability needed to meet the technology-related requirements of the translation industry. The results also highlight competence gaps and indicate areas where further training and professional development may be necessary.

### 4.6.1 Competence Self-assessment: MT and CAT Tools

This part of the study aimed to understand which software tools are most commonly used by professional translators in Saudi Arabia and how competent they feel in using them. The goal is not only to assess levels of competence but also to ensure that the assessment reflects practical, real-world experience rather than just theoretical knowledge.

To achieve this, the survey listed 31 MT and CAT tools, adapted from Rothwell and Svoboda (2019), and respondents were asked to select only those tools they frequently use in their work. For each tool, they were asked to rate their own competence along a five-point Likert scale: weak, sub-competent, average, competent, or excellent. The N/A option was available if a respondent did not use the tool, which would skip the item. These responses provide insights into how translators view their own abilities with specific tools and which are most relevant in the Saudi translation industry. This self-assessment serves three purposes. First, it identifies the most frequently used translation tools among respondents, which shows which tools are most relevant to professional practice in Saudi Arabia and should therefore be prioritised in BA programmes. Second, it shows how competent translators are in using these commonly used tools, revealing areas where additional training may be needed. Third, it sets the basis for comparing the translators' self-assessments with those provided by employers (see Chapter 5, Section 5.4.2). This comparison supports a more comprehensive understanding of

technological competence in the Saudi translation industry and helps validate the research findings through triangulation.

#### 4.6.1.1 Identifying the Most Frequently Used MT and CAT Tools

To identify a representative list of MT and CAT tools frequently used by translators in Saudi Arabia, data were gathered from two primary sources and compared for triangulation purposes. In the Translator Survey, respondents were asked to select the tools they frequently use and then assess their competence in each one, while in the Employer Survey, employers reported which tools their translators frequently use and rated their translators' competence in those tools. Based on the highest frequency of use in both surveys, a list of the top 12 tools was created. Upon comparing the two lists, 10 were shared by both groups (i.e., translators and employers), providing a picture of the most relevant tools in the Saudi translation industry. Table 4.7 (below) presents the 10 tools most frequently used by translators, as confirmed by both translators and employers. These appear to be widely adopted in the Saudi translation industry and are likely to meet the needs of Saudi translators.

Table 4.7 Top-used MT & CAT tools (translators vs. employers)

| R | Software Items | % of Translators | % of Employers |
|---|---|---|---|
| 1 | Google Translate | 93 | 80 |
| 2 | Trados Studio | 84 | 70 |
| 3 | memoQ | 81 | 57 |
| 4 | SmartCAT | 81 | 63 |
| 5 | Phrase | 80 | 75 |
| 6 | Microsoft Translator | 79 | 61 |
| 7 | Wordfast Classic | 76 | 52 |
| 8 | Wordfast Anywhere | 75 | 54 |
| 9 | Atril Déjà Vu | 75 | 52 |
| 10 | Matecat | 74 | 52 |

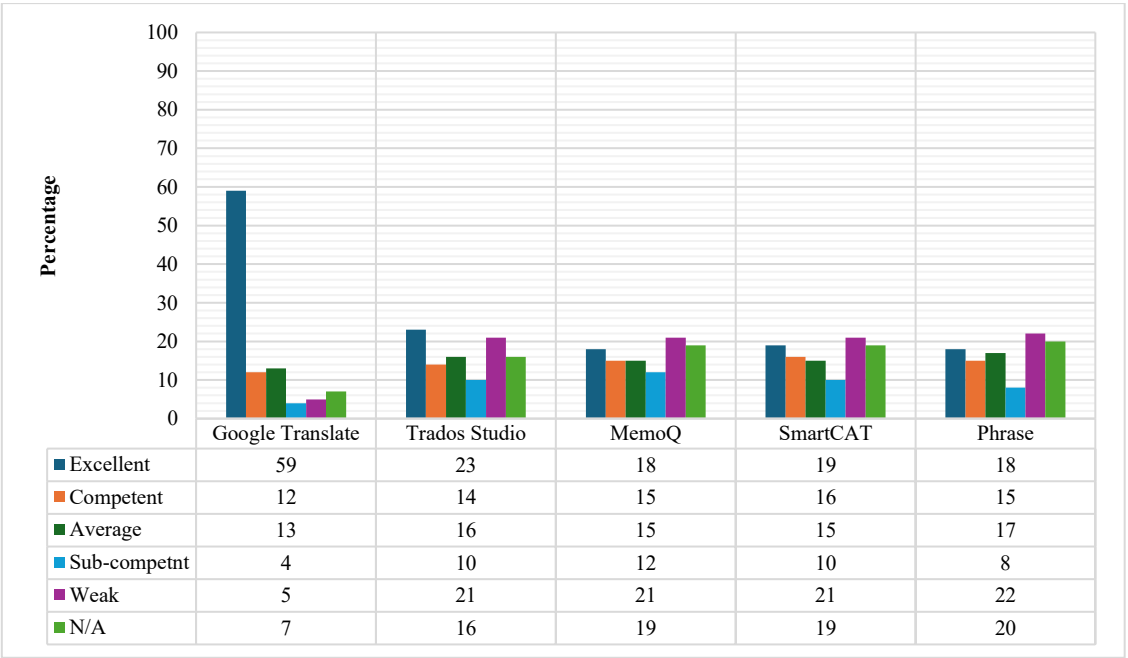
Google Translate was used by 93% (n=231) of the surveyed translators, and its use was confirmed by 80% (n=198) of the employers. Four CAT tools (i.e., Trados Studio, memoQ, SmartCAT, and Phrase) also showed high levels of use by both groups, indicating the relevance and popularity of these in the Saudi translation workplace. More than three-quarters of the respondents reported using Microsoft Translator, and 61% (n=151) of the employers confirmed its use, implying that this MT tool is gaining growing importance in the daily work of translators. Other tools (i.e., Wordfast Classic, Wordfast Anywhere, Déjà Vu, and Matecat) also

appeared in the top 10, reflecting broader preferences among Saudi translators for a range of CAT products. Having identified the most frequently used translation tools, the next section presents the respondents' self-assessed competence levels in using them.

#### 4.6.1.2 Self-assessed Competence Ratings of the Most-Used Tools

As mentioned earlier, respondents were asked to rate their level of competence on a scale from 1 (weak) to 5 (excellent) for each tool they reported using frequently. Two figures in this section show these items in order of frequency of use (descending).

The first figure (Figure 4.7, below) shows that Google Translate is the most widely used tool by far (93%, n=233). Across all sectors from government and semi-government to private companies and LSPs, Google Translate can be said to play a major role in day-to-day translation work. In the group discussion, the participants explained that the free access, ease of use, and ability to provide quick draft translations for later revision were their primary reasons for relying on Google Translate. Of those who reported using it, 59% (n=146) rated their competence as excellent, 12% (n=30) as competent, and 13% (n=32) as average, indicating that the large majority were confident in their competence with this tool. However, 4% (n=10) considered themselves sub-competent and 5% (n=12) as weak, indicating that some translators still perceive challenges when interacting with MT systems.



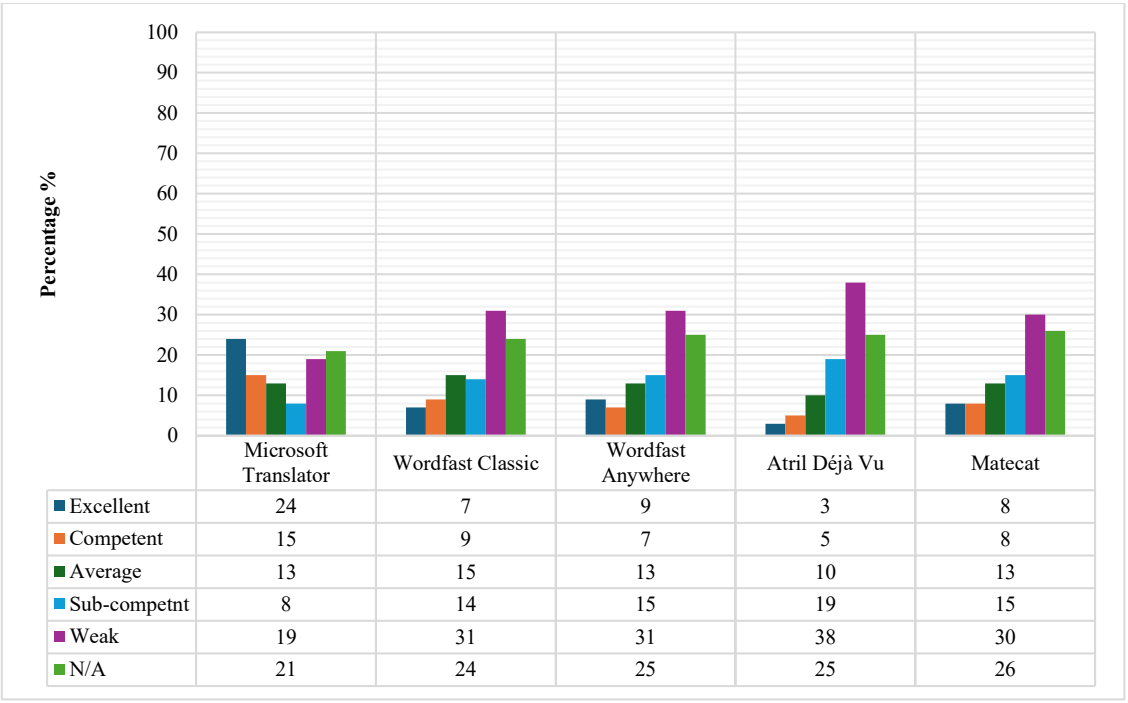

| | Google Translate | Trados Studio | MemoQ | SmartCAT | Phrase |
|---|---|---|---|---|---|
| Excellent | 59 | 23 | 18 | 19 | 18 |
| Competent | 12 | 14 | 15 | 16 | 15 |
| Average | 13 | 16 | 15 | 15 | 17 |
| Sub-competnt | 4 | 10 | 12 | 10 | 8 |
| Weak | 5 | 21 | 21 | 21 | 22 |
| N/A | 7 | 16 | 19 | 19 | 20 |

Figure 4.7 Self-assessment of tool competence (items 1-5)

The self-assessment results for the four frequently used CAT tools (i.e., Trados Studio, memoQ, SmartCAT, and Phrase) are also shown in Figure 4.7. More than three-quarters of the

respondents reported regularly using each of these tools, demonstrating their importance in translation workflows. However, the levels of competence expressed by the translators did not align with this: an excellent rating was given by less than a quarter of the respondents, and only 14-16% (n=35-40) considered themselves competent. While a portion selected average (15-17%, n=37-42), a considerable number reported low competence. Around a third stated that they were either sub-competent or weak with each tool, with ratings of weak consistently at or above 21% (n=79). This means that, despite the frequent use and importance of these tools, confidence in their effective use is low. The fact that the pattern persists across the four tools suggests a broader issue, rather than one that can be linked to a particular CAT product.

The tools with frequency rankings of 6 to 10 are shown in Figure 4.8 (below). 79% (n=196) of the respondents reported the frequent use of Microsoft Translator, but this registered a lower level of competence than Google Translate, with only 39% (n=97) considering themselves excellent or competent, against 71% (n=176) for Google Translate. Some translators, therefore, feel less competent with the full feature use of Microsoft Translator than they do with Google Translate.




| | Microsoft Translator | Wordfast Classic | Wordfast Anywhere | Atril Déjà Vu | Matecat |
|---|---|---|---|---|---|
| Excellent | 24 | 7 | 9 | 3 | 8 |
| Competent | 15 | 9 | 7 | 5 | 8 |
| Average | 13 | 15 | 13 | 10 | 13 |
| Sub-competnt | 8 | 14 | 15 | 19 | 15 |
| Weak | 19 | 31 | 31 | 38 | 30 |
| N/A | 21 | 24 | 25 | 25 | 26 |

Figure 4.8 Self-assessment of tool competence (items 6-10)

The four remaining CAT tools (i.e., Wordfast Classic, Wordfast Anywhere, Déjà Vu, and Matecat) were reported as frequently used by three-quarters of the respondents, but with a worryingly low level of competence. For each tool, less than a fifth rated themselves excellent or competent, while sub-competent and weak ratings ranged from 30% (n=74) to 38% (n=94).

The highest weak rating went to Déjà Vu (38%, n=94), followed by Wordfast Anywhere (31%, n=77) and, closely, Matecat (30%, n=74). These findings reveal that, despite the frequent use of these tools, a majority of Saudi translators do not feel confident in their ability to employ them.

Overall, considerable variation is evident in the translators' self-perceived competence across the most commonly used MT and CAT tools. While MT tools (i.e., Google Translate and Microsoft Translator) received relatively high competence ratings, those for CAT tools (i.e., eight items) were notably lower. A substantial proportion of respondents rated themselves as sub-competent or weak with many of the widely used CAT tools, especially Déjà Vu, Wordfast Anywhere, and Matecat. The results suggest that translators recognised the need for further improvement in their competence to use these tools effectively. Additionally, the results indicate that frequent use does not necessarily equate to high competence. This highlights the importance of exploring how different BA pathways may influence the development of technological competence, so the next section compares the self-assessed competence of translators based on their BA backgrounds.

#### 4.6.1.3 Comparative Analysis of Tool Competence by BA Pathways

This comparative analysis between graduates from translator training programmes (n=124) and those from language-related programmes (n=124) provides new insights into the technological competence of current translators, a topic that has not yet been explored in the Saudi context. The purpose of this comparison is to explore whether the respondents' BA backgrounds influenced their technological competence levels. By doing so, the findings help identify differences in the preparedness of translators for the technology-related requirements of the translation industry, highlighting how each graduate group self-perceives their competence in using these tools. For comparison purposes, the mean score for each tool was calculated for both groups.

The results, presented in Table 4.8 (below), show that both groups rated their competence in Google Translate as excellent, with slightly higher ratings among graduates of language-related programmes (4.28) compared to those from translator training programmes (4.21). This indicates a high familiarity with this tool across both BA pathways. For all the remaining tools, however, the mean scores fall within the average or sub-competent range. Both groups assessed their competence in Microsoft Translator at the average level, with similar mean scores (3.21

for translator training and 3.24 for language-related programmes), indicating a shared familiarity with this MT tool.

Similar average competence levels were also reported by both for CAT tools (i.e., Trados Studio, memoQ, SmartCAT, and Phrase), with marginally higher scores among translator training graduates for some tools. Trados Studio, for example, showed a mean of 3.21 among translator training graduates and 2.96 for language-related graduates. memoQ was similarly rated at 3.14 and 2.78 by these groups, respectively. Small differences like this suggest that a minor advantage exists for those who studied in specialised training programmes, although with an overall average competence. Both groups rated themselves as sub-competent with the four tools, with the lowest mean ratings (Wordfast Classic, Wordfast Anywhere, Déjà Vu, and Matecat). Déjà Vu received the lowest mean from both translator training graduates and language-related graduates (1.90 and 1.83, respectively), indicating that despite its frequent use in the industry, translators do not feel confident using this tool.

Table 4.8 Mean scores for MT and CAT tools by BA pathways

| Software tools | Translator training (n=124) | | Language-related (n=124) | | Total respondents (n=248) | |
|---|---|---|---|---|---|---|
| | Mean | Competence Level | Mean | Competence Level | Mean | Competence Level |
| Google Translate | 4.21 | Excellent | 4.28 | Excellent | 4.25 | Excellent |
| Trados Studio | 3.21 | Average | 2.96 | Average | 3.10 | Average |
| memoQ | 3.14 | Average | 2.78 | Average | 2.96 | Average |
| SmartCAT | 3.02 | Average | 3.07 | Average | 3.02 | Average |
| Phrase | 3.13 | Average | 2.84 | Average | 2.99 | Average |
| Microsoft Translator | 3.21 | Average | 3.24 | Average | 3.22 | Average |
| Wordfast Classic | 2.28 | Sub-comp. | 2.30 | Sub-comp. | 2.30 | Sub-comp. |
| Wordfast Anywhere | 2.30 | Sub-comp. | 2.33 | Sub-comp. | 2.31 | Sub-comp. |
| Déjà Vu | 1.90 | Sub-comp. | 1.83 | Sub-comp. | 1.88 | Sub-comp. |
| Matecat | 2.33 | Sub-comp. | 2.32 | Sub-comp. | 2.31 | Sub-comp. |

To conclude, although Google Translate received high confidence ratings from these two graduate groups, their self-assessment reveals more modest perceptions of competence with a range of CAT and MT tools. Competence levels in these areas were reported to be within the average range, even among graduates from translator training programmes, who might be expected to show higher technological competence. Similar or slightly lower ratings were

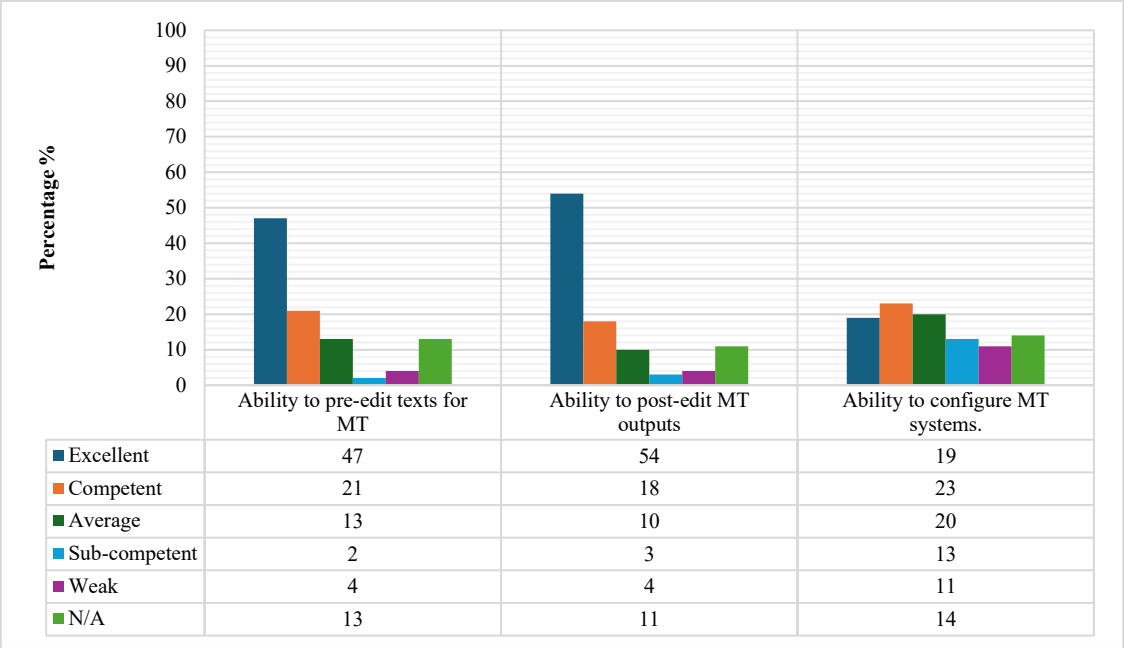
gleaned from graduates of language-related programmes, showing that the perceived competence gap between the two groups is not as wide as might be assumed. Of particular note are the consistently low competence scores for the widely used CAT tools (i.e., Déjà Vu, Wordfast and Matecat), with both groups rating themselves sub-competent. This comparative analysis shows that graduates from either type of course clearly recognised the need for further development in the areas where they currently lack confidence. It also points to a broader issue in BA programmes, where translation technology training, regardless of programme type, does not yet appear to equip students with a sufficient level of technological competence to meet industry requirements.

### 4.6.2 Competence Self-assessment: Technology-related Competencies

This section of the study examines how Saudi translators self-assess their level of ability to perform a set of technology-related competencies (13 items). These were adapted from Toudic (2012) and are organised into four groups (i.e., MT, CAT, multimedia, and DTP) to facilitate the presentation and discussion of the results. Respondents were asked to assess themselves using the same Likert scale, ranging from weak to excellent, with the N/A option available if the competence was not relevant to their work. This element of the study seeks to map the current technological competence landscape among translators in Saudi Arabia, highlighting both strengths and areas where translators feel less confident and require additional support. This, in turn, helps identify competence areas that may require further attention in BA programmes. In addition, because the same question was used in Alshaikhi's (2018) study, this section allows for a quasi-longitudinal comparison to track how translators' technological competence has developed over time.

The first group includes three MT-related competencies: pre-editing texts for MT, post-editing MT outputs, and configuring MT systems. Figure 4.9 (below) shows that the first two competencies registered high levels of confidence. Pre-editing was rated as excellent by nearly half of the respondents (47%, n=117), and 21% (n=52) considered themselves competent, resulting in a total of 68% (n=169). Slightly higher rated was post-editing, with 54% (n=134) describing themselves as excellent and 18% (n=45) stating that they were competent, totalling 72% (n=179). For both of these, only small percentages rated themselves as sub-competent (2–3%, n=5-7) or weak (4%, n=10), and between 10–13% (n=25-32) selected average. The remaining respondents chose the N/A option. In contrast, the ability to configure MT systems received mixed responses, with just 19% (n=47) rating themselves excellent and 23% (n=57) as competent, bringing the total of respondents who felt confident with this competence to less

than half (42%, n=104). 20% (n=50) rated themselves as average, 13% (n=32) reported their level as sub-competent, and 11% (n=27) considered themselves weak. N/A was selected by 14% (n=35), indicating that these translators do not need this competence in their work. The results, therefore, reveal the high levels of competence that many translators feel with pre- and post-editing for MT, implying that these core competencies are well-integrated into their work. However, the lower confidence in configuring MT systems indicates a possible need for further training in MT system configuration.

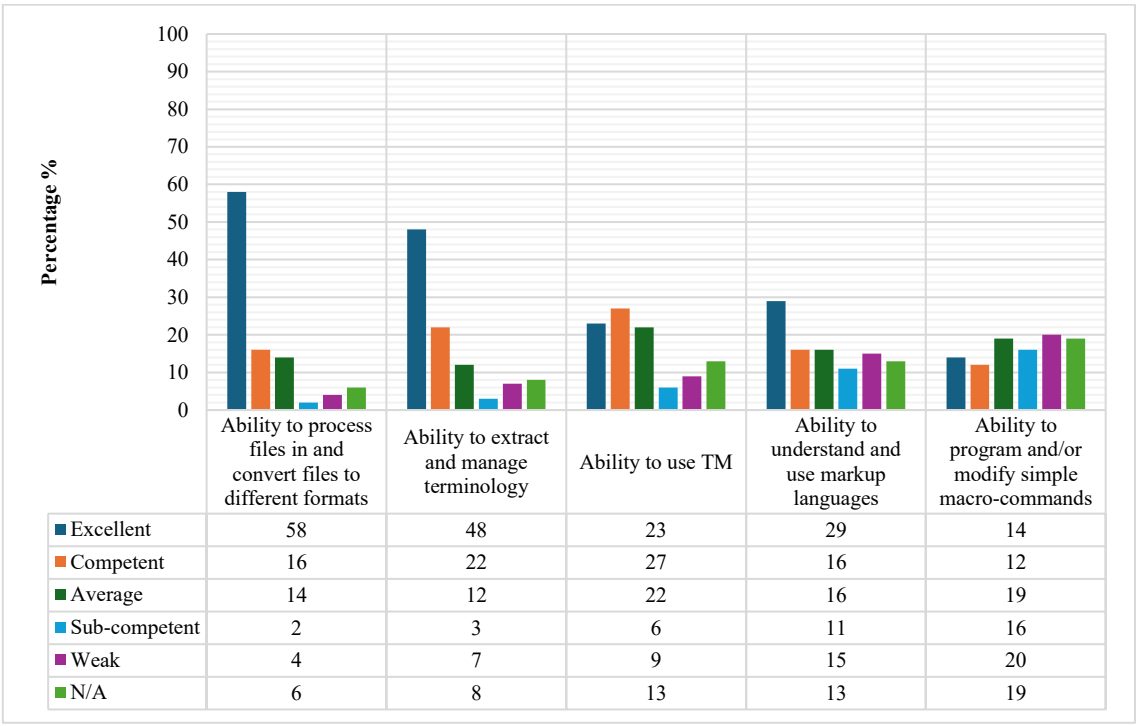



| | Ability to pre-edit texts for MT | Ability to post-edit MT outputs | Ability to configure MT systems. |
|---|---|---|---|
| Excellent | 47 | 54 | 19 |
| Competent | 21 | 18 | 23 |
| Average | 13 | 10 | 20 |
| Sub-competent | 2 | 3 | 13 |
| Weak | 4 | 4 | 11 |
| N/A | 13 | 11 | 14 |

Figure 4.9 Self-assessment of MT-related competencies

The second group includes five CAT-related competencies, as shown in Figure 4.10 (below): file formatting and conversion, terminology extraction and management, use of TM, markup languages, and programming and modifying macro commands. Among these, the highest competence ratings were reported for the ability to process and convert files. Three-quarters of the respondents expressed confidence in handling file formats in CAT tools, with excellent at 58% (n=144) and competent at 16% (n=40). Working with file formats is, therefore, routine in the translator's workflow, which may result from the diverse range of files generated by the different CAT tools. Only 14% (n=35) selected average, 2% (n=5) sub-competent, and 4% (n=10) weak, with 6% (n=15) choosing N/A. The competence of extracting and managing terminology appears to be well-supported in work settings, as it saw a similarly high confidence rating, with 70% (n=40) of the respondents describing themselves as excellent or competent. These two areas stand out as strong points in their CAT-related competence profile.

Ratings for other CAT-related competencies, however, reveal more mixed results. Despite the central role of TM in CAT tools, less than half of the respondents considered themselves confident in using TM systems, while the rest expressed average or lower competence. This result may raise concerns about the uncertainty among respondents regarding the effective use of TM. Levels of competence with markup languages (e.g., HTML, XML) were rated as excellent by 29% (n=72), and 16% (n=40) thought themselves competent, totalling nearly half of the respondents (45%, n=112). However, 16% (n=40) considered their competence with markup languages to be average, and over a quarter (26%, n=64) thought themselves sub-competent. This shows a lack of proficiency in markup language use among a considerable proportion of Saudi translators, which is likely to hinder their interactions with CAT tools and cause them to struggle more than their peers who demonstrate high competence. The lowest scores in this group were assigned to the ability to program or modify simple macro-commands: only 26% (n=64) thought themselves competent or above, while sub-competent or weak ratings were given by a combined 36% (n=89) of respondents. Almost a fifth selected the N/A option.



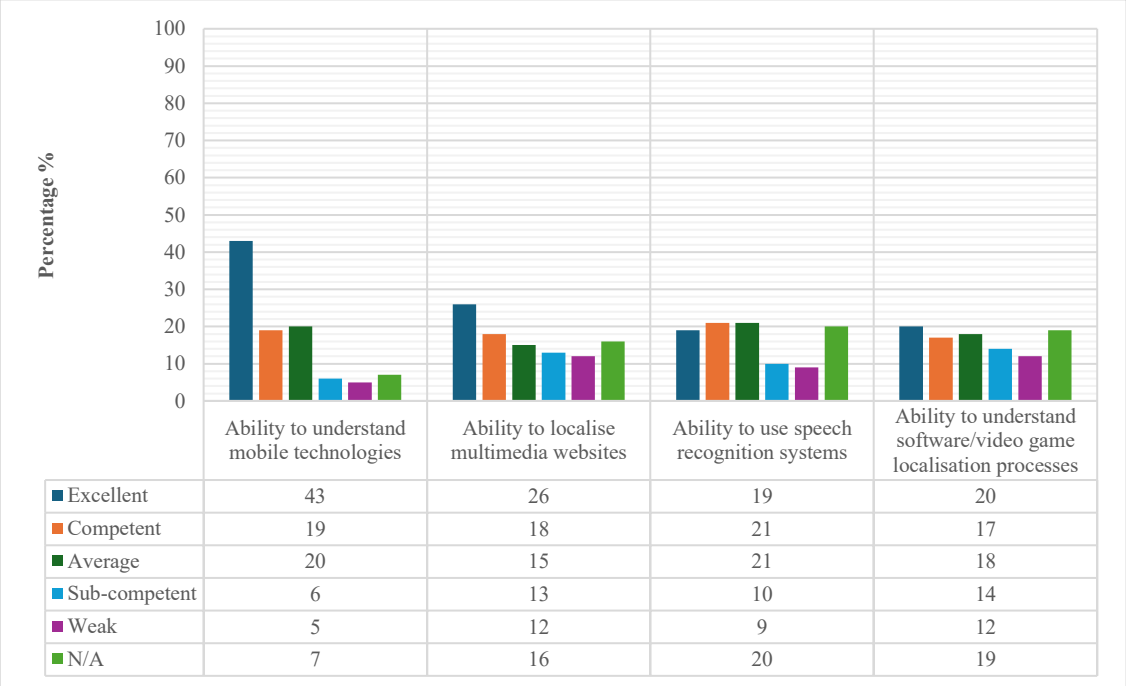

| | Ability to process files in and convert files to different formats | Ability to extract and manage terminology | Ability to use TM | Ability to understand and use markup languages | Ability to program and/or modify simple macro-commands |
|---|---|---|---|---|---|
| Excellent | 58 | 48 | 23 | 29 | 14 |
| Competent | 16 | 22 | 27 | 16 | 12 |
| Average | 14 | 12 | 22 | 16 | 19 |
| Sub-competent | 2 | 3 | 6 | 11 | 16 |
| Weak | 4 | 7 | 9 | 15 | 20 |
| N/A | 6 | 8 | 13 | 13 | 19 |

Figure 4.10 Self-assessment of CAT-related competencies

These results demonstrate that while translators in Saudi Arabia feel most competent in file processing and terminology management, other CAT-related activities (i.e., use of TM, handling markup languages, and working with macro-commands) are competently handled by

only a minority. This starkly highlights what BA programmes should integrate into their curricula.

Multimedia-related competencies, comprising localising multimedia websites, understanding the localisation processes of software or video games, the use of speech recognition systems, and working with mobile technologies, represent the third group in this section (shown in Figure 4.11, below). This group showed mixed results, with both strength and uncertainty registered by the respondents. The strongest area was mobile technology, with most (62%, n=154) respondents considering themselves excellent (43%, n=107) or competent (19%, n=47). Just 20% (n=50) rated themselves average, 6% (n=15) sub-competent, and 5% (n=12) weak. These high levels of confidence are likely to be the result of the increasing importance of mobile devices and apps in translators' daily work, and most respondents reported feeling competent in their use for translation purposes. A far more even split could be seen for speech recognition systems: 40% (n=99) stated they have excellent (19%, n=47) or competent levels of competence (21%, n=52), while the same proportion (40%, n=99) considered themselves average (21%, n=52) or sub-competent (19%, n=47). These results show that, in the Saudi translation industry, as many translators do not frequently use or are not confident with their use of speech recognition systems as those who are.




| | Ability to understand mobile technologies | Ability to localise multimedia websites | Ability to use speech recognition systems | Ability to understand software/video game localisation processes |
|---|---|---|---|---|
| Excellent | 43 | 26 | 19 | 20 |
| Competent | 19 | 18 | 21 | 17 |
| Average | 20 | 15 | 21 | 18 |
| Sub-competent | 6 | 13 | 10 | 14 |
| Weak | 5 | 12 | 9 | 12 |
| N/A | 7 | 16 | 20 | 19 |

Figure 4.11 Self-assessment of multimedia-related competencies

Respondents' confidence in their localisation competencies is relatively low, even though localisation services represent one of the fastest-growing sectors of the industry. The ability to

localise multimedia websites was rated as excellent (26%, n=64) or competent (18%, n=45) by a combined total of only 44% (n=109), while 15% (n=37) thought themselves average and 25% (n=62) as sub-competent. Localising website content is, therefore, not an area of confidence for Saudi translators, and the results show that neither is the understanding of the processes involved in software or video game localisation. Only 20% (n=50) rated themselves as excellent in this area, and 17% (n=42) as competent, making a total of 37% (n=92). However, one-third of the respondents felt less than competent in carrying out video game or related localisation projects, as 18% (n=45) considered themselves average and 14% (n=35) sub-competent. Localisation seems to be an area where most translators still require additional support and training.

Figure 4.12 (below) shows how the respondents rated their ability to use and parameter DTP tools. The results are somewhat mixed. This criterion saw just over a third of the respondents (34%, n=84) report high competence, with excellent at 19% (n=47) and competent at 15% (n=37). A moderate level of confidence was indicated by a further 16% (n=40), who stated that they were average, but a total of 30% (n=74) rated themselves either as sub-competent (12%, n=30) or weak (18%, n=45), which suggests that effective use of DTP tools is not an area of confidence for Saudi translators. The selection of the N/A option by 20% (n=50) of respondents shows that a fifth never use DTP tools in their work. This is, therefore, the weakest technology-related area, so BA programmes and CPD efforts would benefit from affording it greater importance.

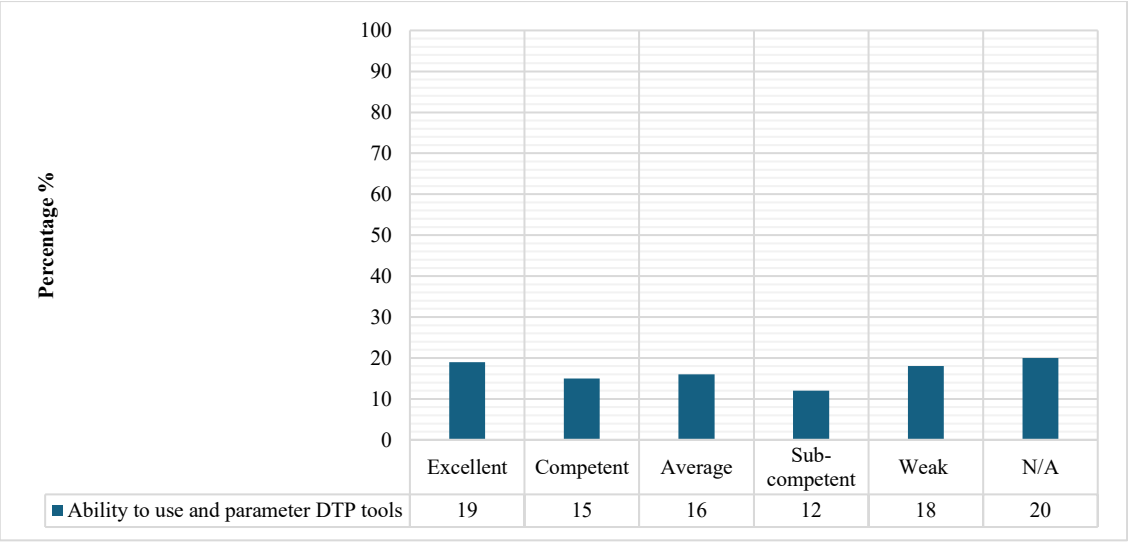



Figure 4.12 Self-assessment of DTP-related competence

The overall assessment of technological competence can be better understood when viewed alongside the earlier survey results. Most respondents reported having limited or no practical

training in MT (64%, n=159) and CAT tools (72%, n=179) during their BA studies (see Figure 4.1). The lower self-assessed ratings observed for several key competencies may be partly attributed to this lack of training. Significant gaps were observed in several areas, even while some (e.g., pre-editing, post-editing, file processing and terminology management) received higher ratings, suggesting that the graduates surveyed were not adequately prepared for the industry's technology-related requirements by their BA programmes. This finding aligns with later sections of the survey, in which many respondents expressed a need for CPD to improve technological competence and address these gaps.

#### 4.6.2.1 Comparative Analysis of Competence by BA Pathways

This section compares self-assessed technological competence between translator training graduates and language-related graduates. Although previous studies have noted that many translators in Saudi Arabia hold degrees from language-related programmes (including this thesis), direct comparisons of their technological competence with graduates from specialised translator training programmes have not yet been conducted in the Saudi context. Therefore, it is both novel and significant to conduct this comparative analysis, which can inform us on how these two graduate groups perceive their ability to use translation technologies and how each academic pathway prepares students for the technology-related requirements of the translation industry.

Interestingly, the results reveal that language-related graduates consistently rated themselves slightly higher in 10 of the 13 technology-related competencies. In the MT group, language-related graduates reported slightly higher mean scores, with 4.24 for pre-editing and 4.32 for post-editing, compared to 4.17 and 4.25 for graduates of translator training programmes. For configuring MT systems, both groups reported more average competence levels, with mean scores of 3.39 for language-related graduates and 3.20 for their translator training counterparts. The same unexpected trend continues in the CAT group, where language-related graduates reported slightly higher self-assessed ratings in most of the competencies. They scored 4.11 in terminology management and 3.76 in using TM, while translator training graduates scored 4.10 and 3.34 in these competencies, respectively. Both groups reported high confidence in file processing and conversion, with similarly high averages. However, in more advanced competencies (e.g., markup languages and modifying macro commands), lower scores were recorded, though language-related graduates rated themselves slightly higher.

Mixed responses can be seen in the multimedia-related competencies. Translator training graduates gave marginally higher ratings in website localisation (3.43) and speech recognition systems (3.40), both rated as competent. In contrast, language-related graduates rated themselves higher in software and game localisation (3.40) and mobile technologies (4.07), with the latter reaching the competent level. Overall, these results indicate that while both groups feel reasonably confident in performing multimedia-related competencies, certain areas still require further training. Moreover, both groups reported average competence levels in using DTP tools. Language-related graduates achieved a slightly higher mean score (3.16) than translator training graduates (2.97) but both scores remained within the average range. This implies that DTP is not a core focus in the curricula of either BA pathway, resulting in relatively modest self-assessment

Table 4.9 Mean scores for technology-related competencies by BA pathways

| Competencies | Domain | Translator training (n=124) | Skill Level | Language-related (n=124) | Skill Level | Total respondents (n=248) | Skill Level |
|---|---|---|---|---|---|---|---|
| Pre-editing | MT | 4.17 | Competent | 4.24 | Excellent | 4.21 | Excellent |
| Post-editing | MT | 4.25 | Excellent | 4.32 | Excellent | 4.29 | Excellent |
| Configuring MT systems | MT | 3.20 | Average | 3.39 | Average | 3.30 | Average |
| File processing and format conversion | CAT | 4.31 | Excellent | 4.34 | Excellent | 4.33 | Excellent |
| Terminology management | CAT | 4.10 | Competent | 4.11 | Competent | 4.11 | Competent |
| TM use | CAT | 3.34 | Average | 3.76 | Competent | 3.55 | Competent |
| Markup languages | CAT | 3.42 | Competent | 3.35 | Average | 3.39 | Average |
| Programming and macro commands | CAT | 2.61 | Average | 2.96 | Average | 2.79 | Average |
| Website localisation | Multimedia | 3.43 | Competent | 3.36 | Average | 3.39 | Average |
| Software and game localisation | Multimedia | 3.20 | Average | 3.24 | Average | 3.22 | Average |
| Speech recognition systems | Multimedia | 3.40 | Competent | 3.38 | Average | 3.39 | Average |
| Mobile technologies | Multimedia | 3.89 | Competent | 4.07 | Competent | 3.98 | Competent |
| DTP tools | DTP | 2.97 | Average | 3.16 | Average | 3.07 | Average |

To conclude, language-related graduates demonstrated higher self-assessment competence in most technology-related competencies (10 out of 13 items) than translator-training graduates. While this finding may seem counterintuitive, it cannot be attributed to their formal BA training, as many of the translators surveyed expressed dissatisfaction with the translation technology training they received during their BA studies. Notably, 77% (n=96) and 61%

(n=75) of the language-related graduates reported no training at all in MT and CAT tools, respectively (see Table 4.5 and qualitative findings in section 4.4.2). A plausible interpretation for this trend is the higher level of CPD engagement among language-related graduates, with 87% (n=108) having personal CPD plans in place, compared to 77% (n=96) of their counterparts (see Section 4.7 for more details). The findings from this comparative analysis underscore the need for both BA pathways to enhance their training in translation technology, ensuring that current curricula equip students with the technology-related competencies required by the profession.

#### 4.6.2.2 Evolution of Saudi Translators' Technological Competence: Quasi-longitudinal Analysis (2018 vs. 2025)

The dearth of longitudinal research in this area in the Saudi context means that comparing the technological competence of Saudi translators as reported in this study and in a previous study by Alshaikhi (2018) (see Chapter Two, Section 2.5) can yield insights that are both novel and valuable. Alshaikhi's study, conducted in 2015 and published in 2018, represents the current benchmark for understanding how Saudi translators' technological competence has developed over time. Building on this, this quasi-longitudinal analysis is considered one of the first efforts to explore changes in translators' technological competence in the Saudi context, offering insights into the progress made and the areas where further development may be needed.

Given that Alshaikhi's study focuses mainly on Saudi translators' competence in the areas of 'Language' and 'Translation', not all technology-related competencies were included in that study (see Section 2.5). As a result, only five competencies were shared between the two studies (i.e., configuring MT systems, terminology management, TM use, file processing, and mobile technologies). These represent diverse domains and are crucial to the technological competence required by translators in modern workflows, emphasising that this quasi-longitudinal comparison remains valuable for understanding how these competencies have evolved over time.

The comparison reveals notable progress in self-assessed competence across all of the shared competencies, particularly in the MT and CAT groups. For instance, there is a modest improvement in configuring MT systems, which registered a higher score of 3.30 in the current study compared to 2.97 in Alshaiki's study. Despite this slight progress, both scores remain in the average competence range, indicating that translators need additional training. Although pre-editing and post-editing were not assessed in Alshaiki's study, the current results show high

self-assessments in these two competencies (4.21 for pre-editing and 4.29 for post-editing), well within the excellent range. This may tell us that MT-related competencies have become critical for translators, reflecting the growing integration of NMT tools in modern workflows. In the CAT group, substantial improvements are evident across multiple competencies. Specifically, file processing and conversion registered a marked increase, rising from 3.06 in 2018 to 4.31 in this study. Similarly, terminology management and TM use also saw improvements, with the former rising from 3.15 to 4.11 and the latter improving from 3.06 to 3.55 in the current study. These results indicate notable improvements in Saudi translators' competence in handling essential CAT tools, underscoring that these tools have become more widely used among translators. Regarding multimedia, the comparison is possible in one criterion (i.e., mobile technologies) because it is the only competence included in both studies. The results show improvement in this area, with translators rating themselves as average (3.17) in Alshaiki's study compared to competent (3.98) in the current study. This increase may highlight the growing importance of mobile devices in daily translation tasks. While website localisation and software and game localisation were not assessed in Alshaikhi's study, the current study reveals that translators have not yet reached the same level of self-assessed competence in these areas as in other competencies, which may indicate a limited focus on localisation in the current curricula of BA programmes.

Table 4.10 Comparison of mean scores (Alshaikhi, 2018 vs. current study)

| Competencies | Domain | Alshaikhi's study | Competence level | Current study | Competence level |
|---|---|---|---|---|---|
| Pre-editing | MT | not included | - | 4.21 | Excellent |
| Post-editing | MT | not included | - | 4.29 | Excellent |
| Configuring MT systems | MT | 2.97 | Average | 3.30 | Average |
| File processing and format conversion | CAT | 3.06 | Average | 4.33 | Excellent |
| Terminology management | CAT | 3.15 | Average | 4.11 | Competent |
| TM use | CAT | 3.06 | Average | 3.55 | Competent |
| Markup languages. | CAT | not included | - | 3.39 | Average |
| Programming and macro commands | CAT | not included | - | 2.79 | Average |
| Mobile technologies | Multimedia | 3.17 | Average | 3.98 | Competent |
| Website localisation | Multimedia | not included | - | 3.40 | Competent |
| Software and game localisation | Multimedia | not included | - | 3.22 | Average |
| Speech recognition systems | Multimedia | not included | - | 3.07 | Average |
| DTP tools. | DTP | not included | - | 3.39 | Average |

The findings from this quasi-longitudinal comparison reveal positive progress in translators' competence across multiple technology-related competencies, particularly in MT, CAT, localisation, and mobile technologies. As there is evidence that many translators are not receiving training in MT and CAT tools during their BA studies, the improvement observed in their technological competence is most likely attributed to CPD, which translators resort to after graduation to bridge gaps left by academic training. This interpretation is supported by the qualitative findings, where focus group participants reported that they took it upon themselves to develop their technological competence due to insufficient BA training (see Section 4.6.3).

### 4.6.3 Qualitative Findings

The focus group discussion allowed the participants to share their self-assessments, personal insights and thoughts about their competence and how they remain up to date with translation technologies and their use. With technological competence assessment representing the main theme of the discussion, two sub-themes emerged from the group: varying competence levels,

with some participants reporting greater confidence in some individual areas than in others, and ways in which CPD can enhance technological competence for Saudi translators.

- **Varying Levels of Technological Competence**

The participants estimated their technological competence at different levels, with higher self-assessed ratings in some areas than in others. For example, some participants expressed high confidence in their MT-related competencies, whereas they lacked such confidence in using CAT tools. PT6 mentioned that:

> *I feel that my proficiency in using MT is highly competent, while my skills in using CAT tools are not at the same level. I find myself more confident when using MT; therefore, I am currently improving my skills in CAT tools to enhance my overall performance at work.*

PT1 remarked that:

> *CAT tools require more learning than MT, which is easier to use and accessible to everyone*.

These statements reinforce the disparity in training and competence between MT and CAT tools, which aligns with the high percentage of respondents reporting no training in CAT tools (57%, n=141) or MT (45%, n=112) during their BA studies (see Figure 4.1). This lack of training probably correlates with the varying competence levels identified in the survey results, which can explain their higher confidence in using MT systems compared to CAT tools. Moreover, the lack of proficiency may underscore the need for more comprehensive CAT training, one that extends beyond focusing solely on CAT basics.

The discussion extended to include participants' views on their competence levels in technologies other than MT and CAT tools (e.g., localisation, speech recognition systems, and mobile technologies). Perceived competencies varied when dealing with these technologies, reflecting a diverse competence landscape across these areas. While some translators excel in specific technologies, they reported limitations in their competencies in others, necessitating that they achieve balanced proficiency across all relevant domains to ensure high-quality work across diverse project requirements.

- **Elevating Technological Competence through CPD**

Widespread recognition of the value of CPD in elevating technological competence was another sub-theme identified from the translator focus group. The critical role of CPD was

consistently emphasised by all participants, suggesting awareness of the deficiencies of BA programmes in equipping students with the technology-related competencies required in the translation industry, as noted by the participants:

> *I believe that the focus on translation technology training in our universities has been limited, which forces us to take the initiative to develop our skills independently* (PT4).

This comment raises a concern regarding the insufficient emphasis on translation technologies within current BA curricula, which has implications for translators' engagement in CPD. The participants' emphasis on CPD is a testament to the steps they are taking to address the competence gaps left by their formal training provided by BA programmes. Inadequate BA training can therefore be considered one of the primary drivers for translators to independently take part in learning opportunities extra to their work, with the specific aim of acquiring and developing technological competence.

CPD was repeatedly described by the participants as important for keeping competencies and knowledge current and becoming familiar with new technological advancements. Two examples are:

> *I always try to learn about the newest translation technologies or at least stay aware of them. I know I can't be an expert in all the tools, but continuous learning is essential for me as a translator to develop my overall translation competence* (PT5).

> *I think I am competent enough in using the latest technologies as I consistently engage in CPD opportunities that focus on developing my skills and learning about industry trends and advancements* (PT7).

The participants further emphasised the value of CPD, in addition to bridging the gaps left by academic programmes, in keeping their competencies up to date with ongoing advancements in translation technologies and staying on top of emerging industry trends and practices. These two quotations demonstrate the participants' dedication to using CPD to stay proficient and competitive, as they considered it a way of maintaining and enhancing their competencies.

The findings in this section can together help draw the landscape of technological competence among translators in Saudi Arabia, revealing varying levels of technological competence. Both the quantitative and qualitative findings indicate that competence levels varied considerably among participants, ranging from competent to average and sub-competent. Within these competence ranges, nuances emerged, with higher reported competence in some areas than others, which may be attributed to a lack of comprehensive translation technology training during BA studies. This drives the majority of translators to develop their technological

competence independently, so a need exists for curriculum development to ensure that BA programmes adequately prepare students for the requirements of the Saudi translation industry

The following section reports the findings related to CPD, exploring how it is approached, implemented, and supported within the Saudi translation industry, as viewed by the translators surveyed. This helps provide a complete picture of the current landscape of CPD practices, which is important in informing curriculum development.

## 4.7 CPD Provision and Support

Since many translators rely on CPD to build and improve their technological competence, this section explores how they plan their own development and the extent of support they receive from their employers. Using both quantitative and qualitative data, it presents an overview of CPD practices among Saudi translators. The focus is on personal efforts to engage in CPD and the internal (within the workplace) and external (outside of the workplace) CPD activities.

### 4.7.1 Personal Planning for CPD

This part of the survey explored how translators plan their own professional development, in relation to the question about whether or not respondents had a personal CPD plan. Table 4.11 (below) shows that 83% (n=206) of respondents claimed to have such a plan, so there exists significant awareness of the fact that CPD can improve technological competence. Interestingly, fewer translator training graduates (77%, n=96) reported having personal CPD plans than language-related graduates (87%, n=108), a difference that may form part of the explanation for reports of higher self-assessed competence levels across multiple technology-related competencies by the latter group.

Table 4.11 Availability of personal CPD plans

| BA Pathway | Yes | No |
|---|---|---|
| Translator training graduates (n=124) | 77% | 23% |
| Language-related graduates (n=124) | 87% | 13% |
| All respondents (n=248) | 83% | 17% |

The finding that some Saudi translators have no plan for professional development represents a cause for concern, although the high proportion of respondents who do have a CPD plan is encouraging. Translators lacking this career development strategy may inadvertently overlook areas in which they need to improve or be unable to select CPD activities relevant to enhancing their practice and advancing their careers. Any efforts they may make in this direction, however

well-meaning, may then be a waste of time. The group discussion supplied context to this finding, as several challenges were identified that render CPD planning onerous for some translators, especially at the beginning of their career.

Strong awareness of the value of CPD, particularly its utility in bridging competence gaps, was evident among all participants, as they unanimously agreed that it is required to stay up to date. PT1, an experienced translator, stressed the importance of having a clear CPD plan, particularly for new translators:

> *Having a personal plan for professional development is very important for a translator, particularly for novice translators, to develop their skills in using translation technologies, especially CAT tools*.

This reflects an understanding that academic training alone may not fully prepare graduates to use translation technologies effectively, highlighting the need for CPD planning. It also points to a specific area where BA training may be limited (i.e., CAT tools). The discussion raised two common challenges that some translators face in planning their CPD: a lack of clear planning among novices and the absence of early-career guidance from employers.

- **Lack of CPD Planning among Novice Translators**

Although novice translators understood the importance of CPD, they often lacked clear plans for how to approach it. PT5 openly admitted:

> *To be honest, I do not have a clear personal plan for professional development*.

This typifies a distinct trend among early-career translators: they may understand the benefits of CPD, but without clear planning, have no way of reliably translating this awareness into action.

- **Navigating CPD without Early-Career Guidance**

Some participants noted that even if translators intend to engage in CPD, they lack early-career guidance and planning support from employers. The absence of early guidance may make it difficult for translators to identify the most beneficial CPD activities that are directly relevant to their work. PT6, a mid-career translator, reflected on how earlier experiences at work shaped the way they thought about CPD planning:

> *At the beginning of my career, I did not have a clear plan for professional development. I used to attend various courses to develop my skills in different domains. But over time*

*and as the workload increased, I became more aware of the courses that I should attend and more selective in choosing the CPD activities that are directly related to my work.*

Insights like this hint at the problems that translators, particularly at an early stage, can experience on their CPD journeys, as prioritising the most relevant competencies is extremely difficult in the absence of proper guidance. Translators tend to become more focused as they gain more experience, but an initial lack of support can have considerable knock-on effects on the efficiency and trajectory of their development. Taking the findings together, it can be seen that translators have a high level of awareness about CPD, but many struggle to identify professional priorities and the appropriate areas of focus to develop competencies, especially those in their early careers. These kinds of difficulties may cause some to either forgo professional development entirely or invest in training opportunities with limited relevance and potential returns.

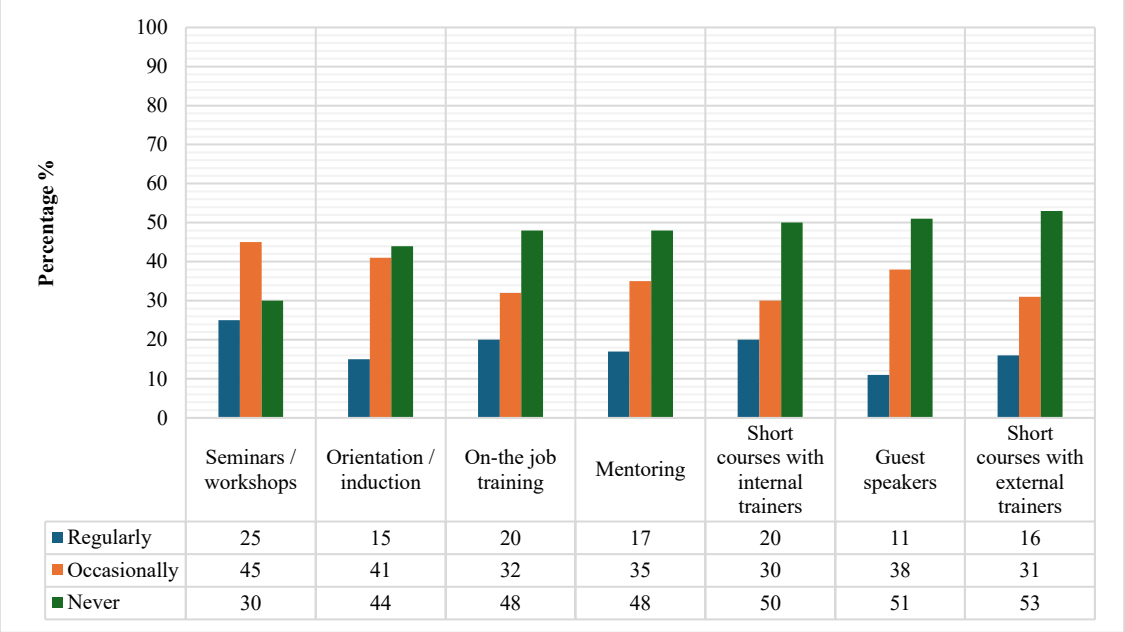
### 4.7.2 Employer Support for CPD

This section of the study examines the extent to which employers support the professional development of translators through internal and external CPD activities. The survey explored both the type and frequency of employer-supported CPD activities, and these quantitative findings are followed by qualitative data that clarify how employers engage with their translators' development needs. Together, the results offer a deeper understanding of the current CPD landscape in the Saudi translation industry and help identify areas where support can be strengthened.

#### 4.7.2.1 Survey Findings

The respondents were first asked a yes/no question about whether their employers provide them with CPD opportunities specifically aimed at developing technological competence. The responses reveal that only 37% (n=92) confirmed receiving such support, while the majority (63%, n=156) indicated that they do not receive any CPD support from their employers in this area. Following this, the survey included a broader question using a three-point Likert scale (1=never, 2=occasionally, 3=regularly) to assess how frequently Saudi employers either organise internal CPD activities or support participation in external ones. Internal CPD refers to training activities offered within the workplace, while external CPD refers to those taking place outside the workplace, often through third parties. This question covered 14 specific CPD activities (seven internal and seven external) to identify which are most commonly supported by employers and which are lacking.

Figure 4.13 (below) illustrates the respondents' views on how frequently their employers provide seven types of internal CPD activities. The findings reveal a wide variation across activities, with relatively low regular provision and a notable number of respondents selecting never for many of the items. Seminars and workshops were the most frequently provided, with 25% (n=62) of respondents reporting regular access. An additional 45% (n=112) said they receive them occasionally, while 30% (n=74) reported never receiving such opportunities. By contrast, activities critical for novice translators (orientation/induction and mentoring) were less commonly available, regularly received by only 15% (n=37) and 17% (n=42) of respondents, and almost half claimed never to have been offered them at all: 44% (n=109) for orientation and 48% (n=119) for mentoring. On-the-job training, an important activity for learning during normal day-to-day tasks, was provided regularly to 20% (n=50) and occasionally to 32% (n=79) of the respondents. Nearly half (48%, n=119) stated that this form of support was absent in their workplace. Both types of in-house short courses, whether delivered by internal or external trainers, received low regular provision ratings, at 20% (n=50) and 16% (n=40), respectively. In each case, over half of the respondents reported no access to this kind of training. Guest speaker sessions received the lowest regular provision rating, at just 11% (n=27), and were never offered to 51% (n=127) of the respondents.




| | Seminars / workshops | Orientation / induction | On-the job training | Mentoring | Short courses with internal trainers | Guest speakers | Short courses with external trainers |
|---|---|---|---|---|---|---|---|
| Regularly | 25 | 15 | 20 | 17 | 20 | 11 | 16 |
| Occasionally | 45 | 41 | 32 | 35 | 30 | 38 | 31 |
| Never | 30 | 44 | 48 | 48 | 50 | 51 | 53 |

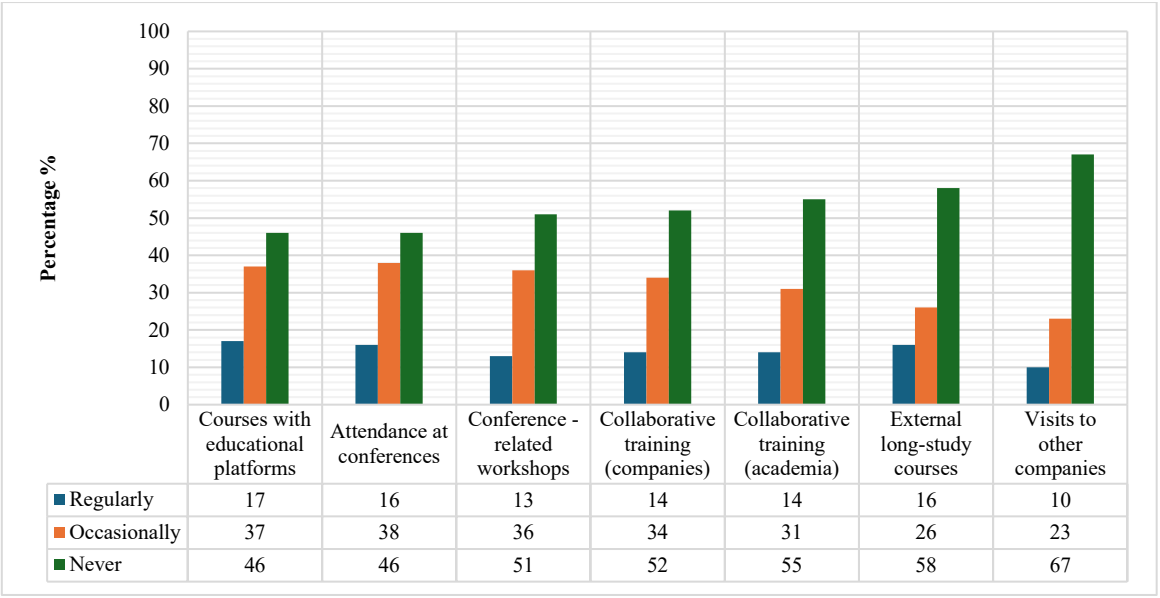
Figure 4.13 4.10 Frequency of internal CPD activities

These results suggest that internal CPD activities are not consistently embedded in workplace practices. An average of only 18% (n=45) of the respondents stated that they regularly received any of the internal CPD activities listed in the survey, while 46% (n=114) reported that they

were never offered any. The Saudi translation industry may, therefore, be severely limited in its continuous learning and development for translators due to this critical gap in internal CPD provision.

Regarding external CPD activities, the results show generally low levels of regular support, with none of the activities selected by more than 17% (n=42) of the respondents as being regularly supported by their employers (see Figure 4.14, below). The highest reported support was for short courses with external educational platforms (17%, n=42) and attending conferences (16%, n=40). In both cases, about one-third of the respondents said their employers occasionally support these opportunities, while 46% (n=114) said they had never received any such support.

Other external activities received even less regular support. Conference-related workshops were regularly attended by only 13% (n=32) of the respondents, and just 14% (n=35) regularly received support for collaborative training with other companies or academic institutions. No support at all in these areas was reported by over half of the respondents. The least supported activity was visiting other translation companies, with only 10% (n=25) receiving regular support and 67% (n=166) stating that they had never been offered such an opportunity. Long-study courses also showed very little support, with only 16% (n=40) reporting regular support and 58% (n=144) stating they had received none. To take these findings together, a small minority of respondents (14%, n=35) reported receiving regular external CPD support, with a third (32%, n=79) receiving it occasionally and over half (54%, n=134) never receiving support of this kind. This starkly reveals that external CPD opportunities are severely underutilised in the Saudi translation industry, despite their known utility in helping translators keep pace with translation technologies and industry practices.




| | Courses with educational platforms | Attendance at conferences | Conference - related workshops | Collaborative training (companies) | Collaborative training (academia) | External long-study courses | Visits to other companies |
|---|---|---|---|---|---|---|---|
| Regularly | 17 | 16 | 13 | 14 | 14 | 16 | 10 |
| Occasionally | 37 | 38 | 36 | 34 | 31 | 26 | 23 |
| Never | 46 | 46 | 51 | 52 | 55 | 58 | 67 |

Figure 4.14 Frequency of external CPD activities

To conclude, the survey results suggest that employer support for CPD activities, both internal and external, is very limited, but support for external CPD is less available. This lack of access to CPD opportunities largely restricts translators' ability to develop and maintain technological competence to fulfil industry requirements, causing them to seek out independent CPD.

#### 4.7.2.2 Qualitative Findings

In the focus group discussions, participants from various work sectors shared their experiences with employer support for CPD. Between them, the nine individuals represented freelance (n=3), public sector (n=3), and private sector (n=3) work arrangements. Sector-specific trends were evident in the discussion, as well as common challenges related to employer involvement in professional development.

- **CPD Support for Freelance Translators**

Freelance participants consistently reported a complete absence of employer support for CPD. All three described their professional development as entirely self-directed. PT1 explained:

> *I have not had any professional development opportunities, whether internal or external, offered by employers. I worked as a freelance translator for many governmental and private entities, and no CPD support was provided to me.*

PT5 added:

> *[…] professional development is 100% self-driven, with no support or involvement from my employers.*

These responses suggest that freelance translators, regardless of the sector they serve, are solely responsible for identifying, funding, and pursuing their own professional development.

- **CPD Support for Translators in the Public Sector**

Participants working in the public sector reported a similar lack of CPD support from their employers as freelancers, stating that they rely entirely on their own efforts to develop their competencies without employer assistance or guidance. PT9 said:

> *We have not received any support for professional development opportunities, either within or outside the workplace. Regrettably, I feel that there is a significant underestimation of the translators' role, with a belief that their job is easy, that they simply translate words from one language to another effortlessly*.

This highlights two key issues: the lack of formal CPD support in institutional settings and an undervaluing of translators' work, which may impact how CPD is prioritised within these organisations.

- **CPD Support for Translators in the Private Sector**

Participants from the private sector reported mixed experiences. While two confirmed a lack of CPD support in their workplace, the third offered a different perspective, explaining that their employer, a company specialising in translation, provides CPD funding through an educational platform. However, the participant clarified that this support is limited to financial provision and does not include follow-up engagements from the employer. As PT4 described:

> *[…] sometimes, the support provided for CPD is not through offering activities but through other means. The organisation I work for allocates an annual budget for professional development through a specific educational platform, but they do not follow up on the details of what I do or learn from that platform*.

This suggests that employer support in the private sector may vary not only in extent but also in form. Some employers may be willing to invest financially in their translators' professional development but lack the awareness to monitor development or align it with their requirements. This variation could reflect differing levels of understanding across private sector organisations about the complexity of translation work and the specific training required to develop translators' competencies, particularly in the use of translation technologies.

❖ **Employer Awareness of the Professional Training Needs of their Translators**

A common sub-theme across all groups was that employers often lack awareness of translators' specific training needs. This includes both the nature of their work and the use of translation technologies. There is, therefore, a mismatch between whatever CPD activities may exist and the real requirements of translators. PT7 commented:

> *[…] they [employer] lack sufficient awareness of our training needs and how we use translation technologies*.

The findings from the group discussion demonstrate that translators in Saudi Arabia face challenges in securing employer support for CPD even while being aware of its importance. These challenges include the absence of structured CPD opportunities and a lack of awareness among employers about translators' needs, particularly in relation to translation technology. This appears to be a common issue across translators in all employment sectors in Saudi Arabia.

## 4.8 Chapter Summary

This chapter has presented the findings from the Translator Study, which explored the technological preparedness of translators in Saudi Arabia through both quantitative and qualitative data. It began by outlining the demographic and academic backgrounds of the respondents, revealing that many held BA degrees from broader language-related programmes. The analysis then turned to the respondents' reflections on BA training, showing that they had limited practical exposure to CAT and MT tools during their studies. Despite recognising the high importance of translation technology in the industry, particularly in activities such as post-editing, CAT tool use, and file processing, many respondents lacked hands-on experience with these tools. The self-assessment results show generally average competence across basic technology-related activities, but lower confidence in more advanced areas such as configuring MT systems, handling markup languages, and localisation. Interestingly, language-related graduates rated themselves higher in 10 of the 13 competencies compared to translator training graduates, suggesting that factors beyond academic training may play a significant role in competence development. The chapter also examined CPD practices, finding that while most translators had personal CPD plans and were aware of their importance, novice translators often lacked early-career guidance and support. Employer involvement in CPD was found to be limited; internal CPD activities (e.g., seminars, mentoring, and in-house courses) were provided irregularly, and external opportunities (e.g., conference attendance, study courses, and training collaboration with other institutions) were even less supported. Qualitative insights

reveal sector-specific disparities: freelancers and translators from the public sector reported no CPD support, while private-sector translators experienced mixed levels of engagement, depending on how well employers understood the complexity of translation work. The findings also reveal a general lack of awareness among employers regarding translators' professional training needs, particularly in relation to the use of translation technology.

# Chapter 5 Findings of the Employer Study

## 5.1 Introduction

The Employer Study findings are detailed in this chapter, comprising the results of the analysis of the surveys completed by 46 translation employers in Saudi Arabia. Employers are a key stakeholder group in the industry because of their role in evaluating how prepared translators are for professional work and in shaping the expectations of technological competence. Their perspectives can therefore provide insight into how academic programmes could align their curricula and training practices with the requirements of the translation industry. The Employer Study aims first to investigate the technology-related requirements of the Saudi translation industry from the employer's perspective, and second, to assess how employers evaluate the competence of their current translators in using translation technologies (i.e., most-used software tools and activities identified as important in the industry). The study further explores employer support for CPD, including how often internal and external CPD activities are provided and supported in the Saudi translation industry, as perceived by the employers themselves. The chapter begins by presenting information about the translation entities that the surveyed employers represented in the study.

## 5.2 Background Information of the Respondents

This section provides an overview of the background characteristics of the employers who participated in the study, reporting the types of organisations they represent and the language pairs they work on.

The respondents came from a range of employment sectors (see Figure 5.1, below), offering a diverse cross-section of the Saudi translation industry. The largest proportion of responses came from employers working in LSPs, who accounted for 35% (n=16) of the sample. This was followed by respondents from the governmental sector (26%, n=12) and then from private companies not classified as LSPs (22%, n=10). The primary translation sectors in Saudi Arabia are therefore represented in this sample distribution, as it contains a variety of employer experiences and requirements. This is important from a research perspective (e.g., Hao & Pym, 2021), as it ensures that the data comprises the views of employers from a range of employment sectors and translation settings, thereby accurately reflecting the real requirements of the industry as a whole. The sample appears to be appropriately representative of the local industry landscape when compared with relevant past studies (e.g., Alshaikhi, 2018) and can therefore

form a reasonable foundation for studying translation technology-related requirements and industry practices in Saudi Arabia.

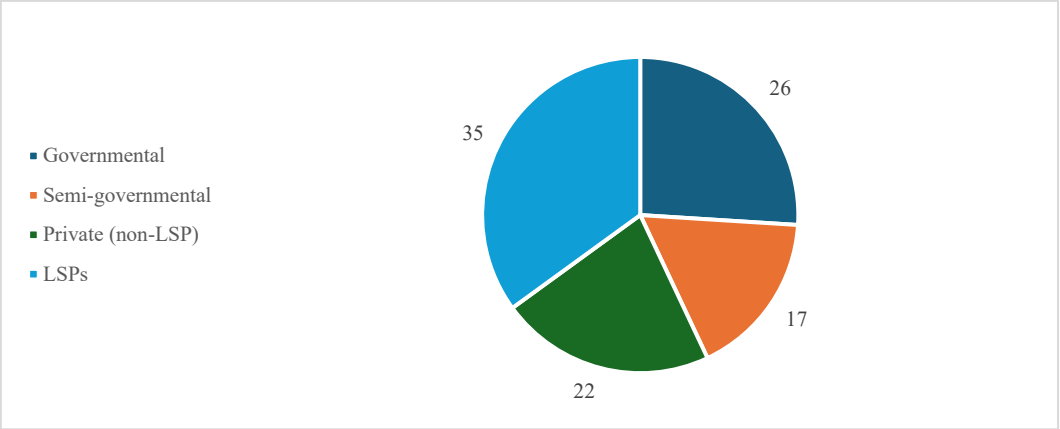


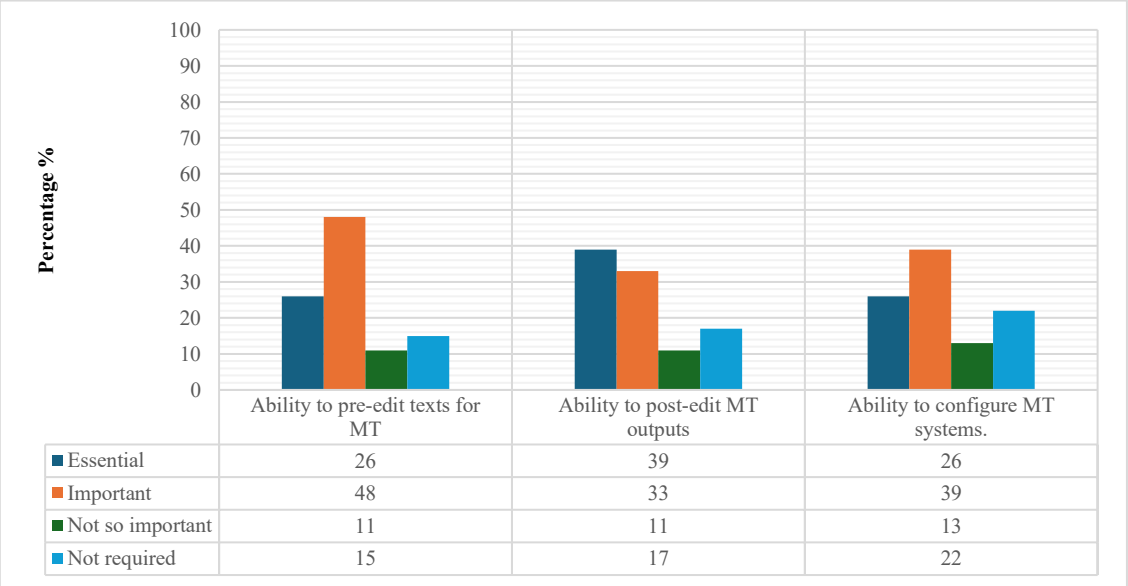

Figure 5.1 Employer Study participants by employment sector

The survey served the supplementary purpose of allowing an estimation to be made of the size of each organisation or company that participated in the study without the risk of discouraging participation, reducing the accuracy of the responses, or violating participants' privacy by asking income or money-related questions. Respondents were instead asked to provide the number of translators in their organisation, inclusive of both full-time and freelance employees, which gave a general indication of organisational size. A range of entities was represented in the survey, with size judged as follows: an organisation with fewer than 5 translators was classed as small, between 6 and 10 translators was medium-sized, and more than 10 translators classed the organisation as large. The variety found in the results supports the sample's workplace scale and operational capacity diversity. The employers all confirmed that the English <> Arabic language pair was the main focus of their translators' work, though French and Spanish formed an element of the work of some.

## 5.3 Employer Requirements: Translation Technology-Related Competencies

This section investigates the technology-related competencies that Saudi employers prioritise when recruiting new translators. The respondents were asked to indicate the importance of 13 specific competencies, adapted from Toudic (2012) and organised into four groups (i.e., MT, CAT, Multimedia, and DTP). These are the same items included in the Translator Survey for competence self-assessment (see Chapter 4, Section 4.6). However, the current survey aimed to identify the technology-related requirements of the translation industry from the perspective of employers, with each competence rated for importance using a four-point Likert scale of not required, not so important, important, and essential.

The MT group included three competencies: pre-editing, post-editing, and configuring MT systems (see Figure 5.2, below). The first two of these were most strongly emphasised by the employers, but all were considered important. 26% (n=12) of the respondents rated pre-editing as essential, and 48% (n=22) rated it important, for a total of 74% (n=34) considering this a key requirement. Only 11% (n=5) described pre-editing as not so important, and 15% (n=7) did not require it at all. Preparing and modifying texts for MT is, therefore, a crucial competence for translators from the perspective of employers, and as this is a preparatory step to improve MT output quality, this is unsurprising. A similarly high 39% (n=18) of respondents rated post-editing as essential, and 33% (n=15) rated it important, making this competence highly valued by almost three-quarters (72%, n=33) of employers when recruiting translators. These figures confirm the near-universal use of MT and the necessity of enhancing the output of MT through human revision, which reflects how the use of adaptive NMT is becoming an industry trend. Configuring MT systems, by contrast, received the lowest priority of the three, yet still within the range of high importance, with a combined total of 65% (n=30) of the respondents rating it as either essential (26%, n=12) or important (39%, n=18). Those who considered it not so important made up 20% (n=9), and 15% (n=7) did not require it. This implies that while advanced competence in MT configuration is not the main priority of most employers, it is nevertheless considered valuable in many work environments to be able to adapt MT engines to specific tasks.

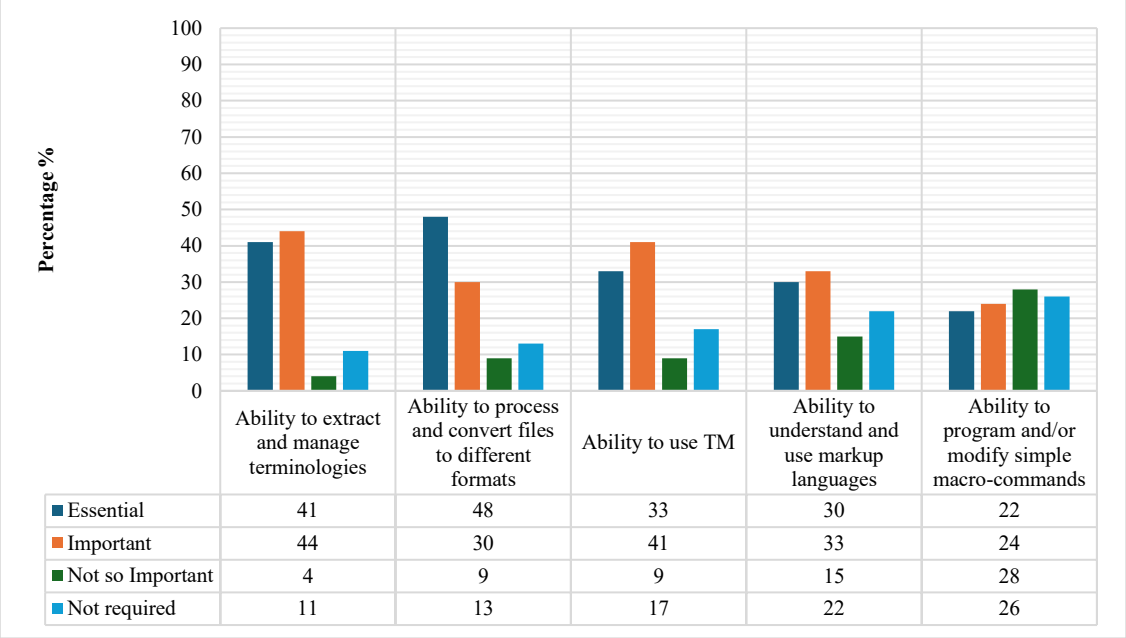



| | Ability to pre-edit texts for MT | Ability to post-edit MT outputs | Ability to configure MT systems. |
|---|---|---|---|
| Essential | 26 | 39 | 26 |
| Important | 48 | 33 | 39 |
| Not so important | 11 | 11 | 13 |
| Not required | 15 | 17 | 22 |

Figure 5.2 Importance of MT-related competencies

Five CAT-related competencies were rated highly by employers: TM use, terminology management, processing and converting file formats, using markup languages, and

programming and modifying macro-commands. This demonstrates the importance of such tools in modern translation workflows. Figure 5.3 (below) shows that terminology management was the most highly valued competence, rated as essential by 41% (n=19) and important by 44% (n=20) of the respondents, totalling 85% (n=39). Only 4% (n=2) thought it not so important, and 11% (n=5) did not require it. This high rating reveals that employers in the Saudi translation industry clearly consider the ability to use TB for terminological consistency and accuracy, especially in technical or specialised areas, indispensable. The use of TM was similarly broadly recognised, with 74% (n=34) considering it either essential (33%, n=15) or important (41%, n=19). It was viewed as not so important by 9% (n=4) and not required by 17% (n=8). This confirms that TM is fundamental for many employers, likely due to its utility in improving speed, consistency, and handling repetitive content.




| | Ability to extract and manage terminologies | Ability to process and convert files to different formats | Ability to use TM | Ability to understand and use markup languages | Ability to program and/or modify simple macro-commands |
|---|---|---|---|---|---|
| Essential | 41 | 48 | 33 | 30 | 22 |
| Important | 44 | 30 | 41 | 33 | 24 |
| Not so Important | 4 | 9 | 9 | 15 | 28 |
| Not required | 11 | 13 | 17 | 22 | 26 |

Figure 5.3 Importance of CAT-related competencies

File processing and format conversion was rated with a high level of importance by almost the same proportion of respondents, as 48% (n=22) thought it essential and 30% (n=14) important. Translators are, therefore, expected to work comfortably with a range of file types (e.g., documents, spreadsheets, and multimedia files) by 78% (n=36) of Saudi employers. Meeting the professional translation needs of clients and employers requires more than simply altering text; it involves preparing and adjusting various types of content, so translators capable of this are better equipped to meet industry requirements and effectively contribute to a variety of projects and tasks.

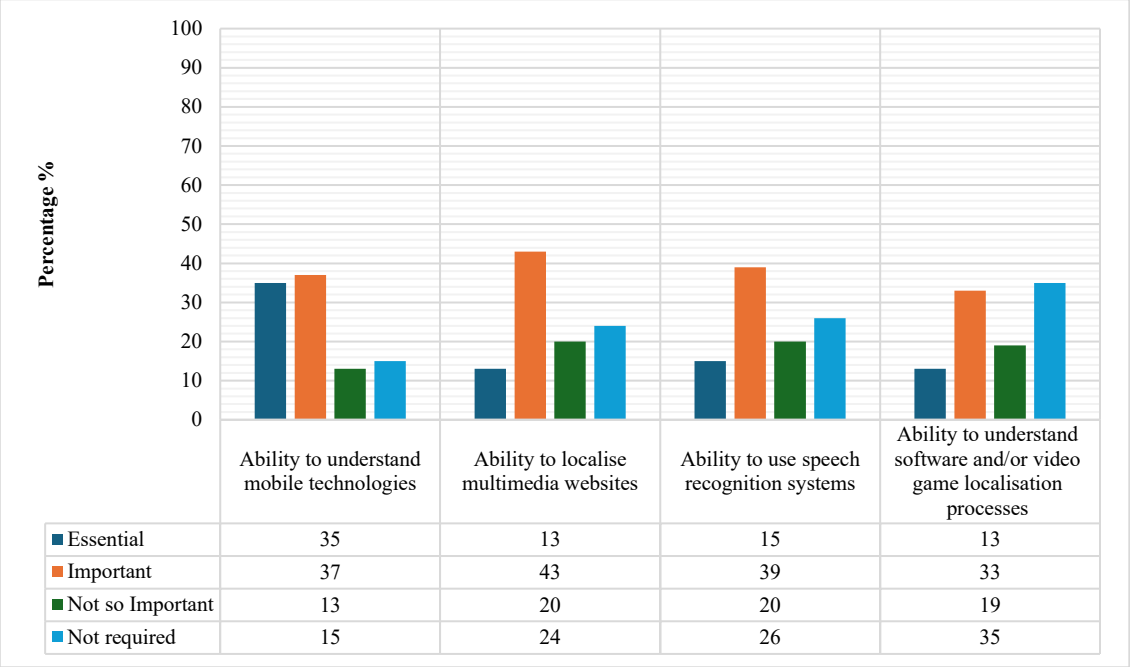
The use of markup languages was not rated as highly as the previous competencies but was still considered important by almost two-thirds (63%, n=29) of respondents, with 30% (n=14) saying essential, and 33% (n=15) saying important. This means that a majority of employers expect a basic level of familiarity, at least, with markup languages from their translators. This competence is most often required in work involving digital or web-based content, as the translation process must preserve formatting and structure. 22% (n=10) did not require this competence, and 15% (n=7) considered it not so important, but the results overall suggest that translators who understand markup languages are still in possession of a useful asset, particularly if they wish to work in digital environments.

The competence scoring the lowest rating of value was programming or modifying simple macro-commands, as less than half (46%, n=21) thought it important. 22% (n=10) viewed it as essential and 24% (n=11) as important, while more than a quarter thought it not so important or not required (28%, n=13 and 26%, n=12, respectively). It can be said that these kinds of programming skills are generally not required in the Saudi translation industry, although some employers do recognise their potential to save time and improve consistency through the automation of certain tasks. However, it is also possible that the relatively low importance attributed to programming reflects limited awareness among employers of the wider automation potential such skills can unlock in translation workflows.

Four multimedia-related competencies were also rated by the employers (Figure 5.4, below): understanding mobile technologies, localising multimedia websites, using speech recognition systems, and understanding software or video game localisation processes. These competencies were generally considered valuable by most of the employers surveyed, although variations in the responses between these items should be noted. Understanding mobile technologies was thought essential by 35% (n=16) and important by 37% (n=17), totalling 72% (n=33) who expect translators to have familiarity with mobile technologies. This suggests that many employers see mobile-related knowledge as a valuable part of modern translation work. 13% (n=9) of the remaining respondents described this as not so important, and 15% (n=12) did not require it; however, this indicates that not all Saudi translation workspaces rely on mobile technology. The clear trend toward the use of mobile technology in professional translation is nonetheless evident, and this is expected to increase as everyday communication increasingly incorporates mobile applications and platforms. It is the translator's job to adapt content in a way that is appropriate to these formats. This shows that translators in Saudi Arabia should

develop this competence to be more attractive to employers and improve their readiness for future workflows.

A similar pattern was found for the ability to use speech recognition systems. Respondents thought it essential at a rate of 15% (n=7) and important at a rate of 39% (n=18), but a fifth (20%, n=9) considered it not so important and over a quarter (26%, n=12) did not require it. The use of speech tools may therefore be necessary in some workplaces, but more likely in more specialised settings, depending on the nature of the work.




| | Ability to understand mobile technologies | Ability to localise multimedia websites | Ability to use speech recognition systems | Ability to understand software and/or video game localisation processes |
|---|---|---|---|---|
| Essential | 35 | 13 | 15 | 13 |
| Important | 37 | 43 | 39 | 33 |
| Not so Important | 13 | 20 | 20 | 19 |
| Not required | 15 | 24 | 26 | 35 |

Figure 5.4 Importance of multimedia-related competencies

The results also show that Saudi employers value translators who can work on localising digital and multimedia content, with over half of respondents (56%, n=26) considering localising multimedia websites as either essential (13%, n=6) or important (43%, n=20). This competence is most sought after in roles involving online materials, including websites, digital brochures, or interactive media, but is less relevant to the work of the 20% (n=9) who considered it not so important, and the 24% (n=11) who did not require it. This diversity of views is likely a reflection of the different types of translation projects dealt with by the organisation surveyed, as some may find digital content a common element of their work, while others may rarely encounter it. The localisation of software and video games was similarly rated as essential by 13% (n=6) and important by 33% (n=15), so almost half of the respondents seek this competence in their translators. Some did not prioritise this competence, as 19% (n=9) considered it not so important and 35% (n=16) not required. These results are mixed and may

indicate the more specialised nature of software and game localisation, with its relevance limited to specific types of workplaces or projects. From the respondents' perspectives as individual employers, they may assign tasks of this kind to specialist teams or have little or no direct involvement in digital product localisation. Overall, the analysis found that knowledge of localisation may represent a particularly valuable area for translators who wish to join translation sectors in which digital content is central and emphasised.

The employers were also asked to rate the importance of potential new employees having competence with DTP tools, which are generally used for formatting and preparing documents for publication. Many stated that they found this valuable, but it was not considered essential by all. The use of DPT tools was thought essential by 22% (n=10) and important by 37% (n=17), totalling 59% (n=27). A translator's ability to work with DTP tools is therefore sought after by more than half of employers, but around a quarter (24%, n=11) rated it not so important, and 19% (n=9) did not require it, possibly since different translation workplaces work with different types of documents. For example, some jobs may involve preparing print-ready materials, while others may not require much formatting. These results suggest that while familiarity with DTP tools is not always essential, they are still considered helpful in many translation settings.

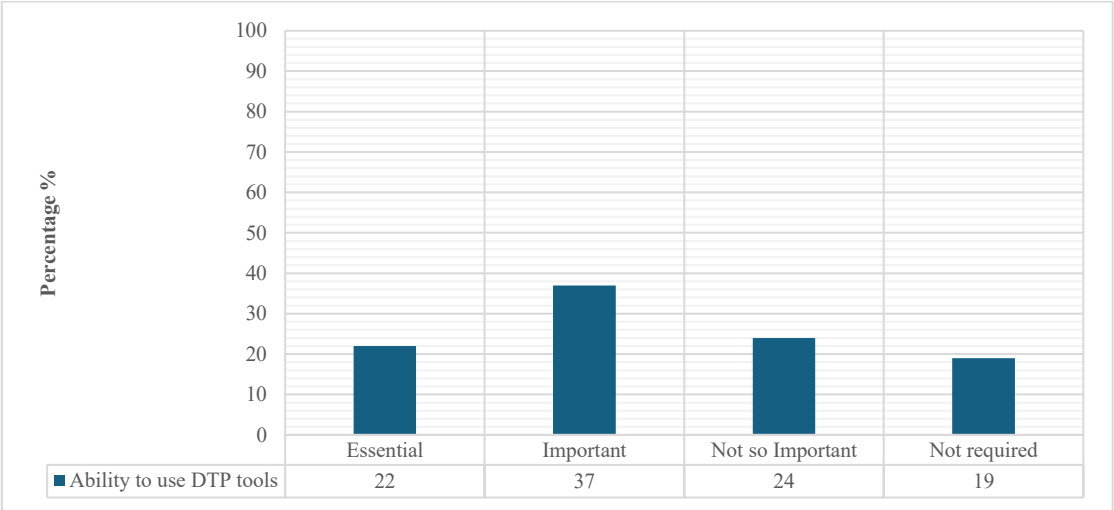



Figure 5.5 Importance of DTP

In the overall assessment of the survey analysis for this section, it is evident that two-thirds of respondents (65%, n=30) considered the 13 technology-related competencies essential or important when hiring new translators. This shows a growing trend among Saudi employers to expect graduates to be familiar with the key technologies of their profession upon graduation from university. Insights like this one, along with the others provided by the results in this

section, can help inform the development of BA curricula in Saudi Arabia by highlighting the technology-related competencies most valued by employers recruiting new translators.

### 5.3.1 Evolution of Translation Technology-Related Requirements: Quasi-longitudinal Analysis (2012-2025)

The results described in the previous section can be compared with those from three earlier studies that used the same question and scale: Toudic (2012) in Europe, Alshaikhi (2018) in Saudi Arabia, and Liu (2023) in East Asia (reported in Chapter 2, section 2.5). This allows for a quasi-longitudinal examination of how employers' perceptions of the importance of the 13 technology-related competencies have evolved over time due to the accelerating pace of technological advancements in the translation industry. This can reveal competence areas that are growing more or less useful to employers and help identify trends over time and across different parts of the world (i.e., Europe, the Middle East and East Asia). The mean scores of the 13 competencies from the studies under comparison are presented in Table 5.1 (below). Together, these results provide a useful picture of how technology-related requirements of the translation industry have shifted over the past decade.

In the MT group, the comparison shows a clear rise in importance over time, especially in the current study. For example, pre-editing received a much higher score in the current study (3.05) than in Liu (1.96), Alshaikhi (2.53), and Toudic (1.76). Post-editing exhibits a similar increase, rising from 1.96 in 2012 to 2.94 in the current study, suggesting that MT-related competencies are fast becoming integral to translation work as the widespread use of NMT systems grows in professional settings. Although the ability to configure MT systems received slightly lower scores than the other two competencies, it still showed a noticeable increase over time.

CAT-related competencies continue to be among the most highly valued. In particular, the ability to extract and manage terminologies received the highest mean score across all groups (3.15), showing a steady increase from earlier studies. The same pattern applies to file processing and format conversion, which climbed from 2.73 in 2018 to 3.13 in the current study. The ability to use TM also remained high, and although slightly lower than in Toudic's European study, it still shows a marked rise compared to Alshaikhi's results. This result may indicate regional variations, in the case the long-standing integration of TM systems in European translation practices. Interestingly, the competencies of markup language use and macro-commands, while slightly lower in importance, also show upward movement,

suggesting that more employers now recognise the value of technical flexibility and automation in translation.

In the multimedia group, there is also an upward trend. The current study yields the highest scores for understanding mobile technologies (2.92), surpassing those of Liu (2.29), Alshaikhi (2.67), and Toudic (2.19), reflecting the growing presence of mobile platforms in communication and translation work. Localising multimedia websites received mixed results: it was rated lower in the current study (2.45) than in Alshaikhi (2.87) but still higher than in Liu and Toudic. Steady growth is evident between the studies in the use of speech recognition systems, increasing from 1.56 in 2012 to 2.43 in the present study, indicating that voice-to-text tools are receiving growing interest. The ability to localise software and video games grew moderately but consistently, implying that even though it is not required across all translation settings, this competence is increasing in relevance.

Table 5.1 Four study comparison of employer evaluation of technology-related competencies

| Competence Item | Current study Saudi Arabia | Liu's study (2023) East Asia | Alshaikhi's study (2018) Saudi Arabia | Toudic (2012) Europe |
|---|---|---|---|---|
| **MT-related competencies** | | | | |
| Ability to pre-edit texts for MT | 3.05 | 1.96 | 2.53 | 1.76 |
| Ability to post-edit MT outputs | 2.94 | 2.28 | 2.73 | 1.96 |
| Ability to configure MT systems. | 2.69 | 2.15 | 2.80 | 1.97 |
| **CAT-related competencies** | | | | |
| Ability to extract and manage terminologies | 3.15 | 2.68 | 3.00 | 2.79 |
| Ability to process files in and convert files to different formats. | 3.13 | 2.79 | 2.73 | 2.88 |
| Ability to use TM | 2.88 | 2.79 | 2.53 | 3.09 |
| Ability to understand and use markup languages. | 2.71 | 2.52 | not included | 2.50 |
| Ability to program and/or modify simple macro-commands. | 2.42 | 2.03 | 2.27 | 1.87 |
| **Multimedia-related competencies** | | | | |
| Ability to understand mobile technologies | 2.92 | 2.29 | 2.67 | 2.19 |
| Ability to localise multimedia websites. | 2.45 | 2.33 | 2.87 | 2.26 |
| Ability to use speech recognition systems | 2.43 | 1.91 | not included | 1.56 |
| Ability to understand software/video game localisation processes. | 2.24 | 2.42 | 2.60 | 2.05 |
| **DTP competence** | | | | |
| Ability to use and parameter DTP tools. | 2.58 | 2.27 | 2.60 | 2.09 |

The use of DTP tools has also gained more recognition, with a mean score standing at 2.58 in the current study, marginally higher than that found by Alshaikhi (2.60) and considerably higher than in the results of Toudic (2.09) and Liu (2.27). This demonstrates the greater expectations among employers for the ability to carry out layout and formatting tasks, which may be most useful when the work involves publications or complex file types.

In summary, this comparison shows a clear trend toward higher expectations for technology-related competencies in the modern translation industry. Employers in the current study gave consistently higher importance ratings to most competencies than those in earlier studies, particularly in the areas of MT and CAT tools. Everyday workflows, therefore, seem to have greater integration of translation technologies, which have become essential to practice in the industry. Growing relevance is also observed in the domains of multimedia and DTP, as translators are increasingly expected to handle a wide range of content types. The findings of

this quasi-longitudinal comparison, which has tracked how employers' perceptions of the importance of technology-related competencies in newly-employed translators have changed since 2012, provide a definitive reason for Saudi BA programmes to ensure that their curricula are regularly updated to keep pace with the fast-changing requirements of the translation industry, particularly when taking into account changes in the region and global developments.

## 5.4 Employers and Technology: Competence Assessment of Current Translators

This section presents how the surveyed employers perceive the technological competence of their translators, focusing on two main areas: translators' ability to use key MT and CAT tools, and their competence in performing the top 12 technology-related activities previously identified by the translators as highly important in their daily work. The findings help identify strengths in competence and areas where translators are less competent and require further training, and offer valuable guidance for BA programmes to update their curricula to better prepare students for the requirements of the translation industry. This section also relates to the triangulation method used in this research, as it compares the employers' assessments with the self-assessments provided by the translators in Chapter 4. This dual perspective adds depth to the analysis and offers a more balanced understanding of current competence levels among Saudi translators in the industry.

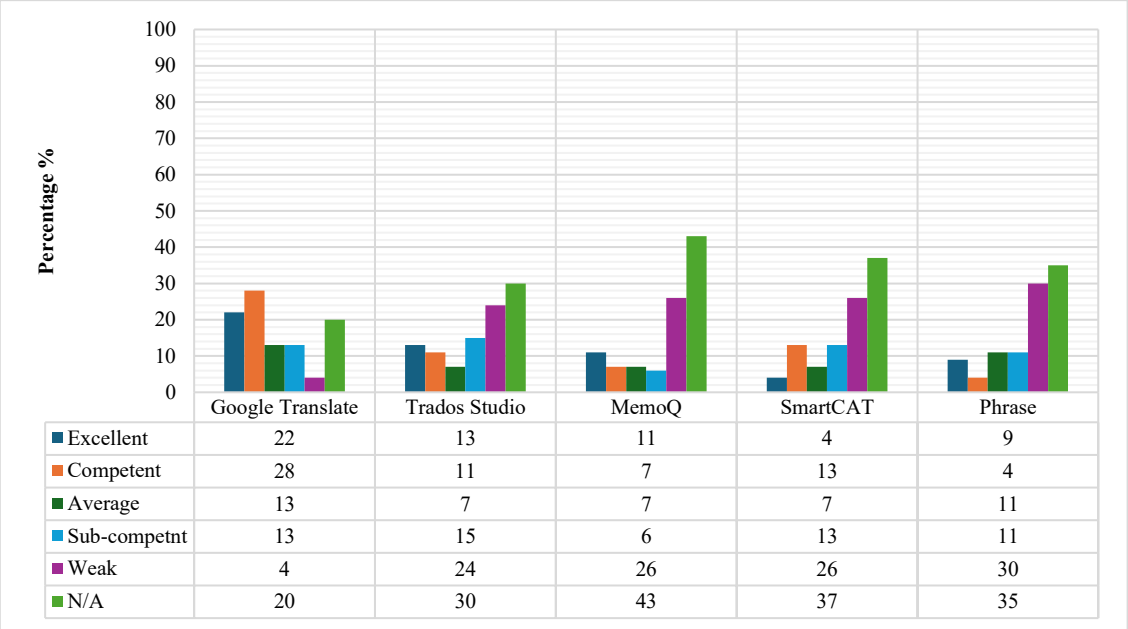
### 5.4.1 Competence Assessment: MT and CAT Tools

The survey presented respondents with the same list of 31 tools, adapted from Rothwell and Svoboda (2019), allowing them to rate the tools most frequently used by their translators and provide an assessment of their perceived competence in using them. This question aimed to determine the most commonly used tools, gain an idea of how competent the employers perceive their translators to be in using these tools, and compare the results with the translators' self-assessments. This triangulated perspective can provide a more thorough understanding of Saudi translators' level of technological competence, taking into account the perceptions of both employers and the translators themselves.

As outlined in Section 4.6.1, the top 10 translation tools were selected based on the responses from both translators and employers who indicated which software tools were frequently used in their work (see Table 4.7). These represent a shared core of widely used MT and CAT tools in the Saudi translation industry. For each selected tool, the surveyed employers assessed their translators' competence using the same five-point scale from the Translator Survey (from weak

to excellent). The N/A option was also included for cases where the tool was not used in their workplace.

Figure 5.6 (below) presents the employers' assessments of their translators' competence in using the first five most frequently used MT and CAT tools. Among these, Google Translate received the most favourable ratings, with 22% (n=10) of the respondents describing their translators as excellent and 28% as competent. This means that this MT tool is considered by exactly half (50%, n=23) of employers to be used by their translators at a high level. 13% (n=6) gave their translators an average rating, while 17% (n=8) evaluated their translators as sub-competent or weak with Google Translate. These figures reveal that despite the near-universal use of Google Translate, some translators may not be equipped to make effective use of its capabilities.



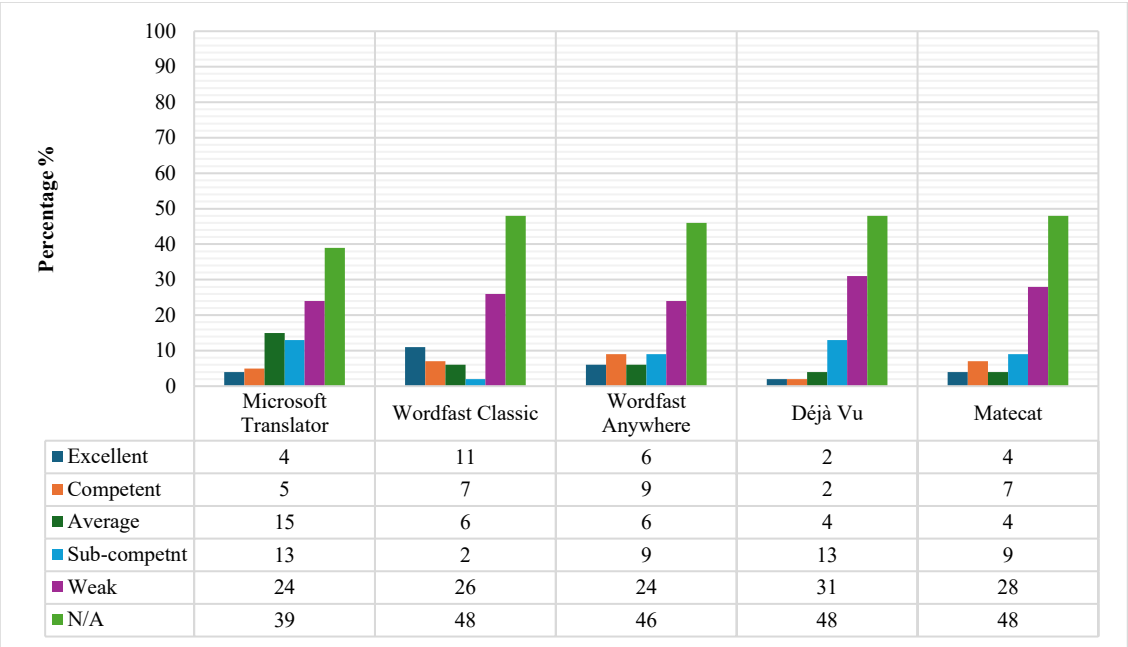

| | Google Translate | Trados Studio | MemoQ | SmartCAT | Phrase |
|---|---|---|---|---|---|
| Excellent | 22 | 13 | 11 | 4 | 9 |
| Competent | 28 | 11 | 7 | 13 | 4 |
| Average | 13 | 7 | 7 | 7 | 11 |
| Sub-competnt | 13 | 15 | 6 | 13 | 11 |
| Weak | 4 | 24 | 26 | 26 | 30 |
| N/A | 20 | 30 | 43 | 37 | 35 |

Figure 5.6 Employer's assessment of tool competence (Items 1-5)

Employer evaluations of translators' CAT tool use displayed less confidence. Only 24% (n=11) considered their translators competent or excellent in the use of Trados Studio even though it is used often in daily work, while a much larger proportion of 39% (n=18) rated their translators as weak or sub-competent, with only 7% (n=3) describing their level as average. This suggests that Saudi translators have a low level of competence with Trados Studio despite its important role in the industry. Similar results were noted for memoQ: despite being among the top-used tools, only 18% (n=9) of the employers rated their translators as excellent or competent, while 32% (n=15) assessed them as sub-competent or weak. SmartCAT received comparable ratings, with just 17% (n=8) of the respondents rating their translators as competent with it. Worryingly,

the same proportion described their translators as weak or sub-competent with SmartCAT as with Trados Studio (39%, n=18), and again just 7% (n=3) considered them average. The significant confidence gap highlighted by these findings is important to address, as SmartCAT, in particular, is witnessing increasing adoption in the translation industry. Lastly, Phrase received the lowest confidence ratings, as only 13% (n=6) of the employers perceived excellent or competent abilities with this in their translators, while a substantial proportion (41%, n=19) thought them sub-competent (11%, n=5) or weak (30%, n=14). This indicates that many translators may lack sufficient experience or training with this tool.

Figure 5.7 (below) presents how the employers evaluated their translators' competence in using the remaining five tools ranked 6th to 10th in the list (i.e., Microsoft Translator, Wordfast Classic, Wordfast Anywhere, Déjà Vu, and Matecat). At a glance, the results suggest that translators' competence in these tools was rated lower than for those in the previous group. Starting with Microsoft Translator, only a small number of the employers rated their translators as excellent (4%, n=2) or competent (5%, n=2), while 15% (n=7) considered them average. However, over one-third of respondents believed their translators were either sub-competent (13%, n=6) or weak (24%, n=11). The N/A option was chosen by 39% (n=18) of the respondents, so not all organisations employ this tool. However, Microsoft Translator remains a common MT tool industry-wide, even while many Saudi translators are not very capable of using it.




| | Microsoft Translator | Wordfast Classic | Wordfast Anywhere | Déjà Vu | Matecat |
|---|---|---|---|---|---|
| Excellent | 4 | 11 | 6 | 2 | 4 |
| Competent | 5 | 7 | 9 | 2 | 7 |
| Average | 15 | 6 | 6 | 4 | 4 |
| Sub-competnt | 13 | 2 | 9 | 13 | 9 |
| Weak | 24 | 26 | 24 | 31 | 28 |
| N/A | 39 | 48 | 46 | 48 | 48 |

Figure 5.7 Employer's assessment of tool competence (Items 6-10)

The two Wordfast products (i.e., Classic and Anywhere) received similar ratings. Less than a fifth (18%, n=8) of employers rated their translators as excellent or competent with Wordfast Classic, but 28% (n=13) considered their translators weak. Close to half (48%, n=22) selected N/A for this tool. Wordfast Anywhere yielded even less encouraging results, with just 15% (n=7) seeing excellent or competent abilities in their translators with this, and 24% (n=11) rating them as weak. As before, nearly half (46%, n=21) selected N/A. These results, with low competence ratings and high N/A responses, indicate that Wordfast products are neither commonly taught nor widely used. The employers also expressed limited confidence in their translators' ability to use Déjà Vu. One of the employers surveyed (2%, n=1) rated their translators as excellent with this tool, and only two more (4%, n=2) considered them competent. This stands in stark contrast to the 31% (n=14) who thought their translators' abilities with it were weak, and 13% (n=6) thought them sub-competent. As with the previous few tools, almost half (48%, n=22) stated that Déjà Vu was not used in their work contexts. Matecat continued the trend of low perceived competence, as 28% (n=13) of the employers rated their translators as weak, and 9% (n=4) as sub-competent, while only 11% (n=5) described them as excellent or competent. 48% (n=22), again, indicated that their translators did not use this tool.

The results of this section, taken in their totality, reveal clear competence gaps among Saudi translators with their use of a variety of CAT and MT tools, the extent of use of which was found to be diverse across the Saudi translation industry. While some tools may not be widely used in every workplace, the overall pattern suggests that employers may not be fully confident in their translators' ability to work effectively with most of them. The relatively low ratings for many tools, even those frequently used, raise concerns about how BA programmes integrate them into training practices. The results demonstrate that translators may not meet industry expectations or take full advantage of these tools in their work.

#### 5.4.1.1 Comparative Analysis of Tool Competence: Translators' Self-assessment vs. Employers' Assessment

To provide an in-depth understanding of how Saudi translators' technological competence is viewed from different perspectives, a comparative analysis was carried out using the self-assessments of translators and the corresponding evaluations provided by their employers. This triangulation helps draw a clearer picture of the actual technological competence landscape of the Saudi translation industry.

Table 5.2 (below) directly compares the mean scores and perceived competence levels for the top 10 MT and CAT tools as perceived by translators and employers. A consistent trend is evident: translators rated their own competence more positively than their employers did. With Google Translate, for example, the majority of translators considered themselves excellent in its use, with a very high mean score of 4.25, while the employers' rating only fell within the competent range (3.64). For the less commonly used tools, such as MemoQ, SmartCAT, Phrase, and Microsoft Translator, translators perceived themselves as having average competence, but employers disagreed, providing a rating of sub-competent. Even for Trados Studio, the most prominent CAT tool, both groups agreed on an average competence level, although the translators' self-ratings were slightly higher.

Table 5.2 Comparative tool competence ratings of translators and employers

| Software Tool | Translators (n=248) | Competence Level | Employers (n=46) | Competence Level |
|---|---|---|---|---|
| Google Translate | 4.25 | Excellent | 3.64 | Competent |
| Trados Studio | 3.10 | Average | 2.63 | Average |
| MemoQ | 2.96 | Average | 2.49 | Sub-competent |
| SmartCAT | 3.02 | Average | 2.30 | Sub-competent |
| Phrase | 2.99 | Average | 2.25 | Sub-competent |
| Microsoft Translator | 3.22 | Average | 2.21 | Sub-competent |
| Wordfast Classic | 2.30 | Sub-competent | 2.52 | Sub-competent |
| Wordfast Anywhere | 2.31 | Sub-competent | 2.33 | Sub-competent |
| Déjà Vu | 1.88 | Sub-competent | 1.67 | Weak |
| Matecat | 2.31 | Sub-competent | 2.04 | Sub-competent |

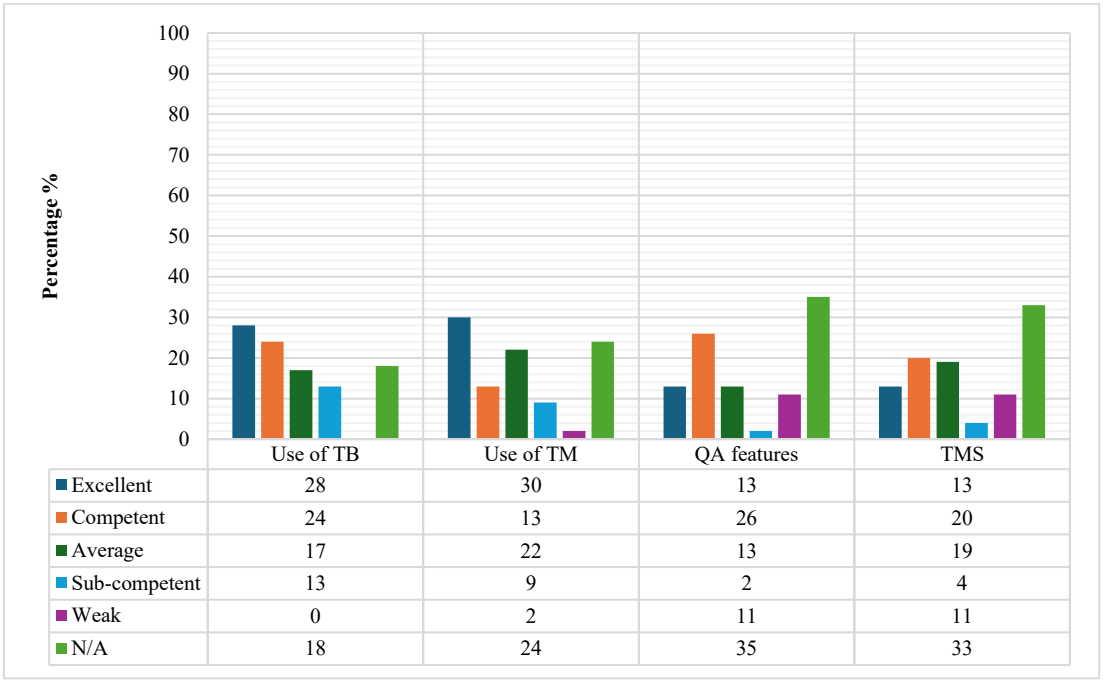
The ratings for Déjà Vu and Matecat most clearly illustrate the contrast between the assessments of translators and employers: although translators acknowledged their abilities to be sub-competent for both tools, the employers considered them even less capable than this, as Déjà Vu received a weak overall rating. The results consistently show a clear perception gap: employers had a lower opinion of their translators' competence across all 10 tools than the translators had of their own competence. There are two likely explanations for this discrepancy. The first is that the limited feedback available in Saudi translation workplaces means translators may overestimate their abilities, and the second is that employers' expectations for the required level of technological competence for professional translation work are set higher than the reality of the workforce's abilities. An evaluation of the current state of Saudi translators' technological competence cannot be made, and the identification of areas where perceptions,

and potentially also practices, need to be aligned cannot be done without understanding this divergence.

### 5.4.2 Competence Assessment: Translation Technology-related Activities

This section presents how the surveyed employers assessed their translators' ability to perform the top-rated translation technology-related activities (i.e., 12 items identified as important by the translators). Respondents were asked to rate their translators' level of competence in each activity on a five-point Likert scale (from weak to excellent). The N/A option was also available for cases where a respondent was unsure about the competence level. The results help identify areas of strength and weakness across important activities, offering valuable insights into which competencies may require greater emphasis and attention in Saudi BA programmes.

Figure 5.8 (below) shows the employers' assessments of their translators' competence across four CAT-related activities: use of TB, use of TM, applying QA features, and working with TMS. The highest levels of competence were reported for TB and TM use. Employers rated their translators as excellent with the use of TB at a rate of 28% (n=13), with 24% (n=11) rating them as competent. Use of TM was rated as excellent by almost the same proportion as for TB (30%, n=14), but in this case only 13% (n=6) considered them competent. It seems, therefore, that translators are largely proficient in supporting consistency and productivity with essential CAT functions.




| | Use of TB | Use of TM | QA features | TMS |
|---|---|---|---|---|
| Excellent | 28 | 30 | 13 | 13 |
| Competent | 24 | 13 | 26 | 20 |
| Average | 17 | 22 | 13 | 19 |
| Sub-competent | 13 | 9 | 2 | 4 |
| Weak | 0 | 2 | 11 | 11 |
| N/A | 18 | 24 | 35 | 33 |

Figure 5.8 Employers' assessment of CAT-related activities

Employers' ratings were more mixed for the use of QA features and TMS. QA features received an excellent rating from only 13% (n=6) of respondents, with double this (26%, n=12) selecting competent. 13% (n=6) of the employers rated their translators as excellent with TMS, and 20% (n=9) thought them competent, but around a third chose N/A for QA features (35%, n=16) and TMS (33%, n=15), showing that a not inconsiderable amount of Saudi employers either have no direct involvement in translator assessment, or their workplaces lack feedback mechanisms. Lower ratings were also observed across the four activities. For example, 13% (n=6) rated their translators as sub-competent in using TB, and 9% (n=4) gave the same rating for TM. Ratings of weak competence were relatively rare for TB and TM, but more visible in QA features (11%, n=5) and TMS (11%, n=5). These results indicate that while translators generally perform well in core CAT tools (i.e., TB and TM), they may need additional training in using QA features and TMS effectively.

The results indicate a relatively strong competence in the area of MT, as perceived by the surveyed employers. 35% (n=16) rated their translators as excellent in post-editing MT outputs, while a further 17% (n=8) selected competent. An additional 18% (n=8) assessed their translators as average, indicating that more than two-thirds of respondents view translators as having at least moderate ability in post-editing. Only a small number described their translators as sub-competent (2%, n=1) or weak (4%, n=2), showing that very few employers observed serious competence gaps in this area. However, 24% (n=11) selected N/A, implying that a quarter of the employers either decline to use MT tools in their workplaces or cannot make judgements about the competence of their translators in this area. MT post-editing is, therefore, shown in the findings to be growing in use and familiarity among Saudi translators; however, some room remains for further awareness raising or workplace training in those organisations that do not widely use MT.

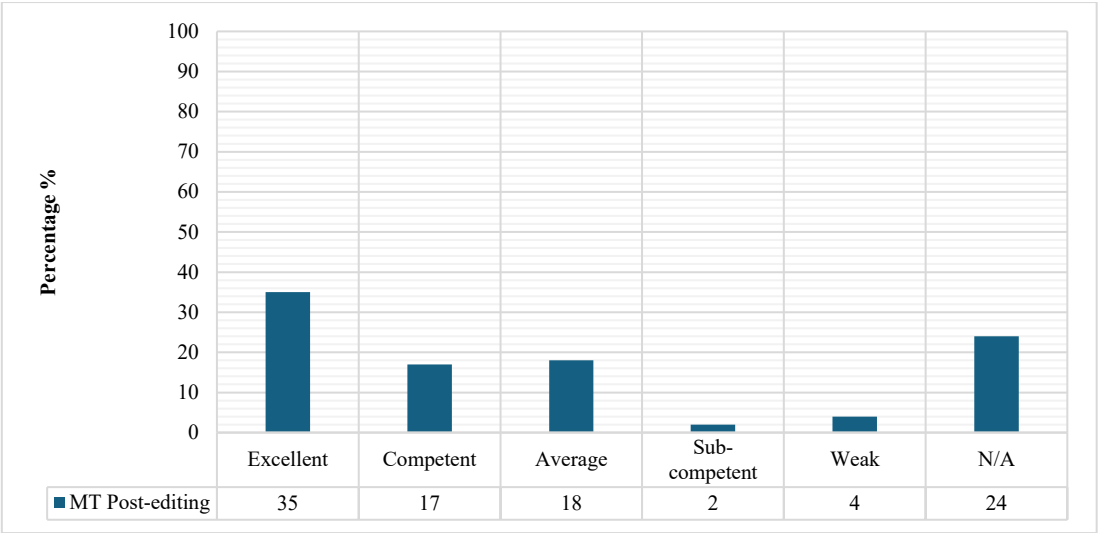
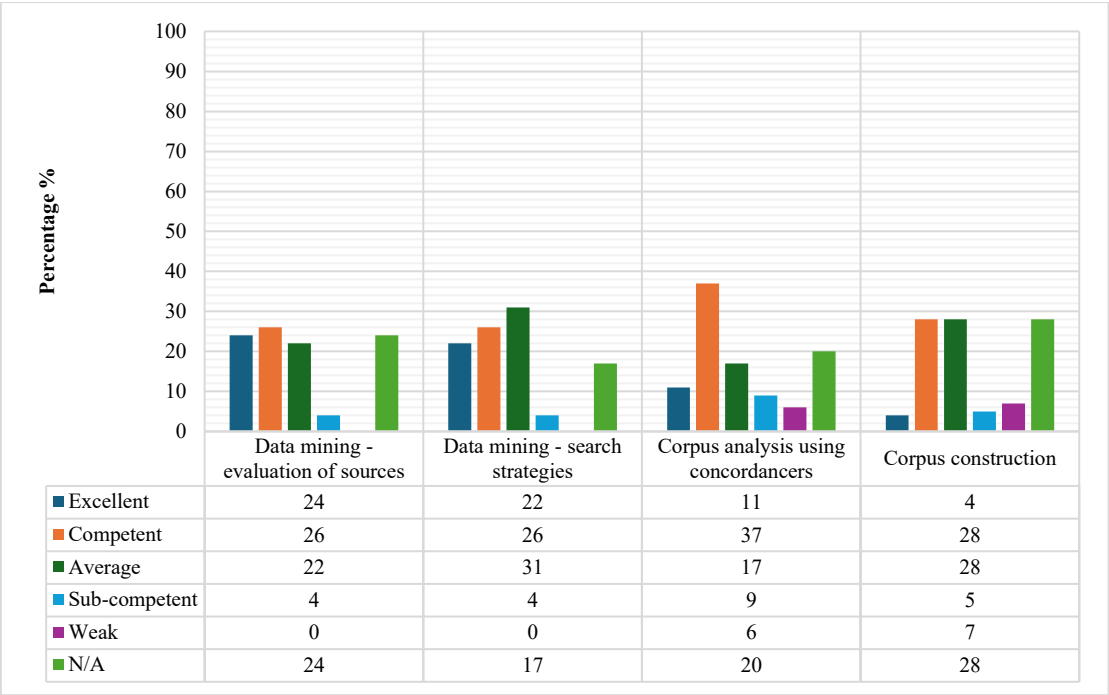



Figure 5.9 Employers' assessment of MT post-editing

Figure 5.10 (below) presents the employers' assessment of their translators' competence in four terminology-related activities. For data mining - evaluation of sources, the results show that over half of the respondents rated their translators positively: 24% (n=11) considered them excellent, and 26% (n=12) competent. A further 22% (n=10) rated their translators as average, while only a small number selected sub-competent (4%, n=2), and none rated them as weak. Interestingly, 24% (n=11) selected N/A, indicating that some employers do not regularly assess their translators to help them develop their technological competence. The same pattern was also observed in data mining - search strategies, with 22% (n=10) rating their translators as excellent and 26% (n=12) as competent. About one-third (31%, n=14) chose average, and only 4% (n=2) sub-competent, again suggesting generally high competence in research and information retrieval.



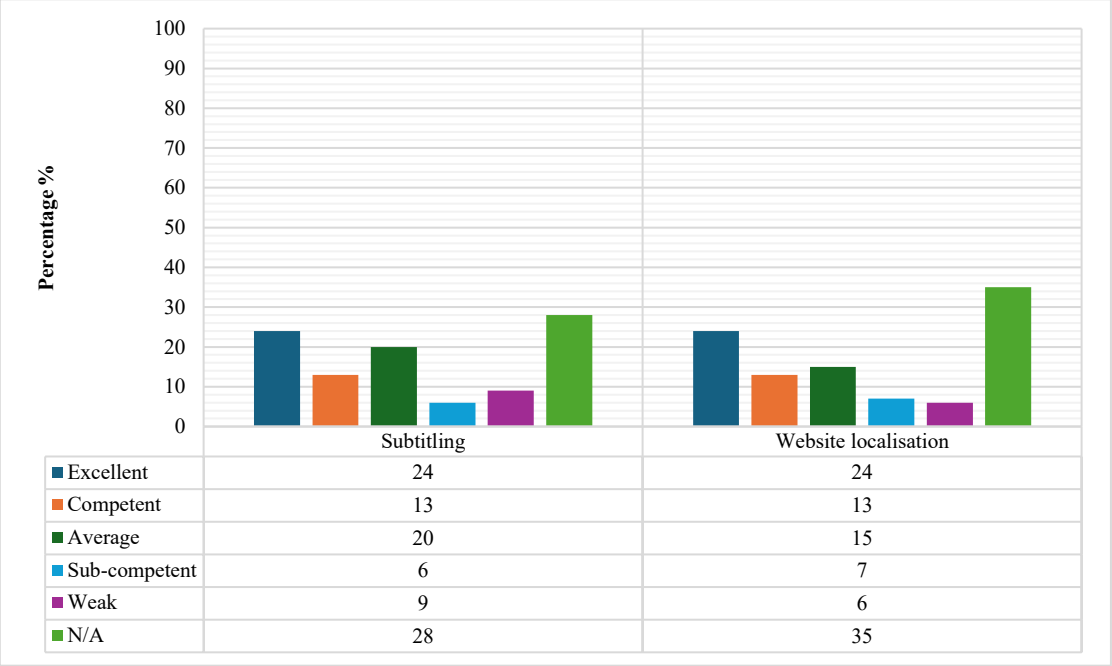

| | Data mining - evaluation of sources | Data mining - search strategies | Corpus analysis using concordancers | Corpus construction |
|---|---|---|---|---|
| Excellent | 24 | 22 | 11 | 4 |
| Competent | 26 | 26 | 37 | 28 |
| Average | 22 | 31 | 17 | 28 |
| Sub-competent | 4 | 4 | 9 | 5 |
| Weak | 0 | 0 | 6 | 7 |
| N/A | 24 | 17 | 20 | 28 |

Figure 5.10 Employers' assessment of terminology-related activities

Building and handling corpora received low ratings from employers. An excellent rating for corpus construction was given by just 4% (n=2), with 28% (n=13) declaring them competent, and the same proportion (28%, n=13) rating them as average. A minority of employers selected sub-competent (11%, n=5) or weak (15%, n=7) for this competence, so challenges clearly exist for some translators in mastering it. For corpus analysis using concordancers, only 11% (n=5) of the respondents rated their translators as excellent, and 37% (n=17) as competent. An average rating was given by 17% (n=8), and sub-competent or weak ratings were provided by 15% (n=7). It is notable that N/A was selected for both of these items at relatively high rates of 20% (n=9) and 28% (n=13), respectively, indicating that almost a quarter of the employers cannot be certain of the competence of their translators in these two areas.

Figure 5.11 (below) shows how the surveyed employers assessed their translators' competence in two multimedia-related activities: subtitling and website localisation. Both items received similar ratings, with 24% (n=11) of the respondents considering their translators excellent in each activity, and 13% (n=6) rating them as competent. In the case of subtitling, 20% (n=9) rated their translators as average, while a smaller number rated them as sub-competent (13%, n=6) or weak (9%, n=4). For website localisation, 15% (n=7) saw their translators as average, and fewer still as sub-competent (7%, n=3) or weak (6%, n=3). These results indicate that while some translators excel in multimedia-related activities, others may still lack the necessary skills in these areas. Additionally, a relatively high percentage of the employers reported being unsure

about their translators' competence in these activities, with 28% (n=13) selecting N/A for subtitling and 35% (n=16) for website localisation. This uncertainty may reflect limited awareness among employers of how these activities are handled by their translators in the workplace.




| | Subtitling | Website localisation |
|---|---|---|
| Excellent | 24 | 24 |
| Competent | 13 | 13 |
| Average | 20 | 15 |
| Sub-competent | 6 | 7 |
| Weak | 9 | 6 |
| N/A | 28 | 35 |

Figure 5.11 Employers' assessment of multimedia-related activities

Figure 5.12 (below) presents how the employers rated their translators' ability to use DTP tools. The ratings were relatively evenly distributed, with 13% (n=6) of the respondents rating their translators as excellent and 15% (n=7) as competent. A larger group, 22% (n=10), saw their translators as average. However, 11% (n=5) of the employers rated their translators as sub-competent, and 6% (n=3) as weak, pointing to potential challenges in this area for some translators. Interestingly, a significant proportion of the respondents (33%, n=15) selected the N/A option, which may suggest that they were unsure about their translators' ability to use DTP tools. While the results show that some translators are capable in this area, the mixed ratings and high uncertainty indicate that further attention is needed in the DTP area.

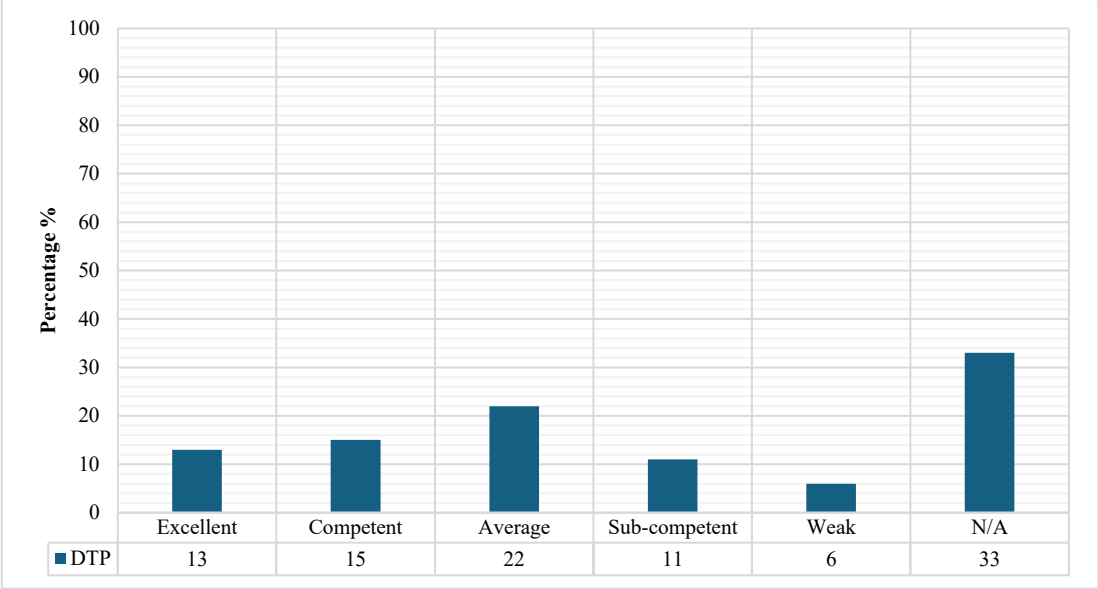



Figure 5.12 Employers' assessment of DTP

The overall results from this section indicate a varied picture of the technological competence of Saudi translators as perceived by their employers. While certain activities (e.g., TB use, TM use, data mining) were generally rated positively, other important areas received lower competence ratings, particularly those related to QA, TMS, corpora, localisation, subtitling, and DTP. In several cases, a considerable portion of the surveyed employers selected the N/A option, which may reflect uncertainty and a lack of visibility regarding employers' involvement in translator assessment practices and little to no regular feedback. It may also indicate that in certain specialised areas (e.g., subtitling) the volume of work is small or non-existent, leaving employers unable to assess translators' competence directly. These findings highlight both areas of strength and competence gaps that need further attention and integration into BA programmes across Saudi universities.

## 5.5 CPD Provision and Support

This section explores employer perceptions of the current CPD landscape in the Saudi translation industry. The respondents were first asked to identify in which area they believed their translators lacked competence and needed further training. This question was formulated based on the five competence areas proposed in the EMT model (i.e., language and culture, translation, technology, personal and interpersonal, service provision). The results are presented in Table 5.4 (below).

The increasing demand for translators able to confidently use translation technologies and adapt to digitally integrated workflows was made clear by nearly half of the respondents (48%,

n=22), indicating that the most urgent training need was technology. Many employers also appreciate strong linguistic abilities and cultural understanding as essential elements of translation quality, as language and cultural competence closely follow technology, chosen by 44% (n=20) of the respondents. The translation competence was identified by one-third of the respondents (33%, n=15), suggesting that core translation skills require further improvement in some workplaces. A slightly smaller group (30%, n=14) highlighted the importance of soft skills (i.e., communication, negotiations, teamwork, and time management) as they identified personal and interpersonal competence as a training need. Finally, service provision was the least selected area, mentioned by 24% (n=11), but still notable as it includes client relations, project handling, and service delivery. All these skills are considered important aspects of professional translation practice.

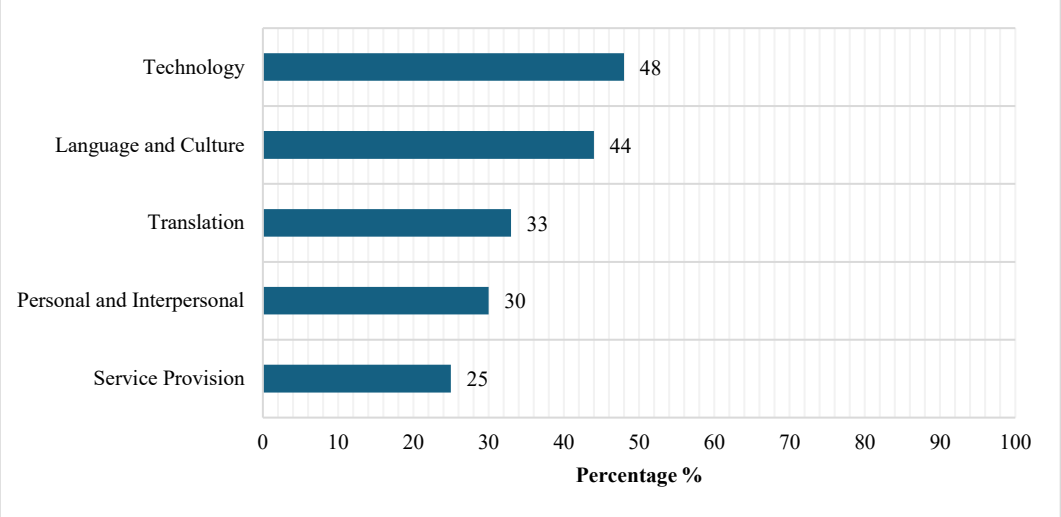



Figure 5.13 Translators' training needs (employers' views)

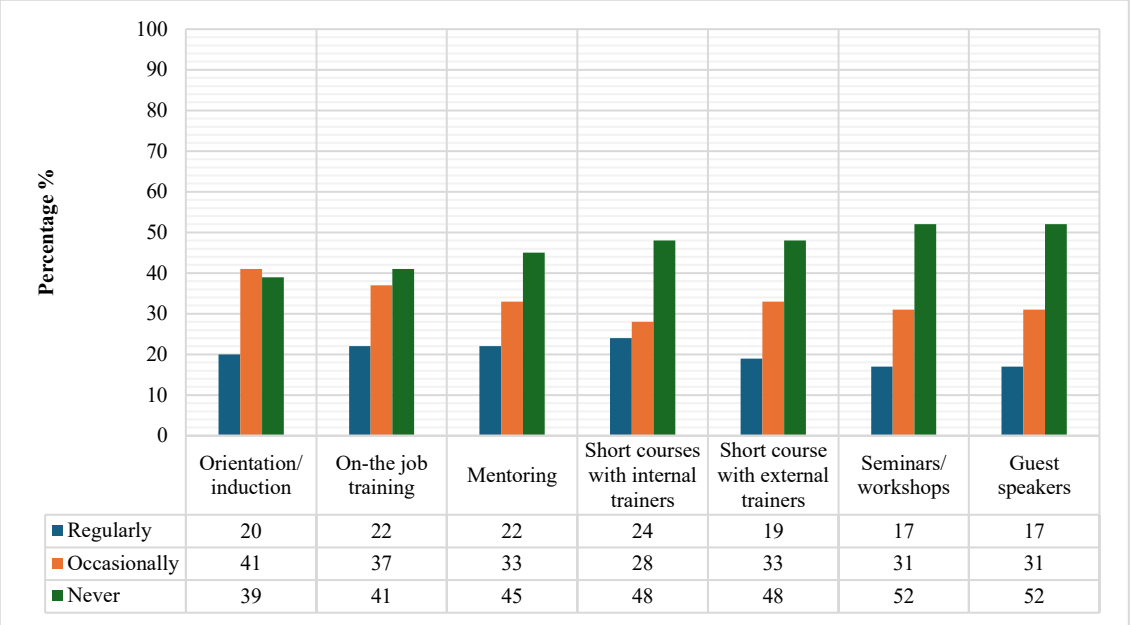
The respondents were then asked whether they offer any technology-related CPD opportunities to help improve their translators' competence in this area. Despite technology being identified as the most urgent training need in the previous question, a large majority of respondents (72%, n=33) reported that they do not provide such training. This points to a noticeable gap between employers' recognition of their translators' development needs and the actions they take to address them.

### 5.5.1 Employer Support for CPD

The final part of this section investigates the extent to which Saudi employers support their translators' professional development. Employers were asked in the survey to rate a range of CPD activities, divided into internal (7 items) and external (7 items) activities, on a three-point Likert scale: never, occasionally, or regularly. This list is the same as that included in the

Translator Survey, so it will be possible to directly compare perceptions of CPD and how it is supported from both sides of the industry. The results help illustrate the current CPD landscape in the Saudi translation industry, highlighting the CPD activities frequently offered and identifying areas where gaps in support may exist.

Figure 5.14 (below) shows the frequency with which Saudi employers provide internal CPD activities for their translators. Orientation and induction programmes were among the most frequently supported activities, yet only 20% (n=9) of the respondents reported offering them regularly. They were offered occasionally by a larger proportion (41%, n=19) but never provided by around the same amount (39%, n=18). Mentoring for junior translators was regularly offered by 22% (n=10), occasionally by a third (33%, n=15), and never by nearly half (45%, n=21). This means that a large proportion of Saudi translators, particularly novices, are not receiving the necessary support (e.g., guidance from experienced colleagues) to effectively begin their careers, so their ability and means to the primary technology-related competencies are severely limited.




| | Orientation/ induction | On-the job training | Mentoring | Short courses with internal trainers | Short course with external trainers | Seminars/ workshops | Guest speakers |
|---|---|---|---|---|---|---|---|
| Regularly | 20 | 22 | 22 | 24 | 19 | 17 | 17 |
| Occasionally | 41 | 37 | 33 | 28 | 33 | 31 | 31 |
| Never | 39 | 41 | 45 | 48 | 48 | 52 | 52 |

Figure 5.14 Frequency of internal CPD activities (employers' views)

On-the-job training was reported to be provided regularly by 22% (n=10) of the respondents and occasionally by 37% (n=17). However, 41% (n=19) admitted never arranging peer-based learning of this kind, indicating that many Saudi translation workplaces lack structures for informal knowledge sharing. Respondents were asked about internally and externally led in-house short courses separately, and both were found to be regularly provided by less than a quarter of employers (24%, n=11 for internal trainers; 19%, n=9 for external trainers) and not

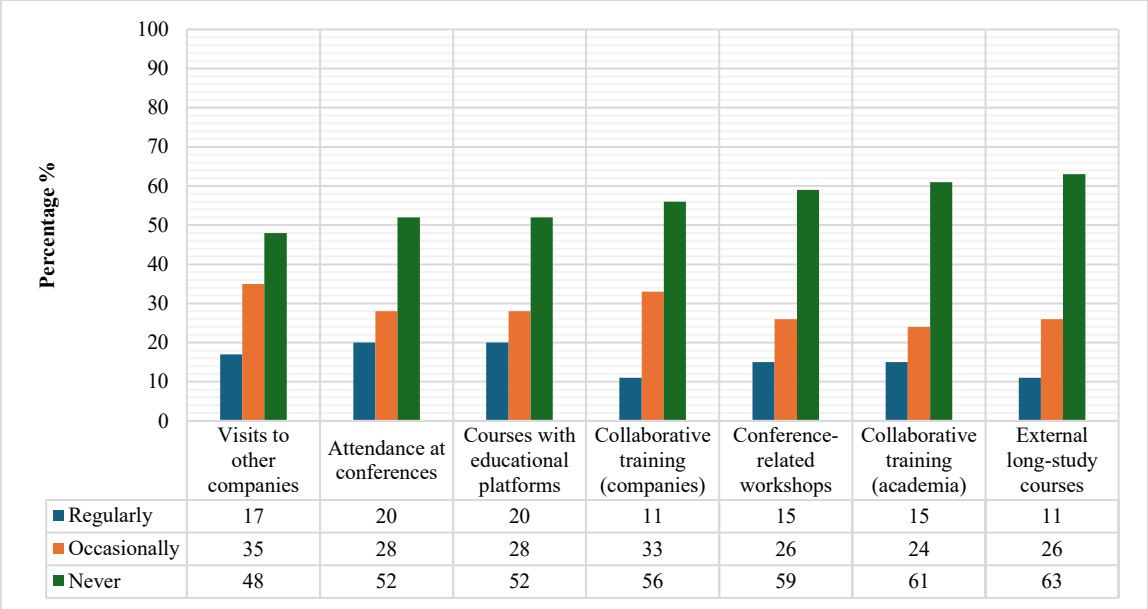
provided at all by nearly half (48%, n=22). This means that neither internal resources nor external expertise are utilised by a considerable proportion of the workplaces surveyed, thereby denying these CPD opportunities to the translators employed there.

The CPD activities showing the lowest levels of employer support were seminars, workshops, and guest speaker sessions, offered regularly by only 17% (n=8) of the respondents and occasionally by 31% (n=14). Over half of the employers (52%, n=24) stated that they never provided such activities, raising concerns about the limited exposure Saudi translators receive to new technologies, practices, and industry trends that are often disseminated through these activities. It is challenging for translators to stay up to date with industry developments or build relationships within the broader professional community if they lack these opportunities. Further limiting their access to external networks and CPD channels is the finding from the Translator Survey that 88% (n=218) of the translators participating in this research held no professional association membership.

The overall assessment reveals a low level of regular provision of internal CPD activities in the Saudi translation industry. An average of only 20% (n=9) of the employers offer the listed CPD activities regularly, and they are provided occasionally by a third (33%, n=15). The most concerning result, however, is that nearly half (47%, n=22) do not make internal CPD available at their workplace, particularly core activities such as orientation, mentoring, and short courses, which represents a significant support gap. Saudi employers can, therefore, be said to be failing to follow effective approaches to CPD that help translators develop the competencies required in the industry and meet their expectations.

Figure 5.15 (below) illustrates how often the surveyed employers provide their translators with support in accessing external CPD activities. The overall trend indicates that such support is generally limited, with most activities being provided infrequently. In fact, none of the activities were regularly supported by more than one-fifth of the respondents, indicating that external CPD still does not receive adequate attention from Saudi employers. Training-based visits to other translation companies were only facilitated regularly by 17% (n=8) of employers and occasionally by 35% (n=16), but, as with many internal CPD activities, close to half (48%, n=22) reported never providing this activity. External CPD involving these kinds of visits is important for knowledge exchange and exposing translators to other approaches to professional translation work and new workflows they may not otherwise encounter in their workplaces; however, such opportunities appear underused. Similarly, 20% (n=9) of respondents reported

receiving regular support for short courses through external educational platforms, while 28% (n=13) occasionally received such support. Still, over half of the respondents (52%, n=24) reported that these opportunities were never offered.




| | Visits to other companies | Attendance at conferences | Courses with educational platforms | Collaborative training (companies) | Conference-related workshops | Collaborative training (academia) | External long-study courses |
|---|---|---|---|---|---|---|---|
| Regularly | 17 | 20 | 20 | 11 | 15 | 15 | 11 |
| Occasionally | 35 | 28 | 28 | 33 | 26 | 24 | 26 |
| Never | 48 | 52 | 52 | 56 | 59 | 61 | 63 |

Figure 5.15 Frequency of external CPD activities (employers' views)

Collaborative training, whether with companies or academic institutions, also received low support. Sponsoring joint training was regularly done by 11% (n=5) of the employers for peer companies, and by 15% (n=7) for academic partners. In each case, considerably over half (56%, n=26 and 61%, n=28, respectively) stated that such opportunities were never offered. This suggests that peers within the translation industry are disconnected, and the industry as a whole is also disconnected from academia. This limits the opportunities available to translators to build on or develop their competencies and stay up to date with changing practices and technologies in their field of interest. Support for long study courses was the least common in the workplace, with a striking 63% (n=29) of respondents reporting that they never offered it. This suggests that these courses are not yet prioritised, despite their potential to enhance translators' technological competence.

Support was notably limited for attending conferences and their associated workshops. While regular support was offered by a fifth and occasional support offered by just over a quarter of respondents, more than half had never helped their translators attend conferences or related workshops. Given that conferences afford exposure to expert knowledge, current trends, new technologies, and networking opportunities that would be otherwise unavailable, this is a cause for concern.

The overall results indicate that external CPD has not yet gained attention and support among employers in the Saudi translation industry. On average, only 15% (n=7) of the respondents regularly provide access to these opportunities, while 29% (n=13) do so occasionally. The majority (56%, n=26) stated that they never support their translators in attending external CPD activities. When compared with internal CPD provision, the overall level of support remains similarly limited, although slightly higher for internal activities (with 20%, n=9 regularly and 33% n=15 occasionally offering it on average). These results suggest that many translators lack access to both internal and external CPD activities in Saudi Arabia, which makes it challenging for most of them to seek CPD independently.

### 5.5.2 Comparative Analysis of CPD Provision and Support: Translators vs. Employers

This section compares the perspectives of Saudi translators and employers regarding the frequency of CPD provision and support across internal and external activities to highlight alignment or gaps between what translators receive and what employers report as being offered. Both groups answered the same 14-item question, using the Likert scale of never, occasionally, and regularly. The comparison uses the mean scores of both groups to determine how often these activities are provided, and where their views diverge.

Table 5.3 (below) shows that both groups agreed that most internal CPD activities were occasionally offered. Similar ratings can be seen for orientation and mentoring between employers (1.81) and translators (1.71 and 1.69, respectively), suggesting inconsistent provision of these activities. Short courses with internal trainers were scored by employers at 1.76 and slightly lower by translators at 1.70, showing occasional support. These relatively close scores suggest some shared understanding between employers and translators, though the frequency remains limited.

Table 5.3 Comparison of internal CPD provision (translators vs. employers)

| Activity | Translators (n=248) | Frequency Level | Employers (n=46) | Frequency Level |
|---|---|---|---|---|
| Seminars/workshops | 1.95 | Occasionally | 1.65 | Never |
| On-the-job training | 1.72 | Occasionally | 1.81 | Occasionally |
| Orientation/induction | 1.71 | Occasionally | 1.81 | Occasionally |
| Short courses with internal trainers | 1.70 | Occasionally | 1.76 | Occasionally |
| Mentoring junior translators | 1.69 | Occasionally | 1.77 | Occasionally |
| Short courses with external trainers | 1.63 | Never | 1.71 | Occasionally |
| Guest speakers | 1.60 | Never | 1.65 | Never |

However, there are some notable differences in perception. The results reveal that translators rated seminars/workshops as more frequently available (1.95) than employers did (1.65), which places the activity at the borderline between the occasionally and never ranges. This may suggest that employers are either unaware of their translators' participation in such events or that translators access them independently. Conversely, short courses with external trainers were rated slightly higher by employers (1.71) than by translators (1.63), although both ratings fall near the never range. The one point of full agreement was on guest speakers, where both groups rated the activity below 1.66, confirming that it is rarely provided. These differences indicate potential misalignment in how CPD efforts are communicated or experienced within Saudi workplaces.

Compared to internal CPD, the external activities received lower ratings overall. As shown in Table 5.4 (below), both translators and employers agreed that external CPD is not regularly supported, with none of the activities reaching the threshold for regular provision. The highest-rated items, including courses with educational platforms and conference attendance, were described as occasionally offered by both groups, although the mean scores are close to the never range (around 1.70). This suggests limited engagement with external training sources or industry events, despite the fact that such opportunities can be valuable for learning and networking.

Table 5.4 Comparison of external CPD support (translators vs. employers)

| Activity | Translator (n=248) | Frequency Level | Employer (n=46) | Frequency Level |
|---|---|---|---|---|
| Courses with educational platforms | 1.71 | Occasionally | 1.68 | Occasionally |
| Conference attendance | 1.70 | Occasionally | 1.68 | Occasionally |
| Conference -related workshops | 1.62 | Never | 1.56 | Never |
| Collaborative training (companies) | 1.62 | Never | 1.55 | Never |
| Collaborative training (academia) | 1.59 | Never | 1.54 | Never |
| External long-study courses | 1.58 | Never | 1.48 | Never |
| Visits to other companies | 1.43 | Never | 1.69 | Occasionally |

The rest of the external CPD activities were generally rated within the never range, although translators consistently rated them slightly higher than employers. For instance, conference-related workshops, collaborative training with companies and academia, and long study courses all fell below 1.66 for both groups, highlighting a lack of support. Visiting other companies for

training purposes was the exception, as this received a slightly higher rating from employers (1.69) than translators (1.43), suggesting that, in this regard, employers demonstrate greater optimism about their support than that perceived by their translators. The results provide a picture of the general neglect of external CPD among Saudi employers in the translation industry, showing that many translators take the initiative to independently seek CPD without the support or even necessarily the knowledge of their employers.

This comparison reveals that both translators and employers agree on the overall limited CPD provision and support in the Saudi translation industry. Internal CPD activities are slightly more supported than external ones, but, on average, none of the items were rated as regularly offered. The small differences in mean scores highlight areas of miscommunication or differing expectations between translators and their employers. Importantly, these results highlight a clear need for enhanced CPD planning and coordination, particularly as translators continue to face increasing technology-related requirements in the industry.

## 5.6 Chapter Summary

This chapter has reported the findings of the Employer Study, which gathered survey data from 46 translation employers across Saudi Arabia. It described the professional background of the respondents and the types of workplaces they represent before focusing on three key areas: the translation technology-related requirements for hiring new translators, the competence of current translators in these areas, and the extent to which Saudi employers support CPD in their workplaces. There is also a section on the quasi-longitudinal comparison with earlier studies conducted in Europe, Saudi Arabia, and East Asia, which was carried out in this study to determine changes in employer requirements over time in several parts of the world. This allows the prevailing trends and shifting priorities of the global translation industry to emerge from the results. The chapter further presented employer assessments of their translators' competence with frequently used tools and in performing key technology-related activities. These were compared with the translators' self-assessments to enable data triangulation and identify areas of agreement and discrepancy. The final part of the chapter explored how often the surveyed employers support internal and external CPD activities. The comparison between employers' and translators' responses revealed several gaps in CPD provision, especially for external CPD support.

# Chapter 6 Findings of the Academic Study

## 6.1 Introduction

This chapter presents the findings of the Academic Study, which investigates the current state of translation technology training in BA programmes across Saudi Arabia and the extent to which this training aligns with industry requirements. The study seeks to provide answers to important questions of where, how, and to what extent translation technology is currently integrated into the curricula of Saudi BA programmes. To do this, an adapted version of the EMT survey (2017) was distributed to the directors of BA programmes related to the translation profession in Saudi Arabia (n=30). In addition to the survey, focus group discussions were conducted with two groups: BA programme directors (n=9) and trainers of technology-related courses (n=9). By combining quantitative and qualitative data, the study provides a detailed overview of translation technology training in Saudi universities.

Section 6.2 outlines the background of the surveyed BA programmes, providing an overview of the programmes responsible for preparing students for translation roles in the Saudi industry. Section 6.3 then explores the structure and delivery of translation technology training in these programmes, including how these courses are offered, the tools used, and teaching and assessment strategies. This section also examines whether current training practices align with the technology-related requirements of the translation industry.

## 6.2 Background Information about the BA Programmes Surveyed

The questions used in this section were created by the researcher, rather than those in the original EMT survey, to reflect the Saudi context and better understand the types of BA programmes in which future translators are being trained. All respondents (n=30) were asked a set of questions to capture the diversity of programme titles, focus, and content and gain an in-depth understanding of where translation technology training may be occurring. If the programme was not explicitly dedicated to translator training, respondents were asked to provide its title in a textbox. As shown in Figure 6.1, 43% (n=13) of the respondents indicated that their programmes were dedicated to translator training. The remaining responses were grouped as language-related, including English language programmes (53%, n=16) and one applied linguistics programme. This classification helps clarify the academic contexts from which the responses were drawn and provides a foundation for understanding where translation technology training may be embedded.

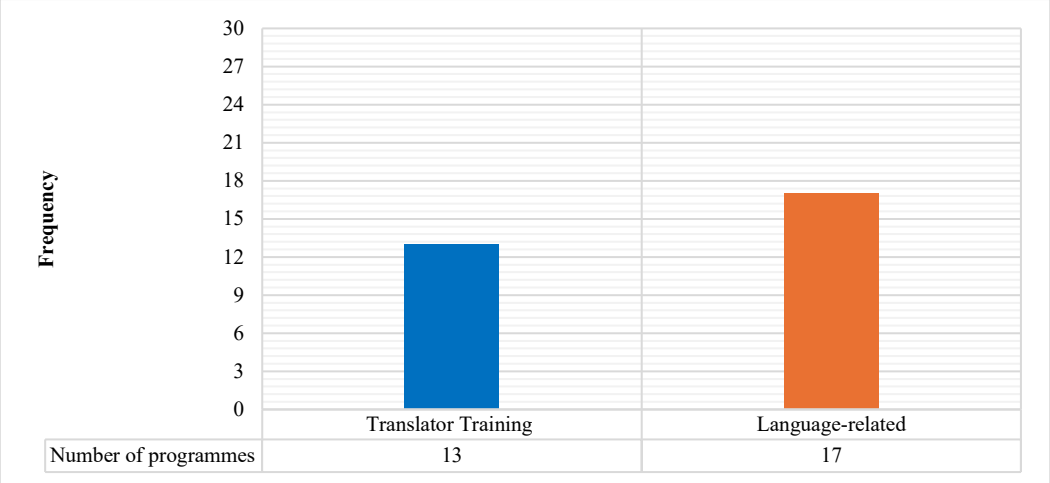



Figure 6.1 Types of programmes

The 13 respondents from BA translator training programmes were directed to answer Q1.7 (see Table 6.4) to indicate whether translation technology-related courses are currently integrated into their curricula. The remaining respondents (n=17), whose programmes are language-related but not specialised in translation, were asked additional questions about the objectives, content, and structure of their programmes. This was necessary to distinguish between BA programmes that explicitly aim to prepare students for translation roles in the industry and those where translation plays a secondary role. This distinction is particularly relevant, as nearly half of the translators surveyed in this research graduated from language-related programmes (see Table 4.2). Interestingly, the results (Table 6.1, below), reveal that half of the English language programmes (50%, n=8) reported having an objective to provide the translation industry with professional translators, while the other half (50%, n=8) did not indicate such a programme objective. The only applied linguistics programme also reported having no such goal. These results highlight that translators in Saudi Arabia can be trained through two distinct BA pathways: dedicated translator training programmes and broader language-related programmes that still claim to prepare graduates for translation jobs in the industry.

Table 6.1 Programme objectives

| Question | English Language (16) | | Applied Linguistics | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Q1.4 Does your programme have an objective of preparing students to work as professional translators in the industry? | 50% (n=8) | 50% (n=8) | - | 100% (n=1) |

The nine respondents who previously indicated that their programmes do not aim to prepare students for professional translation roles were asked a follow-up question about whether they believe their graduates are eligible to work as professional translators. The results (Table 6.2, below), show that three-quarters of the respondents (75%, n=6) from English language programmes answered 'yes', suggesting they consider their graduates suitable for professional translation work. This reveals an intriguing discrepancy when juxtaposed against the previous result, where most of these respondents stated that their programmes do not aim to prepare students for translation roles in the industry. Whatever the reasons that could justify this, the results indicate a gap between the perceptions of some programme directors of their graduates' competencies and the actual readiness of these graduates for the translation profession and its technology-related requirements

Table 6.2 Eligibility Status

| Question | English Language (8) | | Applied Linguistics | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Q1.5 Do you think the graduates from your programme are eligible to work as professional translators? | 75% (n=6) | 25% (n=2) | - | 100% (n=1) |

The results so far raise questions about the extent to which translation-related courses are embedded within BA language-related programmes that directly or indirectly contribute to the supply of translators in Saudi Arabia. To explore this further, respondents from these programmes (n=17) were asked whether they include any translation courses in their curricula. As shown in Table 6.3 (below), almost all English language programmes (94%, n=15) reported offering translation courses, while only one did not. The single applied linguistics programme also confirmed the inclusion of such courses. The connection of language-related programmes to the profession of translation and the role that translation teaching plays in them is clarified in these results: most programmes include translation courses as a core element of the curriculum, even though many of them have no stated goal which includes the training of professional translators. These courses include the competencies and exposure to practice needed to prepare students for translation as a career path. Table 6.5 (p.168) supplies further detail on the number and nature of these courses.

Table 6.3 Teaching translation courses

| Question | English Language (16) | | Applied Linguistics | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Q1.6 Does your programme teach any translation-related courses? | 94% (n=15) | 6% (n=1) | 100% (n=1) | - |

Among the language-related programmes that reported offering translation courses (n=16), the respondents were asked about their approach to teaching these courses, specifically, whether the focus was on theory only, practice only, or both. The vast majority (94%, n=15) indicated that their programmes include both theoretical and practical components. Only one respondent reported that translation courses focus solely on theory. These findings suggest that most language-related programmes adopt a balanced approach to translation teaching. However, it remains important to examine whether this approach includes practical training in translation tools and technologies, which is addressed in the following sections.

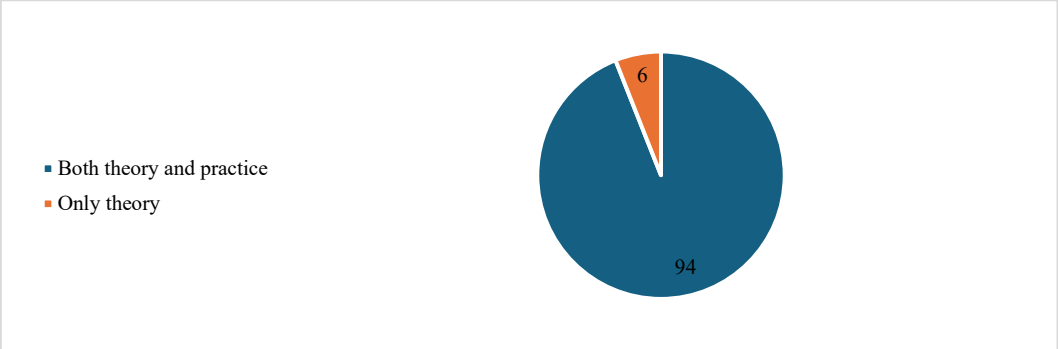



Figure 6.2 Translation teaching approach

The survey then explored whether translation technology-related courses are included in the curricula of the participating BA programmes (n=30), regardless of their type. This question was used to sort the respondents and determine the next stage of the survey. Respondents whose programmes included translation technology courses were directed to complete the full survey, while those whose programmes did not were asked some follow-up questions before finishing the survey.

All translator training programmes (n=13) reported offering at least one translation technology-related course, either compulsory or optional (Table 6.4, below). This suggests that these programmes have integrated technology training as part of their efforts to prepare students for the translation profession. In contrast, only a small proportion of the language-related programmes (3 out of 17) reported offering such courses. It is worth recalling that some of

these programmes, which do not offer translation technology courses, had a previously stated objective of producing professional translators for the industry. This raises questions about how closely programme objectives align with curricular content, particularly in areas that are increasingly essential in modern translation workflows (e.g., technology). Several questions may be posed about these programmes regarding their alignment with the technology-related requirements of the translation industry. The results also highlight a notable contrast between specialised (translator training) and non-specialised (language-related) programmes in terms of integrating translation technology training.

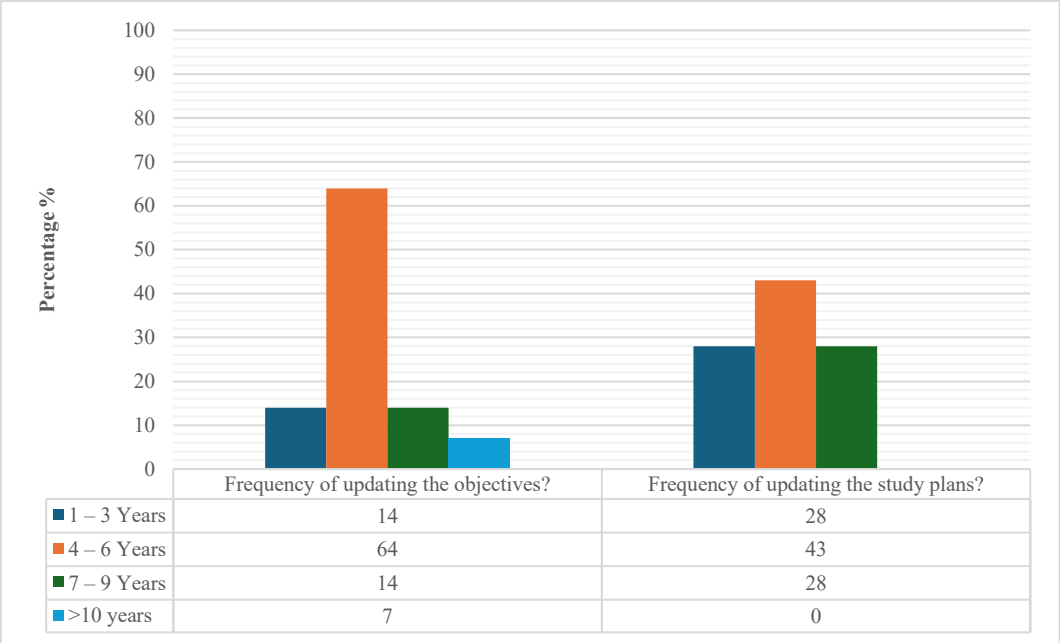
Table 6.4 Teaching technology-related courses

| Question | Translator Training (13) | | English Language (16) | | Applied Linguistics | |
|---|---|---|---|---|---|---|
| | Yes | No | Yes | No | Yes | No |
| Q1.7 Does your programme teach any translation technology-related courses, whether compulsory or optional? | 100% (n=13) | - | 19% (n=3) | 81% (n=13) | - | 100% (n=1) |

The respondents from BA programmes that currently include translation technology-related courses (n=16) were directed to the second section to complete the full survey (i.e., the original EMT survey). Section 6.3 presents the findings of this part of the survey. Those who reported that their programmes do not offer translation technology courses (n=14) were asked 3 additional questions before submitting the survey, one of which focused on whether there were any plans to integrate translation technology-related courses into curricula. This was included to provide greater detail on the prospects and potential of these programmes for curriculum development. A large majority of 82% (n=12) of the respondents stated that including such courses in the future was planned, so awareness of the importance of technology in the education of a translator is clearly growing in Saudi universities. However, 2 respondents from English language programmes reported having no plans of this kind. One noted in a free-text box that the main barriers were limited facilities and the restricted number of study hours available for translation courses in their programme. Crucially, neither of these programmes declared that they aim to prepare students for careers in translation, possibly explaining the omission of this training in their curricula.

Respondents (n=14) were asked how often their programme objectives and study plans are updated to assist understanding of the flexibility of these programmes and their responsiveness to changes in the industry and new developments in technology. Figure 6.3 (below) illustrates

that most respondents (64%, n=9) reported that their programme objectives are updated every 4 to 6 years, while 2 programmes indicated more frequent updates every 1 to 3 years. The remaining programmes (21%, n=3) stated a longer duration, more than 6 years, to make such changes. A similar trend was observed for study plan updates. Study plans are revised every 4 to 6 years by 43% (n=6) of the programmes, and every 1 to 3 years by 28% (n=4). The longest update gap was found with the remaining 28% (n=4), who only carry out this process every 7 to 9 years. Therefore, a considerable proportion of programmes follow very slow revision cycles, although more encouragingly, the largest proportion leave moderate intervals before subjecting their objectives and curricula to review. In areas characterised by rapid change of tools and practices, such as translation technology, neglecting to update courses at more frequent intervals means they will not to be able to stay up to date with the evolving requirements of the industry.




| | Frequency of updating the objectives? | Frequency of updating the study plans? |
|---|---|---|
| 1 – 3 Years | 14 | 28 |
| 4 – 6 Years | 64 | 43 |
| 7 – 9 Years | 14 | 28 |
| >10 years | 7 | 0 |

Figure 6.3 Frequency of updating programmes' objectives and study plans

The responses supplied by the BA programmes (n=14) which offer no courses related to technology are summarised in Table 6.5 (below), with an overview of each programme's stated objective regarding the preparation of translators, the number of translation courses offered, whether there are plans to integrate translation technology training, and the titles of existing translation courses. This helps to highlight gaps between programme objectives and the current curriculum, particularly in relation to the integration of translation technology. The responses were cross-checked against publicly available information on the official websites of these programmes to ensure consistency and accuracy.

Table 6.5 Overview of the current state of BA language-related programmes (translation technology integration)

| University | Programme type | Has an aim of preparing translators? | No. of translation courses | No. of technology courses | Has a plan for integrating technology courses? | Name of courses |
|---|---|---|---|---|---|---|
| UoB | English language | Yes | 7 | None | Yes | Introduction to Translation, Translation of Religious and Literary Texts, Translation of Media Texts, Translation of Scientific and Technical Texts, Simultaneous Translation, Translation of Legal and Commercial Texts, Current Issues in Translation. |
| KKU | English language | Yes | 3 | None | Yes | Translation 1, Translation 2, Translation 3 |
| TBU | English language | Yes | 4 | None | Yes | Introduction to Translation, Applied Translation, Specialised Translation, Literary Translation. |
| UQU | English language | Yes | 2 | None | Yes | Translation 1, Translation 2. |
| TKU | English language | Yes | 5 | None | Yes | Principles of Translation, Translation 1, Translation 2, Translation 3, Translation 4. |
| UoH | English language | No | 2 | None | Yes | Translation 1, English-Arabic Translation. |
| SU | English language | No | 3 | None | No | Introduction to Translation, English-Arabic Translation, Arabic-English Translation. |
| BU | English language | No | 4 | None | No | Translation 1, Translation 2, Translation 3, Interpreting. |
| PSAU | English language | No | 3 | None | Yes | Introduction to Translation, English-Arabic Translation, Arabic-English Translation |

| | | | | | | |
|---|---|---|---|---|---|---|
| NBU | English language | No | 4 | None | Yes | Introduction to Translation, Applied Translation, Translation of Religious Texts, Legal Translation. |
| KFU | English language | No | 4 | None | Yes | Translation Theory, Translating text-types, Creative Translation, Consecutive Translation |
| TFU | English language | No | 3 | None | Yes | Introduction to Translation and Interpreting, English-Arabic Translation, Arabic-English Translation. |
| JZU | English language | No | 2 | None | Yes | Translation 1, Translation 2. |
| MSU | Applied linguistics | No | 2 | None | Yes | Theoretical Translation, Applied Translation.<br>Applied Translation |

The results presented in this section demonstrate that professional translators in Saudi Arabia are prepared through two distinct BA pathways: dedicated translator training programmes (n=13) and broader language-related programmes (n=17), both of which contribute to the same translation industry. While translator training programmes remain central in producing translators, language-related programmes play a significant role in shaping the future translation workforce of Saudi Arabia. This is particularly important given that approximately half of the translators surveyed in this research are graduates of language-related programmes. The results further reveal that all language-related programmes surveyed offer between two and seven translation courses within their curricula. However, despite their contribution to the profession, the integration of translation technology-related courses in these programmes remains limited. The next section explores how translation technology is taught in the programmes that currently offer such training.

## 6.3 Translation Technology Integration into BA programmes

Translation technology-related courses are currently integrated into all BA translator training programmes (n=13) and a minority of BA language-related programmes (n=3), resulting in a total of 16 programmes. These respondents (n=16) then completed the full set of questions adapted from the EMT survey (2017). This section presents the findings on the current state of translation technology training within these programmes, focusing on when and how translation technology is introduced, the type and number of translation technology-related courses offered, the overall training approach, and how these courses are embedded within the curriculum. It also examines the translation technology-related activities carried out, the software tools taught, and the strategies used for teaching and assessment. The results provide a detailed map of the current state of translation technology training in BA programmes across Saudi universities and identify the extent to which it aligns with the technology-related requirements of the translation industry.

### 6.3.1 Translation Technology-Related Courses: Current Provision and Distribution

The respondents (n=16) were asked to provide details on the structure of their translation technology-related courses, including the number of compulsory and elective courses, the names of these courses, and the academic year in which they are taught. To ensure accuracy and consistency, the responses were cross-checked against the official published study plans located online.

Three-quarters of the respondents (75%, n=12) declared that their programme includes only one translation technology-related course that is compulsory, and the other quarter (25%, n=4) stated that they offer two compulsory courses in this area (Table 6.6, below), with AVT appearing consistently as the second course in these cases. Two programmes, one translator training and one language-related, provide technology-related courses as electives, rather than a core component in the curriculum. This finding raises doubts about the extent to which these programmes can provide students with the technology-related competencies required by the industry.

Table 6.6 Overview of technology-related courses (provision and distribution)

| University | Programme type | No. of Compulsory technology courses | Course name | Year | No. of optional tech courses | Course name | Year |
|---|---|---|---|---|---|---|---|
| KAU | Translator Training | 2 | Machine Translation, Audiovisual Translation | 4 | None | - | - |
| KSU | Translator Training | 1 | Computer-Assisted Translation | 3 | None | - | - |
| UJ | Translator Training | 1 | Computer Applications in Translation | 3 | None | - | - |
| PNU | Translator Training | 2 | Translation Technology, Audiovisual Translation | 2 & 3 | None | - | - |
| UHB | Translator Training | 1 | Computer-Assisted Translation | 4 | 1 | Audiovisual Translation | 4 |
| QU | Translator Training | None | - | - | 1 | Machine translation | 4 |
| NU | Translator Training | 1 | Computer-Assisted Translation, Audiovisual Translation | 3 | None | - | - |
| IMSU | Translator Training | 2 | Computer-Assisted Translation, Audiovisual Translation | 3 & 4 | None | - | - |
| SEU | Translator Training | 1 | Principles and Practice of Computer-Assisted Translation | 4 | None | - | - |
| PFU | Translator Training | 2 | Computer Applications in Translation, Audiovisual and Media Translation | 4 | None | - | - |
| PSU | Translator Training | 1 | Computer Applications in Translation | 3 | None | - | - |
| GC | Translator Training | 1 | Computer-Assisted Translation | 4 | None | - | - |
| EU | Translator Training | 2 | Computer Applications in Translation, Subtitling and Dubbing | 3 & 4 | None | - | - |
| JUF | Language-related | 1 | Computer-Assisted Translation | 4 | None | - | - |
| MJU | Language-related | 1 | Computer-Assisted Translation | 3 | None | - | - |
| IMU | Language-related | None | - | - | 1 | Machine Translation | 4 |

The names of these courses are revealing. Computer-Assisted Translation (CAT) was given as the course name by half of the programmes (50%, n=8), showing that CAT tools are the primary focus. Three quarters of the programmes (n=4) called the course Computer Applications in Translation, 19% (n=3) named it Machine Translation, and one programme the more general

Translation Technology. Moreover, Six programmes were found to offer Audiovisual Translation as a compulsory course, and it is an elective in one. The variability in the names of these courses implies differing emphases and course content between universities, a divergence which denies students, trainers, and employers the certainty of coordinated and standardised training in this field. Questions must therefore be asked about the reasons for the differing course definitions between programmes and the extent to which industry requirements are accounted for in their content.

Almost all of the programmes (94%, n=15) wait until the later stages of study (Years 3 or 4) to introduce translation technology-related courses. The single exception is Princess Nourah University (PNU), which offers this course in Year 2, followed by an AVT course in Year 3. If students only gain exposure to translation technologies in the later stage of their BA studies, they may have limited time and opportunity to use these technologies in other courses and develop a sufficient level of technological competence before graduation.

In addition, the findings indicate regional variation. Two compulsory courses in translation technology are more likely to be offered by universities based in major cities, such as Riyadh (e.g., PNU and IMSU) and Jeddah (e.g., KAU and EU), while programmes located in smaller cities typically offer only one. When a second course is included, it is consistently dedicated to AVT, which may reflect the recent growth in the Saudi entertainment sector, as this has increased demand for multimedia translation services. Additionally, the fact that the large cities tend to provide more comprehensive translation technology training could be a result of the higher levels of awareness and curriculum development in this specific field in the capital city and other metropolitan regions. To illustrate this, Riyadh has been the venue for all four editions of the LPCT-hosted Translation Forum (2021-2024).

### 6.3.2 Overall Training Approaches

The respondents were asked a series of yes/no questions related to the design and delivery of translation technology training within their programmes. These questions addressed whether translation technology is both taught and assessed, the types of software used, and the perspective from which this training is approached.

The results show that almost all respondents (94%, n=15) teach and assess both the theory and practice of translation technology. When asked about the types of software used, a similarly high proportion (94%, n=15) stated that they teach and assess generic/free tools. In contrast, just over half (56%, n=9) reported that their programmes cover commercial or paid-for tools.

This means that a significant proportion of the surveyed programmes (44%, n=7) do not expose students to commercial translation tools, even though many of the most frequently used tools among Saudi translators are commercial products (as noted in Section 4.6.1). Therefore, the limited use of paid software tools in BA programmes may affect students' familiarity with the tools they are likely to encounter in the workplace.

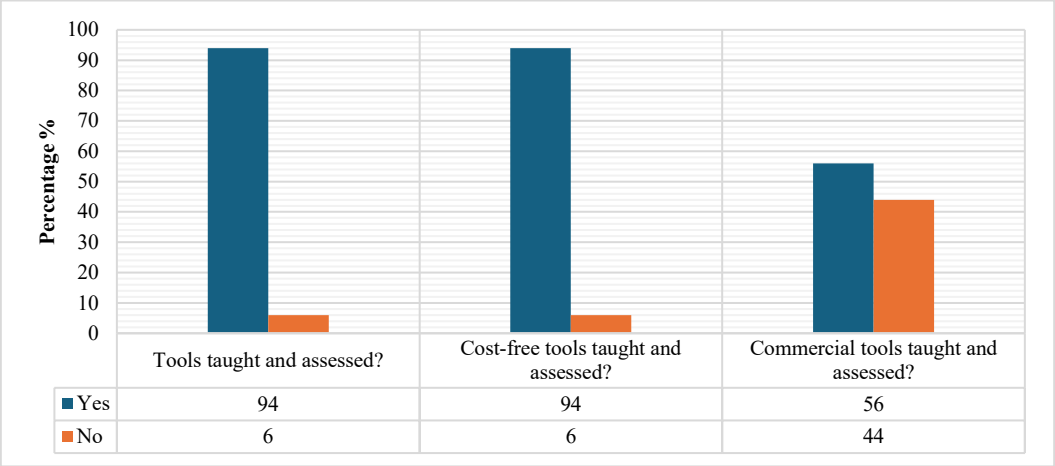



Figure 6.4 Curriculum insights: Software types

Respondents were asked the extent to which they deliver translation technology training from three stakeholder perspectives: professional translators, project managers (PMs), and companies/LSPs, as translation technology now encompasses various approaches. This can show how BA programmes prepare students for a range of roles in the translation industry. Figure 6.5 (below) illustrates that all respondents confirmed that translation technology is taught from the perspective of professional translators. However, only 44% (n=7) reported that their programmes also address translation technology from the perspective of project managers, and the same proportion indicated teaching from the viewpoint of LSPs. When teaching translation technology, then, more than half of the surveyed programmes (56%, n=9) purely focus on the role of the translator without incorporating the perspectives of the broader industry.

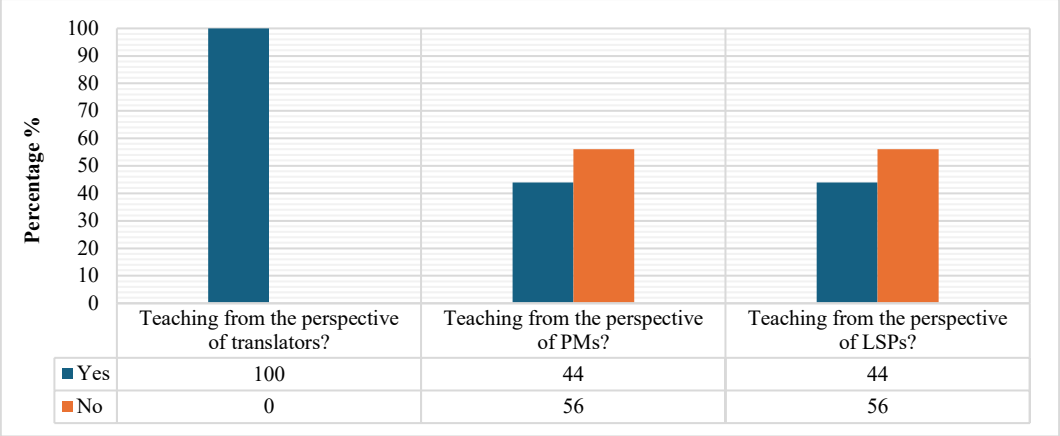



Figure 6.5 Curriculum insights: Teaching perspectives

The time that students are expected to devote to learning translation technology per week formed the basis of the next two questions. This is to help identify the minimum (compulsory) and maximum (compulsory plus optional) weekly study time allocated to translation technology training, and whether technological competence can be developed in this period. The results show that most respondents (75%, n=12) reported that students are expected to spend between 10% and 25% of their compulsory study time on translation technology training. A much smaller proportion (25%, n=4) indicated that their programmes allocate less than 10% of study time. Interestingly, none of the respondents dedicate more than 25% of compulsory study time to developing the technological competence of students.

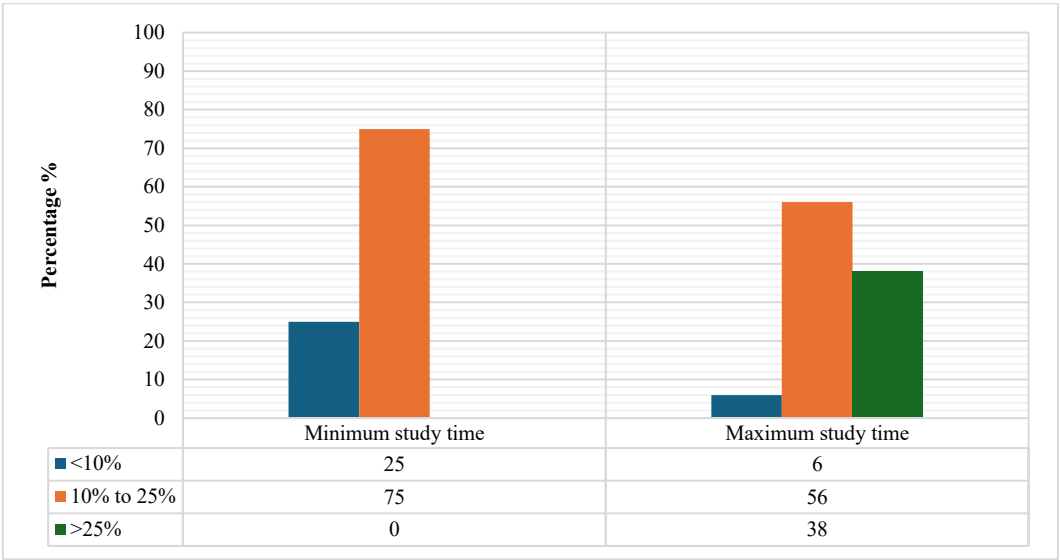



Figure 6.6 Time allocation expected from students for translation technology

When optional learning activities are included, the distribution of maximum expected study time (in-class and private) shows slight variation. Over half of the respondents (56%, n=9) still estimated that students spend between 10% and 25% of their total study time on translation

technology, indicating no significant increase beyond the compulsory component. However, 38% (n=6) reported that students spend more than 25% of their total study time on this area, suggesting a greater emphasis on technological competence development in those programmes. Only one programme estimated less than 10% of total study time for learning translation technology, which may entail limited student exposure to essential translation tools before entering the translation industry.

Given that students require sufficient study time to acquire both conceptual and procedural knowledge of translation technology, the variation in reported study time across programmes reveals inconsistency in how translation technology is integrated into Saudi BA programmes. These differences may influence the extent to which students develop the technological competence needed in modern workflows. To better understand how current BA curricula align with industry requirements, the next section presents findings on the teaching status of the top 12 translation technology-related activities identified as important by the translators surveyed in this thesis.

### 6.3.3 Teaching Status of Translation Technology-related Activities

This section presents the teaching status of the top 12 technology-related activities identified by translators as highly important in their daily work (see Section 4.5). The same activities were evaluated by employers, who assessed the competence of their translators in performing them (see Section 5.4). In the current survey, BA programme directors were asked to indicate how each of these activities is currently addressed in their programmes using a five-point Likert scale: compulsory-major, compulsory-minor, optional-major, optional-minor, or not taught (N/A). To facilitate clear comparison, the results are organised into the same five groups (CAT, MT, terminology, multimedia, and DTP), alongside the corresponding views of translators (on importance) and employers (on competence), as reported in this thesis. The data gained from these three stakeholder groups (i.e., translators, employers, programme directors) can be triangulated to highlight the translation technology-related activities which are most valued in the profession, the competence of translators in carrying them out, and the adequacy of BA programmes to teach them. The process further allows the drawing of meaningful comparisons to enable a deeper understanding of this element of the research to emerge. Cross-analysis of this kind is useful in identifying those areas in which Saudi BA programmes are already in alignment with the requirements of the translation industry, and those which contain gaps in curricula and training that require improvement.

Table 6.7 (below) compares the views of translators, employers, and programme directors regarding four CAT-related activities: use of TB, use of TM, TMS, and QA features. The results reveal a consensus on the importance of CAT tools in the industry but also highlight gaps in teaching coverage and perceived competence, particularly in more specialised areas (TMS and QA features). Specifically, while the use of TB was identified as important by the majority of the translators (84% n=208), only 52% (n=24) of the employers reported that their translators are competent in this activity. From the academic side, 68% (n=11) of the surveyed BA programmes teach TB use as a compulsory component, including 56% (n=9) as a major element. However, some programmes (19%, n=3) teach it only as an optional activity, and a further 12% (n=2) do not teach it at all. This variation may partly explain the moderate employer satisfaction, suggesting that in programmes where TB training is not emphasised, graduates may enter the industry underprepared in this core area. Similarly, TM use was highly valued by most translators (76%, n=188), whereas over half of the employers were not fully satisfied with their translators' competence here. The results relating to the BA programmes reveal that TM training is included as compulsory in two-thirds (68%, n=11), but 25% (n=4) of the respondents reported offering TM training as optional and one programme does not teach it at all. These results suggest that although exposing students to activities related to TB and TM is broadly acknowledged and included as compulsory in most programmes, gaps in coverage remain, with some leaving such training as optional and others ignoring it. This may leave graduates underprepared to meet employer expectations.

Table 6.7 Comparison of CAT-related activities: perceived importance, competence, and teaching status

| CAT-Related Activities | Translators' Views | Employers' Views | Current Teaching Status | | |
|---|---|---|---|---|---|
| | Essential/ Important | Excellent/ Competent | Compulsory-major/minor | Optional major/minor | N/A |
| Use of TB | 84% | 52% | 68% | 19% | 12% |
| Use of TM | 76% | 43% | 68% | 25% | 6% |
| TMS | 74% | 33% | 38% | 19% | 44% |
| QA features | 69% | 39% | 19% | 38% | 44% |

The results for TMS show a more significant gap. While 74% (n=184) of the translators considered this activity important in their work, only 33% (n=15) of the employers described their translators as competent in TMS use. This competence gap reported by the employers could be linked to the absence of TMS teaching in 44% (n=7) of the programmes, meaning that

the students involved are not exposed to this area before entering the industry. This may reflect a broader curricular focus on individual translation tools over project management tools despite their growing relevance in professional settings. The limited attention given to TMS training may also be connected to the previous result that 56% (n=9) of surveyed programmes do not teach translation technology from the perspective of project managers (see Figure 6.5).

QA features of CAT tools show the widest discrepancy across stakeholder groups. While this activity was perceived as important by most translators (69%, n=171), only a minority of programmes (19%, n=3) teach it as a compulsory element. A further 38% (n=6) offer it on an optional basis, and 44% (n=7) do not include it in their curriculum at all. This lack of compulsory training may explain the low number of employers who considered their translators competent in this area (39%, n=18).

Moving to MT, over three-quarters of the translators (77%, n=191) perceived post-editing as important in modern workflows. However, only 52% (n=24) of the employers rated their translators as competent in this activity, suggesting a moderate level of satisfaction. MT post-editing was reported to be a compulsory component, either major or minor, by 62% (n=10) of respondents in the academic study, with a further 19% (n=3) offering it as an optional activity. It is not taught at all by the remaining 19% (n=3). Therefore, a considerable proportion still treat MT post-editing as optional or completely exclude it, despite its integration into most BA programmes. This variation in training may partly explain the gap observed between the importance translators place on this activity and the low competence levels reported by employers.

Table 6.8 Comparison of MT-related activity: perceived importance, competence, and teaching status

| MT-Related Activity | Translators' Views | Employers' Views | Current Teaching Status | | |
|---|---|---|---|---|---|
| | Essential/ Important | Excellent/ Competent | Compulsory-major/minor | Optional major/minor | N/A |
| MT post-editing | 77% | 52% | 62% | 19% | 19% |

Table 6.9 (below) shows the teaching status of four terminology-related activities (two about data mining and two about corpora). The results show that data mining was described as a highly valued area in modern translation workflows. However, the results appear to be disappointing from the academic perspective, with roughly half of the programmes failing to teach the two data mining-related activities. Specifically, data-mining search strategies is taught

in only 31% (n=5) of the surveyed programmes, whereas a further 25% (n=4) offer it as optional. Concerningly, the majority of respondents (44%, n=7) indicated that this activity is not taught at all, suggesting that it is underrepresented in current BA curricula. Similarly, data mining - evaluation of sources was viewed as important by 77% (n=191) of the translators, but only half of the employers expressed satisfaction with their translators' competence in this area. Despite its importance in the industry, this activity is taught as compulsory in just 25% (n=4) of the programmes, optional in another 25% (n=4), and entirely absent from half (50%, n=8). These results indicate that data mining-related activities, essential for professional translation, are not yet prioritised across many BA programmes in Saudi Arabia.

Table 6.9 Comparison of terminology-related activities: perceived importance, competence, and teaching status

| Terminology-Related Activities | Translators' Views | Employers' Views | Current Teaching Status | | |
|---|---|---|---|---|---|
| | Essential/ Important | Excellent/ Competent | Compulsory-major/minor | Optional major/minor | N/A |
| Data mining - Search strategies | 85% | 48% | 31% | 25% | 44% |
| Data mining - source evaluation | 77% | 50% | 24% | 25% | 50% |
| Corpus analysis using concordancers | 65% | 48% | 50% | 31% | 19% |
| Corpus construction | 63% | 32% | 31% | 38% | 31% |

Regarding the two corpora-related activities (corpus analysis using concordancers and corpus construction), both were identified as highly valued in the industry by nearly two-thirds of the surveyed translators. However, employer feedback suggests that the competence of translators in these areas remains limited. 48% (n=22) of the employers rated their translators as competent in using concordancers, and just 32% (n=15) did so for corpus construction. These low ratings reveal competence gaps that may affect translators' ability to meet industry expectations. From the academic side, corpus analysis using concordancers is more widely addressed than corpus construction, as half of the surveyed programmes (50%, n=8) reported teaching it as a compulsory activity, and a further 31% (n=5) offer it optionally. However, 19% (n=3) of the programmes do not offer any training in this area, indicating that some students may graduate without exposure to the use of large text collections and corpora for translation purposes. Corpus construction shows a more even distribution between compulsory and optional teaching, with 31% (n=5) teaching it as compulsory, and 38% (n=6) as optional. More concerningly, this activity is totally absent from almost a third of programmes (31%, n=5). These results indicate that corpora are not yet a priority in the curricula of many Saudi BA programmes, despite its value for translators in the industry.

The results reveal notable trends in how the two multimedia-related activities (subtitling and website localisation) are viewed in the translation industry versus how they are integrated into BA programmes. Subtitling was viewed as important by most of the translators (78%, n=193) and is continuing to gain relevance in today's translation industry. However, only 37% of the employers considered their translators competent in this area, which indicates limited satisfaction. From the academic side, only 38% (n=6) of the respondents reported teaching subtitling as a compulsory activity in their programmes, whereas the remaining programmes do not consider it a priority in their curricula. Some programmes (31%, n=5) offer this activity as optional, possibly including it in other broader courses not specifically devoted to AVT training. However, 31% (n=5) of the respondents reported that their curricula do not currently contain subtitling. Similarly, while the importance of website localisation is evident in the industry, rated thus by two-thirds of the translators, only 12% (n=2) of academic respondents labelled this activity as compulsory in their programmes, and 38% (n=6) reported it as optional. The remaining half of the programmes (50%, n=8) do not teach website localisation at all. These results align with the absence of standalone localisation courses from the current curricula of the surveyed programmes (see Table 6.6). It can be said that while subtitling and website localisation are, to some extent, recognised and embedded in some existing curricula, the fact that they do not exist in many BA programmes may limit the preparedness of graduates in these two specialised areas, which are increasingly in demand due to the growth of digital media and audiovisual content in the industry. The limited teaching coverage of these activities also reveals a broader gap in multimedia translation training across Saudi BA programmes.

Table 6.10 Comparison of multimedia-related activities: perceived importance, competence, and teaching status

| Multimedia-Related Activities | Translators' Views | Employers' Views | Current Teaching Status | | |
|---|---|---|---|---|---|
| | Essential/ Important | Excellent/ Competent | Compulsory-major/minor | Optional major/minor | N/A |
| Subtitling | 78% | 37% | 38% | 31% | 31% |
| Website localisation | 67% | 37% | 12% | 38% | 50% |

Considering the growing importance of DTP in various translation contexts, integrating this activity into BA curricula becomes paramount in modern translator training. Table 6.11 (below) shows that over half of the translators value this activity in their daily work, but only 28% (n=6) of the employers expressed satisfaction with their translators' competence, denoting a competence gap for most translators in this activity. In terms of integrating it into curricula, a

small minority of respondents (12%, n=2) reported teaching DTP as compulsory, whereas 38% (n=6) offer it as optional. Of greater concern is that half of the respondents (50%, n=8) confirmed that they do not teach this activity at all, demonstrating that the integration of DTP into BA curricula is still limited and many programmes still neglect to consider it a priority when revising their curricula. This highlights an area that requires further development in current BA curricula to enhance the readiness and employability of graduates in the translation industry.

Table 6.11 Comparison of DTP: perceived importance, competence, and teaching status

| DTP-Related Activity | Translators' Views | Employers' Views | Current Teaching Status | | |
|---|---|---|---|---|---|
| | Essential/ Important | Excellent/ Competent | Compulsory-major/minor | Optional major/minor | N/A |
| DTP tools | 56% | 28% | 12% | 38% | 50% |

To conclude, this section has examined the alignment of translation technology training provided by BA programmes with the requirements of the translation industry. The results reveal that while core CAT tools (i.e., TM and TB) are integrated into most BA curricula, the level of competence demonstrated by many Saudi translators appears to fall short of their employers' expectations. A similar pattern was observed in MT post-editing, which was described as well-integrated into most programmes, yet employer assessments suggest that the competence of their translators may still be developing. In the other important areas of data mining, corpora, subtitling, localisation, and DTP, teaching tends to be more variable, with several programmes offering them on only an optional basis or not at all. Current training coverage therefore seems insufficient to prepare students for the technology-related requirements of professional translation work in Saudi Arabia. Curriculum development is necessary to ensure that Saudi BA programmes produce graduates who are industry-ready for translation jobs.

### 6.3.4 Translation Technology Integration throughout Programmes

Respondents were asked whether translation technologies make up part of other courses not specifically devoted to them. This question makes it possible to assess the role of translation technologies in the broader curriculum, whether they are taught in a standalone course or integrated throughout the programme. 56% (n=9) confirmed the integration of translation technology training into other courses, while the remaining 44% (n=7) responded negatively. While this split may reflect diversity in training approaches and priorities among the surveyed

programmes, it is evident that some may rely mainly on standalone courses to teach translation technology, which potentially affects the development of students' technological competence throughout the programme and limits their exposure to these technologies in a variety of learning contexts (i.e., a lack of consistent, cross-curricular translation technology integration).

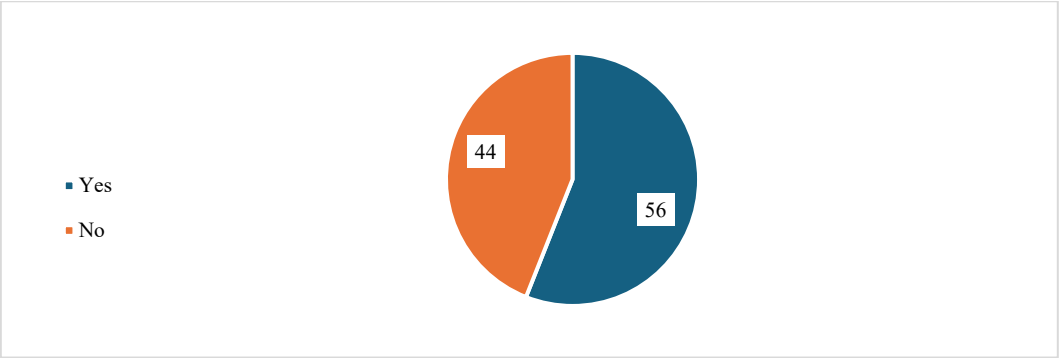
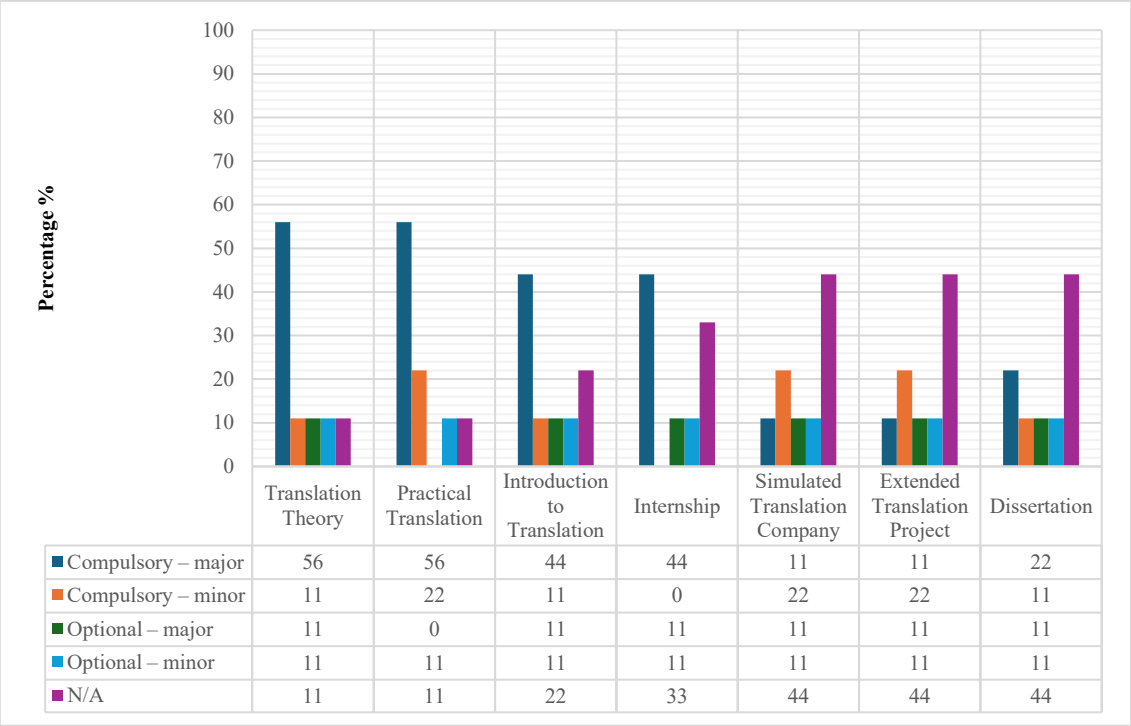



Figure 6.7 Translation technology integration into other courses

Respondents who confirmed translation technology integration into other courses (n=9) were subsequently requested to provide more details about the specifics of where and how translation technology is embedded throughout the programme. Specifically, they were asked to indicate whether translation technology plays a compulsory or optional role in seven courses that are not dedicated to teaching translation technology along a five-point Likert scale: optional-minor, optional-major, compulsory-minor, and compulsory-major, in addition to the N/A option if such training is not offered on the course.

Figure 6.8 (below) shows that Translation Theory and Practical Translation are the most likely courses to integrate translation technology, with roughly two-thirds of the programmes describing translation technology integration as compulsory. This indicates that technology is recognised as an essential part of both theoretical and practical translation training in these programmes. 56% (n=5) of the programmes incorporate technology as a compulsory component in Introduction to Translation, while it is optional in 22% (n=2), and not included at all by the same number (22%, n=2). As the name suggests, Introduction to Translation is a foundational entry point to help students grasp the main translation principles, concepts and practices offered at the commencement of translation training, making the finding that so many programmes do not include any technology component a matter of interest. The Internship course, which typically provides students with what is likely to be their first experience of the industry, includes translation technology as a compulsory component in 44% (n=4) of programmes, but it is only optional in 22% (n=2) and a full third (33%, n=3) do not incorporate

any element of technology. This represents a significant missed opportunity for students to apply the theoretical knowledge that they have learned in real-life professional settings.




| | Translation Theory | Practical Translation | Introduction to Translation | Internship | Simulated Translation Company | Extended Translation Project | Dissertation |
|---|---|---|---|---|---|---|---|
| Compulsory – major | 56 | 56 | 44 | 44 | 11 | 11 | 22 |
| Compulsory – minor | 11 | 22 | 11 | 0 | 22 | 22 | 11 |
| Optional – major | 11 | 0 | 11 | 11 | 11 | 11 | 11 |
| Optional – minor | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| N/A | 11 | 11 | 22 | 33 | 44 | 44 | 44 |

Figure 6.8 Translation technology integration across seven courses

The remaining three courses (Simulated Translation Company, Translation Project, and Dissertation) showed the lowest levels of technology training integration, which is surprising as these tend to be offered at the later stages of BA studies (Year 3 or 4). At this advanced level, students are expected to demonstrate a high level of competence, including the use of translation technology, but 44% (n=7) of the programmes reported no integration of translation technology across these courses. Given their practical and research-oriented nature, this lack of integration is unexpected and highlights another missed opportunity to consolidate students' technological competence in preparation for employment.

Given that the vast majority of programmes (94%, n=15) offer their translation technology-related courses only in the later study stage (see Table 6.6) and many programmes do not integrate translation technology training elsewhere in their curricula, students may not have enough time to develop their technological competence gradually or apply their knowledge and skills in different contexts. The lack of (or limited) integration into self-directed or experiential learning courses (e.g., Simulated Translation Company, Translation Project, and Dissertation) suggests that some programmes treat translation technology as an isolated competence area rather than a core element of industry practice. This calls for greater attention to how translation

technology can be embedded within the broader curriculum to help students build and apply their technological competence more effectively over time.

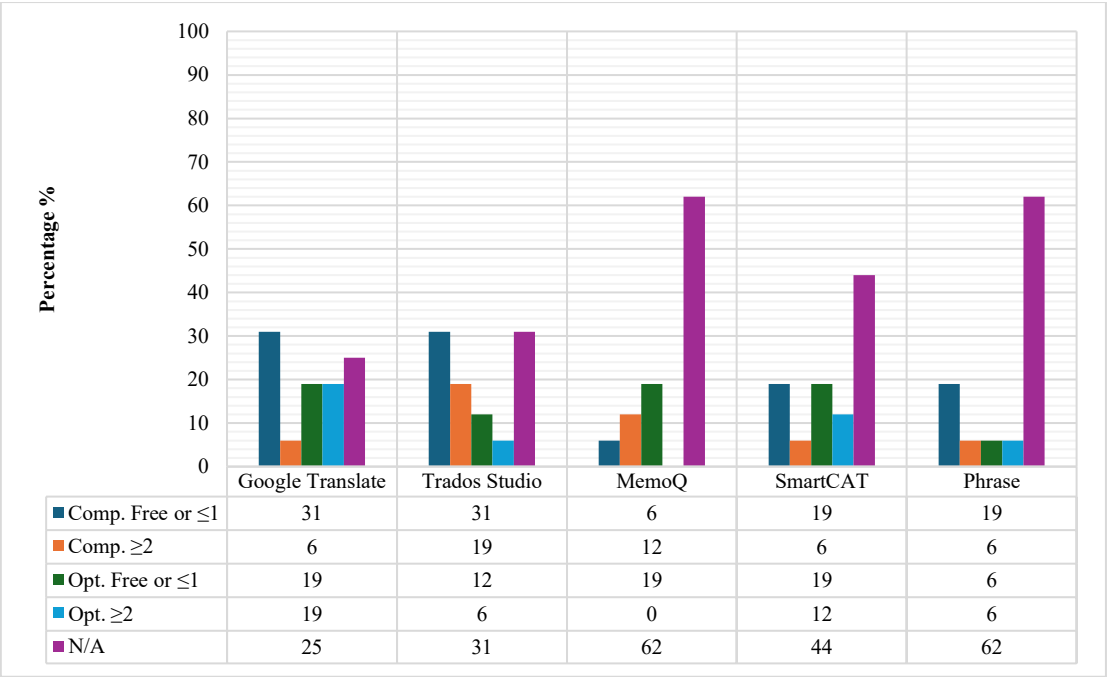
### 6.3.5 Translation Tools and Software Licenses

To assess how translation tools are integrated into BA curricula, respondents (n=16) were asked to report which tools are currently taught in their programmes, whether they are compulsory or optional, and the approximate student-to-license ratio available for each. This section focuses specifically on the top 10 software tools most frequently used by professional translators in Saudi Arabia, as identified in the Translator and Employer Surveys (see Table 4.7). The purpose is to evaluate how well these widely used tools are reflected in BA programmes and whether students have sufficient access to them, thereby assessing alignment between BA training and industry requirements. The results are presented in Figures 6.9 and 6.10 (below), which illustrate the teaching status and license availability for the most frequently used tools.

Google Translate shows moderate integration, with 38% (n=6) of respondents teaching it as compulsory, mostly with free or individual license access to students. Another 38% (n=6) teach it as optional, and 25% (n=4) do not teach it at all. Given that 93% (n=230) of the translators reported frequent use of this tool (see Figure 4.4), its absence in one-quarter of the programmes is notable and suggests that some students may graduate without sufficient training in a tool widely integral to the translation process in modern workflows.

Trados Studio, the second most commonly used tool in the industry, is taught as compulsory in half of the surveyed programmes. Of these, 31% (n=5) provide students with sufficient access (free or one license per student), while 19% (n=3) rely on shared licenses (two or more students per license). A further 19% (n=3) offer it as optional, and the remaining 31% (n=5) do not teach it at all. This means that nearly one-third of the programmes do not expose students to one of the most prominent CAT tools in the local and global translation industry.

Despite its growing popularity in the industry, SmartCAT is only taught as compulsory in 25% (n=4) of the programmes and not taught in 44% (n=7). Of those offering it, only 19% (n=3) provide sufficient license access. While some respondents (31%, n=5) reported teaching it as optional, the results suggests that this cloud-based CAT tool is still emerging in Saudi BA programmes and not yet widely integrated into their training.



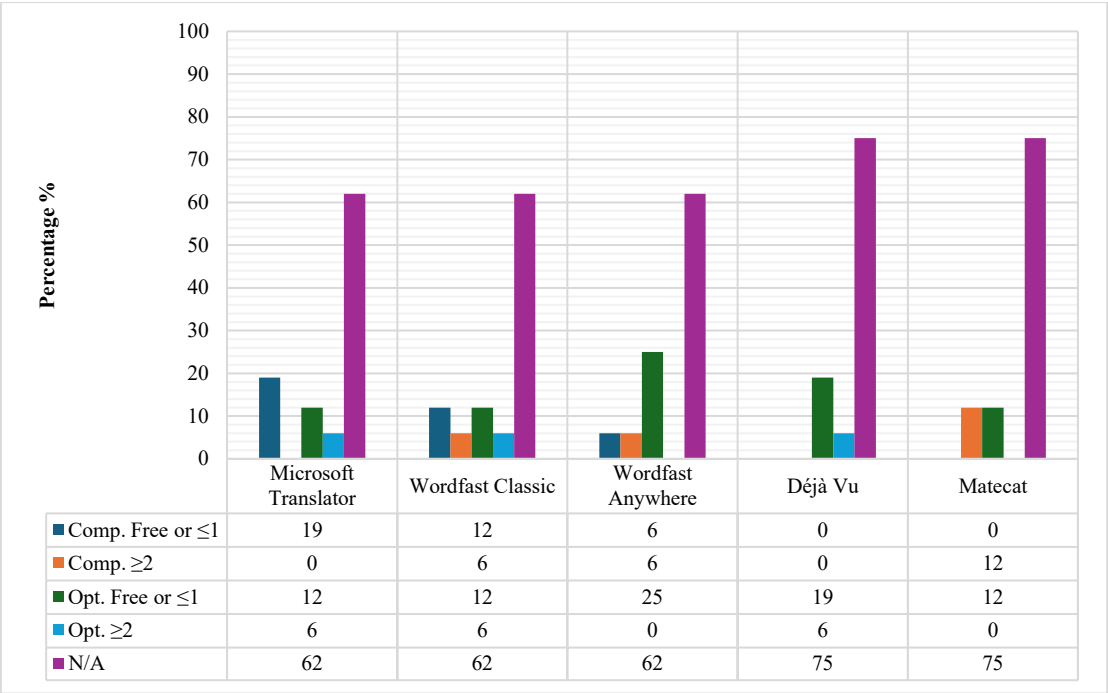

| | Google Translate | Trados Studio | MemoQ | SmartCAT | Phrase |
|---|---|---|---|---|---|
| Comp. Free or ≤1 | 31 | 31 | 6 | 19 | 19 |
| Comp. ≥2 | 6 | 19 | 12 | 6 | 6 |
| Opt. Free or ≤1 | 19 | 12 | 19 | 19 | 6 |
| Opt. ≥2 | 19 | 6 | 0 | 12 | 6 |
| N/A | 25 | 31 | 62 | 44 | 62 |

Figure 6.9 Teaching status and license access for the top five tools (items 1-5)

MemoQ shows even more limited integration. Only 19% (n=3) of respondents described its teaching as compulsory, with only one programme offering full or free access for students. Another 19% (n=3) provide this CAT tool as an optional component in their programmes, and the majority (62%, n=10) do not teach it. Phrase presents a similar pattern, with just 25% (n=4) of the programmes teaching it as compulsory, most of them with free or individual access, and 62% (n=10) of the respondents reporting the absence of this tool in their curricula.

Figure 6.10 (below) presents the teaching status and license availability for the remaining five tools ranked 6th to 10th in the list of most-used tools in the industry. Despite its widespread use among Saudi translators, Microsoft Translator is taught as compulsory in only 19% (n=3) of the programmes. An additional 19% (n=3) offer it as optional, but the majority, (62%, n=10), do not include it in their teaching, suggesting limited training on how to use this MT tool effectively within most Saudi BA programmes.

For Wordfast products (Classic and Anywhere), the results indicate similarly low levels of compulsory and optional teaching. Only 12% (n=2) of programmes teach Wordfast Anywhere as compulsory, and 19% (n=3) do so for Wordfast Classic. Optional teaching was slightly more common, particularly for Wordfast Anywhere (25%, n=4). Nevertheless, neither CAT tool is found in the majority of programmes (62%, n=10), revealing a gap between the tools used in the industry and those addressed in current BA curricula.




| | Microsoft Translator | Wordfast Classic | Wordfast Anywhere | Déjà Vu | Matecat |
|---|---|---|---|---|---|
| Comp. Free or ≤1 | 19 | 12 | 6 | 0 | 0 |
| Comp. ≥2 | 0 | 6 | 6 | 0 | 12 |
| Opt. Free or ≤1 | 12 | 12 | 25 | 19 | 12 |
| Opt. ≥2 | 6 | 6 | 0 | 6 | 0 |
| N/A | 62 | 62 | 62 | 75 | 75 |

Figure 6.10 Teaching status and license access for the next five tools (items 6-10)

The teaching of Déjà Vu and Matecat appears particularly limited. Neither are taught as compulsory in most programmes, with Déjà Vu offered optionally by just 25% (n=4), and Matecat included either as compulsory (12%, n=2) or optional (12%, n=2) in a small number of cases. Most concerningly, three-quarters of respondents (75%, n=12) reported that their programmes do not teach either tool, reinforcing the observed pattern of misalignment with industry requirements.

The results of this section reveal insights into the teaching status and license availability of the top 10 translation tools identified as frequently used by translators in Saudi Arabia. The analysis reveals varying levels of integration of the tools across the surveyed programmes, with notable training gaps in most key tools. While Google Translate and Trados Studio are relatively well integrated, they are still not commonly taught, with around one-third of the programmes reporting no teaching of these. Access to licenses is also inconsistent, with many programmes relying only on free versions or sharing licenses among students. The total absence of most relevant tools (MemoQ, Phrase, Microsoft Translator, Wordfast Classic, Wordfast Anywhere, Déjà Vu, and Matecat) from more than half of the programmes in the survey represents a serious matter of concern. Coverage and accessibility gaps like this reveal that most current BA training in Saudi Arabia is failing to sufficiently expose students to industry-standard tools, which could have a decisive negative impact on their ability to meet the expectations of future employers.

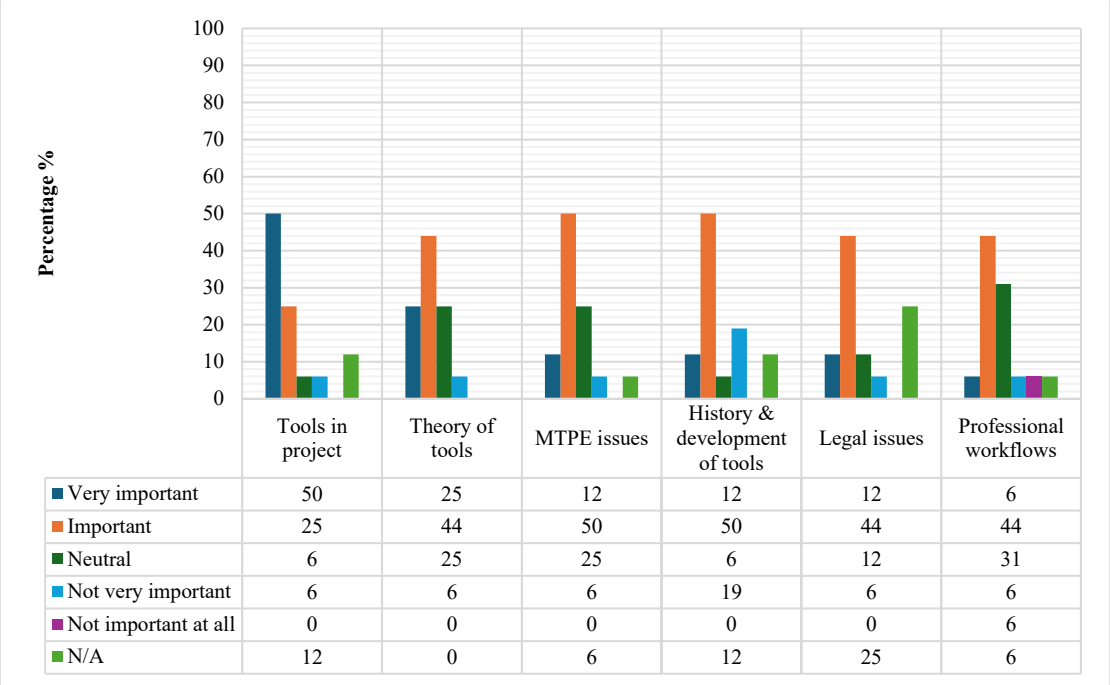
### 6.3.6 Teaching and Assessment of Translation Technology Training

This section is presented in three subsections to explore how translation technology training is delivered and evaluated within Saudi BA programmes. These examine teaching-related themes (6.3.6.1), teaching strategies (6.3.6.2), and assessment strategies (6.3.6.3) to provide a more rounded picture of training practices in translation technology.

#### 6.3.6.1 Teaching-related Themes

Respondents were asked to rate their perception of the importance of 12 translation technology training themes on a five-point Likert scale: not important at all, not very important, neutral, important, or very important. Encompassing both practical and theoretical elements, these themes incorporated topics such as tool history, theory, project-based use, MT post-editing issues, industry standards (e.g., ISO 17100), legal concerns (e.g., TM ownership), and professional workflows. This question helps identify the key areas prioritised and covered in translation technology training, offering insights into whether the surveyed programmes provide trainees with comprehensive training that addresses both theoretical knowledge and practical exposure to tools. The 12 themes have been equally divided between two figures for ease of comprehension.

Figure 6.11 (below) shows that the theme with the highest importance ratings was the use of tools in a range of translation projects; this was rated as important or very important by 75% (n=12) of the respondents, suggesting that many programmes acknowledge the value of applying tools in authentic translation contexts. However, this appears somewhat disconnected from earlier results, where 56% (n=9) of the programmes reported not training students on how to use tools from the perspective of project managers or LSPs (see Figure 6.5). This raises concerns about whether students receive adequate training in managing technology within complex, real-world project environments. The theory and principles of translation tools ranked second, with all programmes reportedly covering this theme, which aligns with the previous result showing that all programmes teach and assess the theory and practice of translation tools (see Figure 6.4). However, 25% (n=4) viewed this theme neutrally, and one respondent rated it as not very important, which may indicate that while theoretical aspects are formally included, their perceived importance may vary from one programme to another.



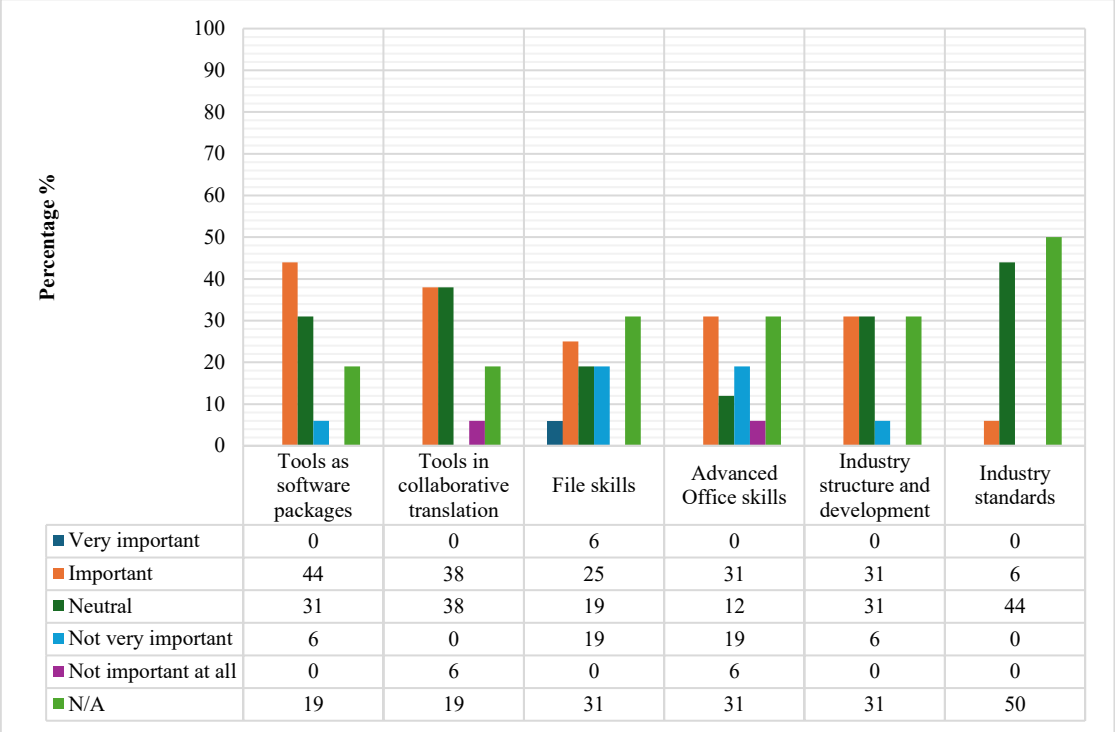

| | Tools in project | Theory of tools | MTPE issues | History & development of tools | Legal issues | Professional workflows |
|---|---|---|---|---|---|---|
| Very important | 50 | 25 | 12 | 12 | 12 | 6 |
| Important | 25 | 44 | 50 | 50 | 44 | 44 |
| Neutral | 6 | 25 | 25 | 6 | 12 | 31 |
| Not very important | 6 | 6 | 6 | 19 | 6 | 6 |
| Not important at all | 0 | 0 | 0 | 0 | 0 | 6 |
| N/A | 12 | 0 | 6 | 12 | 25 | 6 |

Figure 6.11 Perceived importance of teaching themes (items 1-6)

Closely following were MT post-editing issues and the history and development of translation tools, both rated as important or very important by 62% (n=10). For MT post-editing, this aligns with its inclusion in the compulsory curricula of many programmes (see Table 6.8), yet the presence of neutral or negative responses (31%, n=5) may reflect inconsistent views on its teaching value, despite the increasing role of MT in modern workflows. Similarly, while many respondents recognised the value of introducing students to the historical development of translation tools, nearly one-third either rated this theme as not very important or reported not teaching it at all. This could limit students' ability to contextualise current technologies or anticipate future developments. The legal aspects of technology use (e.g., TM ownership and licensing) were valued by just over half of the respondents (56%, n=9), but a quarter (25%, n=4) reported not covering these issues at all, despite their growing relevance in collaborative translation scenarios.

Regarding professional roles and workflows, only half of the respondents considered this theme important for training content. Neutrality was expressed by almost a third (31%, n=5), and 18% (n=3) either afforded it little priority or omitted it entirely from their curricula. This provides a potential explanation for why students may leave university unprepared for practices in the actual translation industry as they graduate with scant awareness of the variety of translation processes and roles.

Figure 6.12 (below) continues the analysis of perceived importance of the remaining six training themes. The teaching of tools as software packages was identified as important by 44% (n=7) of the respondents, yet nearly one-third (31%, n=5) remained neutral, and 19% (n=3) reported that it is not taught at all. These results mirror earlier findings highlighting limited access to software tools (see Section 6.3.5), which may account for the low prioritisation of hands-on tool training in some programmes. It was highlighted that, where tools are offered, access to most of them is restricted to free trials or shared licenses. A similar trend emerges in the theme of teaching tools in collaborative translation. While 38% (n=6) of respondents regarded it as important, an equal proportion were neutral, and nearly a quarter either rated the importance of this theme as low or do not teach it in their programmes. These results align with the earlier observation that collaborative features, such as TM and TB, have not yet achieved widespread curriculum integration in most programmes (see Table 6.7, below), despite their increasing significance in modern workflows.




| | Tools as software packages | Tools in collaborative translation | File skills | Advanced Office skills | Industry structure and development | Industry standards |
|---|---|---|---|---|---|---|
| Very important | 0 | 0 | 6 | 0 | 0 | 0 |
| Important | 44 | 38 | 25 | 31 | 31 | 6 |
| Neutral | 31 | 38 | 19 | 12 | 31 | 44 |
| Not very important | 6 | 0 | 19 | 19 | 6 | 0 |
| Not important at all | 0 | 6 | 0 | 6 | 0 | 0 |
| N/A | 19 | 19 | 31 | 31 | 31 | 50 |

Figure 6.12 Perceived importance of teaching themes (items 7-12)

The results also show that the two themes of file management and data security and advanced Office skills registered modest importance levels. Although 31% (n=5) of respondents rated these themes as important, an equal percentage indicated they are not taught at all. Some selected the neutral option for these two themes (19%, n=3 and 12%, n=2, respectively). Such diversity in perspectives may indicate limited recognition of the competencies that help

translators securely handle client content and increase their productivity and efficiency in the industry.

The attention given to industry-wide knowledge also appears limited. While the Saudi translation industry is rapidly developing due to the country's openness and presence as a global hub for business, tourism, and culture, driven by Vision 2030, only 31% (n=5) of the respondents considered exposing students to the translation industry structure and future development an important teaching theme, while an equal proportion indicated that it is not covered in their programmes. Regarding the teaching of industry standards, the results are even more concerning, as it was only rated as important by a single respondent, as neutral by 44% (n=7), and as not covered at all in programmes by a full half (50%, n=8). With global standards like ISO 17100 growing rapidly in relevance, graduates may be left without sufficient preparation to meet international quality benchmarks, which would definitively reduce their ability to compete in the globalising translation industry.

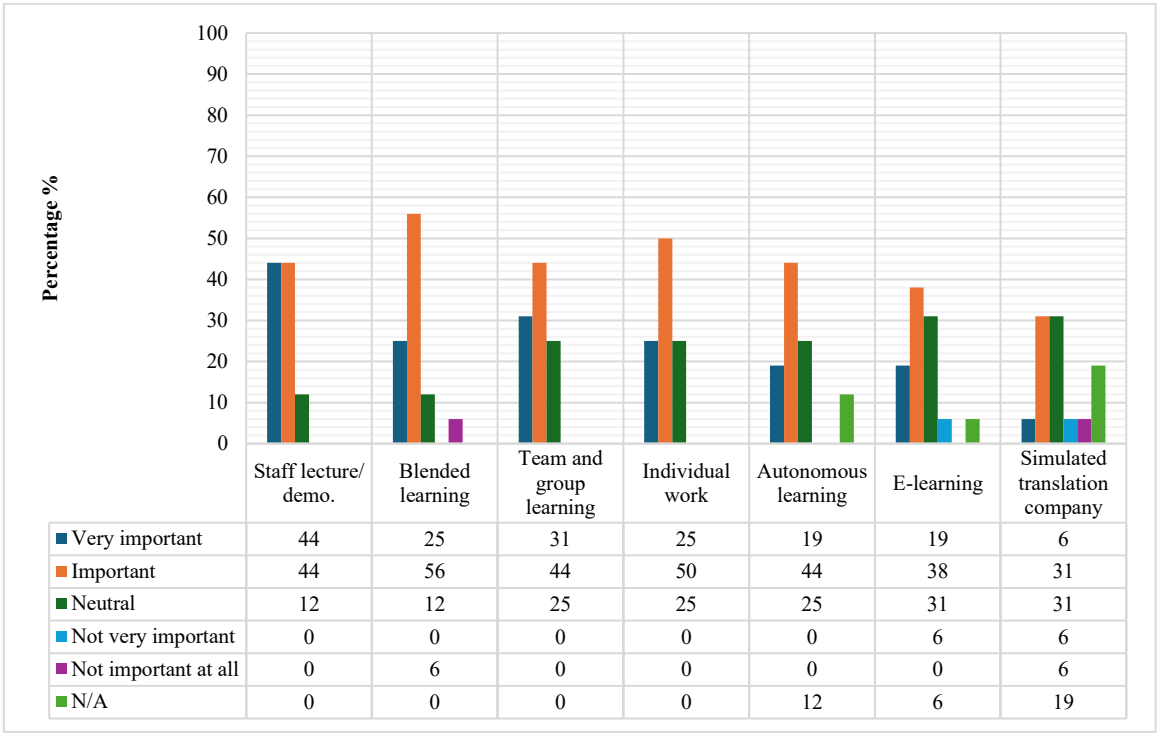
The results of this subsection reveal that although a few themes, particularly theory and MT post-editing, are broadly represented across Saudi BA curricula, others like collaborative workflows, practical software handling, and global industry standards are neglected in the large majority of BA programmes despite their importance in preparing trainee translators for work in the industry. From this, several curriculum areas can be highlighted for development to provide graduates with a positive start to their careers and ensure they can meet future employer expectations, not only in Saudi Arabia but around the world.

#### 6.3.6.2 Teaching-related Strategies

This subsection asked the respondents to rate the importance of seven teaching strategies used in their programmes on the same importance scale (from not important at all to very important). The results help us to understand how translation technology is introduced and taught to students and how their technological competence is developed during BA training.

The results, presented in Figure 6.13 (below), show that most respondents (88%, n=14) rated staff lecture/demonstration as highly important, underscoring that this traditional trainer-led strategy is still widely used in translation technology training. The remaining respondents (12%, n=2) chose the neutral option, which suggests that they may be uncertain about which strategy trainers mainly employ in their teaching. Interestingly, blended learning was also highly rated and used by the majority of programmes, with 81% (n=13) considering this strategy as important or very important, and no programmes selecting N/A. Similarly, e-

learning was used and emphasised by over half of the programmes (56%, n=9), which may be due to the COVID-19 pandemic that accelerated the transition to online teaching, especially at the time of data collection for this research (i.e., the 2021-2022 academic year). However, the high rates of adoption of these two strategies raises some concerns due to the challenges faced by most students in accessing translation tools off-campus (more details about remote tool access are given in Section 6.3.7.2, below).




| | Staff lecture/ demo. | Blended learning | Team and group learning | Individual work | Autonomous learning | E-learning | Simulated translation company |
|---|---|---|---|---|---|---|---|
| Very important | 44 | 25 | 31 | 25 | 19 | 19 | 6 |
| Important | 44 | 56 | 44 | 50 | 44 | 38 | 31 |
| Neutral | 12 | 12 | 25 | 25 | 25 | 31 | 31 |
| Not very important | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Not important at all | 0 | 6 | 0 | 0 | 0 | 0 | 6 |
| N/A | 0 | 0 | 0 | 0 | 12 | 6 | 19 |

Figure 6.13 Perceived importance of teaching strategies

Team and group work was rated as very important by 31% (n=5) of the respondents, while 44% (n=7) rated it as important, making a total of 75% (n=12) emphasising collaborative learning in their programmes. However, 25% (n=4) selected neutral, indicating that some may not be fully aware of how frequently this strategy is used in teaching translation technology. 75% (n=12) of respondents also rated individual work as important or very important, while the remaining 25% (n=4) preferred to remain neutral. This may demonstrate that encouraging students to work independently with translation technology may be balanced with other strategies like collaborative learning where students work together in project-based environments. Nearly two-thirds of the programmes further rated autonomous learning as important (44%, n=7) or very important (19%, n=3), but the strategy was not employed in 12% (n=2) programmes, while 25% (n=4) were neutral in their responses. The considerable number of neutral and N/A responses for these two strategies (individual work and autonomous learning) may indicate little emphasis on using them to teach translation technology in the

surveyed programmes. These results may support the insights gathered from the translators who participated in the focus group discussion, most of whom reported that novice translators face challenges in CPD planning and independently navigating their professional development.

The least important teaching strategy is simulated translation company, viewed as important or very important by a combined 37% of respondents, while a similar proportion (31%, n=5) indicated neutrality, and almost a third of programmes stated that they either do not use it (19%, n=3) or assigned it little importance (12%, n=2). Simulating real-life translation environments requires specific capabilities and infrastructure; therefore, these results may reflect a lack of these resources in the surveyed universities.

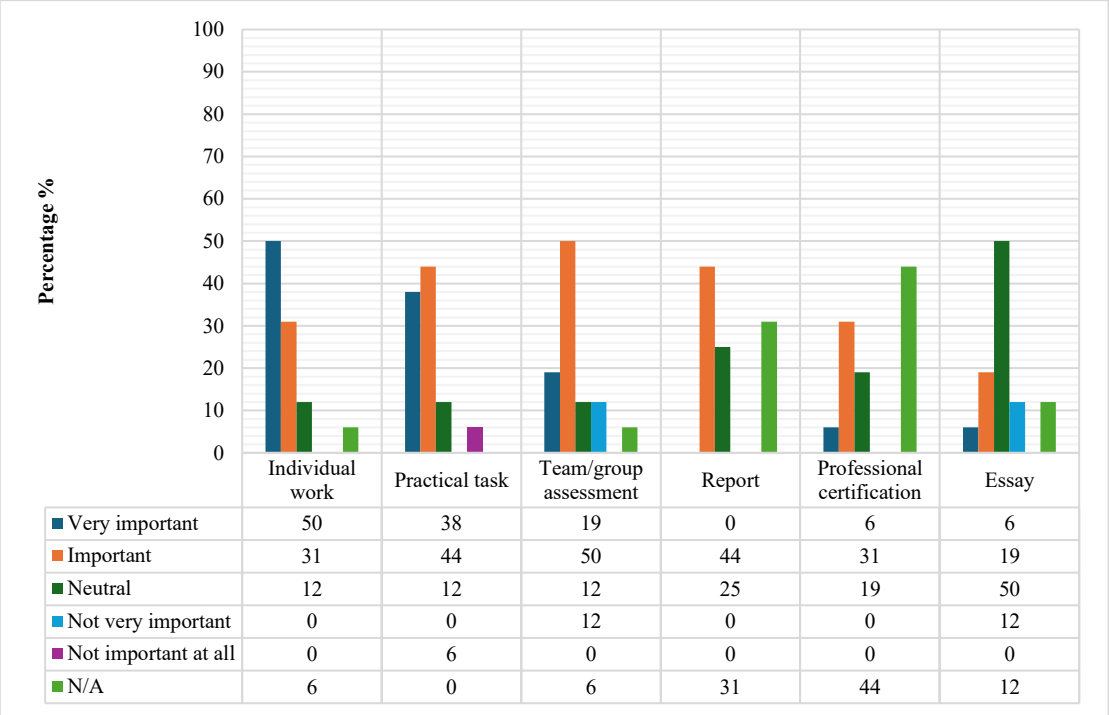
The results for this subsection reveal that Saudi BA programmes are mixed in their use of the teaching strategies surveyed and show a definite preference for trainer-led teaching in the traditional style, whether this is delivered through blended modes or in person. While many respondents generally value strategies such as team-based and individual learning, other strategies that promote learner autonomy or simulate real-world professional environments appear to be less consistently used in translation technology training in Saudi BA programmes.

#### 6.3.6.3 Assessment-related Strategies

In the same vein as the previous question, for this subsection respondents were asked to rate the perceived importance of six assessment strategies used in their programmes on the same Likert scale (from not important at all to very important). The results show how translation technology training is evaluated in Saudi BA programmes and the extent to which current assessment practices prioritise practical competence over theoretical understanding. This information helps gauge whether students are assessed in ways that mirror real-world professional scenarios, thereby offering a clearer picture of academia-industry alignment regarding assessment.

The results, presented in Figure 6.14 (below), indicate that individual work emerges as the most important assessment strategy, with 50% (n=8) of the respondents rating it as very important and 31% (n=5) as important. This makes a total of 81% (n=13) who emphasised the value of this strategy, which mirrors the prevalence of teaching translation technology through individual work (see figure 6.13, above). Assessing students through practical tasks was perceived as important or very important by the same proportion (81%, n=13) of the programmes, highlighting the central role of hands-on assessments in current evaluation practices. Only one respondent considered this to be not important at all, and the use of

individual work was reported as absent in just one case, indicating broad adoption of these assessment strategies. Team and group assessment ranked lower in importance than individual assessments and practical tasks, with 69% (n=11) of respondents rating it as important. 12% (n=2) considered it not very important and one respondent reported not using it in their programme. The three assessment strategies (i.e., individual work, practical tasks, and team and group work) all saw the same proportion of respondents selecting the N/A option (12%, n=2), potentially indicating programme directors' lack of awareness about the strategies trainers employ to evaluate students' technological competence.




| | Individual work | Practical task | Team/group assessment | Report | Professional certification | Essay |
|---|---|---|---|---|---|---|
| Very important | 50 | 38 | 19 | 0 | 6 | 6 |
| Important | 31 | 44 | 50 | 44 | 31 | 19 |
| Neutral | 12 | 12 | 12 | 25 | 19 | 50 |
| Not very important | 0 | 0 | 12 | 0 | 0 | 12 |
| Not important at all | 0 | 6 | 0 | 0 | 0 | 0 |
| N/A | 6 | 0 | 6 | 31 | 44 | 12 |

Figure 6.14 Perceived importance of assessment strategies

The importance of assessment through reports and essays in translation technology training registered mixed results. 44% (n=7) of respondents considered reports to be important, but none selected this as very important. Report writing is not used for assessment in about a third of the programmes (31%, n=5), and a quarter (25%, n=4) expressed neutrality about reports. This strategy was not rated as low importance by any of the respondents, which shows it to be a generally accepted element of assessment: report writing holds some value in the curriculum, but it may not be perceived as a primary assessment strategy in translation technology. Essays were found to play a relatively minor role in assessing technological competence, with 50% (n=8) of respondents selecting the neutral option and none considering them very important. 12% (n=2) do not require essays for assessment in their programmes at all. Therefore, neither reports nor essays are widely regarded as primary assessment methods in this area, revealing a

broad shift from theoretical assessment toward practical demonstrations of technological competence.

The use of professional certification as an assessment tool reveals a more divided picture. Just over one-third of the respondents (38%, n=6) rated it as important or very important, while 44% (n=7) stated that it is not used at all. This may be because such certifications are, for most programmes, more relevant to post-graduation training (i.e., CPD) than as an embedded element of academic assessment.

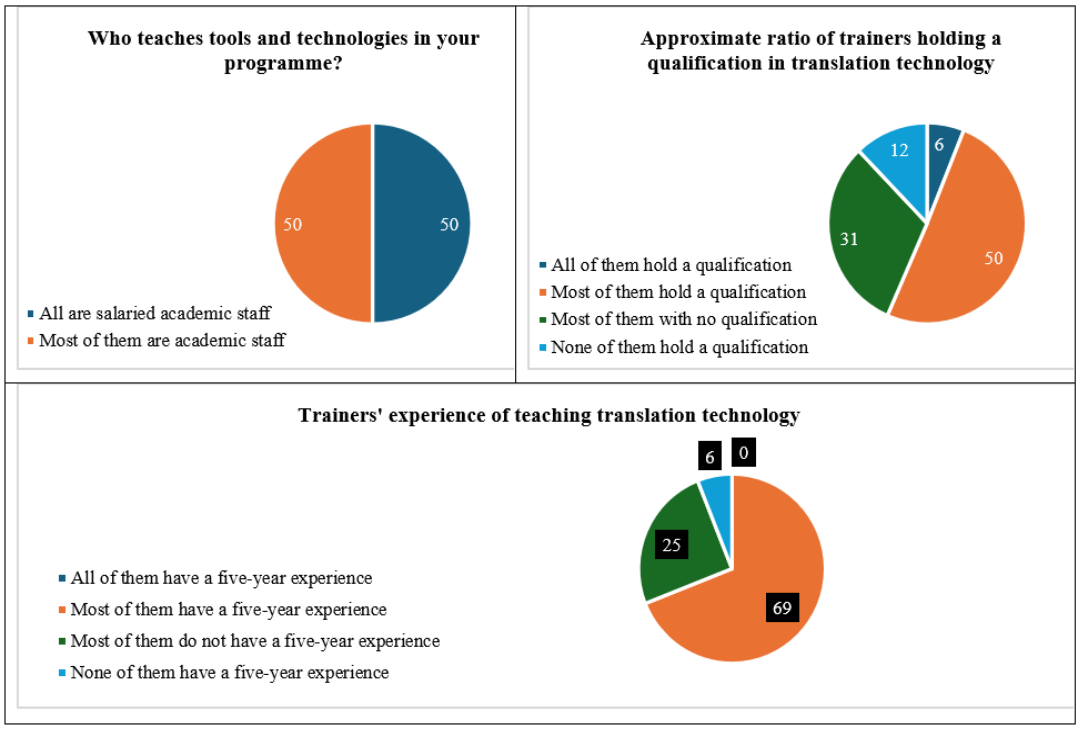
This section has provided an overview of the current assessment strategies used to teach translation technology in Saudi BA programmes. The results highlight a dominant use of practical tools-based tasks and individual work as primary assessment strategies, given their high ratings of importance (81%, n=13 for both items). Nonetheless, the limited use of industry-recognised certification and the minimal role of collaborative and theoretical assessment suggest that further work may be needed to fully bridge the gap between academic assessment practices and real-world professional expectations.

### 6.3.7 Trainers' Qualifications, Lab Infrastructure, and Technical Support

#### 6.3.7.1 Qualifications and Experience

Respondents stated the type, qualifications, and experience of trainers responsible for teaching translation technology-related courses. As Table 6.12 (below) shows, there was an even response split between those reporting that all trainers are salaried academic staff (50%, n=8) and those indicating that most trainers are academic staff (50%, n=8). Therefore, while there is a general reliance on permanent academic staff, some programmes also employ part-time or adjunct trainers to address faculty shortages. Half of the respondents (50%, n=8) stated that most of their trainers hold formal qualifications in translation technology, but a substantial number (43%, n=7) indicated that trainers lack such qualifications, raising questions about the depth of translation technology training provided.

Table 6.12 Trainers' type, qualifications and experience




Some respondents used the text boxes to further elaborate on the qualifications of their trainers, and their entries are as follows:

Respondent 1: *Many faculty members hold PhD or MA degrees in translation studies. Their qualifications are typically in translation, rather than in translation technology specifically*.

Respondent 2: *Some trainers are not very qualified in translation technologies*.

Respondent 4: *Trainers' qualifications are mainly training courses, or they studied translation technology as part of their MA or PhD studies*.

Respondent 5: *Teaching staff are of varied specialities and teaching preference, depending mainly on who is interested and in what*.

Respondent 6: *Many of those who teach translation courses are not translation specialised because our department does not have anyone else to teach them*.

These comments raise concerns about the quality of translation technology training offered in some programmes, as they show a mixed level of specialisation among trainers responsible for teaching technology-related courses. While some trainers hold degrees in translation studies, they are not necessarily familiar or proficient with the translation tools they teach. In some programmes, it seems that trainers come from varied specialities and teach translation courses based on individual interest rather than formal qualifications.

In terms of teaching experience, 69% (n=11) of the respondents stated that most of their trainers have at least five years of experience in teaching translation technology. However, 25% (n=4) reported that none of their trainers meet this threshold, and none of the surveyed programmes indicated that all of their trainers have such experience. These results suggest that even among relatively experienced programmes, there are gaps in trainer expertise in delivering technology-related content. This lack of qualifications and experience may lead to inconsistencies in both the delivery of content and the quality of learning outcomes and students' technological competence. This situation reflects broader staffing challenges observed two decades ago by Al-Jarf (2004), who found that many BA translator training programmes in Saudi Arabia encounter issues such as understaffing, high turnover, and difficulties in recruiting qualified full-time trainers. Such limitations continue to affect the consistency and quality of translation technology training within Saudi BA programmes.

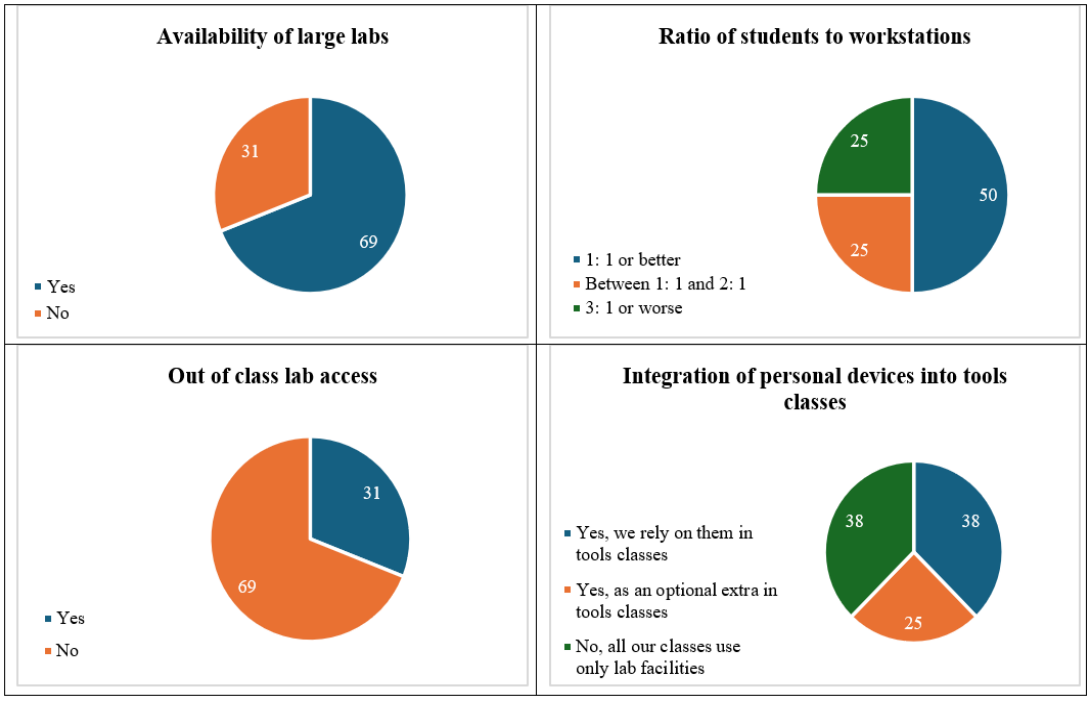
#### 6.3.7.2 IT Facilities and Lab Infrastructure

The effectiveness of translation technology training depends heavily on the availability and quality of IT facilities and lab infrastructure. To evaluate this aspect, respondents were asked a series of questions concerning lab facilities, student access to tools, personal device integration, and out-of-class access. The responses draw a picture of the logistical environment in which translation technology is taught and used within the surveyed programmes, supporting an evaluation of how well Saudi BA programmes are equipped to meet the requirements of modern translation workflows and align with employer expectations.

Respondents were first asked whether they had access to large labs suitable for delivering translation technology training. 69% (n=11) noted that their labs are large enough and sufficiently well-equipped for this purpose, but the remaining 31% (n=5) indicated that the lab environment may be too constrained or overcrowded to be conducive to effective learning. Respondents were then asked to provide the student to workstation ratio, which can determine the amount of individual practice students can expect with hands-on exercises during their training. While half (50%, n=8) reported a 1:1 ratio or better, allowing each student their own workstation, the other half acknowledged challenges in this area. In some programmes, two students are required to share a single workstation (25%, n=4), while in others, the situation was more severe, with three or more students sharing the same equipment (25%, n=4). Such overcrowding may limit students' ability to engage meaningfully with translation tools and hinder the development of their technological competence before they enter the translation industry.

The survey also included questions to explore how programmes might compensate for these limitations, especially those reporting ratios less favourable than 1:1. Respondents were asked whether students were allowed (or encouraged) to use their personal devices in translation technology classes. Table 6.13 (below) shows that 38% (n=6) reported that they rely on students' personal devices in practical training, while an additional 25% (n=4) allowed their use as an optional supplement. This means that roughly two-thirds of the programmes show some flexibility in allowing or even encouraging the use of personal devices in the classroom. It is difficult to attribute this flexibility in encouraging students to use their devices to the adoption of new teaching strategies (e.g., simulated translation company), as most programmes do not value learner-centred strategies (see Figure 6.13, above). Instead, a plausible interpretation may be the insufficient number of workstations available for students, as half of the surveyed programmes indicated challenges in this regard. The results also show that 38% (n=6) of the programmes rely exclusively on their lab facilities without incorporating students' personal devices into the classrooms, revealing a clear preference for teaching translation technology in traditional, supervised environments.

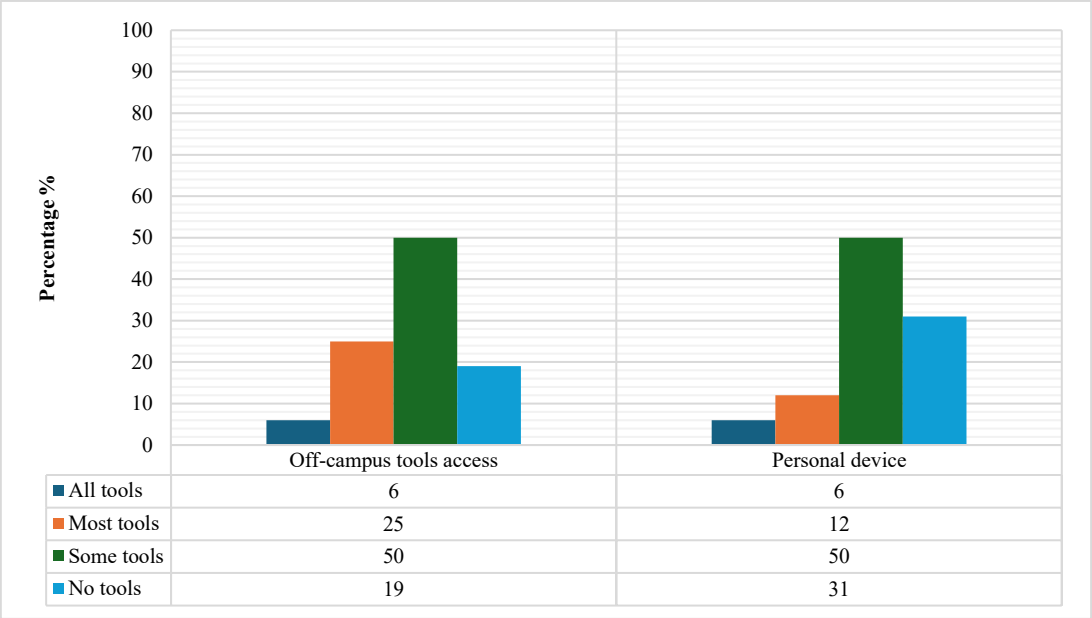
Table 6.13 Lab facilities and accessibility of tools




The next question asked whether students are permitted and able to use lab facilities beyond scheduled lab classes at regular hours. Only 31% (n=5) of the programmes allow this, with the majority (69%, n=11) confirming that this is not an option in their programmes. Such limited out-of-class access reduces opportunities for students to reinforce what they learn in class,

particularly in programmes that rely solely on lab facilities and do not integrate students' personal devices.

Two further questions were asked about the ability of students to remotely access translation tools from off-campus. The results, shown in Figure 6.15 (below), reveal that only one programme reported offering remote access to all translation tools, whereas a quarter (25%, n=4) allow students to access most tools. However, a simple majority of the programmes (50%, n=8) provide their students with remote access to only some tools. This state of affairs means that students' ability to work with tools from home is partial at best. More worryingly, nearly a fifth of the programmes (19%, n=3) offer no remote access to tools for students, which likely hinders independent learning and the ability to complete coursework off-campus.




| | Off-campus tools access | Personal device |
|---|---|---|
| All tools | 6 | 6 |
| Most tools | 25 | 12 |
| Some tools | 50 | 50 |
| No tools | 19 | 31 |

Figure 6.15 Remote tools access and private installation

Respondents were further asked if students are allowed to install translation tools on their personal computers. While some flexibility was observed in integrating students' personal devices in classroom, full support was rare. The results reveal that only one programme allows students to install all tools, and two (12%) permit this for most tools. This means that only a handful of programmes support their students with tool licenses for their personal devices, which offers the most flexibility for independent learning and use of tools without restriction. Half of the programmes (50%, n=8) offer limited licenses for only some tools, and the remaining 31% (n=5) provide no tool licenses for students. Therefore, it seems that even while personal device integration is becoming more common, full support for tool licences and technical assistance remains limited in Saudi BA programmes.

Overall, this section has revealed that although a number of programmes have taken steps to offer flexible learning through remote access or private installation, many still fall short in providing consistent access to translation tools. Without sufficient out-of-class lab availability or remote tool access, students' ability to develop their technological competence independently may be constrained, particularly in programmes where lab-based, in-person teaching remains the primary mode of delivery.

#### 6.3.7.3 Server Resources and Technical Support

The survey included yes/no questions to explore the types of servers in use and the level of technical support available in the surveyed programmes. Respondents were first asked whether their programme has access to dedicated servers for translation technology training, and only 31% (n=5) stated that this is the case (Figure 6.16, below). The same proportion reported using shared specialist servers, typically supporting more than one programme or department. By contrast, 62% (n=10) indicated that their programmes rely entirely on generic institutional servers, which shows a lack of exclusive server access to support translation technology training in most of the programmes surveyed. Furthermore, three-quarters of respondents (75%, n=12) have no technical support staff dedicated to their programmes, and 44% (n=7) reported sharing technical support with other programmes. Notably, the vast majority of programmes rely on generic institutional support staff, who are likely to lack expertise in translation tools and their related technical issues.

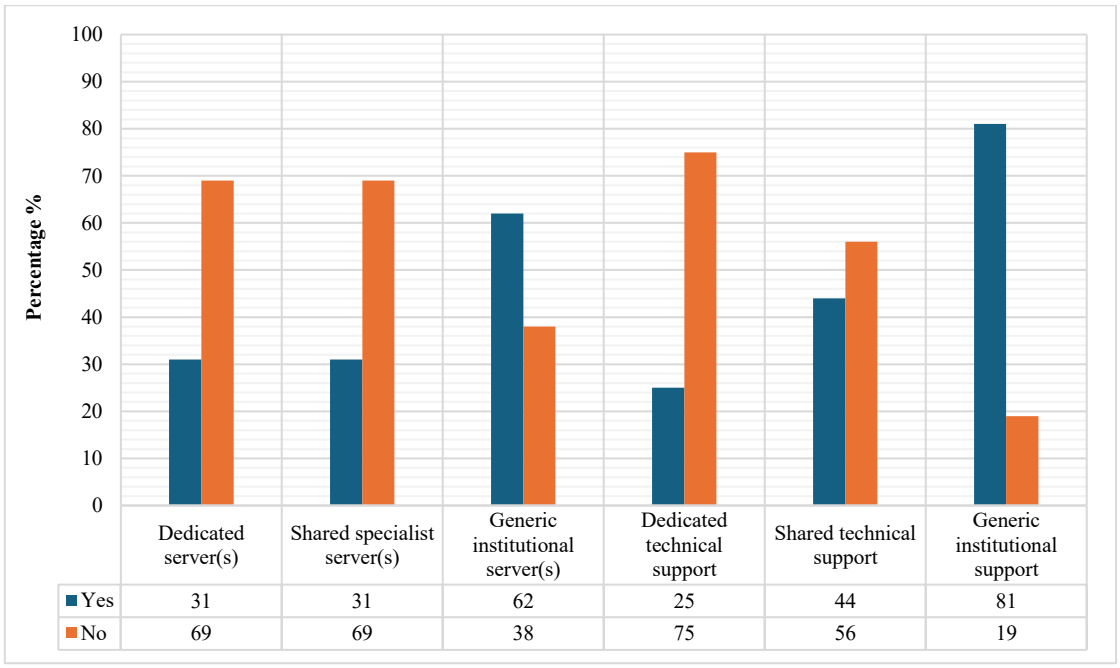



Figure 6.16 Server infrastructure and technical support

These infrastructure gaps could hinder the delivery of high-quality translation technology training. The absence of (or limited) programme-specific server resources and the lack of specialised technical support may limit the reliability of in-class tools, disrupt practical training, and restrict the use of industry-relevant translation tools and workflows.

### 6.3.8 Five-Year Prospects and Challenges

This section aims to capture the respondents' views of eleven potential opportunities and five possible challenges that could influence both translation technology training and the future of BA programmes over the next five years. Respondents rated the chance, in their perception, of these developments and challenges occurring along a five-point Likert scale: very unlikely, unlikely, neutral, likely and very likely. The items include curriculum design, teaching strategies, technology integration, staffing, funding, and institutional support, covering a broad range of areas. This section offers insight into how academic programme directors view the future of technology teaching, indicating which opportunities they hope to take advantage of and the challenges they foresee.

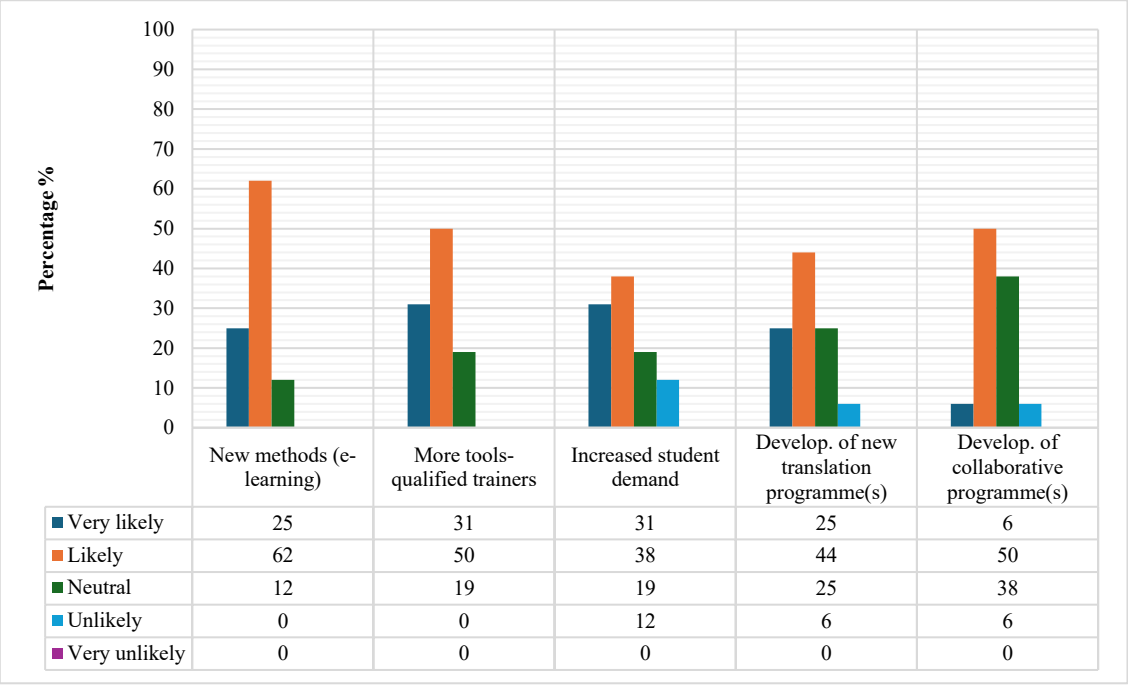
#### 6.3.8.1 Potential Opportunities

The eleven opportunities were grouped into two categories and presented to respondents for this section:

- Developments in programme structure and teaching methods
  - Student demand for translation programmes will increase.
  - We expect to develop one or more new translation-related programme(s).
  - We expect to develop one or more collaborative programme(s) with other institutions.
  - We expect to introduce/expand alternative teaching methods (e.g., e-learning).
  - Newly qualified staff with translation technology training will become available.
- Developments in translation technology training and industry involvement
  - We expect the translation technology element of our programme to expand
  - We expect to introduce training in different types of translation tools.
  - Translation tools will migrate from local installations to the Cloud.
  - Translation technology will become more complex and diverse.
  - Fully automatic translation (MT) will become more important in the industry.
  - Industry involvement with translation programmes will increase.

The results are illustrated in Figures 6.17 and 6.18 (below) in descending order of perceived likelihood, offering a visual overview of the most and least anticipated developments over the next five years.

The adoption of new teaching strategies was described as the most likely area for development (Figure 6.17, below). 87% (n=14) of respondents considered this either likely or very likely, with a small minority expressing neutrality and none anticipating that this will not happen. Such consensus clearly points to a near-universal recognition of the requirement for pedagogical method and teaching strategy development so real industry practices and demands are reflected in programme offerings and outcomes. A similarly broad optimism can be seen in the fact that 81% (n=13) of respondents believe that it is likely or very likely that more technology-qualified trainers will become available as time goes by. However, 19% (n=3) expressed neutrality, possibly reflecting the persistent issues around staff specialisation and experience observed in Section 6.3.7.1. The complete absence of unlikely and very unlikely responses may indicate that most respondents believe progress in staffing is possible, though not guaranteed. This area needs further exploration to understand how programmes deal with the more pressing need for qualified trainers to teach translation technology-related courses.




| | New methods (e-learning) | More tools-qualified trainers | Increased student demand | Develop. of new translation programme(s) | Develop. of collaborative programme(s) |
|---|---|---|---|---|---|
| Very likely | 25 | 31 | 31 | 25 | 6 |
| Likely | 62 | 50 | 38 | 44 | 50 |
| Neutral | 12 | 19 | 19 | 25 | 38 |
| Unlikely | 0 | 0 | 12 | 6 | 6 |
| Very unlikely | 0 | 0 | 0 | 0 | 0 |

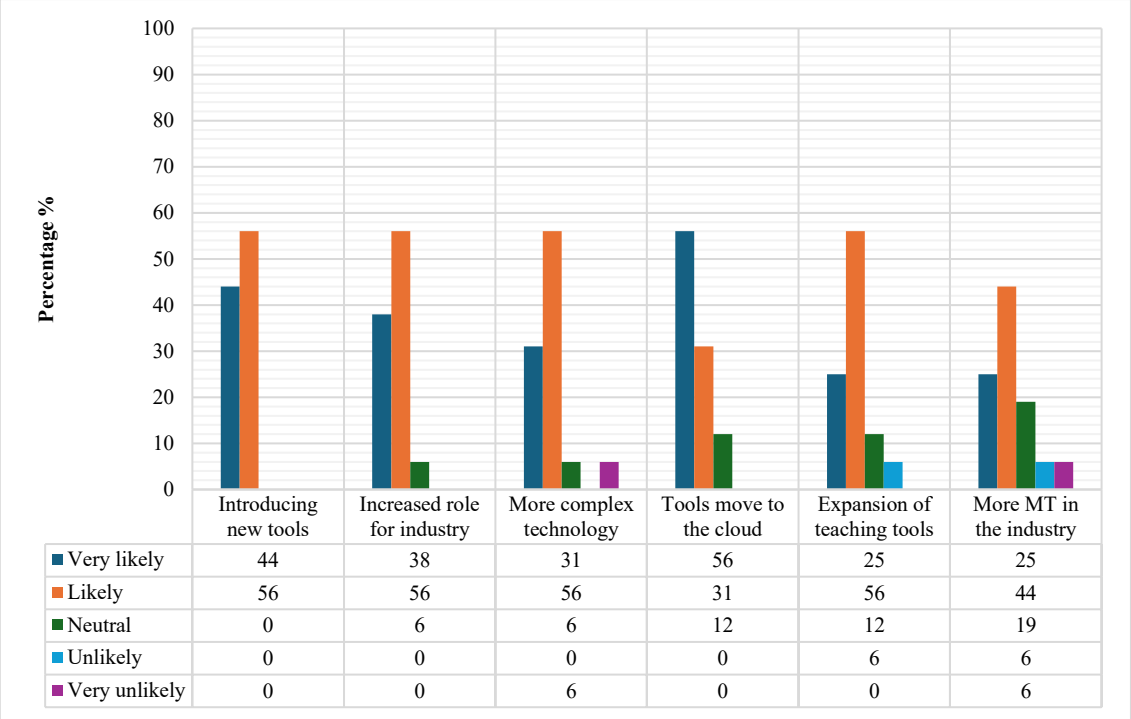
Figure 6.17 Developments in programme structure and teaching strategies

Most respondents (69%, n=11) rated increased student demand and the development of new programmes as either likely or very likely. There is therefore anticipation that interest will continue to grow in translation specialisation, and many programmes are expanding their

curricula in response. Some respondents expressed more caution, however, with 19% (n=3) thinking this unlikely, and a quarter (25%, n=4) selecting the neutral option. The greater level of reservation on display here indicates uncertainty about the development of enrolment trends or concerns around the challenges associated with launching new programmes (e.g., limits on infrastructure or funding). The earlier results, shown in Figure 6.12, align with this stance, as it was found that teaching on translation industry structures or potential future developments is not a matter of priority for most Saudi BA programmes, revealing their inadequacy in long-term strategic planning.

Regarding the likelihood of developing a new collaborative programme with other universities, the responses showed mixed perspectives. This possibility was rated as likely or very likely by a little over half of the respondents (56%, n=9), while 38% (n=6) remained neutral, and just one thought such partnerships unlikely. The logistical challenges described in Section 6.3.7 may explain these mixed perceptions, including cross-programme coordination, trainer expertise disparities, or infrastructure and tool access differences. Despite this, the general outlook across all five items suggests a forward-looking attitude within most programmes, particularly regarding innovation in teaching strategies and responsiveness to student and industry requirements.

Figure 6.18 (below) shows respondents' views of the anticipated developments in translation technology training and industry involvement in their programmes. There was unanimous agreement that introducing a wider range of translation tools is likely or very likely, with no respondents selecting neutral or negative options. This strong consensus suggests that most programmes recognise the need to diversify the toolsets available to students, due possibly to the rapid evolution of translation technology and awareness of the gaps in tool coverage within programmes. A similarly optimistic outlook was observed regarding the expansion of translation tools, with 81% (n=13) of respondents rating this development as likely or very likely. A smaller proportion (12%, n=2) selected the neutral option, which may indicate uncertainty about their programme's ability to implement such changes, possibly due to challenges in infrastructure or staff expertise, as highlighted earlier in Figure 6.16.




| | Introducing new tools | Increased role for industry | More complex technology | Tools move to the cloud | Expansion of teaching tools | More MT in the industry |
|---|---|---|---|---|---|---|
| Very likely | 44 | 38 | 31 | 56 | 25 | 25 |
| Likely | 56 | 56 | 56 | 31 | 56 | 44 |
| Neutral | 0 | 6 | 6 | 12 | 12 | 19 |
| Unlikely | 0 | 0 | 0 | 0 | 6 | 6 |
| Very unlikely | 0 | 0 | 6 | 0 | 0 | 6 |

Figure 6.18 Developments in translation technology training and industry involvement

The probability ratings of an increase in the role of the translation industry in the surveyed programmes were high, with all but one respondent considering increased industry involvement either likely or very likely. This indicates an overall positive sentiment regarding the importance of collaboration between BA programmes and industry stakeholders in bridging the gap between academia and industry. In contrast to this, opinions on the increasing role of MT in the industry were more divided. While over two-thirds of the respondents rated this development as likely or very likely, a considerable proportion (19%, n=3) selected neutral, and 12% (n=2) expressed a belief that MT developments were improbable. A previous result in this study has shown that 62% (n=10) of programmes already teach MT post-editing as a compulsory component (see Table 6.8), so while MT is widely acknowledged, its perceived future significance is still subject to debate from the respondents' perspectives.

Over half of the respondents (56%, n=6) thought it likely that translation technology would grow more complex and diverse, with a further third (31%, n=5) thinking this development very likely. These numbers reflect widespread recognition of the rapid and ongoing nature of the evolution of translation technology, with which both students and trainers are increasingly conscious of having to stay up to date. However, one respondent was neutral, while another rated this development as very unlikely. A possible reason for such expectations is that these respondents may lack access to information about future industry developments and the role of MT in modern workflows. This interpretation is consistent with the earlier observation that

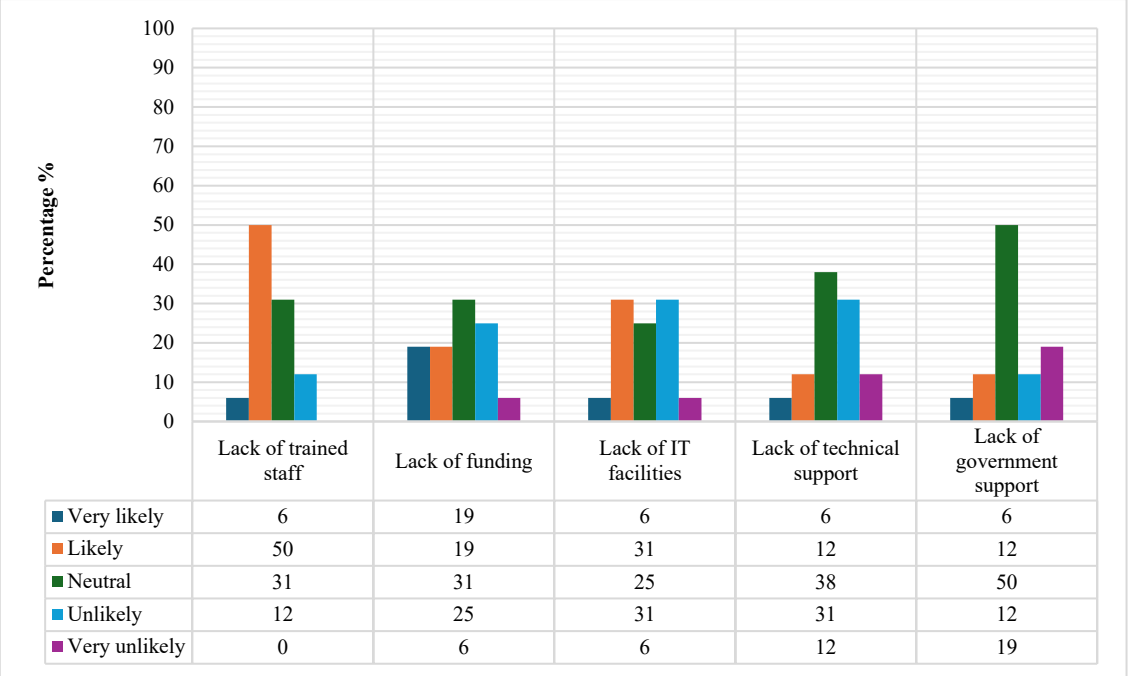
many programmes do not prioritise teaching about industry structures or future developments (see Figure 6.12). Respondents were similarly expectant that translation tools would continue to migrate from local installations to the Cloud, as this was considered likely or very likely by a combined 87% (n=14). Broader trends in the ubiquity of remote work and online learning may explain this optimism, as the appeal of cloud-based tools has increased sharply in recent years due to their ability to bring flexibility into teaching and align more closely with translation industry practices. Only two respondents (12%, n=2) were neutral about this, which, as before, is likely the result of gaps in awareness or uncertainty about the trajectory of translation tool development.

The results indicate a high level of optimism and forward thinking in BA translator training, particularly regarding programme development and the adoption of translation technology. Most respondents expected growth in student demand, the development of a new translation programme and the expansion of teaching strategies. The integration of translation tools and technologies into BA curricula is highly anticipated in most programmes, with the move toward cloud-based tools and the increasing complexity of technologies viewed as inevitable developments. In addition, industry stakeholders are anticipated to play a more active role in curriculum development, with closer collaboration between BA programmes and translation industry stakeholders.

#### 6.3.8.2 Potential Challenges

Five potential challenges for translation technology training development in Saudi BA programmes over the next five years were presented to respondents for their evaluation of likelihood, along the same Likert scale (from very unlikely to very likely). These include insufficient supply of trained staff, inadequate funding, limited IT facilities, poor technical support, and limited support from the institution or the government. Each item represents an aspect that could critically constrain progress in the integration and expansion of translation technology in the surveyed programmes.

The most frequently cited concern (Figure 6.19, below) was the lack of trained staff, with over half of respondents (56%, n=9) rating this as likely or very likely. This suggests that staffing remains a pressing issue in most programmes. However, nearly one-third of respondents (31%, n=5) remained neutral, indicating that they were uncertain whether this would stand as a constraint for the development of their programmes. Few respondents (12%, n=2) felt that this issue is unlikely to affect the future development of their programmes.




| | Lack of trained staff | Lack of funding | Lack of IT facilities | Lack of technical support | Lack of government support |
|---|---|---|---|---|---|
| Very likely | 6 | 19 | 6 | 6 | 6 |
| Likely | 50 | 19 | 31 | 12 | 12 |
| Neutral | 31 | 31 | 25 | 38 | 50 |
| Unlikely | 12 | 25 | 31 | 31 | 12 |
| Very unlikely | 0 | 6 | 6 | 12 | 19 |

Figure 6.19 Possible challenges

Funding and IT infrastructure were also identified as potential constraints by over a third of respondents (38%, n=6 for each). Neutral responses were somewhat more common for these items (25%, n=4 for funding and 31%, n=5 for IT facilities), indicating that some respondents were uncertain whether they would impact progress. Approximately one-third of the respondents did not anticipate insufficient funding and limited infrastructure to become serious challenges, yet for many programmes they remain significant hurdles that can restrict investments in developing lab infrastructure, IT facilities, trainer development and in providing new software tools and licences.

Technical support was rated as a likely challenge by almost a fifth (19%, n=3) of the respondents, but a larger proportion (38%, n=6) selected the neutral option, suggesting persistent uncertainty regarding the availability of IT support in these programmes. The results are consistent with earlier observations (see Figure 6.16, above), which reported limited access to dedicated technical staff across many programmes. Similarly, the lack of governmental support emerged as an anticipated challenge for some programmes, though the respondents' opinions were more varied. While 19% (n=3) rated this challenge as likely or very likely, half (50%, n=8) chose the neutral option, possibly reflecting uncertainty about future policy directions and funding decisions from the government. A smaller group (31%, n=5) considered this issue unlikely or very unlikely to impede their development.

Overall, the results suggest that staffing, funding, and infrastructure remain the most likely challenges to the development of translation technology training in Saudi BA programmes. While concerns about technical and governmental support were also acknowledged, they were accompanied by a greater degree of uncertainty.

## 6.4 Qualitative Findings

This section reports the qualitative data derived from two focus group discussions conducted with BA programme directors (PDs, n=9) and course trainers (CTs, n=9). The aim of these sessions was to explore the challenges and practices of translation technology training in Saudi BA programmes in greater depth, focusing particularly on the trends and gaps identified in the survey phase. The discussions ranged around several issues, including limitations in infrastructure, staffing and expertise, curriculum design, and engagement with the translation industry. Four main themes and a number of sub-themes emerged from the analysis, constituting both shared concerns and suggestions for the future. The results of this part of the study complement the quantitative results and facilitate a more comprehensive understanding of the challenges surrounding the delivery of translation technology training in Saudi Arabia.

### 6.4.1 Infrastructure and Staffing

This theme explores the challenges related to lab infrastructure, funding, and staffing, as discussed by both programme directors and course trainers, who described a range of institutional and logistical barriers that hinder the effective delivery of translation technology training.

- **Lab Infrastructure and Funding**

Several participants expressed concern about the lack of dedicated facilities for translation technology training. The issue was particularly acute in public universities, where some programme directors (n=3) reported the absence of dedicated translation labs, while others (n=5) highlighted that labs exist but are outdated and poorly equipped. For example, PD4 explained:

> *There are no labs dedicated to translation teaching. Instead, we use computer labs shared with other departments like Education and Chemistry, and the lab equipment is really outdated.*

The same participant later revealed that the equipment used in the programme was the same as he had used as a student, showing a level of update neglect that clearly hinders effective

training. Similar concerns were raised by PD2, who emphasised the financial limitations faced by newer programmes:

> *The situation requires more financial support and full access to translation tools. We also need to set up specialised labs and hire staff specialised in translation technology.*

These concerns were echoed by other programme directors, including PD5 and PD6, who noted a reliance on free trial versions of translation tools due to a lack of licensing budgets. PD1 added that institutional funding tends to prioritise other departments, such as physics and mathematics, leaving translator training programmes under-resourced.

Similar frustrations were shared in the trainers' discussion. CT9 noted ongoing difficulties in obtaining the necessary translation tools and infrastructure:

> *Our programme is relatively new, […] We still need well-equipped labs with hardware and software tools for translation training. […] these issues present significant challenges for us because the process requires long administrative procedures.*

CT2 further explained:

> *Another challenge is the lack of labs and software licenses. This is a major issue because dealing with the university's bureaucracy is not flexible enough to allow faculty members to request such resources.*

However, this situation was not uniform across universities. PD3, representing a private university, described a more supportive environment, where labs were fully equipped, and tool access was well-managed. This was supported by CT3, from the same university, who stated that:

> *Our labs are well-equipped with computers and software licenses. We have also an IT technician to help us resolve any technical issues. The technician really cooperates with us. I remember, during the COVID-19 pandemic period, the technician made a great effort to maintain the software tools in our private devices and support us with software licenses.*

These kinds of insights provide necessary context for the results of the survey given in Section 6.3.7, as this represents first-hand testimony of the struggles faced by translation-related programmes in public universities around infrastructure, funding, and tool access. Therefore, the type of university a student attends decisively impacts the quality and consistency of education and training they receive in translation technology.

❖ **Staffing and Expertise**

This sub-theme relates to challenges around staffing and trainer expertise in translation technology. The survey results indicated that over half of the programme directors (56%, n=9) considered the lack of trained staff a likely challenge in developing translation technology training in their programmes (see Figure 6.19). This concern was echoed by participants in both focus groups, who described issues related to staff qualifications, subject specialisation, and motivation for professional development.

A recurring concern among the programme directors was the limited number of trainers with expertise in translation, let alone translation technology. In some cases, even the programme directors themselves lacked a background in translation. PD5 explained:

> *The number of trainers specialised in translation is very small, just a handful, to the point where I, as the director of the translation programme, am not specialised in translation, which highlights the shortage of specialists.*

The broader concern that emerges from this is that if the director of a translation-related programme is not a translation specialist, they are not likely to possess the industry-specific knowledge sufficient for informed decisions to be made about the tools and technologies the curriculum should prioritise. This means many programmes are unable to align with changing trends and requirements in the translation industry with sufficient speed, so the technological competence of their graduates will either be out of date, inadequate, or both. Section 6.4.3.1 (below) discusses how this could represent a factor contributing to some programmes' slow adoption of tools and technologies growing most important in the industry.

PD2 described a similar scenario in a newly established programme in which only one trainer had a background in translation. This shortage often results in non-specialised trainers being assigned to teach translation technology-related courses. CT7 described the implications:

> *In our department, most trainers are specialised in either Linguistics or TESOL. […] we face challenges in evaluating students' skills due to trainers' varying levels of expertise. Some struggle with the technical aspects, such as opening a TXM file instead of an Excel file. I always try to provide guidance and some training videos to help them understand these nuances, such as how to work with TMX files in Phrase.*

This highlights the problem of translation technology training becoming more complex when trainers are less familiar with what they are assigned to teach, leaving students at risk of receiving inadequate training. Moreover, trainers' resistance to CPD was another challenge raised by CT7, who noted that efforts to provide internal training were largely unsuccessful:

> *There is also a lack of motivation from trainers to attend training courses and improve their skills in translation technologies. For example, we received complaints from students about some trainers not training them well or not mastering the technologies they teach. I took the initiative to offer a training course within the department on using translation technologies, but no one was interested in developing themselves, either due to being overloaded or burnout for some reason, and there was no real participation.*

Despite student complaints about some trainers' lack of technological competence and the impact of this on the quality and depth of training, the above quote reflects a broader issue: trainers may often be left to navigate challenges independently without sufficient institutional support. Therefore, individual initiatives may be the only way to fill the gap left by insufficient support. However, CT7 reported that his initiative was met with little interest, partly due to institutional constraints (e.g., workloads or burnout), which CT7 considered contributing factors to trainers' lack of participation in CPD. This is directly linked to the institutional challenges described by PD1, who discussed the bureaucratic hurdles that limit institutional responsiveness:

> *I think that individual efforts outweigh institutional efforts in most universities, as institutional requests require effort, support, approvals, and procedures that take longer.*

These qualitative findings indicate that the burden of improving translation technology training often falls on individual trainers, without sufficient institutional support. Trainers are often required to seek alternative, free solutions to compensate for the lack of infrastructure, funding, and resources, in addition to their efforts to navigate CPD independently. While this situation places additional burden on trainers, it becomes even more problematic when considering that non-specialised trainers are often assigned to teach translation technology-related courses simply because there is no one else to teach them.

### 6.4.2 The Relationship between BA Programmes and the Translation Industry

This theme relates to the way Saudi BA programmes interact (or fail to do so) with the translation industry. Individuals from both groups of participants discussed a widespread absence of collaboration, limited industry stakeholder communication, and the lack of routine mechanisms for feedback. The persistent, broad misalignment between the actual requirements of the Saudi translation industry and the translation-related programmes offered in Saudi universities could partly result from these challenges, raising questions about the level of preparedness of graduates to meet the expectations, both current and future, of employers when they embark on careers in the industry.

### ❖ BA Programmes Developed in Isolation from Industry Requirements

A key concern raised by most programme directors (n=6) was that their BA programmes were developed and/or revised without sufficient research into the structure, sectors, or requirements of the translation industry. PD2, for example, noted that although their programme is newly established, no formal effort has yet been made to assess industry requirements:

> *Since our programme is new, and only one cohort has graduated so far, we haven't yet established communication with the industry or measured its requirements. According to our statistics, six of forty graduates have been employed in the translation industry. As for the involvement of employers in building the curriculum, there hasn't been any so far, but we are working on establishing an advisory committee that will include employers from both the public and private sectors soon.*

PD4 reinforced this idea, explaining that programme development in Saudi universities tends to be driven by internal academic decisions with little or no consultation with industry stakeholders. They summed up the lack of data on industry requirements:

> *I'd like to point out that most translator training programmes in Saudi universities were not built on an actual study of the translation industry, as we didn't have clear statistics on what the industry needs.*

This disconnect has had tangible consequences. PD1 discussed how graduates from their programme frequently go on to secretarial or administrative jobs, or other careers unrelated to translation, as BA training and industry requirements may only tangentially match up. PD7 echoed this with the observation that programmes often have no clear objective or identity and lack methods of regular dialogue with stakeholders in the translation industry, leaving students underequipped and untrained in many of the less obviously relevant competencies.

PD8 added a slightly different perspective, explaining that their curriculum was recently updated by benchmarking against other local universities:

> *We updated our curriculum a year ago and added a course on CAT tools. […], However, this course is still optional, and it was added through benchmarking with other Saudi universities.*

While benchmarking is a common academic practice, this process may often lead to replication rather than innovation in programme design, as described by PD1, who cautioned against its uncritical use:

*I believe the concept of benchmarking has been misunderstood in some Saudi universities, where our programmes have become copies of each other. Some justify this by saying we prepare students for the same industry. However, this leads us to repeat the same mistakes.*

This over-reliance on internal comparisons, without input from external industry experts, may reinforce outdated practices rather than drive innovation considering that most programmes reported that they develop their curricula in isolation from industry requirements. As also discussed by PD7 and PD9, benchmarking without real engagement with industry requirements can lead to the recycling of ineffective curricula, which may not accurately reflect the competencies and tools required in the modern translation industry. In their estimation, this creates a cycle whereby outdated curricula are passed from one programme to another without being adapted to emerging industry requirements or incorporating feedback from industry stakeholders.

- **Lack of Collaboration and Industry Feedback Loops**

While the previous sub-theme highlighted that most BA programmes are developed in isolation, this section elaborates on the efforts made to engage with the translation industry. Only a minority of programme directors (n=3) described any form of collaboration, and even these interactions were described as sporadic or informal. PD6, for example, acknowledged that some engagement exists but stressed that it remains weak and inconsistent:

*There is a form of collaboration but not systematic or continuous. I think the reason is probably that the Saudi translation industry is weak and not institutionally structured in a way that would allow for solid collaboration.*

PD5 described the relationship between academia and industry as immature and underdeveloped:

*This fluctuating relationship between BA programmes and the translation industry shows that the situation hasn't fully matured yet, either from the programmes or the industry's side. However, there are at least some indicators that suggest there's a relationship, even if it's minimal.*

The above quotations highlight the lack of depth and continuity of academia-industry collaboration. This may widen the gap between the two worlds and lead BA programmes to produce graduates whose training does not align with industry requirements.

From the trainers' perspective, the challenges of industry engagement were even more clearly articulated. CT7 offered a comprehensive overview of the Saudi translation landscape, as he understands it, describing how collaboration varies by sector:

*The collaboration between the industry and us varies, and the experiences differ from one sector to another. For example, communication with the public sector is often difficult and weak, but when it does happen, it's more effective because they have large translation departments, they use translation technologies, and they have experts who can collaborate with us and help train our students. In the private sector, large companies use translation technologies, but they don't always involve our students in actual translation work. Instead, they tend to assign them administrative tasks, with very few opportunities to engage in professional translation. When we consider whether our curriculum meets industry requirements, the answer, from a comprehensive perspective, is no. We need significant development in several areas within the curriculum.*

This reflection illustrates how fragmented and inconsistent collaboration with industry partners can be, depending on the sector. These irregular partnerships limit students' exposure to professional workflows and tools, reducing the practical relevance of their BA training.

CT2 added another important dimension to the discussion by encouraging BA programmes to expand their view beyond the Saudi translation industry and consider global job opportunities for Saudi graduates:

*I agree with CT1 that the contact with the local industry is not as it should be, but are opportunities for translators limited to Saudi Arabia? We need to reconsider this and encourage students to see that opportunities exist beyond Saudi Arabia's borders and pursue them.*

This participant drew attention to the limitations of focusing solely on the local translation industry in programme design and curriculum development, which may hinder graduates from pursuing broader opportunities in other regional or international translation markets. It is worth recalling that the survey results revealed that half of the programmes (50%, n=8) do not teach global industry standards (e.g., ISO 17100) to their students, in addition to the 44% (n=6) who selected the neutral option (see Table 6.12). This means that only one programme recognised the value of teaching students such topics. These figures support the qualitative insights that most BA programmes lack a global orientation, further narrowing students' professional prospects.

The qualitative analysis reinforces the survey results and shows a gap in collaboration between BA programmes and the translation industry. Without clear communication channels, advisory input, or regular feedback loops, BA programmes risk remaining misaligned with the requirements of the translation industry, both nationally and internationally.

### 6.4.3 Curriculum Planning and Training Practices

This theme focuses on the curriculum-related challenges that hinder the effective delivery of translation technology training in Saudi BA programmes. Both participant groups described multiple structural and pedagogical limitations that restrict the curriculum's responsiveness to industry requirements. These qualitative insights deepen understanding of the survey results, which revealed gaps in coverage of the technology-related competencies and software tools taught currently in BA programmes (see Section 6.3.3). The focus groups raised three significant issues: curricular rigidity and their slow rate of adaptation to technological developments which occur or are developing in the industry, the predominantly theory-based modes of teaching over practical training, and the low levels of translation technology integration across the curriculum.

- **Rigid Curricula and Slow Adaptation to Industry Requirements**

Many programme directors reported that they struggle to adapt their curricula in a manner timely and strategic enough to meet the technology-related requirements of the industry, and described programme responses to technological change as reactive rather than proactive. PD4, for example, characterised the process as 'remedial', meaning that curriculum development is typically made only after issues arise. PD7 observed:

> *Universities often lag behind in addressing industry requirements and technological advancements, and rarely do we see proactive measures to anticipate and incorporate them into our curriculum.*

Participants saw this reactive approach as a key barrier to aligning BA training with industry expectations. The lack of anticipatory planning is further complicated by the fact that curriculum decisions are sometimes made by faculty members (directors or trainers) without a background in translation or translation technology. This was reported by PD6:

> *[…] our advisory committee in the department does not include any member specialising in translation technology.*

As observed in Section 6.4.1, this staffing gap, where translation courses are often assigned to non-specialist trainers, undermines the development of industry-relevant curricula. Section 6.4.2 showed that most programmes do not involve translation industry stakeholders in the curriculum planning or review process. These interrelated issues contribute to producing graduates who may be underprepared in translation technology.

This concern was strongly voiced by trainers. CT4, for instance, described a stark disconnect between the pace of technological developments and the static nature of BA curricula:

> *The current state of teaching this [technology-related] course is far from ideal. Technology is advancing very quickly now, and programmes do not keep up by updating their curricula. Our programme still teaches early MT models from the 1980s, even though MT has evolved significantly, especially after 2016, with the emergence of NMT. We have seen great progress, and now we see tools like ChatGPT entering this field, but there is no follow-up in the curricula to reflect these developments. This creates a huge gap between what our students learn in the classroom and what they face in the industry.*

Other trainers shared similar frustrations. CT5 noted that the Saudi translation industry is rapidly shifting toward post-editing workflows, but students remain unfamiliar with the latest developments in MT. Similarly, CT8 expressed dissatisfaction with their curriculum, pointing out that it does not cover the latest developments in the translation industry. This creates space between the competencies students acquire during their BA studies and those required by the translation industry.

These qualitative observations provide details on the results of the survey provided in this chapter. The persistent gap between BA programmes and industry requirements is partly caused by rigid curricula working negatively in concert with structural and institutional limitations, so graduates leave university insufficiently prepared to face the expectations of modern translation workflows.

- **Overemphasis on Theoretical Teaching and Assessment**

A key concern raised by both programme directors and trainers was the continued dominance of theoretical teaching and assessment in translation technology-related courses, often at the expense of practical training. This concern aligns with findings from Section 4.4, where most translators described their BA training in translation technology as largely theoretical and disconnected from real-world practice.

PD1 provided a clear example of this, noting that institutional efforts remain limited and that assessment strategies rarely evaluate students' practical competence:

> *Teaching translation technologies is still largely theoretical and far from practical training. I can summarise the situation in our programme, which I don't think is much different from other universities: theoretical teaching outweighs practical training, and individual efforts surpass institutional ones. […] even when we assess students, the exams are purely theoretical, which doesn't reflect the hands-on skills they really need.*

PD2 reported that feedback from graduates consistently highlights a preference for more practical exposure to technology that could better prepare them for professional work, reflecting the broader concern that students graduate with limited exposure to translation technologies and modern workflows. Several trainers made this point, describing how they had attempted to address it within the constraints of their institutional contexts. CT3 remarked:

> *This course is heavily focused on theory, but I always try to reduce the theoretical content and focus on the practical side of translation technology. I can't cover all aspects of the course.*

CT7 offered a more critical reflection, highlighting outdated teaching materials and his response to them:

> *When I began teaching the CAT course, I found a heavy focus on theory and explanations from a book published in 2011, which I found outdated. Therefore, I decided to switch to a project-based approach to expose students to some practical training.*

However, the shift toward practical training is not always supported by the assessment strategies used in translation technology-related courses. As CT8 pointed out:

> *Unfortunately, when it comes to exams, we focus only on the theoretical aspect.*

Together, these quotes illustrate that while some trainers make individual efforts to embed practical elements in their courses, they are often constrained by a curriculum that privileges theoretical knowledge and by assessment strategies that fail to measure students' technological competence.

- **Translation Technology Integration across the Curriculum**

The quantitative results showed that nearly half of the surveyed programme directors (44%, n=7) reported that translation technology is not integrated into other courses in their programmes (see Figure 6.7). This suggests that in many cases, teaching translation technology is confined to a single, standalone course, rather than being embedded throughout the curriculum. The qualitative data strongly reinforced this finding, with both programme directors and trainers expressing concern over this fragmented approach. PD1, for example, acknowledged the lack of programme-wide integration and called for broader curriculum reform:

> *I believe the curriculum still needs development, especially regarding the point I raised earlier about not incorporating translation technology across the entire curriculum.*

PD5 described a similar issue in their programme, noting how this isolated approach affects students' perception of the course:

> *Translation technology is taught in a single course, separately from the rest of the translation courses, so students perceive it somewhat as an additional skill rather than an essential one.*

Many trainers further acknowledged this view, articulating two major challenges: the lack of integration of translation technology within the curriculum and the limited cooperation from other trainers in using translation technology in the courses they teach. CT7 noted:

> *In my view, one of the main challenges is teaching translation technology in isolation from other courses, as if it's a standalone course, without applying these technologies in other courses. I formally requested our programme director to ask other trainers to design at least one assignment in their courses that requires using CAT tools.*

CT1 echoed the need for broader awareness and integration:

> *There is a great need to raise awareness among curriculum designers about the importance of translation technology as a compulsory course and the necessity of integrating them throughout the entire curriculum.*

The widespread conception of translation technology as an optional or peripheral elective diminishes its relevance in students' minds and discourages efforts to develop the confidence to apply technologies across a broad spectrum of translation work. Several participants argued that integration is necessary not only to develop technological competence but also to reflect real-world translation workflows, where technology is embedded in every stage of the process.

Figure 6.20 (below) presents a summary of the key challenges identified through the qualitative analysis of the focus group discussions with BA programme directors and course trainers. These are grouped by theme: infrastructure and staffing, the academia-industry relationship, and curriculum design and development. Together, they provide a comprehensive explanation of the barriers currently obstructing the delivery of effective translation technology training in Saudi BA programmes.

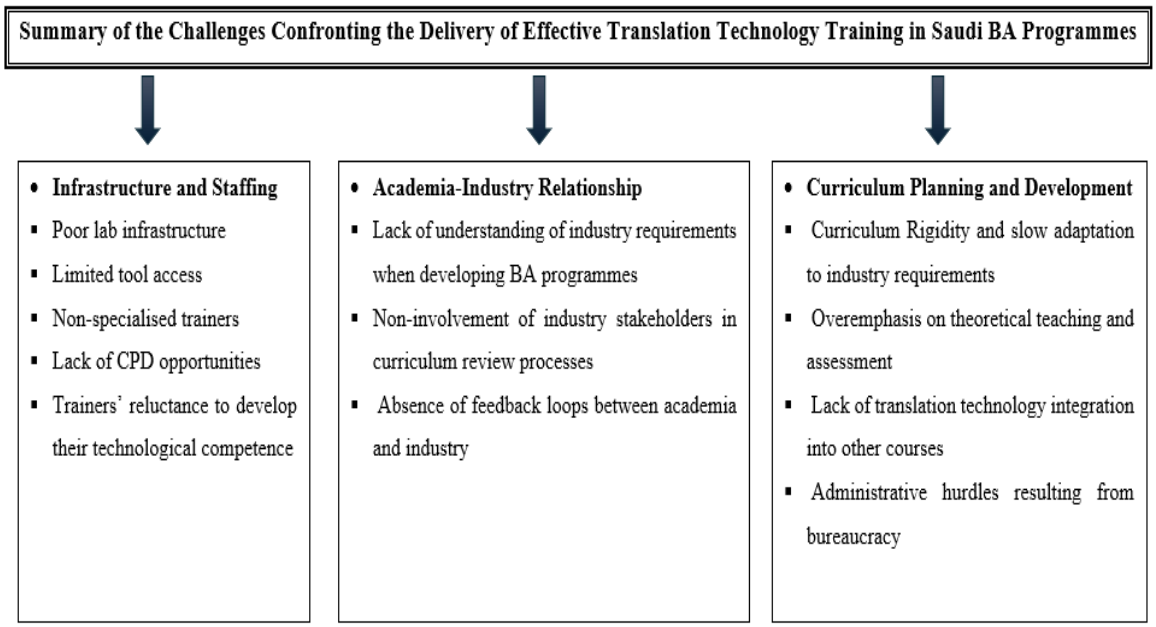



Figure 6.20 Key challenges affecting translation technology training in Saudi BA programmes

In addition to elaborating further on the challenges, both participant groups were encouraged to share their suggestions about what can be done to improve translation technology training in their programmes and make BA curricula more responsive to industry requirements. Their input focused on how to better equip students with the technology-related competencies required in professional translation workflows.

### 6.4.4 Participants' Suggestions: What Do They Want to Say?

This section presents the suggestions made by programme directors and trainers to enhance translation technology training in Saudi BA programmes. A suite of improvements emerged from this process, which built on the challenges identified in previous sections, in areas considered by the participants to require focused attention during curriculum development. These include curriculum flexibility, more time devoted to technology-related courses and adding to existing curricula the technology-related competencies identified as absent.

- **Flexibility in Curriculum Design and Continuous Updates**

Programme directors and course trainers agreed that flexibility in curriculum design needs to be significantly improved if the programmes have any hope of keeping pace with the rapid rate of change in the translation industry. Several participants pointed out how the way in which BA curricula are currently structured leaves no room for the adaptability needed to integrate new tools and practices ahead of time. For instance, PD4 said that course content is frequently 'rigid', making it difficult to integrate new developments:

*Technological advancement is ongoing, and its pace is much faster than the development of our curricula. I think the reason for this is the absence of the concept of flexible curriculum design, which would allow the integration of new translation technologies and what the industry really requires. What currently happens is that course content is rigid and binding, with no room for adaptation.*

This view was echoed by PD2, who described their technology course as "vague and not adaptable to changes in the field", particularly when delivered by trainers who "don't know where to start or what to include". Such inflexibility not only limits the inclusion of novel content but also leaves trainers uncertain about how to teach translation technology.

The issue is further complicated by lengthy administrative procedures that delay curriculum reform. Several programme directors and trainers mentioned that the process of updating curricula involves navigating complex bureaucratic structures, which slows academic responsiveness. PD6 noted:

*Curriculum updates require a lengthy administrative process due to the structural and administrative hierarchies that must approve any change.*

This was supported by CT3, who explained that BA programmes often lag behind industry developments because of delays in updating curricula, acquiring new tools, or improving infrastructure. CT5 reinforced this, stating that "as long as curriculum updates are subject to such lengthy procedures, it will be challenging to mend this gap". PD9 concluded that allowing trainers more autonomy in adapting course content would significantly improve responsiveness:

*A flexible curriculum design would allow trainers to integrate emerging tools and technologies without waiting for formal administrative changes.*

The qualitative insights in this section confirm the urgency of calls for a curriculum design model that is adaptive and responsive enough to stand up in a field characterised by an increasing pace of technological change, to remove bureaucratic obstacles to course changes, and to give the trainers the leeway to update course content to better reflect industry requirements.

- **The Inclusion of Multiple Translation Technology-related Courses**

Participants from both groups suggested that teaching translation technology should not be confined to a single course, but additional courses are needed within the curriculum to better equip students with the competencies required in the translation industry. Most criticised the current one-course structure as inadequate, particularly given the growing complexity and

diversity of tools that translators are expected to develop competence with during their BA studies. As CT3 noted:

> *One course is not enough to teach translation technology; even if I focus on the most important skills, the time is not enough.*

CT2 pointed out that covering all industry-relevant content within a single course is unrealistic, especially when there is no integration of translation technology into other parts of the curriculum. The limited scope of one course means that key competencies are often omitted or covered only briefly, leaving students underprepared.

❖ **Areas for Improvement and Missing Technology-related Competencies**

The need expressed by the focus group participants for curriculum updates is represented in this sub-theme, which highlights the reasons why current Saudi BA curricula frequently fail to produce industry-ready graduates, as perceived by programme directors and trainers. They discussed several areas of technology training that are either absent or dealt with only cursorily, further justifying the desire for meaningful and impactful curricular reform. The focus group discussions help explain many of the gaps noted in the survey results analysis, allowing a clearer image of where BA curricula do not presently meet the translation industry's technology-related requirements to emerge.

- Gaps in MT Training

A recurring area identified for improvement is the limited focus on MT post-editing. Most participants said that while MT is increasingly integral in modern workflows, students are not adequately trained in its effective use or post-editing techniques. PD6 explained:

> *The teaching of MT is still limited, particularly in providing students with sufficient training in post-editing, despite the significant advancements in MT and its widespread use in the industry.*

CT6 stated that the technology training provided by their programmes remains centred on CAT tools, with no teaching in MT or related tools:

> *Currently, the primary focus of our programme is on CAT tools. We have not yet incorporated MT or AI chatbots and other related technologies that this research refers to. Currently, our priority is to teach CAT tools.*

These qualitative findings directly support the survey results presented in Section 6.3.3, where some programmes reported the limited (or complete absence) of teaching MT post-editing.

- Expansion of Training Beyond CAT Basics

While CAT tools form the core of most translation technology training provided by Saudi BA programmes, both programme directors and trainers argued for expanding coverage to include advanced features and related workflows such as project management and QA features. PD2 explained:

> *Corpora, Translation Management Systems, Project Management Systems are crucial in the translation industry, yet they are not sufficiently covered in our curricula.*

CT3 similarly said:

> *The current training is limited to the basics of CAT tools. We do not cover advanced skills that are related to project management or QA checks.*

These concerns are reflected in the survey results. While core areas like TM and TB are taught as compulsory in most programmes, more specialised areas such as TMS and QA features are significantly underrepresented: only 19% (n=3) of the surveyed programmes teach QA features as compulsory, and 44% (n=7) do not teach them at all (see Table 6.7). CT1 added that:

> *Many of my former students contacted me after graduation, telling me that QA and project management tools are required in the translation industry.*

The focus group discussion analysis provides further evidence for a broader, more involved CAT training approach capable of preparing students for the range of tools and tasks they will be expected to carry out in their professional lives.

- Gaps in teaching GenAI tools

The increasing relevance and necessity of GenAI tools (e.g., ChatGPT, Bard) were discussed by many of the participants, as it is clear that these tools form the foundation of future translation workflows. PD4 stated plainly:

> *We can no longer ignore the revolution of conversational agents like ChatGPT and Bard. We must update our courses to include these topics.*

CT4 also recognised this need:

> *We have seen great progress, and now we see tools like ChatGPT entering the translation field, but there is no follow-up in the curriculum to reflect these developments.*

CT7 expanded on this by highlighting trainers' responsibility to stay updated and pass on knowledge:

*We have technology like ChatGPT today, and we do not know what is coming tomorrow. We need to start by updating our own knowledge and keeping up with these advancements. It would be great if we could share expertise with our colleagues who will teach the course.*

The frequency with which participants raised and discussed this issue highlights a critical blind spot in the composition and delivery of current BA programmes, even though this area did not constitute an explicit part of the survey. There is an urgent requirement for training that has a focus on the future of technologies in this field, as this is what is needed to prepare students for the competitive global translation industry.

- Gaps in Multimedia Translation Training

Many participants identified as an area for improvement the lack of effective AVT and localisation training, discussing on several occasions the importance of modern translation competencies to help graduates understand and satisfy the shifting, growing demands of the local and global translation industry, particularly in a time characterised by a fast, general shift toward digital and multimedia-driven content. PD3 remarked:

*Our curriculum lacks effective localisation training, although some trainers try to introduce this aspect to students. They really need such skills to find jobs in the industry.*

CT2 further linked time constraints to limited coverage of AVT:

*Sometimes, time constraints make it difficult to deliver many skills to students that are essential for the industry. However, when I get the chance, I try to cover AVT topics in the course. I believe these topics are an integral part of translation technologies.*

CT9 summarised the issue by suggesting:

*Localisation should have its own separate course.*

These comments align with the survey results that show only 38% (n=6) of the programmes teach subtitling as compulsory, and half of the programmes do not teach localisation at all (see Table 6.10). This confirms that multimedia training is underdeveloped in most BA curricula, despite growing industry requirements driven by digital and audiovisual content.

To conclude this section, the qualitative findings reveal a shared understanding among both participant groups (i.e., programme directors and trainers) of the pressing need to improve BA curricula with practical training in MT, advanced CAT functionalities, GenAI tools, and multimedia translation. The data gleaned from the focus groups stands in close agreement with the survey results analysis, which showed that training coverage is inconsistent, and

competence gaps exist in areas related to translation technology. Evidence-based reform of BA programme curricula is therefore needed to address these problems, enhance graduate preparedness, and align programmes with current and future expectations of both the Saudi and the global translation industry.

## 6.5 Chapter Summary

This chapter has presented the findings of the Academic Study, which investigated how translation technology is taught in Saudi BA programmes. Both types of data were collected: quantitative (through surveys completed by programme directors) and qualitative (through two focus group discussions conducted with programme directors (n=9) and trainers (n=9)). The survey results revealed that while core tools (e.g., TM, TB) are widely included in current curricula, more specialised areas (e.g., TMS, QA, MT post-editing, AVT, and localisation) are either underrepresented or not taught at all. Significant variation was also identified between universities in the public and private sectors, especially regarding lab infrastructure, tool access, and institutional support. The focus group discussions revealed three main challenges to help explain these findings: insufficient infrastructure and staffing, fragile and irregular links between the worlds of academia and industry, and rigid, inflexible curricula unable to respond to the rapid pace of technological change. The design of BA programmes frequently takes place with no translation industry consultation, so the content taught to students and the strategies of teaching are detached from the realities of industry demands. Participants further indicated the existence of bureaucratic obstacles to change, and a lack of flexibility in curriculum structure, and offered clear suggestions for improvement, including introducing multiple technology-related courses, integrating more training in MT post-editing, GenAI tools, and localisation, and fostering more responsive and forward-looking curriculum design. Overall, this chapter has highlighted both the challenges and opportunities facing Saudi BA programmes as they seek to modernise translation technology training in line with industry requirements.

# Chapter 7 Discussion

## 7.1 Introduction

This chapter discusses the key findings of this thesis in relation to the overarching research questions and its three attending research questions, synthesising insights from the stakeholder groups involved in this research (i.e., translators, employers, BA programme directors, and course trainers) to develop translation technology training in BA programmes across Saudi universities so that it aligns with the requirements of the translation industry. The chapter is structured into five sections: following this introduction, Section 7.2 discusses the technology-related competencies and software tools considered important by the translation industry (RQ1). Section 7.3 explores the extent to which current translators meet these requirements, based on their self-assessments and employer evaluations (RQ2), and Section 7.4 evaluates the current state of translation technology training in Saudi BA programmes and its alignment with identified industry requirements (RQ3). Finally, Section 7.5 considers the implications of the findings so far in relation to the three research questions and presents an answer to the overarching research question: practical recommendations for improving translation technology training in Saudi Arabia.

## 7.2 The Technology-related Requirements of the Saudi Translation Industry, from the Perspectives of Translators and Employers (RQ1)

Translation technology is a rapidly evolving field, and emerging tools can become outdated overnight. Therefore, regular studies into the requirements of the translation industry are essential to identify changes and allow BA programmes to incorporate what translators require in modern workflows. In Saudi Arabia, there is a clear research gap in this area, which was acknowledged by the participants in this research, so this thesis aims to fill this gap by seeking feedback from two industry stakeholders (translators and employers) on their perceptions of the technology-related requirements of the Saudi translation industry.

### 7.2.1 Industry Requirements: Technology-related Competencies

This section identifies the technology-related competencies currently required in the Saudi translation industry, drawing on the survey findings from both translators and employers, and on qualitative insights generated through a focus group discussion with translators. The findings point to a consistent set of technology-related competencies that reflect industry expectations for current translators and new graduates entering the translation profession. These competencies have been organised into five main groups: MT, CAT tools, terminology,

multimedia, and DTP, each having been identified as highly required in modern translation workflows. Figure 7.1 (below) summarises these groups, which form the basis for a broader discussion.

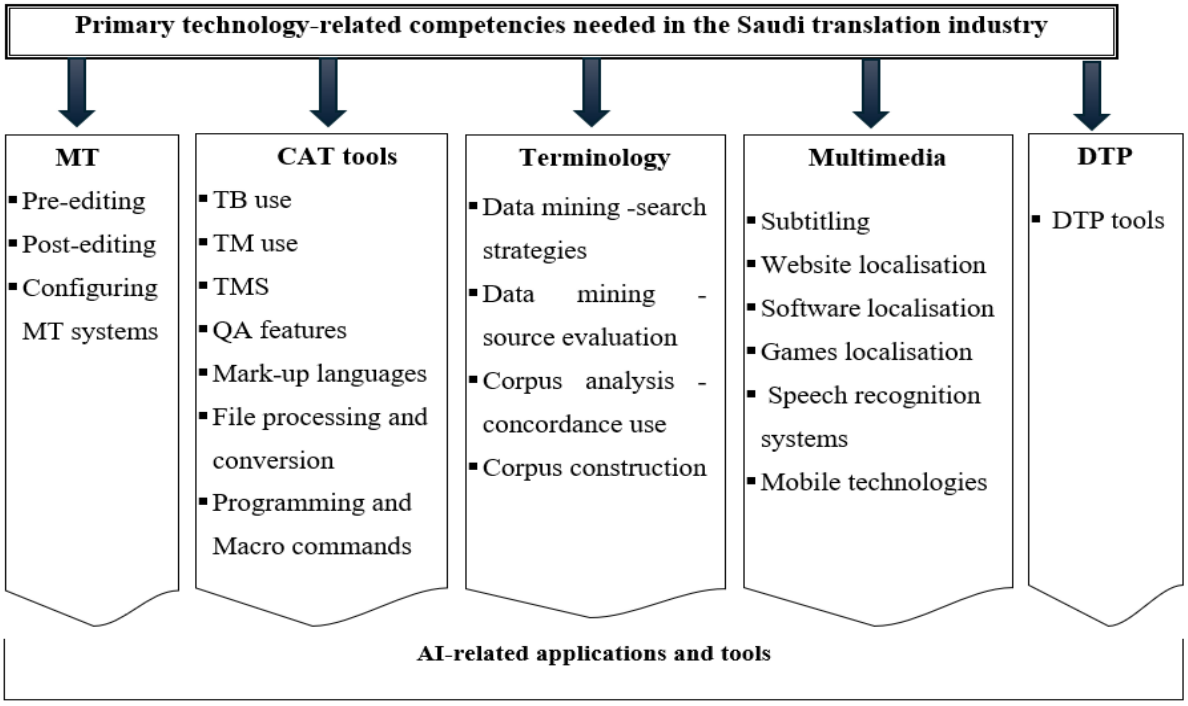



Figure 7.1 Summary of technology-related requirements (competencies)

There was general agreement from both stakeholder groups about the significant need for MT-related competencies in the Saudi translation industry, underscoring the high value of MT and the extent of its integration into modern workflows (i.e., NMT) to meet the growing demand for translation services. This trend is underpinned by the ELIS survey (2024), which shows a significant global growth in MT use. Post-editing was specifically emphasised from the MT-related competencies, rated as essential or important in the workplace by most translators and employers. Current and future translators must, therefore, grow their awareness of and competence with post-editing standards and guidelines set by global specialised institutions (e.g., ISO 18587 for post-editing and TAUS post-editing guidelines), designed to help translators identify and correct ambiguities and errors generated by MT systems. A translator capable of leveraging the strengths and working around the shortcomings of MT in their post-editing produces higher quality work and finds themselves with more time for other tasks. Moreover, the EMT model (2022) recognises MT literacy, including an understanding of MT's capabilities and limitations, as a core component of professional translation competence. However, studies conducted in the Saudi industry suggest a gap in this area. Alshehri and Alowedi (2023) reveal that over half of the translators in their study lacked knowledge about

post-editing standards, despite a high level of interest in taking on post-editing roles. This indicates that more comprehensive MT training is essential in BA programmes to enhance graduate readiness for evolving industry roles and workflows.

Current BA training remains limited despite the growing importance of MT. The Translator Survey found that almost half of the translators (45%, n=112) had no MT training during their BA studies (see Figure 4.1). The curricula of half of the surveyed programmes (50%, n=8) were found not to incorporate industry standards (e.g., ISO 18587 or ISO 17100), while 44% (n=7) were neutral on this issue (see Figure 6.12). This shows a significant mismatch between the expectations of the translation industry and the priorities of Saudi BA curricula. Programme development, which exposes students to MT tools, post-editing practices, industry standards, and relevant certification pathways, is therefore necessary to bring BA training into alignment with the technology-related requirements of the translation industry.

The current findings highlight the significant role of CAT-related competencies in the Saudi translation industry, as perceived by both translators and employers. Key competencies identified include the use of TB, TM, QA features, TMS, markup languages, file processing and format conversion, and programming and macro commands. These are indispensable for managing the complex and specialised texts, such as media, medical, technical, financial and legal translations, which dominate the Saudi translation industry (Alenezi, 2015; Al-Batineh & Bilali, 2017). Such texts require high levels of terminological consistency and precision, which CAT tools, specifically TM and TB, are designed to support. Recent studies have also shown that CAT developments have extended their benefits beyond traditional domains. For example, Youdale and Rothwell (2022) and Vieira et al., (2023) note the expanding use of CAT tools in the more creative field of literary translation. The great emphasis placed on TM and TB in the current research resonates with Zaretskaya's (2017) observation that TM tools have evolved to include advanced features such as glossary integration, concordance search, and project management functionalities, making them more versatile in diverse translation contexts.

The current findings indicate limited integration of CAT tools in BA programmes, despite their growing importance, however, as 57% (n=141) of the translators surveyed underwent no CAT training during their BA studies (see Figure 4.1). Students familiar with a wide range of CAT tools can go on to develop further technological competence and become more adaptable to evolving industry requirements and the role of the translator, increasing their employability, so

there is an urgent need for BA curricula to incorporate comprehensive CAT training in accordance with industry requirements.

A similar trend was revealed in the importance of terminology-related competencies in modern translation workflows. Terminology work can account for up to 75% of a translator's time, making it a critical component of professional practice (Dunne, 2012, cited in Fernández-Parra, 2020). This requires translators to develop not only the ability to identify relevant information but also to ensure that this information is reliable (i.e., research competence). Mackenzie (2004, pp. 34-35) describes this as the ability to know "where to look for information, whom to consult, and how to classify and systemise information sources". Terminology-related competencies have also been recognised in both the former and current versions of the EMT model. The 2009 version (Wheel of Competence, see Figure 2.6) explicitly included information mining as a sub-competence, with descriptors such as extracting relevant information, evaluating sources, and using tools like terminology software, electronic corpora, and specialised dictionaries. In the latest EMT version (2022, p. 9), data mining is integrated under technological competence, which also requires "data literacy" and the ability to assess and work effectively with language data.

Corpora are a useful source for translators to produce more accurate translations and represent a highly valued element of translators' work. The advantages of utilising corpora for concordance searches, frequency analysis, and ensuring stylistic and terminological consistency have been determined in previous research (e.g., Mikhailov, 2022), and translators can access authentic language data and even build corpora with often freely available tools such as Sketch Engine and AntConc (Cerutti, 2017). However, many translators remain unaware of these tools and their practical benefits, as demonstrated by Zaretskaya (2017), who attributed this issue to limited IT skills, low technological competence, and insufficient academic training. To address this gap, BA programmes should place greater emphasis on terminology work, especially in the areas of data mining and corpora. Integrating these two areas into academic curricula would help future translators develop the competencies required in the translation industry.

The translators and employers further agreed on the importance of multimedia-related competencies (subtitling, website localisation, software localisation, video game localisation, speech recognition systems, and mobile technologies). The ongoing transformation of Saudi Arabia's national strategies and industry landscape has led to a growing demand for translation

services in this area, as the expansion of the cultural, entertainment, and cinema sectors is part of Vision 2030. Recent studies by Alzamil (2024) and Al-Batineh and Al Tenaijy (2024) found a notable increase in demand for AVT and localisation services in Saudi Arabia and the MENA region more generally, but despite this trend, the current research shows that only a few BA programmes offer dedicated courses in AVT, and none offer standalone training in localisation (see Table 6.6; further discussion is provided in Section 7.4). As multimedia-related competencies continue to gain relevance in the local, regional, and global translation industry, Saudi BA programmes should take serious steps to integrate AVT and localisation training as compulsory components within their curricula and teaching practices.

The inclusion of DTP in modern workflows was considered important by both translators and employers in this research. This aligns with the assertion by Aula Int (2005, p. 137), that "small- and medium-sized agencies […] prefer to have a team of versatile translators". DTP tools can ensure that translated content meets visual and formatting standards as well as linguistic and technical expectations, so they are increasingly employed alongside translation technologies. High-demand arenas, such as advertising, technical manuals, and multimedia projects, specifically require this functionality, as translators need to manage text layout, insert complex symbols or equations, and adapt to regional conventions, including date formats and standardised abbreviations. Competence is therefore needed in specialised software such as Adobe Photoshop, FrameMaker, and PageMaker, as these preserve the original text's content, format and layout. This renders DTP training essential for BA programmes to prepare students for real-world translation contexts and meet the expectations of future employers.

The survey data collection for this research took place in 2021, so although the discussion focuses on five primary competence groups (illustrated in Figure 7.1, above), the findings must be set within the context of the rapid technological shifts that have occurred since then. In the translation workplace of 2021, GenAI tools had not yet attained a prominent position, but a growing awareness of the need to integrate AI into the teaching content of BA programmes was clear from the focus group discussions, as it was around this time that tools such as ChatGPT and Bard were gaining significant interest. The ELIS survey (2024) observed this as a global trend, and the impact of AI on translation practice has been highlighted in other recent research (Khasawneh & Al-Amrat, 2023; Siu, 2023). GenAI tools have significantly transformed how translation tasks are performed, not by replacing human translators, but by reshaping their roles as collaborators in AI-integrated environments (Eloundou et al., 2023; Lee, 2024). The current findings, as well as those of previous studies that highlight the limited integration of AI in Saudi

universities (Alammari, 2024; Alkhatnai, 2024), show that despite this global progress, AI remains underrepresented in most BA programmes in which students are still exposed to outdated MT models and CAT tools with restricted features (using free versions). Alammari (2024) found that most faculty members are still in the early stages of AI adoption, with the majority at the understanding or familiarity stage, suggesting that while there is a growing recognition of the potential of AI, its inclusion in BA programmes remains limited. The participants in the current thesis overwhelmingly agreed that this gap needs to be addressed, which can be done through curriculum development that gives graduates the opportunity not only to develop technological competence but also gain a critical understanding of the potential, limitations, and ethical implications presented by AI, as suggested by Moorkens and Guerberof-Arenas (2024).

The findings relating to this section make it possible to conclude that the curricula of Saudi BA programmes should urgently integrate the technology-related competencies shown in Figure 7.1 in order to become more industry-oriented. While full integration across all areas may not be immediately feasible due to the observed (and not yet observed) challenges (e.g., stuffing, funding, and resource constraints), gradual and prioritised implementation of the most essential competencies would still represent meaningful progress towards aligning BA curricula with industry requirements (more details in Section 7.5, below). Current and future translators are expected to demonstrate high level of technological competence to remain competitive in a profession where technological advancement is shaping its future.

### 7.2.2 Industry Requirements: Most-Used MT & CAT Tools

The findings presented in the previous section confirmed that MT and CAT tools are at the forefront of modern translation workflows in Saudi Arabia. Building on this, this section discusses the most frequently used MT and CAT tools, as reported by translators and employers, to offer insight into the specific software products prioritised in the translation industry. A consensus is revealed among industry stakeholders on the dominant role of Google Translate and Microsoft Translator in the MT category (Figure 7.2, below). Regarding the CAT category, both industry groups agreed on the prevalent use of eight CAT products (Trados Studio, memoQ, SmartCAT, Phrase, Wordfast Classic, Wordfast Anywhere, Déjà Vu and Matecat). The importance of these tools and explanations for their adoption and preference comprise the following discussion, which draws on relevant literature and presents the implications for academic training and professional practice in Saudi Arabia.

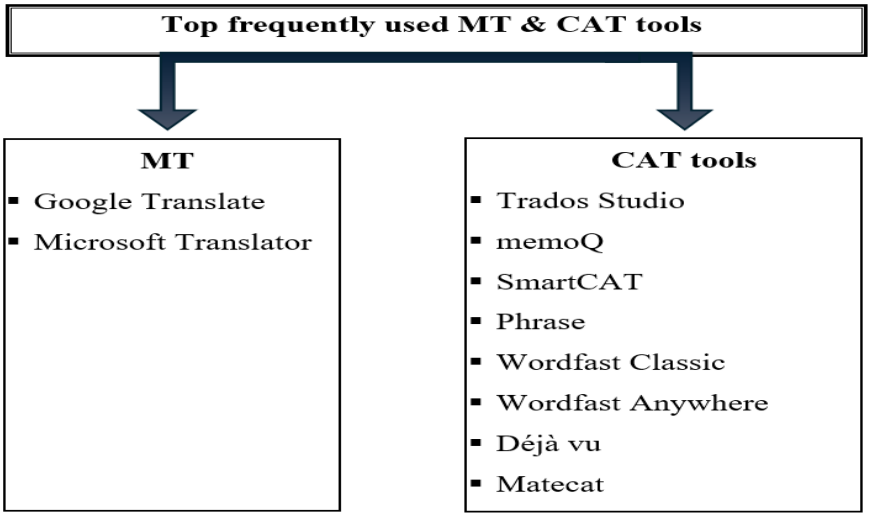



Figure 7.2 Most-used MT and CAT tools

The MT category is dominated by Google Translate and Microsoft Translator. This is very likely a result of the fact that they are free, user-friendly, and highly accessible while delivering a satisfactory level of performance. The cost-efficiency of a free system is essentially at a maximum, and these tools are in widespread use by both laypeople and professional translators. Their extensive language coverage (243 languages[20] for Google Translate and 144 for Microsoft Translator[21]) and their integration with many CAT tools via APIs (Ben Milad, 2021) further support their widespread use. Almahasees (2018, 2020, 2021, 2023) conducted a series of comparative studies to evaluate the performance of several MT systems, including Google Translate, Microsoft Translator, Reverso, and Sakhr[22], in the English <>Arabic language pair across multiple domains. These studies consistently found that Google Translate outperformed its counterparts in fluency, adequacy, intelligibility, and fidelity (Almahasees, 2021, 2023). While Microsoft Translator showed weaker results overall, it demonstrated reasonable accuracy for short, general texts (Almahasees, 2018), a point supported by Ben Milad (2021, p. 226), who noted that "translation of short sentences [in Arabic-English pair] is likely to be better using MT systems than using TM systems, since TM retrieval is processed in a very strict similarity measurement which results in low matching".

In the realm of professional translation, however, the products of both MT systems require careful post-editing. Ben Milad (2021) and Almahasees (2023) noted recurring syntax, collocation, and cultural appropriateness problems, which necessitate human intervention to refine MT outputs and conduct QA checks. This makes it critical for current and future

[20] https://blog.google/products/translate/google-translate-new-languages-2024/ (last accessed December 2024)
[21] Announcing four new languages: Konkani, Maithili, Sindhi and Sinhala - Microsoft Translator Blog (las accessed December 2024)
[22] Arabic MT system

translators to sufficiently grasp the strengths and weaknesses of MT systems, both free and commercial, to make informed decisions in their choice and use of the most appropriate MT system for their work.

None of the translators and employers in this research reported using custom MT systems hosted on local servers, which is notable given the high demand for specialised translation services in areas such as medical, legal, technical, and multimedia domains in the Saudi industry (Alenezi, 2015). However, the accessibility offered by free, generic MT systems like Google Translate and Microsoft Translator is offset by their lack of domain-specific precision (Almahasees, 2017, 2018) and concerns about data confidentiality and reduced translation quality are inherent to a translator's overreliance on generic systems that are not optimised for specialised content. This is why many custom MT engines have been developed and are used by global institutions (e.g., eTranslation[23] by the EC): these both mitigate concerns, to some extent, about data security and ethical use and improve the quality of translations (Rossi & Carré, 2022). The Saudi translation industry has no such system, representing a missed opportunity in leveraging custom MT systems. Until such a system is developed, Saudi translators must be trained on the legal, ethical, and technical implications of both public and private MT systems in different contexts. BA programmes should take the lead by embedding MT training into their curricula, including practical exposure to multiple MT systems, training on evaluating their strengths and limitations, and managing post-editing workflows.

The positioning of eight CAT tools, shown in Figure 7.2 (above), as essential in the Saudi translation industry emerged from the responses of translators and employers in this research, with general agreement on the frequent use of these tools. This level of consensus reflects the importance of CAT tools in ensuring and maintaining consistency, productivity, and translation quality across different tasks and projects. The eight include both paid and open-source products, with their adoption influenced by cost and accessibility, as well as usability and the availability of support and updates, while all share core functionalities (e.g., TM, TB, QA) (Alotaibi, 2020). Trados Studio and memoQ were ranked highest, echoing global trends documented in the ELIS survey (2024) and Alanezi's (2019) finding that these are the most popular CAT tools among Arab translators. For English-Arabic translations, Trados has been found to ably manage the linguistic complexity of Arabic, outperforming competitors like MultiTrans (Moujaes, 2016). Also widely used among Saudi translators and LSPs are the open-

[23] eTranslation (last accessed July 2025)

source tools SmartCAT and Matecat, which offer comprehensive CAT functionalities for free, making them highly cost-effective and accessible although some advanced features require a paid subscription.

The adoption of CAT tools is often determined by their perceived usability, or ease of use, and acceptance is strongly influenced by this for both students and professionals (Alotaibi, 2020). Phrase and SmartCAT demonstrate a high level of adoption in this research, as these are both cloud-based and user-friendly. Tools with these characteristics were found by Alkhatnai (2021) to be in increasing demand in a post-pandemic world where remote workflows have become the norm, and this applies to the Saudi translation industry.

The findings, presented in this section, highlight important implications for both the translation industry and BA programmes in Saudi Arabia. Adaptability and competence with a range of CAT products (both paid and open source) are necessary skills for translators due to the variation in scope, client requirements, and technical specifications of diverse translation projects. The translators interviewed in this research reported that employers and clients frequently expect them to demonstrate competence with specific technologies or request the use of particular tools (Section 4.5.2), so the more tools a translator is able to use, the more likely they are to meet industry requirements, handle a variety of tasks, and remain competitive in a rapidly evolving professional environment. Employers are required to select the tools most appropriate for the kinds of projects or tasks their workplace most often handles, as this equips their translators to produce high-quality translations and improves workflow efficiency. Further, BA programme designers make more informed decisions about what to include in their curricula to expose their students to the tools they are most likely to need in their future careers if they possess knowledge of the most popular tools in the industry. Open-source tools may be used as an accessible entry point for students, while exposure to paid tools like Trados Studio and memoQ can ensure graduates are industry-ready.

RQ1 has been successfully addressed in this section through the identification and discussion of the technology-related competencies and software tools employed in the translation industry. The discussion naturally builds on these findings by discussing translators' competence in these areas (RQ2), evaluating the extent of alignment between the technology-related content of BA programmes and the identified industry requirements (RQ3), and proposing improvements (overarching RQ).

## 7.3 Translators' Current Perceived Technological Competence, from the Perspectives of Translators and Employers (RQ2)

This section addresses RQ2 of this thesis by discussing how well current translators meet the translation industry's technology-related requirements (competencies and tools) identified in RQ1. It synthesises findings from the Translator and Employer Surveys, focusing on the assessments of translators' technological competence. Translators assessed themselves in 13 technology-related competencies (adapted from Toudic, 2012), while employers assessed their translators' competence in the top 12 technology-related activities identified as important by the translators in their daily work (adapted from Rothwell & Svoboda, 2019). Although the two lists are not identical, they cover overlapping and complementary areas of translation technology, reflecting competencies considered relevant to professional translation workflows in Saudi Arabia and beyond (see Section 4.5.1 and Section 5.3.1). Together, the two sets of competence assessments (provided by translators and employers) offer a comprehensive and representative picture of the current technological competence of Saudi translators in the industry. Howell's (1982) model of competence development (Section 3.3.3) is used as a lens to discuss these findings and understand how translators progress through different stages of awareness and competence. This model's four stages (unconscious incompetence, conscious incompetence, conscious competence, and unconscious competence) help explain whether translators lack competence, are aware of their need for further development, demonstrate some competence but through conscious effort and focus, or perform their tasks confidently and unconsciously.

### 7.3.1 Translators' Level of Ability in the Technology-related Competencies

The level of readiness of Saudi translators to meet the requirements of the translation industry, as well as their competence strengths and the areas for future improvement, emerge from the findings of this thesis. In their self-assessment, translators placed themselves at the unconscious competence stage of Howell's model for MT pre-editing and post-editing, with mean scores of 4.21 and 4.29, respectively. This indicates that they feel confident performing these tasks without conscious effort. Employers, however, rated their translators in post-editing slightly lower with a mean score of 4.00, corresponding to advanced conscious competence. This means that employers generally consider their translators competent, but only when they apply focus and deliberate attention to post-editing MT outputs. This discrepancy can be linked to employers' higher expectations in post-editing quality. Employers may view their translators as less fully competent than they view themselves due to the limited integration of post-editing

guidelines and industry standards (e.g., ISO 18587) into BA curricula, so translators may lack sufficient knowledge (discussed in Section 7.2.1). Translators rated themselves slightly lower for configuring MT systems, at the early stage of conscious competence, with a mean score of 3.30. They, therefore, recognise that their competence is still developing and more training and direct guidance are needed, even though they feel able to carry out some tasks in this area. Insights from the quasi-longitudinal comparison with Alshaikhi's (2018) study highlight development over time (see Section 4.6.2.2). In that earlier study, the mean score for configuring MT systems was at 2.97, which falls within the conscious incompetence stage. The increase observed in the current research indicates both growing awareness and gradual development of competence in this area.

The competence of Saudi translators meets industry expectations in common MT tasks like pre-editing and post-editing, but their ability to interact with MT configuration remains limited. This gap may help explain why none of the translators reported using custom MT systems (private MT engines), despite the potential benefits offered by these systems, including tailoring translation engines to specific domains or client requirements, producing higher-quality, more consistent output and reducing the amount of post-editing required. Translators unable to configure such systems cannot take advantage of the advanced features available in modern MT workflows, so BA programmes should integrate this into their curricula and provide their students with practical exposure to MT systems.

The findings also reveal agreement between the competence assessments given by translators and employers on core CAT functionalities, particularly in relation to TB and TM. Translators rated themselves at a mean score of 4.11 for TB and 3.55 for TM, while employers provided comparable evaluations of 3.82 for TB and 3.79 for TM. These ratings place translators within the advanced conscious competence stage, suggesting that they are capable of handling tasks related to TB and TM but require some level of conscious effort to complete them effectively. The closeness of these ratings indicates shared expectations and professional standards in the use of core CAT tools. These findings reflect the increasingly central role of CAT tools in today's translation industry: as reliance on TM and TB continues to grow, the current findings suggest that Saudi translators are gradually meeting these industry expectations.

Translators rated themselves highly for file processing and format conversion, with a mean score of 4.33. This places them in the highest competence stage of Howell's model, 'unconscious competence', suggesting that translators perceive these tasks as routine and

intuitively executed with minimal effort. Compared to Alshaikhi's (2018) study, where this competence was rated much lower at 3.06 (early conscious competence), this reflects notable progress over time. One possible explanation for this progress is that translators now deal with many tasks that involve converting and preparing files for translation, which has likely helped them become more comfortable with basic file-handling processes. As O'Brien (2023) and Lommel & DePalma (2021) argue, modern translation is characterised by "augmented translation" environments, where translators work with multiple tools and often manage diverse file formats, markup, and embedded content. For example, tools such as Trados 2021 support over 40 file types, and some of them require specialised knowledge in configuration, compatibility handling, and pre-/post-processing skills. However, this high self-assessment should be considered carefully: while translators feel confident in basic file processing, they may not be fully prepared for more complex formats, indicating the potential for competence overestimation in this area. This interpretation is further supported by translators' lower self-ratings in the use of markup languages (3.39) and programming and macro-commands (2.79), both of which fall within the early conscious competence stage. These items were not assessed by employers or included in Alshaikhi's study, so direct comparison is not possible; however, it is clear from the current findings that translators feel less confident in advanced CAT functionalities. The gap between their high confidence in TB, TM, and file processing and their lower confidence in other areas suggests that their competence in CAT tools is uneven. This is also reflected in the employer assessments. Employers rated QA features of CAT tools at 3.43 and TMS at 3.30, which are also in the early stage of conscious competence, so they perceive similar weaknesses in translators' ability to handle more advanced CAT tasks.

The ratings of Saudi translators in the core areas of CAT tools reveal a level of general competence, particularly in TM and TB, for which it aligns with employer expectations. In the use of advanced CAT features, however, competence requires further development, which can be done through the integration of comprehensive CAT training into BA programmes. Graduates of such programmes will be industry-ready and able to work confidently with CAT tools, handle a range of file types, and perform advanced tasks such as using markup languages and managing QA and TMS systems. This would represent a crucial step in closing the current gaps in competence and preparing Saudi students for the translation workflows they will encounter in their professional lives.

Only employers provided assessments for terminology-related competencies. They considered translators fairly competent in data mining, with mean scores of 3.79 for search strategies and

3.91 for evaluation of sources. Both scores fall within the advanced conscious competence stage, meaning that translators are generally able to locate and assess information effectively, though they may still need to work deliberately to ensure quality and accuracy. However, lower ratings were given for corpora-related competencies, with corpus construction at 3.46 and corpus analysis using concordancers at 3.27, placing translators at the early stage of conscious competence and the conscious incompetence stage, respectively. This suggests that translators are still developing the required competence to build and manage corpora confidently for professional use. This limited competence can be explained by the fact that working with corpora often requires more specialised training than general data mining strategies. Mikhailov (2022, p. 225) supports this by noting that "a corpus is a much more complicated resource than a search engine or an online dictionary and is difficult to master without special training".

It appears that Saudi translators are competent in information retrieval and the evaluation of data resources, and can perform these tasks with confidence, albeit with some conscious effort. However, they still lack confidence and ability in handling corpora and appear aware of this gap. These findings are especially important when considering the types of texts that are frequently translated in the Saudi translation industry. According to Alenezi (2015) and AlBatinah and Bilali (2017), media, medical, legal, financial, and technical texts are among the most in-demand specialisations, all of which require a high degree of terminological precision and consistency. This further highlights the need to develop current translators' competence in both data mining and the use of corpora to support them in producing successful translations that align with industry expectations. BA programmes should incorporate these two critical areas into their current curricula to equip students with the competencies needed in their future careers.

The findings reveal divergence in multimedia-related competencies. In localisation, both translators and employers provided ratings that indicate a moderate level of competence, but with some differences in perception. Translators rated themselves 3.39 in website localisation and 3.22 in software and game localisation, both of which fall within the early stage of conscious competence. This suggests that while they are able to perform these tasks, they recognise their limitations in localisation and need focus and sometimes external support. Employers, however, gave a slightly higher rating for website localisation (3.63), placing translators in the advanced stage of conscious competence. This reverses the trend observed so far, whereby translators perceive themselves as more competent than their employers do, as in this case, employers rated their translators as more capable with localisation than the translators

rated themselves. The reason for this is likely to be that translators are more aware of the complexity of localisation tasks, which frequently require technical and cultural adaptation as well as translation skills. Jiménez-Crespo (2024) pointed out that localisation involves modifying layouts, interfaces, and even the logic of content to fulfil the expectations of a specific audience in the target culture and language. This may explain why translators are more cautious in rating their own abilities, especially if they did not receive sufficient training in this area during BA studies (see Section 6.3.3).

In subtitling, only employers provided the competence assessment, with a mean score of 3.52. This places translators in the advanced conscious competence stage, meaning that employers believe translators can handle subtitling tasks with reasonable confidence, though some effort and attention to detail are still required. The lack of translator self-assessment in this area, however, means comparisons with employer expectations cannot be made, but like localisation, subtitling is a demanding task that requires not only accurately translating text, but also synchronising text with audio, managing space and time constraints, and using specialised software (Valdeón, 2022). The relatively high employer rating may also reflect growing demand for subtitling services in the Saudi translation industry, possibly driven by the expansion of the media landscape and the entertainment sector in recent years (see Section 1.2.2). This trend was noted in the ELIS survey (2024), which revealed an increasing global demand for translators skilled in AVT.

Other multimedia-related competencies saw translators rating themselves at 3.98 for mobile technologies and 3.39 for speech recognition systems. The rating for mobile technologies places them in the advanced conscious competence stage, suggesting that translators feel quite confident using mobile tools to support their work, though some conscious focus is still needed. This score also shows notable progress compared to Alshaikhi's (2018) study, where the same item received a much lower score of 3.09, reflecting early conscious competence at that time. This improvement may be linked to the widespread use of mobile apps and devices in daily life and professional work, especially in a context like Saudi Arabia, where digital engagement has grown rapidly (see Section 1.2.1). In contrast, the mean score for speech recognition systems falls within the early stage of conscious competence, indicating that while translators are beginning to develop competence in using these tools, they are aware of the need for more training and must apply deliberate effort to use them effectively.

Saudi translators can be said to show a moderate level of ability in multimedia-related competencies, with particular strengths in mobile technologies and subtitling, where employers view them as confident and capable. However, their competence in localisation and speech recognition systems remains limited, as reflected in lower self-assessments. Given the growing demand for AVT and localisation services in Saudi Arabia, these findings should raise concerns about current BA training. Without efforts to integrate these topics into curricula, translators are likely to struggle to meet the expectations of the translation industry, or may decide to shoulder the burden of developing their technological competence through CPD. However, this can be challenging given the limited employer support for CPD activities (discussed in Section 7.3.3 (below).

Relatively low ratings for competence were applied by both translators and employers in DTP: translators rated themselves with a mean score of 3.07, while employers gave a slightly higher score of 3.26. These fall within the conscious incompetence and early conscious competence stages, suggesting that translators are aware of their limitations and perform DTP tasks with effort, but not yet confidently. While DTP shows as the least developed area, translators are expected to develop at least a basic competence in DTP as modern translation projects, particularly those in the business, legal, and government sectors, increasingly call for fully formatted, print-ready documents. The findings highlight that Saudi translators have limited competence in DTP, and do not yet meet industry expectations in this area. BA programmes, therefore, should consider integrating DTP into their curricula and develop students' competence with it to prepare them for the formatting and layout requirements of real-world translation projects.

It can be concluded that Saudi translators currently demonstrate varying levels of competence, with the majority having reached the advanced conscious competence stage in the core technology-related areas of pre-editing, post-editing, TM use, TB use, file processing and format conversion, mobile technologies, and subtitling. At this stage, translators are generally capable of performing these tasks effectively, although some conscious effort and attention are required. However, their competence appears to be more limited in advanced areas such as MT configuration, markup languages, TMS, QA features, corpora, speech recognition systems, localisation, and DTP, for which translators are positioned between the conscious incompetence stage and the early stage of conscious competence, meaning that they are still developing the necessary competence and are aware of their current limitations. They have likely not yet developed the confidence or independence needed to handle such tasks effectively in their

work. This conclusion agrees with Salamah's (2022, p. 10) findings, in which Saudi employers thought that "translation graduates need more training on job-market skills because they believed that there is a gap between the training students receive at undergraduate university programmes and the job market". While Salamah (2022, p. 11) reported that translators wished that "they had received more training on translation technology use", her study did not specify which technology-related competencies required improvement. The current findings complement and expand on previous studies by identifying the specific areas in which BA curricula fall short. This helps address the academia-industry gap and ensures that BA programmes supply the translation industry with technologically competent translators.

The next section (7.3.2) further contributes to answering RQ2 by discussing the findings related to translators' competence in using the most commonly used MT and CAT tools, based on both self-assessments and employer evaluations.

### 7.3.2 Translators' Level of Ability in Most-used MT and CAT Tools

This section discusses the findings derived from two comparative analyses conducted to evaluate translators' competence in using MT and CAT tools identified as frequently used in the Saudi translation industry. The first comparison examines translators' self-assessments alongside employer evaluations (Section 5.4.1.1), while the second compares competence ratings between translator-training graduates and language-related graduates (Section 4.6.1.3). The findings offer an in-depth understanding of the current level of competence in MT and CAT tools among Saudi translators.

Translators rated themselves at the highest level in Google Translate (unconscious competence) and at a lower level in Microsoft Translator (the early stage of conscious competence), with minimal differences between the two graduate groups. However, employers rated translators slightly lower in both MT tools, placing them in the conscious incompetence stage for Microsoft Translator and the advanced conscious competence for Google Translate (see Table 5.2). This discrepancy suggests that while competence is present, employers believe translators still require conscious effort and pay close attention to quality and accuracy when using MT tools. This supports earlier discussions about translators' limited preparedness in MT and the insufficient integration of this area into BA programmes. Interestingly, the high confidence reported by translators contrasts with the findings of Moorkens and O'Brien (2017, p.2), who observed that "few professional translators have received training either in machine translation technology or in post-editing practices to date, [and] the result is often apprehension among

translators with regard to the post-editing task, along with a high level of frustration". While their study showed that lack of training led to frustration, the findings of this thesis reveal that translators, despite similar gaps in academic training, felt highly confident in using MT tools. However, due to their frequent use of and familiarity with these tools, translators may overestimate their competence, as familiarity does not necessarily translate into the level required for professional standards.

There is also a widespread misconception that the use of freely available, popular tools like Google Translate does not require any special level of training or competence, but studies have highlighted limitations in these systems, showing that in the Arabic-English pair, they can produce translations of unsatisfactory quality for professional use (Ben Milad, 2021; Almahasees, 2023). Therefore, Saudi translators can be said to be consciously competent in using these MT tools but must still apply deliberate effort and need further development. The findings highlight that Saudi BA programmes should take serious steps to integrate more comprehensive training in developing, adapting, and managing MT tools to prepare students for professional translation.

The findings also demonstrate that translators overestimate their competence with CAT tools, consistently rating themselves at an average level for the most commonly used tools (Trados Studio, memoQ, SmartCAT, and Phrase). For these, they mostly placed themselves at the early stage of conscious competence in Howell's model, meaning that they are still developing the required competence and need conscious effort and focus. However, employers rated their translators' competence in these tools even lower, placing them in the conscious incompetence stage. For the other tools (Wordfast products, Déjà Vu, and Matecat), both translators and employers generally agreed on the conscious incompetence stage, suggesting that translators are aware of their limitations and are likely to struggle to work with these tools without direct guidance from peers or employers. Saudi translators appear to recognise existing competence gaps and are not yet able to perform CAT-related tasks fully independently or to the standard expected in professional environments. This helps confirm the conclusion made in Section 7.2.2 that translators can manage basic CAT features, but employers expect them to master more advanced features to work more efficiently. Since many CAT tools share similar functions and interfaces, translators might think they can easily switch between them, which may be why they slightly overestimate their competence in some tools, but, as discussed earlier, these tools are not fully compatible, and professional work often requires deeper competence and critical thinking to work with and handle the advanced features of different tools. Translators need to

learn not only how to use certain tools but also cultivate the critical skills to determine when and how best to employ them and in which contexts (Bowker, 2015, p. 95).

Translators who can confidently use a wide variety of translation tools are more desirable to employers, particularly considering the lack of compatibility between CAT tools, as they can be more effective in diverse projects and with a range of client requirements. Mastery of different tools equips translators to participate in collaborative projects and join broader networks, which "makes a lot of business sense for professional translators" (Penet, 2023, p. 46). Penet discusses the networked environment and translators as "networked lone fighters", where translators should stay connected to larger networks through shared technologies, resources, and teamwork. This means that translators are expected to develop their technological competence and adapt to various tools and workflows, thereby increasing their ability to manage complex tasks, meet employer expectations, and collaborate effectively in various projects. These findings suggest that Saudi BA programmes should expose students to various CAT tools and include networked training through STBs or teamwork projects to develop students' ability to collaborate, share resources, and utilise basic and advanced CAT functions before entering the translation industry.

To address RQ2, the technological competence of Saudi translators in this research is mostly placed in the early to advanced conscious competence stages in Howell's model. While they demonstrate some ability to use technology in their work, deliberate focus and effort are still needed, especially when handling advanced tasks, using unfamiliar tools or working under pressure. The unconscious competence stage, where competence becomes automatic and fully independent, has not yet been reached, so it is difficult to claim that their current competence is sufficient to produce high-quality translations, especially under tight deadlines and work pressure. This resonates with Alshaikhi's (2018, p. 198) observation that, in the Saudi translation industry, "most of the customers' and employers' complaints in terms of translation quality were due to the misuse of technology in translation". Poor handling of technology can lead to errors and lower the overall quality of translations. Doherty (2016, p.962) explains this challenge further:

> *[…] the lines between human and machine are continually blurred and professional translators become more reliant and embedded into the translation process that they had hitherto controlled. […] With informed and effective use of TMs and MT, many of the known issues and shortcomings of these technologies can be overcome, especially in terms of translation quality, to somewhat mitigate the downward trend in pricing for translation services in line with tighter budgets and deadlines.*

This means that translators risk lowering the quality of their work without the effective use of translation technology. This is particularly critical in competitive translation markets where quality assurance is paramount, reinforcing the role of technological competence in shaping both output quality and translators' remuneration. Previous studies reported that "the ability to produce 100% quality" is among the top competencies employers look for when hiring new translators in Europe (Toudic, 2012) and Saudi Arabia (Alshaikhi, 2018). The price of translation services and employability are directly tied to quality in the sense that if translators do not demonstrate sufficient technological competence, their work quality is likely to decline. They may, consequently, see lower pay or difficulty in finding a job because their translations do not meet industry expectations. Increasing perceptions among clients that the job of a translator is largely to edit the output of an automated process means translators now risk devaluing their own work for the productivity gains made possible by technology, posing a troubling dilemma for future translators (Lambert, 2023, p. 154). Therefore, technological competence and understanding the nuances of the increasing use of technology are important not only for quality but also for protecting fair pricing and professional respect in the translation industry.

The question must be asked of how these translators developed their current level of competence (i.e., early to advanced conscious competence), given that most reported receiving minimal translation technology training during their BA studies (see Figure 4.1). The findings from the comparative analysis between translator-training graduates and language-related graduates indicate that both groups demonstrate similar levels of technological competence, with minimal differences. CPD emerged from the findings of this thesis as the key driver for the development of technological competence of Saudi translators, with the majority actively seeking out CPD opportunities to bridge the gaps left by their BA training (see Section 4.7). The following section complements the discussion of technological competence in RQ2 by offering a perspective on how CPD is implemented and supported in the Saudi translation industry.

### 7.3.3 The Role of CPD in Technological Competence Development

This thesis reveals important findings regarding the role of CPD in developing translators' technological competence. A high level of awareness was assessed among the translators who participated in this research regarding the value of CPD in improving competence and professional development in general. 80% of ELIS survey (2024) participants considered CPD important or very important, showing a global trend toward a commitment to professional

development. However, while this level of awareness is encouraging, a difference was observed in this thesis between novice and experienced translators regarding CPD planning. Experienced translators are more proactive in planning their CPD, whereas novice translators often lack clear plans. This gap may make it challenging for novices to progress in their careers and effectively develop their competencies. The lack of early-career support for translators in Saudi Arabia is compounded by the fact that "no official orientation takes place at the beginning of a translator's employment period" (AlShaye & BinSultan, 2024, p. 41). Translators, especially novices, lacking CPD planning, are likely to encounter considerable financial barriers that limit their access to relevant CPD opportunities. Gonzalez (2019) noted that translators often miss out on essential training due to the costs of CPD, which are a barrier to entry. Proactive planning and consistent employer support are necessary for translators to obtain benefits from engaging in CPD: awareness of the benefits alone is not enough.

CPD support from employers in Saudi Arabia has been found in this research to be limited and inconsistent, with translators being left to their own devices in developing their competencies and staying up to date with emerging industry trends. This may be attributed to the fact that many employers are not yet aware of their translators' training needs. Qualitative insights from translators supported this, showing that employers are not sufficiently attuned to the professional training needs of translators. This supports Alowedi's (2015) observation that employers' failure to establish clear goals and support CPD for their translators contributes to stagnation in translators' career progression. The reality is that Saudi translators often navigate their CPD with minimal employer support as seeking out, financing, and participating in CPD largely falls on their shoulders. Lambert and Walker (2024, p. 94) warn that, with the growing list of responsibilities held by translators and the need to compete in a highly digitalised environment, the added need to pursue CPD without support might cause the translator to neglect their own personal health and wellbeing, losing sleep or failing to care for other basic needs. This challenge is exacerbated by the lack of affiliation among Saudi translators with professional translation associations: 88% (n=218) reported holding no membership in any national or international professional association (see Table 4.2). This impacts individual career development in the long-term and affects the overall coherence of the translation industry. As Alkhatnai (2022) notes, a lack of CPD opportunities is one of the major challenges that hinders the provision of competent translation services and affects the development of the translation industry in Saudi Arabia.

Compared to many international institutions (e.g., UN, DGT in Europe, and CFLPA in China) discussed in the Literature Review Chapter (see Section 2.4), the current CPD landscape in Saudi Arabia appears to lack employer support for both internal and external opportunities. This contrasts with the call from FIT[24] for translators to engage in CPD to stay competitive and enhance their professional status (FIT Position Paper on CPD, 2022). Saudi employers currently fail to provide consistent CPD support for their translators, and any support that may be available has not yet achieved official recognition across various work sectors (government, semi-government, private, and LSP). This finding echoes Atkins' (1999, p.274) warning that employers should not expect graduates to "hit the floor running" and be ready for their professional roles without the provision of adequate CPD support. There is, therefore, an urgent need for industry stakeholders to reevaluate current CPD policies, if any, to ensure more accessible CPD activities for translators to help them develop the essential competencies required in the workplace.

The current thesis contributes to the literature with a comprehensive exploration of the CPD landscape in Saudi Arabia, highlighting the role of CPD in bridging the gap between what is taught in BA programmes and what is expected in the translation industry. This section has discussed the need for improved awareness of CPD among employers, proactive CPD planning among translators (particularly novices), and enhanced employer involvement in CPD support to ensure translators' competencies remain aligned with industry requirements.

## 7.4 The Alignment of Translation Technology Training in Saudi BA Programmes with Industry Requirements (RQ3)

Exploration of where professional translators in Saudi Arabia receive their preparation and how translation technology training is provided in this context is essential to address RQ3. Two types of BA pathways supply the Saudi translation industry: translator training programmes and language-related programmes. This aligns with the educational backgrounds of most translators currently working in the industry (see Table 4.3). Although both pathways lead graduates into the same translation industry, they differ greatly in their educational focus, structure, and curriculum content. The findings reveal that most language-related programmes in Saudi Arabia do not equip students with essential competencies in translation technology and specialised translation, both of which are crucial for meeting industry requirements. These programmes mainly focus on English language teaching, linguistics, and literary studies, often

[24] FIT: International Federation of Translators, https://en.fit-ift.org/position-and-discussion-papers/ (last accessed July 2025)

treating translation as an additional skill rather than a profession. This is supported by the differences in course offerings, with wide variation in the number and depth of translation courses across programmes (see Table 6.5). This suggests that language-related programmes still lack a professional orientation in preparing students for real translation jobs. Pym (2009, p. 4) asserted that the structure and objectives of academic programmes influence translator training in terms of "who is trained, what the training consists of, how translation competence is conceptualised, and how the training process relates to professionalisation". In the Saudi context, while translation technology-related courses are integrated into all translator training programmes, these courses remain largely absent in most language-related programmes, with only 3 out of 17 offering them. These findings confirm concerns raised in previous studies about the traditional approaches still dominant in teaching translation in these programmes (Al-Ahdal et al., 2017).

Another gap identified in most language-related programmes beyond translation technology is the lack of training in specialised translation. Programmes commonly offer generalised curricula that fail to account for the requirements of the translation industry despite growing demand for specialised translators in the legal, technical, financial, religious, and tourism sectors. This is especially urgent when considering the accelerating rate of growth of such sectors under Saudi Vision 2030, which is creating a demand for specialised translators unprecedented in Saudi history. The tourism sector, for example, surpassed its target of 100 million visitors seven years early, in 2023, and has since set a new target of 150 million by 2030. Saudi Arabia is becoming a global hub for tourism with publicised mega-projects like NEOM, projecting a need for even more skilled translators in the future. The religious sector is similarly successful, with plans to attract 30 million pilgrims annually by 2030, further increasing the demand for translators specialising in religious and pilgrimage-related communication. The continuing growth of multinational corporations (e.g., Apple, Microsoft, and Amazon) is advancing the goal of attracting foreign investment, which will in turn call for specialised translators in legal, technical, and financial domains. The lack of specialised translation training in current BA programmes raises concerns about whether graduates are adequately prepared for translation roles in this growing industry. Although specialised translation training is not the central focus of this thesis, it remains an area that deserves further research and investigation.

Language-related programmes (presented in Table 6.5) should reconsider how their objectives and current curricula align with the technology-related requirements of the translation industry.

Hao and Pym (2023, p. 171) argue that "graduates' demand for translation skills correlates with what they do after graduation", which is highly relevant here, as many language-related graduates in Saudi Arabia now seek employment in the translation industry, especially under the Saudisation policy. Without translation technology training, these graduates struggle to meet industry expectations and are left to depend on CPD to bridge their competence gaps. In line with this, the findings reveal that language-related graduates engage more actively in CPD than their counterparts from translator training programmes, but CPD support in Saudi Arabia remains inconsistent and underdeveloped (Section 7.3.3), placing the financial and logistical burden on graduates themselves to pursue CPD independently. To address these challenges, there should be a comprehensive revision of these programmes to integrate translation technology training into curricula to better develop students' technological competence before they enter the translation industry. Considering their aim of preparing future translators, these programmes should recognise that "the professional practice and training of translation has moved to a technological paradigm in which virtually all translation activities are computer mediated and this complex activity is conceptualised as human-computer interaction" (Jiménez-Crespo, 2017, p. 181). Beyond improving student employability, the pedagogical benefits of integrating translation technology training in these programmes should also be considered. Previous studies highlight that integrating MT (Yamada, 2015), CAT (Fernández-Parra, 2016), corpora (Zanettin, 2009), and subtitling (Caimi, 2013) into language learning curricula enhances students' command of terminology, cultural awareness, and overall language competence. BA programmes could adopt the recommendations proposed in Section 7.5 of this thesis to integrate translation technology training and better align their curricula with industry requirements, adapting them to their curriculum structure, trainer expertise, and available infrastructure and resources.

The key findings of this thesis on the current state of translation technology training in Saudi Arabia (Section 7.4.1) and the alignment between current BA training and the technology-related requirements of the translation industry (7.4.2) comprise the focus of the following sections.

### 7.4.1 Current State of Translation Technology Training in Saudi Arabia

The EMT network in Europe standardises MA-level translator training programmes and aligns them with industry requirements, but there is no comparable model for BA programmes in Saudi Arabia, resulting in variations in curriculum design, training approaches and priorities, translation technology integration and alignment with the translation industry. The EMT model

can serve as a model for best practice, with its success revealing the need for curriculum standardisation and industry alignment in the Saudi context. For employment in translation in Saudi Arabia, only a BA degree in either translation or a language-related programme is required (Alharbi, 2024), highlighting further the need to prepare all graduates to meet the technology-related requirements of the industry by applying consistency to BA training in translation technology through a Saudi-specific emulation of the EMT model.

This thesis has found that translation technology training in Saudi BA programmes is integrated inconsistently across universities and often confined to a single course. For example, two programmes offer it as an elective, while many others limit its scope and coverage without broader integration into other translation courses. Al-Rumaih (2021) observed similar findings in a study of five BA programmes based in Riyadh (smaller sample), finding trainers reluctant to use translation technologies beyond the standalone course. Despite this limited integration in these programmes, it is difficult to claim that substantial progress has been achieved in this direction over the past decade, as studies by Alotaibi (2014) and Al-Jarf (2017) found that trainers often discourage students from using computers in translation classes due to concerns over accuracy. This issue was also raised by the trainers interviewed in this research, highlighting missed opportunities for students to be exposed to translation technologies in different learning contexts. However, this thesis did not examine how and what sort of technology is embedded in other translation courses where some level of integration has been reported. In Spanish BA programmes, Sánchez-Castany (2022) found that technology-related content integrated into practical translation courses was often generic rather than translation-specific, which may not sufficiently reflect real-world translation workflows, making it worthwhile to further investigate in the Saudi context. Enríquez-Raído (2013, p. 277) asserts that translation technology training should be "relegated neither to a specific course on the subject nor to translation practice courses alone", a perspective echoed by Pym (2013), who advocates for using translation technologies wherever possible in training. International best practice also integrates translation technology training throughout the curriculum to help students develop technological competence progressively (Zhang & Vieira, 2021; Rothwell et al., 2025). Given the wide range of essential technology-related competencies identified in this thesis (see Figure 7.1), a single course cannot provide students with adequate training in translation technology that fully prepares them to meet industry requirements. The integration of translation technology into curricula is, therefore, necessary to reinforce both theoretical and

practical aspects of these technologies and adequately prepare students for modern translation workflows.

The findings show a lack of standardisation in course content, course titles, and the timing of introducing translation technology training across Saudi BA programmes. Most course titles focus narrowly on CAT tools (13 out of 18 mentions, as shown in Table 6.6), while offering limited coverage of other essential technologies, which is not appropriate for the requirements of the translation industry. This narrow focus is explained by the limited (or lack of) contact with the translation industry. Qualitative insights from programme directors indicate that programmes are often established without assessing industry requirements, while others reported minimal communication with industry stakeholders. This produces inconsistencies in curriculum design, with each programme independently determining the areas of translation technology to cover based on internal decisions and the available resources and facilities, rather than industry-driven insights. This has been observed in Turkey, where BA programmes lack a standardised framework to inform them "what is needed in terms of technological competence" (Şahin, 2013, p. 179), leading to variations in course content and titles. As Saudi Arabia continues to develop its translation industry under Vision 2030 through the establishment of LPTC and SATA, collaboration between these entities and BA programmes should be encouraged to establish a clear national framework to define the competencies required from translators to accommodate industry requirements in academic curricula and bring translation technology training into line with the industry.

This thesis expands on Al-Rumaih's (2021) findings by demonstrating that translation technology-related courses are typically introduced late in the curriculum (Year 3 or 4), making it difficult for trainers and students to use translation technologies in other courses and limiting opportunities for developing technological competence. Similarly, in Spain, Sánchez-Castany (2022) found that while BA programmes introduce translation technology at an early stage, many practical translation courses in the later stages do not continue to develop technological competence. This lack of progression may limit students' ability to consolidate their technological competence, and means they are underprepared for the translation industry. Mixed timing is also found in Turkey, with some BA programmes introducing translation technology early in the curriculum, and others introducing it only in the final years, so the graduate experience is uneven (Şahin, 2013). The situation in Saudi Arabia is equally concerning, as insufficient time given to develop technological competence affects graduates' employability and career readiness. To address this, it is suggested that Saudi BA programmes

integrate translation technology in two stages: introducing concepts and basic translation technologies in the early years (Year 1 or 2) and progressing to other technology-related competencies in the later stage (details in Section 7.5.1). Students would then be exposed to translation technologies throughout their studies, allowing them to progressively develop and consolidate their technological competence before entering the industry. Lessons from Spain and Turkey highlight the risks of fragmented or delayed translation technology training, underscoring the need for a more progressive approach in curriculum development and training practices to align BA training with industry requirements.

The findings for teaching strategies highlight the continued dominance of trainer-led teaching of translation technology in Saudi BA programmes, with content primarily delivered through lectures and demonstrations. This mirrors the situation reported in EMT programmes in 2017 (Rothwell & Svoboda, 2019), where trainer-led teaching was also prevalent. However, the recent EMT study reveals a shift in delivery mode from conventional computer labs to individual work and autonomous learning, likely driven by the pandemic, alongside a dramatic expansion in the use of personal devices for translation technology training (Rothwell et al., 2025). While EMT programmes tend to adopt more flexible, student-centred teaching strategies, Saudi BA programmes still rely on traditional, trainer-led delivery modes for teaching translation technology. This could be because lectures and demonstrations introduce students to translation technologies in a clear, step-by-step manner, but this has been criticised for encouraging passive rather than active learning (Vieira et al., 2021). An overreliance on direct instruction does not match the hands-on nature of translation technology, as it limits students' ability to explore, troubleshoot and apply critical thinking and problem-solving to real-world translation tasks. This is particularly concerning given that students in Saudi Arabia are introduced to translation technology late in their BA studies. Although some programmes encourage autonomous learning, the adoption of this strategy to teach translation technology appears inconsistent across programmes, leaving graduates less prepared to engage in lifelong learning and CPD after graduation (see Section 7.3.3 on CPD challenges). This limited uptake can be partly attributed to restricted (or even absent) lab facilities and the lack of off-campus access to tools in most Saudi BA programmes, which makes adopting such strategies difficult and prevents students from using these tools independently. O'Brien and Rodríguez Vázquez (2019, p. 271) advocate for a more balanced strategy when teaching translation technology, integrating conceptual knowledge (what and why) with practical training (how), so students can develop both technological competence and critical thinking skills. It can, therefore, be

suggested that Saudi BA programmes diversify their teaching strategies and move towards blended, autonomous, and project-based learning to support students' technological competence and align with contemporary pedagogical practices.

This thesis highlights the lack of adoption of the simulated translation teaching strategy, as only a few programmes use it (see Figure 6.13). This suggests that students do not receive translation technology training in a simulated professional environment, where they engage with authentic (or near-authentic) tasks, collaborate and share resources (e.g., TM and TB) with peers, and develop project management skills (Konttinen et al., 2020; Konttinen, 2022). In Saudi Arabia, many BA programmes teach translation technology without exposing students to professional translation roles and workflows (Figure 6.11) or considering other industry perspectives (i.e., PMs or LSPs). This limited scope means students are not ready for diverse translation roles, managing large-scale projects, or understanding the role of technology in modern workflows, ultimately affecting their adaptability with emerging technologies and tools. The adoption of STB is also limited in Saudi BA programmes despite its growing use in translation pedagogy (e.g., Buysschaert et al., 2017) and emphasis on the critical role of technological competence in professional practice (Buysschaert et al., 2018), representing a missed opportunity for Saudi students to develop industry-relevant competencies. A move toward more learner-centred teaching strategies (e.g., task-based training, project-based training, STB) is therefore needed to turn passive learners into critical users of technology after graduation. This can further help establish (or strengthen) contact with translation industry stakeholders, improving graduates' technological competence and better preparing them for the industry.

The delivery of translation technology training is not solely dependent on teaching strategies but shaped by trainer expertise, pedagogical preparedness, and institutional support (Chan & Shuttleworth, 2023). A key challenge identified in this thesis is the reliance on non-specialised translation technology trainers in most Saudi BA programmes: many come from diverse academic backgrounds (e.g., linguistics, literature, TESOL) but have no expertise in translation technology. This could explain the inconsistent course delivery and limited adoption of more effective teaching strategies (e.g., STB) in these programmes. The lack of CPD for trainers exacerbates this issue, as trainers are frequently reluctant to engage in CPD due to high teaching workloads or burnout. This situation is particularly problematic in translator training programmes as NCAAA states that "teaching staff must be aware of current academic and professional developments in their field of specialization, participate in research and community services, and in improving the program and institutional performance" (2022, p.

9). This mismatch between trainers' qualifications and expertise and the courses they deliver affects the quality of teaching and student preparedness and is likely to be among the reasons why most Saudi translator training programmes have not gained NCAAA accreditation. Modern translation workflows are growing increasingly complex, so those teaching translation technology should be competent and able to demonstrate how to effectively employ all relevant technologies with real-world tasks. This means CPD should be prioritised and stronger links built with industry partners to ensure that teaching staff are informed and practices are relevant to industry needs.

The challenges discussed in this section relate to curriculum design, teaching strategies, infrastructure, and trainer expertise. Translation technology training in Saudi Arabia usually takes place in one late course with no further curriculum integration. A reliance on traditional teaching strategies, the limited use of simulated translation teaching, and the lack of CPD for trainers further hinder the effective delivery of translation technology training that prepares students to meet the expectations of the translation industry. This section has presented the findings in relation to the first part of RQ3 (mapping the current state of translation technology training), while the next discusses these in relation to the alignment between this training and the technology-related requirements of the Saudi translation industry (evaluating the academia-industry gap).

### 7.4.2 Alignment between Current BA Translation Technology Training and Industry Requirements

This section evaluates how well Saudi BA programmes align with the technology-related requirements of the translation industry considering the challenges confronting them and the widespread dissatisfaction among translators regarding their BA training in a continuation of RQ3: discussing the extent to which competencies and software tools are integrated into current curricula.

The integration of MT training into BA programmes is limited in scope and depth, even though some elements, particularly post-editing, are common. One barrier is the lack of dedicated infrastructure for MT training, with many programmes relying on shared computer labs not designed for translation teaching, restricting students' access to essential MT tools (Google Translate and Microsoft Translator). The provision of these tools, which are vital to professional workflows, is inconsistent, as they are optional in some programmes and entirely omitted from others. This leaves students poorly prepared for work in translation, as shown in

this research with the surveyed translators reporting inadequate MT training during their BA studies. This reflects little improvement in almost a decade, as Abu-ghararah (2015) found that minimal or no access to MT tools was the experience of 80% of Saudi translation students. Beyond accessibility, the current findings reveal that most programmes do not expose students to industry standards such as ISO 18587, which defines best practice for post-editing. Professional translation has shifted from computer-assisted human translation to human-assisted MT, so translators are now required to be competent with pre-editing, post-editing, and linguistic consulting (García, 2010, p. 3). They are not currently being equipped with the skills to perform these roles effectively, however, as while post-editing is present in some programmes, aspects such as QA, productivity metrics, and professional guidelines are often overlooked, so graduates have no critical understanding of assessing, using, and refining MT output. The rapid evolution of MT systems demands that BA programmes move advance past basic exposure and incorporate structured, hands-on training, aligning with the EMT's emphasis on MT literacy as a core component of professional translation (EMT, 2022). Rothwell and Svoboda (2019, p. 52) call for an "increased role of MT training, including engine-building and evaluation TQA metrics". Saudi BA programmes could encourage a forward-looking approach to MT training and curriculum development, incorporating relevant topics and industry standards as objectives in their curricula.

CAT training is more firmly embedded in Saudi BA programmes than MT training, but inconsistently: TB use and TM use are covered in many curricula, but TMS and QA features are not, for example. This disparity supports the observation that most Saudi BA programmes teach translation as an isolated task rather than as part of broader collaborative workflows, with little emphasis on training students for non-translator roles (i.e., terminologists or project managers). This is concerning as translators must now be familiar with diverse CAT functionalities to collaborate effectively with multiple stakeholders, from initial client requests to project completion, because "translation work is typically carried out in the form of projects" (Dunne & Dunne, 2011, p. 3).

The evaluation findings further highlight a gap between graduates' competence levels and industry expectations, particularly in advanced CAT tools (TMS and QA features). Even where CAT training is included, accessibility remains a key challenge, as many programmes rely on free trials or shared licenses, limiting students' opportunities for hands-on practice with essential tools (Trados Studio, memoQ, SmartCAT, and Phrase). Previous research also highlights how licensing costs often restrict trainers' ability to provide access to industry-

preferred CAT tools, so they rely on free trials to introduce students to core CAT principles only (e.g., Al-Rumaih, 2021). This level of depth is insufficient for professional-level competence, as human intervention is critical at each stage of the use of CAT tools before, during, and after translation (Fernández-Parra, 2010). Figure 7.3 (below) illustrates the interplay of TM, TB, QA features, and project management functionalities, reinforcing the belief that BA programmes should extend their training beyond TM and TB to encompass the full range of CAT features essential in modern translation workflows. BA programmes should also integrate free cloud-based CAT tools, as they offer many of the same functionalities as commercial alternatives while addressing licensing and accessibility barriers. Despite widespread adoption in professional settings, these tools remain underused in BA training. Many CAT tool providers offer free licenses for educational purposes, but Saudi BA programmes rarely engage with these opportunities due to the academia-industry gap, where most programmes operate independently from industry stakeholders, including tool providers. Therefore, BA programmes still need to reflect the reality of the translation industry in their training practices and content.

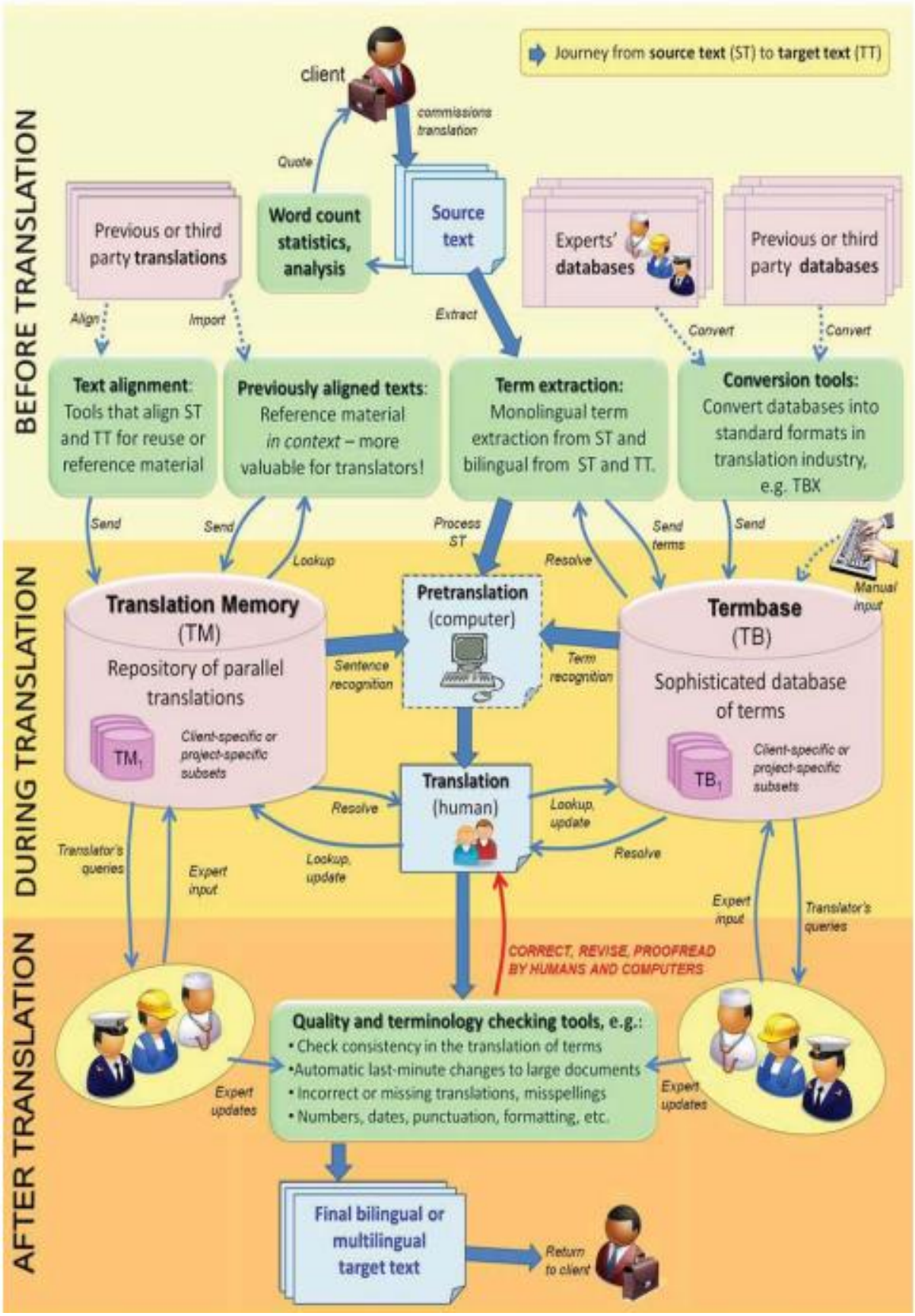



Figure 7.3 Typical CAT workflow (Fernández-Parra, 2010)

Terminology is considered fundamental to translation quality, requiring students to develop the ability to determine when, where, and how they search for specific information and evaluate its reliability. While industry stakeholders in this research emphasise the importance of data mining and corpora, the findings reveal limited integration of these areas into BA curricula, with many programmes either ignoring them or considering them optional. This is consistent with Al-Jarf's (2017, p. 3) study, which, although based on a single BA programme, found that most graduates "have not acquired efficient searching skills of search engines […], never received any training in selecting, narrowing, and broadening search terms, nor how to use Boolean operators and truncation searching strategies." It is unlikely that this curriculum gap exists due to a lack of awareness among programme directors or curriculum designers, given that data mining is included in several TC models, with many including it within technological competence (e.g., EMT, PACTE). Instead, a possible explanation lies in infrastructure limitations and trainer expertise, which appear to be key barriers to integrating these competencies effectively into BA curricula. Many programmes lack the necessary hardware and software, including reliable internet connectivity, to expose students to digital research strategies and corpora consultations, and if trainers are not up to date with translation-oriented research developments, students risk developing inefficient research habits, ultimately hindering their ability to meet industry expectations. With GenAI tools and technological innovations reshaping translation research activities (Gough, 2019), digital research skills have become essential for translators, who are expected to work with domain-specific texts that require a high degree of terminological precision. The findings suggest that BA programmes need to enhance their approach to terminology training by fully integrating data mining and corpora as core components, developing more suitable environments for teaching these, and adopting practice-oriented training approaches to ensure students develop the competencies needed for professional translation.

The increasing demand for AVT and localisation services proves the need for multimedia translation training, yet they still hold marginal status in Saudi BA programmes, with only a handful offering standalone AVT courses. This fragmented approach is consistent with Alangari's (2022) study, which found that only one programme offered a dedicated AVT course in Riyadh-based universities. This is a problem, as subtitling is one of the most in-demand multimedia services in the Saudi industry, driven by the expansion of digital content and entertainment platforms, and poor quality and timing of subtitles can lead to misinterpretations and content flow disruption, negatively impacting the audience's viewing experience. In this

research, most employers were dissatisfied with their translators' subtitling competence, with most rated as sub-competent or weak in this area, further illustrating the gap between BA training and industry requirements. Localisation training is similarly absent, with no programme found to offer a dedicated course. While basic localisation components may be covered within broader technology-related courses, this seems insufficient for producing competent translators in website, video game, and software localisation, which are key growth areas in the Saudi industry. The evaluation findings further reinforce the academia-industry gap, showing that translators possess only average ability in these critical areas. With this inconsistent training, AVT and localisation remain on the periphery of Saudi BA curricula, an issue also observed in some Arab translator training programmes (Al-Batineh & Al Tenaijy, 2024). A key factor contributing to this is the shortage of qualified trainers in translation technology, particularly in AVT and localisation. AVT and localisation are ever-evolving and teaching them requires expertise in industry-preferred tools, multimedia workflows, and emerging trends, but staffing challenges in Saudi BA programmes mean this expertise is rare. There must therefore be a drive to employ expert trainers and develop the competence of current trainers through CPD in collaboration with industry stakeholders to ensure curriculum content relevance.

Professional translation workflows are also seeing an upsurge in the use of DTP, with more projects involving complex layouts, visuals, formatting, and typesetting. DTP competence is perceived by both translators and employers as important, so its role in ensuring that linguistic, technical, and visual requirements are met in translated content is recognised. However, few BA curricula incorporate it, with only two programmes found to be running it as a compulsory component. Most graduates, therefore, enter the industry with little prior exposure to DTP tools, affecting the quality, consistency, and professional appearance of their translation projects. A misconception that DTP is merely a secondary skill in translation work is part of the reason for this lack of training, allied with the assumption that adjustments to formatting and design are not within the translator's remit. However, professional translation does not simply convey meaning from one language to another; it involves ensuring that the work produced maintains the structure, readability, and visual appeal of the original. The findings of this thesis show that Saudi BA programmes should reconsider their belief that employers only require competence with CAT and MT tools when hiring translators, as it represents the reason why they overlook the broader technological competence required for various translator roles (e.g., subtitlers, localisers, and DTP specialists). This gap is further reflected in diverse

programme perspectives on file management and advanced Office skills, with some integrating them while others do not even mention them (Figure 6.12). This implies that Saudi BA programmes do not recognise the impact of DTP on translation productivity and efficiency, which is a particular problem in Saudi Arabia as the right-to-left orientation of Arabic script poses unique layout and formatting challenges that translators must know how to address. The competence evaluation findings reinforce this concern, showing limited competence among translators in this area. Therefore, it is recommended that BA programmes expose students to a range of DTP tools to develop their competence in document formatting, file conversion, and layout adaptation. This enhances employability, increases translation workflow efficiency, and helps bring the programme into line with industry requirements.

This discussion can conclude that there is an evident academia-industry gap in Saudi BA translation technology training. Widespread dissatisfaction exists among translators regarding the CAT and MT training they received during their studies, with many independently seeking CPD to bridge competence gaps. This leads to disparities in competence levels, with Saudi translators evaluated to be in the early to advanced stages of conscious competence. At this stage, they demonstrate the necessary competence but require effort, practice, and further CPD to reach the unconscious competence stage, where technology use becomes second nature. However, the translators credit their competence to self-directed CPD efforts rather than BA training. Second, current translation technology training does not align with industry requirements due to infrastructure limitations, staffing constraints, curriculum gaps, and minimal collaboration with industry stakeholders. Saudi BA programmes lack translation labs, struggle with limited tool accessibility, and face financial constraints that prevent investment in translation software tools, so trainers are forced to use free versions with restricted features. The staff shortage means underqualified trainers teach translation technology-related courses, compounded by low levels of institutional support for CPD in technological competence, so trainers struggle to stay up to date with translation technology. Collectively, these issues hinder technological competence development during BA training and widen the academia-industry gap.

Curriculum design is another key challenge, as theoretical, trainer-led instruction is often prioritised over practical training, and CAT tools receive disproportionate emphasis. There is no standardisation in course titles, timing, or scope and depth, as Saudi BA programmes do not exchange best practices and expertise. Curriculum development remains slow, with updates occurring reactively rather than proactively due to institutional bureaucracy and administrative

hurdles. Some programmes have begun integrating basic CAT tools, but this does not include MT, TMS, QA features, data mining, corpora, AVT, localisation, or DTP. Saudisation policy means graduates seek employment in the translation industry after earning a BA degree, but without comprehensive training, they are ill-prepared to meet industry requirements. The answer to RQ3, then, is that Saudi BA programmes have not yet fully met the technology-related requirements of the translation industry, and further improvements are needed to bridge the academia-industry gap.

Given the pressing need for improvements in translation technology training provided by Saudi BA programmes, the next section outlines a set of recommendations to address the gaps identified in BA curricula and training. By drawing on the key findings discussed in this chapter, these recommendations propose practical solutions to ensure that graduates are equipped to meet the technology-related demands of the translation industry.

## 7.5 Improving Translation Technology Training in Saudi BA Programmes

This thesis highlights a profound misalignment between current translation technology training in Saudi BA programmes and the requirements of the translation industry. Pedagogical and professional improvements are required to match them up, incorporating international best practices and the objectives of Saudi Vision 2030. In this area, the Vision 2030 states:

> *We will close the gap between the outputs of higher education and the requirements of the job market. We will also help our students make careful career decisions, while at the same time training them and facilitating their transition between different educational pathways. In the year 2030, we aim to have at least five Saudi universities among the top 200 universities in international rankings. We shall help our students achieve results above international averages in global education indicators* (p. 36).

Therefore, the recommendations proposed in this thesis serve national objectives and offer practical solutions for BA programmes (7.5.1) and industry stakeholders (7.5.2) to ensure that future translators are prepared for work in the translation industry. As two sides of the same coin, academia and industry must work collaboratively to bridge current training gaps. Recommendations are proposed in the following sections, clarifying the responsibilities of each of these in addressing the academia-industry gap in translation technology training to improve graduates' employability and professionalisation in the industry.

### 7.5.1 Pedagogical Recommendations

#### 7.5.1.1 Establishing the Translation Accreditation Council (TAC)

Saudi Arabia has no unified national framework for BA-level translator training, so curriculum design, competencies taught, translation technology integration, and alignment with industry requirements are inconsistent across universities. Each BA programme currently determines its own curriculum structure and translation technology training practices, leading to variability in technological competence development among graduates. This lack of coordination among programmes has led to disparities in students' learning experiences, where some receive training in essential translation technologies while others graduate with competence gaps, as revealed in this thesis. The absence of an advisory entity dedicated to translator training has allowed the academia-industry gap to persist, restricting BA programmes from fully satisfying the needs of the translation industry. Some programmes have independently established limited communication with translation industry stakeholders, but most remain disconnected from industry developments, resulting in a fragmented approach to translator training across Saudi universities.

To ensure standardised quality assurance, the NCAAA was established as an accreditation body under the umbrella of ETEC (see Section 1.2.3), but as of July 2025, only one BA translator training programme (KSU) had successfully achieved full accreditation from the NCAAA. There is no dedicated accreditation council or advisory network for translator training in Saudi Arabia, despite the importance of the industry in meeting the knowledge-based and cultural goals of the Vision 2030. With the evolution of translation into an interdisciplinary, technology-oriented profession, clearly defined training standards are critical to ensuring graduates are equipped with industry-relevant competencies. The absence of an accreditation body has meant curriculum reform is slow, translation technology training is inadequate, and no national training benchmarks exist. The lack of accreditation further validates the findings of this thesis on the weaknesses of translator training across Saudi BA programmes. Worryingly, it has been discovered that even some BA translator training programme directors are not specialists in Translation Studies, presenting yet another obstacle to preparing these programmes to meet NCAAA accreditation requirements as inexpert directors cannot guide curriculum development toward these national standards, quality assurance benchmarks, or the industry requirements. The first recommendation of this thesis, therefore, is to establish the 'Translation Accreditation Council' (TAC), which would operate under NCAAA within ETEC (Figure 7.4, below).

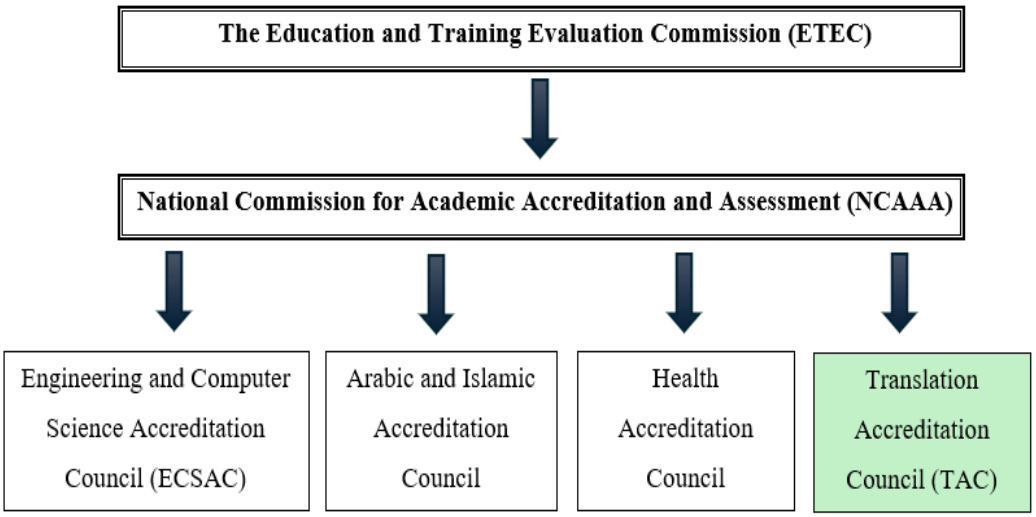



Figure 7.4 Proposed organisational structure

TAC will operate with a dual structure, addressing both accreditation and advisory needs in translator training across Saudi universities. First, TAC will serve as a specialised accreditation council (core entity) responsible for defining and overseeing national accreditation standards for translator training, ensuring that BA programmes meet quality benchmarks that align with global, regional and national best practices in translator training. This council will operate similarly to the other discipline-specific councils already established under NCAAA. A select group of members (board/expert group) will be appointed to carry out key responsibilities, including a) defining and regularly updating accreditation standards tailored to translator training, b) overseeing the evaluation of BA/MA/PhD translator training programmes, and c) issuing accreditation decisions in accordance with NCAAA guidelines. To ensure broad representation of interests, it is recommended that the council board follow a multi-stakeholder model combining academic and professional expertise, as seen in the existing councils (e.g., ECSAC).

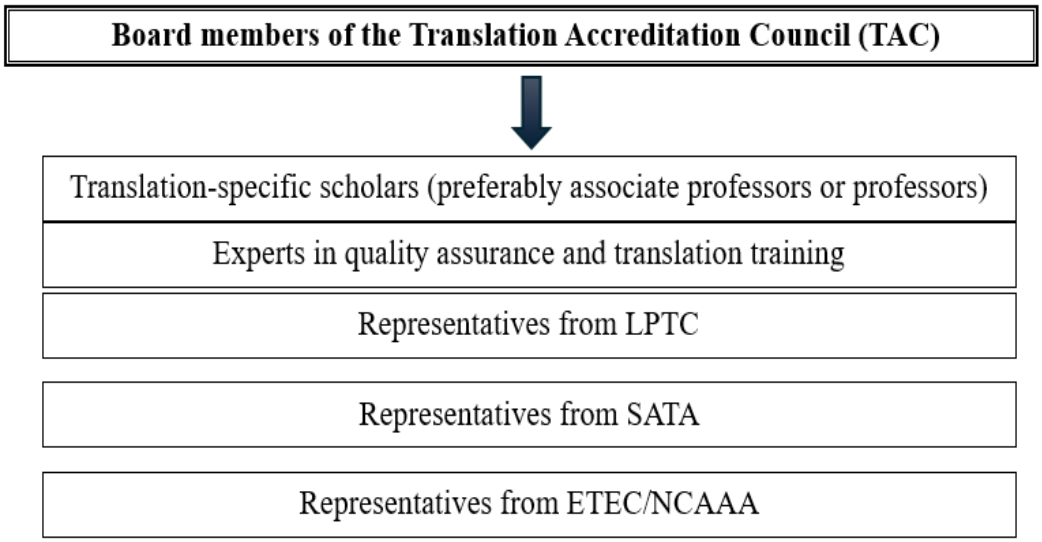



Figure 7.5 A proposal of TAC's board members

Alongside its core accreditation role, TAC should establish a broader network which will serve as a collaborative platform to address the existing academia-academia gap, i.e., the disconnect between Saudi BA translator training programmes. The TAC network will bring together all BA translator training programmes across Saudi universities (currently n=13), regardless of their accreditation status, to foster dialogue, coordination, collaboration, and knowledge-sharing (similar to APTIS in the UK). While BA translator training programmes will be invited as full members in the TAC network (with voting rights limited to advisory board elections), BA language-related programmes could join as observers because their role in supplying the Saudi translation industry with a significant portion of the workforce cannot be overlooked. This observer status will allow them to benefit from shared best practices in translator training, especially in areas like translation technology, while respecting their primary academic pathway. Through this network, TAC can help BA translator training programmes overcome accreditation challenges by disseminating best practices in curriculum design and development, teaching and assessment strategies, and infrastructure and trainer development. Additionally, the TAC network will provide guidance and support for less specialised programme directors to navigate accreditation procedures, ensuring that all BA translator training programmes, irrespective of their current level of development, are equipped with the necessary knowledge and tools to meet NCAAA's quality assurance standards and improve the overall consistency and quality of translator training across Saudi universities.

To further enhance the TAC network's effectiveness, local translation industry stakeholders should be integrated into it to ensure alignment with industry requirements. This will provide

a direct communication channel for the industry to give feedback on curriculum relevance, graduates' competence levels, and emerging professional requirements. Specifically, the network should include representatives from LPTC and SATA, employer representatives from the governmental, semi-governmental, and private translation sectors, and representatives from in-house/freelance translators. Partnerships with translation technology providers could be fostered through the network so TAC can be kept updated on advancements in translation technology and initiatives such as providing BA programmes with access to translation tools, free educational licenses, and opportunities for joint research projects facilitated through this engagement.

The TAC network should also set up collaborative links with international translator training networks (e.g., the EMT and APTIS) by inviting selected representatives as external advisors. In Europe, the EMT network provides a carefully designed framework for standardising MA translator training, ensuring alignment with evolving industry expectations and technological advancements by regular updates (EMT, 2009, 2017, 2022). In the UK and Ireland, APTIS was founded "to improve the quality of learning and teaching as well as research on translation and interpreting programmes at Higher Education institutions" (APTIS[25], n.d) through its regular meetings and annual conferences, providing great opportunities for members to meet, discuss, and share teaching experiences and exchange best practices. Likewise, the Spanish CCDUTI[26] network has played a crucial role in coordinating BA translation programmes, defining training standards, and improving professional recognition for translation graduates. CCDUTI's efforts ensure that BA translation graduates gain professional recognition in the Spanish translation industry (Calvo Encinas, 2009 cited in Martínez Carrasco, 2017). This issue is currently faced by Saudi translation graduates, as indicated by Salamah (2022), who found that less than 10% of translation-related jobs are restricted to translation-degree holders. TAC would provide similar benefits in Saudi Arabia by helping BA graduates acquire a distinct professional identity, and strengthening their employability, professionalisation and competitiveness in the translation industry. This global outlook means TAC can draw on international best practices and ensure its activities account for both local requirements and international developments in translator training.

[25] APTIS' Official website: Home | aptis (last accessed July 2025)
[26] Conferencia de Centros y Departamentos de Traducción e Interpretación, https://confetradi.wordpress.com/centros-y-departamentos/

#### 7.5.1.2 Enhancing Programme Infrastructure and Establishing the Saudi Digital Translation Lab (SDTL)

Infrastructure deficiencies have been revealed across Saudi BA programmes, with many relying on shared general-purpose computer labs that are often outdated and not designed to support translation technology training. This is particularly prevalent in public universities, where financial limitations and bureaucratic hurdles restrict investment in specialised labs and software licenses. As highlighted in this thesis, these challenges obstruct students' access to the MT and CAT tools frequently used in the translation industry (e.g., Google Translate, Trados Studio, and memoQ).

> *We will continue investing in education and training so that our young men and women are equipped for the jobs of the future.*
>
> (Saudi Vision 2030, p. 36)

In line with the national commitment in the above quotation, two recommendations are proposed in this thesis to address infrastructure challenges. First, Saudi BA programmes should enhance their infrastructure, tool accessibility, and IT support. This begins with raising awareness among programme directors and decision-makers of the demands of modern translator training, ensuring that infrastructure investments, software adoption, and resource allocation align with industry practice. TAC is expected to play a key role in facilitating this process by actively engaging programme directors in knowledge-sharing forums, capacity-building initiatives, and partnerships with leading translation technology providers, encouraging proactive and informed decision-making. BA programmes should generously invest in preparing dedicated translation labs equipped with high-performance computers, industry-relevant technologies (MT, CAT, AVT, and localisation tools), and reliable internet connectivity. In the post-pandemic world, it is also advisable to integrate cloud-based CAT and MT tools proactively, in line with the growing demand for remote-access solutions (Alkhatnai, 2021). This means that students can develop their technological competence via access to crucial translation tools both on campus and remotely.

BA programmes are encouraged to take advantage of free or discounted educational licenses and up-to-date training materials available through partnerships with industry-leading providers, which can be done via relationships built through the TAC network. Universities should employ a specialised IT team to oversee lab maintenance, manage software installation and updates, and resolve technical issues, and to simulate real-world translation workflows, collaborative translation tools (e.g., TMS and project management platforms) should be

incorporated so students can work within team-based settings. Where funding is limited, BA programmes could seek external funding through national education grants or partnerships with local translation companies and technology providers. Such initiatives could be facilitated and coordinated through the TAC network, further strengthening the academia-industry collaboration.

In addition to the infrastructure improvements recommended for individual BA programmes, this thesis proposes the establishment of the Saudi Digital Translation Lab (SDTL) as a national initiative. This recommendation is novel within the Saudi context, as no centralised resource currently exists to support translator training and translation technology-related research. Study of local and international models serves as the inspiration for this initiative: at the national level, the largest digital library in the Arab world, launched by the Ministry of Education in 2010, the Saudi Digital Library (SDL) provides centralised access to academic databases, research tools, and e-learning resources to all Saudi universities. SDL has streamlined licensing negotiations, reduced institutional costs, and supplied equitable access to academic resources for students and faculty across Saudi academic institutions (SDL website[27], 2025). On a global scale, initiatives such as the 'CrossLab' project demonstrate how adaptable, cross-institutional labs can enhance student engagement, foster collaboration, and prepare learners for Industry 4.0-driven workflows by providing flexible, remote-access learning environments (Aubel et al., 2022).

Building on these successful models, SDTL is envisioned as a discipline-specific platform that will reduce software licensing costs for translation-related BA programmes and ensure fair and equal access to essential tools and technologies, particularly benefiting those with limited financial capability. SDTL will serve as a shared, cross-institutional hub, providing BA programmes with cloud-based access to industry-leading MT, CAT, AVT, localisation tools, and TMS platforms, facilitating both campus-based and remote learning opportunities and enhancing students' exposure to modern translation workflows. Furthermore, SDTL will support the adoption of student-centred teaching strategies by enabling the simulation of authentic, interactive translation environments. These will allow students across Saudi universities to engage in collaborative projects that mirror real-world translation industry practices. SDTL will additionally create an online training and certification platform for translation technologies and support CPD activities for both students and trainers through

[27] sdl.edu.sa/SDLPortal/en/Publishers.aspx (last accessed July 2025)

webinars and workshops. In doing so, SDTL will enhance the technological competence of future translators while contributing to the aim of Vision 2030 to transition toward a knowledge-based economy.

The TAC advisory board should take the lead in establishing and supervising SDTL, reflecting its central role in coordinating national efforts to improve translator training in Saudi Arabia. To ensure effective supervision, the TAC board is advised to establish a dedicated SDTL Committee responsible for managing the lab's design, implementation, and ensuring continuous development. This committee will be responsible for building partnerships with translation technology providers, negotiating licensing agreements, coordinating programme participation, and ensuring that SDTL aligns with translation industry developments and translation technology training best practices. The SDTL committee should also establish strategic partnerships with SDL and the National e-Learning Centre[28] (NeLC) to develop its technical and operational capacity and support the development and delivery of the lab's infrastructure and cloud-based services. NeLC, as an independent entity established by the Council of Ministers (Decision No. 35 in 2018), plays a crucial role in regulating and overseeing digital learning initiatives across Saudi HE institutions (see Figure 7.6). This centre offers expertise in digital ecosystem management, cloud-based services, and collaborative education platforms, which could provide support to ensure SDTL's long-term sustainability and alignment with national digital learning goals.

[28] https://nelc.gov.sa/en (last accessed July 2025)

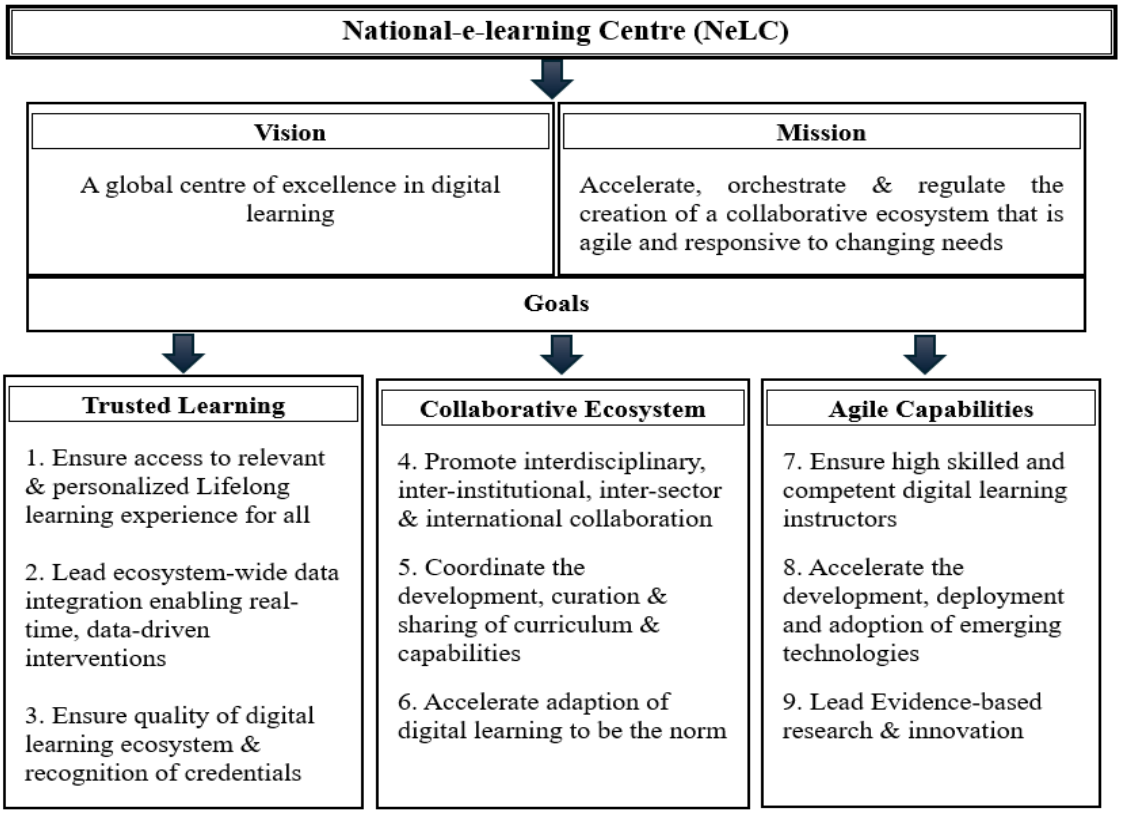



Figure 7.6 NeLC's vision, mission, and goals

To further secure the sustainability of SDTL, it is proposed that a diversified funding model be adopted. Through its SDTL Committee, the TAC board may seek contributions from member BA programmes participating in the TAC network, with the possibility of introducing a flexible membership fee model. This model could be adjusted to the size and financial resources of each programme for inclusivity and fairness. SDTL could further take advantage of the industry outreach strategies of translation technology providers by pursuing partnerships for discounted licensing agreements, in-kind contributions, or collaborative projects. The committee would also be empowered to apply for government grants or research funding schemes promoting digital innovation and HE capacity-building. It is important to clarify that the SDTL initiative does not underestimate the importance of investing in individual programmes but aims to complement such local efforts by reducing financial pressures and fostering inter-institutional collaboration through its offer of a shared national platform. Providing students with hands-on access to industry-standard tools and cloud-based platforms that replicate real-world translation workflows means SDTL can play a promising role in translation technology training development, and by supporting collaborative research initiatives, implementing various teaching strategies, and facilitating knowledge-sharing across Saudi BA programmes, it is expected to contribute to research in translation technology. It is hoped that SDTL will advance

the goal of improving the competitiveness of Saudi Arabia in the global translation industry by strengthening both teaching and research in this field.

#### 7.5.1.3 Enhancing CPD for University Trainers

The general reliance on underqualified trainers to deliver translation technology training in most BA programmes is identified as a key challenge in the current thesis. This is exacerbated by the limited CPD opportunities offered by Saudi universities, resulting in training deficiencies. To address this, BA programmes should prioritise the recruitment of trainers with qualifications and/or expertise in translation technology to ensure that course delivery is aligned with contemporary industry practices. For BA programmes, this could be achieved by appointing talented graduates as teaching assistants, creating a pipeline for future recruitment. From this position, these individuals can benefit from fully funded scholarships provided by Saudi universities to pursue an MA/PhD degree in translation technology, with a focus on countries with well-established translator training and translation technology programmes (e.g., the UK, USA, and Canada). Qualified trainers, both academically prepared and familiar with modern translator training best practices and translation technology, would be available through this system in perpetuity.

BA programmes should invest generously in a sustainable CPD framework for current trainers. This includes organising internal and external workshops, webinars, guest sessions, and peer-learning activities designed to develop trainers' technological competence and help them adopt industry-aligned teaching strategies. As recommended earlier, the TAC network can play a critical role in promoting CPD by offering national-level initiatives such as specialised training materials, collaborative knowledge-sharing platforms, and regular CPD events that focus on the evolving requirements of translation technology training. In addition to CPD support, BA programmes should encourage trainers to obtain professional certifications recognised in the industry and to join the wider professional translation community to stay up to date with industry practices.

To guide these CPD efforts, BA programmes should adopt the EMT Translator Trainer Profile (2013) as a benchmark to standardise and enhance trainer development. The five core components outlined in this model are instructional, organisational, interpersonal, assessment, and field competence (see Figure 7.7, below), which reflect the multifaceted role of translation trainers, encompassing the ability to design and deliver learner-centred training, manage and coordinate translation courses, encourage positive learning environments, and maintain up-to-

date knowledge of the technology-related requirements of the translation profession. This comprehensive framework means BA programmes can ensure that their trainers are equipped with the pedagogical and technological expertise needed to deliver training that meets international best practices and responds to industry requirements.

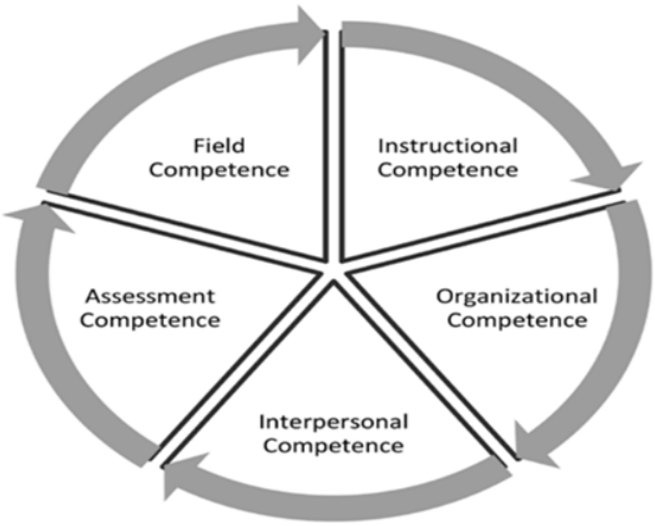



Figure 7.7 EMT Translator Trainer Profile (2013)

BA programmes should begin promoting a broader view of the professional identity of translation trainers, as the role involves a range of skills beyond just teaching (Eszenyi & Robin, 2024, p. 123), extending into translation, revision, and coaching while acting as a mentor, scholar, entrepreneur, and role model (see Figure 7.8, below). To deliver training that aligns with the industry, help students navigate differing roles and workflows, deal with ethical considerations, and realise modern professional practices, translation technology trainers must demonstrate levels of pedagogical, professional and technological expertise that make the multi-role approach especially relevant. Trainers in BA programmes should be required to engage continuously with CPD to improve their practice and foster the technological competence of future translators, and their resulting ability to handle such a diversity of roles helps them bridge the gap between BA training and the requirements of the translation industry to enrich students' learning and prepare them for work.

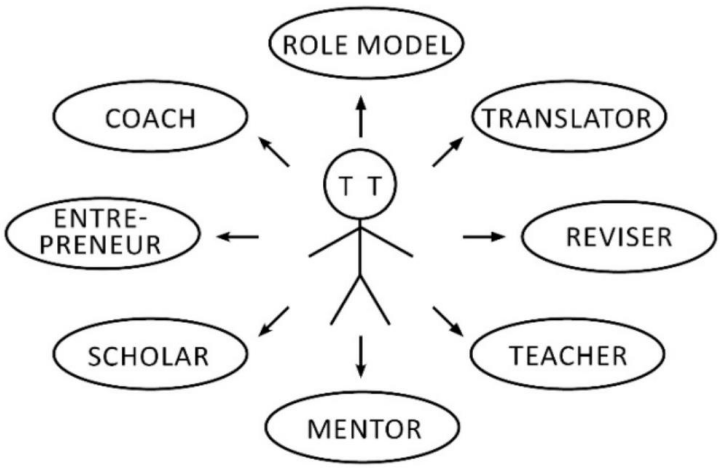



Figure 7.8 The roles of modern translation trainers (Eszenyi & Robin, 2024, p. 123)

#### 7.5.1.4 Modernising Teaching and Assessment Strategies

Traditional, trainer-led teaching strategies currently dominate translation technology training in Saudi Arabia, limiting students' exposure to (near)authentic, practice-oriented learning. This approach cannot simulate real-world translation scenarios and as such is not appropriate for developing the competencies desired in the industry. Modernising the pedagogical approach with strategies which align with modern industry practices and encourage active learning, such as student-centred and experiential teaching, is required to improve on this. This thesis, therefore, strongly recommends the adoption of STBs in which students collaborate in teams to complete translation projects from beginning to end, assuming varied professional roles throughout the process (Buysschaert et al., 2018). STBs thereby facilitate the development of both technological competence and soft skills, such as teamwork and project management, within realistic translation project settings.

For Saudi BA programmes, lessons can be drawn from the International Network of Simulated Translation Bureaus (INSTB), which demonstrates the effectiveness of STBs in bridging the gap between theory and practice and in strengthening students' employability by equipping them with essential industry-related competencies (see Section 2.3.1). INSTB membership encourages flexibility, allowing individual programmes to adapt their STBs to local industry requirements. In the Saudi context, the TAC network could facilitate the adoption of STBs by fostering knowledge-sharing across BA programmes, coordinating partnerships with local and international translation companies, and supporting programmes to design STBs that reflect the reality of the Saudi translation industry. SDTL could provide the necessary cloud-based infrastructure, offering students access to a range of industry-relevant tools within simulated translation workflows. To further strengthen this initiative, BA programmes should be

encouraged to seek INSTB membership to benefit from global best practices and better serve their students.

There is currently a missed opportunity to simulate real-life translation technology workflows to improve the employability and industry readiness of graduates in the form of the current training practices' scant use of project-based assessments and professional certifications. To address this, assessment strategies should be revised to reflect the actual needs of training for work in the industry and move in conjunction with local and global best practices. Specifically, project-based assessments in which students complete authentic, end-to-end translation projects using industry-relevant tools should be embedded into curricula and drafted from internationally recognised certification frameworks (e.g., ATA, CIUTI or CTTIC) so students can develop the competencies valued in the global translation industry (Korol, 2020). This process would also familiarise students with different assessment criteria and certification examination procedures, giving them the competence and confidence to later pursue professional certifications to become even more competitive and professionalised. Given that most translators surveyed in this research are not currently members of any local or global professional association (see Table 4.2), exposing students to such industry practices may encourage them to engage with the wider professional translation community.

The gap between BA training and industry practices could further be bridged by encouraging students to complement their academic qualifications with globally recognised credentials in technological competence by pursuing micro-certifications from translation technology providers (e.g., Trados or Phrase). BA programmes could enhance the quality of their teaching and assessment by incentivising trainers to carry out and publish research in, for example, the Interpreter and Translator Trainer (ITT) journal. Engagement on this level provides them with insight into cutting-edge pedagogical approaches, emerging translation technologies, and evolving industry expectations, creating an environment of continuous improvement in BA training.

#### 7.5.1.5 A Proposal for Curriculum Development: Towards Industry-Aligned Training

There are clear limitations identified in this thesis in how translation technology training is delivered across Saudi universities, including in those BA programmes which include it as a compulsory component. The majority of programmes do not give students enough time for progressive development of technological competence, offering only one translation technology course usually in the final year of study (Year 4). Further, there is a heavy focus on

basic CAT training, particularly TB and TM use, which are undeniably essential for translators, but this overemphasis comes at the expense of other key competencies, many of which are missing or mentioned only briefly. The feedback from translators and employers in this research emphasises the need for a diversified and comprehensive approach to translation technology training that reflects the variety of competencies and tools required in the translation industry (summarised in Figures 7.1 and 7.2). The misalignment between current BA curricula and industry requirements underscores the urgent need for curriculum development, so recommendations are proposed here to facilitate this process.

The adoption of a two-stage, progressive model for translation technology training can ensure that students receive both early exposure and continued competence development during their BA studies. In this proposed model, at least two compulsory translation technology-related courses should be included in BA curricula: an introductory course offered in the earlier years (Year 1 or 2), followed by one or more advanced courses in the later years (Year 3 and/or 4). This early course should develop students' technological awareness by introducing them to basic concepts, tools, and workflows at the beginning of their BA studies, which can then be built on with more specialised training in later years. Table 7.1 (below) offers a proposal of how technology-related competencies can be divided across the two training stages, based on the findings of this thesis and current industry requirements. Exposing students to translation tools and technologies early on gradually builds their confidence and familiarity with them, overcoming resistance or learning barriers and avoiding the technology shock that may occur if the tools are first encountered late in the curriculum. Taught in this way, translation technologies are not considered an extra or separate skill but naturally form part of students' broader translation competence. From the trainers' perspective, this early course helps lay the groundwork for designing courses that fit students' learning levels and allow for gradual development (from basic to advanced levels of technological competence). The two-stage model affords both trainers and students the time and flexibility to adopt industry-simulated teaching strategies and represents a way to transversally integrate translation technologies across the curriculum.

Consolidation and expansion of the foundational competencies developed in the early curriculum takes place in the later years (Years 3 and 4), in which students are introduced to competencies including but not limited to advanced post-editing aligned with global industry standards, advanced use of TB, TM, TMS platforms, QA features, markup languages, corpus building and analysis, AVT and localisation workflows, and AI literacy in translation (see Table

7.1). Depending on the capacity and ability of each BA programme to integrate specialised training, these competencies should be addressed through one or more advanced courses. It is not possible to propose a one-size-fits-all solution to curriculum development due to the variations in institutional support, funding, infrastructure, resources, and teaching staff noted in this thesis between Saudi BA programmes, but the two-stage progressive model is a flexible framework that allows individual programmes to adapt the competencies recommended to their specific context and resources. This would lead to an adaptable, industry-aligned, technology-oriented, future-proof curriculum in which students are progressively exposed to core and advanced technology-related competencies without compromising the quality or feasibility of training delivery.

BA programmes with more substantial capacity should consider adding a third course in the final year (Year 4) dedicated specifically to 'Multimedia Translation'. This course should cover areas such as subtitling, AVT workflows, localisation processes, and using cloud-based tools for multimedia translation projects. As discussed, these areas are growing in the Saudi industry and remain underrepresented in many BA programmes. Although six programmes currently offer standalone AVT courses, this thesis advocates for broader and more consistent integration of multimedia translation training across BA curricula, especially in programmes that are better resourced or located in regions where demand for such services is rapidly expanding. For BA programmes with limited resources or staffing, it is recommended that they include at least two compulsory translation technology-related courses while integrating translation technology into other courses. This way, students will receive exposure to translation technologies even where offering multiple specialised courses may not be presently feasible.

| BA Training Stages (Four-Year Programmes) | | |
|---|---|---|
| **Domain** | **Year 1 / 2** | **Year 3 / 4** |
| MT | - Introduction to MT (RBMT, SMT, NMT)<br>- Pre-editing principles<br>- Light post-editing (basic corrections) | - Full post-editing techniques (style, coherence, fluency)<br>- Case studies of MT performance<br>- Awareness of post-editing standards (e.g., ISO 18587)<br>- Introduction to MT configuration (e.g., dictionaries, glossaries) |
| CAT | - Overview of CAT tools and their roles<br>- Basic TM and TB use<br>- Introducing free/open-source CAT tools (e.g., Matecat)<br>- File format handling and simple conversion | - Advanced TM/TB management<br>- Use of cloud-based CAT platforms (Trados Live, SmartCAT)<br>- QA procedures (e.g., error spotting, consistency checks)<br>- Introducing markup languages (HTML/XML) |
| Terminology | - Search strategy fundamentals (Boolean, truncation)<br>- Source evaluation techniques<br>- Introducing concordance use (e.g., AntConc) | - Corpus construction fundamentals (mono/bilingual)<br>- Terminology extraction using AI-supported tools<br>- Domain-specific research tasks with corpora |
| Multimedia | - Introduction to AVT and its industry relevance<br>- Basic subtitling tasks using tools (e.g., Aegisub)<br>- Introduction to localisation<br>- Exposure to speech recognition systems<br>- Introducing mobile technologies | - Subtitling projects using pro-tools (e.g., Subtitle Edit)<br>- Team-based AVT projects (cloud platforms)<br>- AVT format conversion (e.g., SRT, VTT)<br>- Hands-on localisation tasks (web/software/game UI strings) |
| DTP | - Introduction to document formatting principles<br>- Awareness of DTP workflows<br>- Practical use of Office tools for layout/formatting | - Practical DTP exercises (e.g., MS Publisher)<br>- Arabic-specific layout handling challenges<br>- Layout adjustment post-translation |
| AI in Translation | - Introduction to GenAI in translation (concepts)<br>- Ethical issues of GenAI in translation<br>- Exploration of GenAI tools like ChatGPT in the Arabic-English language pair | - Review of adaptive MT and automated QA<br>- Ethical and critical reflection on AI use in translation<br>- GenAI for translation project coordination |

The variations in BA programme titles for translation technology-related courses represent an area of concern regarding curriculum clarity and alignment, as a lack of title standardisation creates confusion for both students and trainers about the content, focus, and intended learning outcomes of the course and makes it very difficult for programme accreditors or employers to assess the relevance and depth of the training and material provided. Non-standard titles also prevent curriculum benchmarking and collaboration, so establishing translation technology training shared expectations and best practices across Saudi BA programmes is needlessly complex. The TAC network proposed in this thesis would offer clear guidance on course naming conventions and promote consistency and transparency in course labelling by facilitating collaborative dialogue between programmes, ensuring that titles accurately reflect course content and are aligned with training objectives. This would advance efforts to standardise curriculum design, grow communication with industry stakeholders, and professionalise BA-level translator training in Saudi Arabia.

### 7.5.2 Professional Recommendations

The translation profession is characterised by constant change in technology and industry expectations, so CPD is essential. However, in the Saudi translation industry it is currently inconsistent, fragmented, and mainly self-driven, with many translators taking it upon themselves to develop their technological competence without guidance or financial support, especially in their early years. CPD does not receive attention and investment from employers commensurate with its importance, and the two industry regulators (SATA and LPTC) are still at a basic stage regarding CPD provision and support. 88% (n=218) of translators surveyed in this thesis claim no affiliation with any professional translation association, suggesting that there is no encouragement, monitoring, or tracking of CPD engagement. This places the effort and cost burdens of improvement on individual translators, limiting the development of a technologically competent and future-ready translation workforce.

> *We will expand vocational training in order to drive forward economic development.*
>
> *We will place a renewed emphasis on lifelong training, and we will seek to make the most of the potential of our workforce by encouraging a culture of high performance.*
>
> (Saudi Vision 2030, p. 36–37).

The strong commitment of the Saudi authorities to investing in human capital, as shown in these two quotations, can be supported by a multi-stakeholder approach to CPD support for translators. To stay informed about industry practices and relevant CPD activities and take

advantage of peer support to guide their career development, translators should be prompted to join wider professional translation communities within Saudi Arabia (e.g., SATA) and beyond (e.g., FIT, ATA). This should be most encouraged for novice translators who may lack the experience to identify their training needs or choose which CPD activities to prioritise. Communities like this help translators gain professional accreditation, benchmark their competencies against industry standards, and build a recognised professional profile for long-term career development.

Second, Saudi employers should make generous investments into internal and external CPD in recognition of their role in developing and maintaining their translators' technological competence. Consistent orientation and onboarding programmes with essential translation technology training can be offered as part of internal CPD for newly hired translators, through which they will experience smoother integration into existing workflows and understand their employer's expectations. Graduate-industry transition programmes should be established by employers to equip graduates with essential technology-related competencies and bridge the gap between BA graduation and full employment. To maximise employer participation, the TAC network could play a facilitative role by fostering academia-industry partnerships, helping employers co-develop and support CPD for both students and early-career translators. This will raise employers' awareness of the training needs of their translators and involve them in designing and supporting the CPD activities that align with organisational objectives.

Third, LPTC and SATA should improve CPD practices among both translators and employers by launching awareness campaigns, webinars, and consistent events on CPD. To help realise the Vision's 2030 digital transformation and lifelong training objectives, LPTC could launch national CPD grant schemes in collaboration with the HCDP[29] (see Section 1.2.1), specifically designed to support Saudi translators, which could be administered via a digital platform to centralise CPD opportunities and through which translators could earn badges, certificates, and points. SATA should simultaneously require that, to gain professional accreditation or membership renewal, translators maintain a CPD record and complete a minimum number of annual CPD hours. In collaboration with LPTC, it is recommended that SATA establish a CPD tracking system, modelled after global translation associations (e.g., FIT or ATA), that records translators' participation in CPD activities. Novice translators could be connected with experienced professionals for guidance in selecting appropriate CPD activities through a

[29] https://www.vision2030.gov.sa/en/explore/programs/human-capability-development-program (last accessed July 2025)

national mentoring programme. This would also circulate knowledge of best practices in translation technologies.

These recommendations aim to accelerate the professionalisation of Saudi translators for the long term by strengthening CPD provision through collaboration, regulation, and financial support. This would raise the status of CPD, so it is no longer considered the full responsibility of the individual but coordinated across industry stakeholders. These recommendations should improve CPD provision and support for translators in Saudi Arabia, enhancing the national movement toward building a coordinated human capability ecosystem and ensuring that translators can successfully meet the technology-related requirements of the industry.

## 7.6 Chapter Summary

This chapter discussed the key findings of the current thesis in relation to the overarching research question, focusing on how translation technology should be taught in BA programmes in Saudi Arabia based on the requirements of the translation industry. The discussion was structured around three research questions, offering a critical synthesis of quantitative and qualitative data from translators, employers, and BA programme directors and course trainers.

The chapter first identified the technology-related requirements of the Saudi translation industry in terms of competencies and software tools (RQ1), before evaluating the current self-assessed and employer-assessed perceived competence of translators in these areas (RQ2). The extent to which current BA programmes in Saudi universities align with these industry needs was then determined, revealing gaps in curriculum design, infrastructure, and training practices (RQ3). The chapter finally proposed a range of pedagogical and professional improvements and practical recommendations to bridge the academia-industry divide noted in this thesis (overarching RQ).

Recent years have seen some progress made, but this research shows that BA translation technology training and the requirements of the translation industry in Saudi Arabia demonstrate very poor alignment. The solutions to this include far greater collaboration between Saudi universities and between academia and industry; urgent standardisation of all course elements, including names, content, and delivery; and significant government and institutional investment in infrastructure and trainer development. The recommendations made in this thesis help bring Saudi BA programmes into alignment with the technology-related requirements of the translation profession and global best practices and professionalise the

development of technologically competent translators capable of competing on an international level and exceeding the national objectives of Vision 2030 and beyond.

# Chapter 8 Conclusion

## 8.1 Summary of the Thesis

This thesis addresses a gap identified in the existing literature on the integration of translation technology training into the Saudi BA programmes responsible for producing professional translators and aims to evaluate the extent to which they align with the requirements of the translation industry. Developments in translation technology in recent years have profoundly altered the ways in which translators do their jobs and dramatically expanded the scope of their work. This has provided opportunities for success and advancement but has also placed additional pressures on translators to keep up to date with the practices and needs of a constantly evolving industry. Academic programmes are similarly expected to keep pace, but few studies have thus far been carried out on the alignment between academic curricula and the translation industry in the Saudi context, especially at the BA level. The aim of the thesis is to fill this gap by mapping the current state of BA programmes, the requirements of the translation industry, and translators' technological competence to determine the most effective improvements that could be made to bring curricula into line with the technology-related requirements of the translation industry.

This investigation has been shaped by three research questions and one overarching research question explored through an explanatory sequential mixed methods design over two research phases. The first phase collected quantitative data through surveys distributed to three stakeholder groups: translators, employers, and BA programme directors. The second contextualised and enriched these findings by gathering qualitative data from translators, programme directors and trainers responsible for teaching translation technology-related courses via focus group discussions. The triangulation enabled by combining these methods allowed the perspectives of these groups to emerge on both a broad and an individual level. In light of the findings, proposals and recommendations have been made to ensure translation graduates enter the industry prepared for modern workflows.

**Research Questions**

RQ1: What are the technology-related requirements (i.e., competencies and software tools) expected of translators in the Saudi translation industry, from the perspectives of both translators and employers?

RQ2: What is the current perceived level of translators' competence in the technology-related requirements identified in RQ1 from the perspectives of translators and employers?

RQ3: What is the current state of translation technology training in Saudi Arabia, and to what extent do BA programmes align with the technology-related requirements of the translation industry identified in RQ1?

Overarching RQ: How should translation technology be taught in BA programmes across Saudi universities based on the requirements of the translation industry?

The requirements identified in this thesis are separated into competencies and tools. The Saudi translation industry was found to require a wide range of technology-related competencies including MT, CAT tools, terminology, multimedia, and DTP, with participants raising the increasing influence of GenAI across all of these areas. Translators are now expected to possess a skillset encompassing considerably more developed than just post-editing MT outputs, TB use and TM use: they must be capable with QA features of CAT tools, TMS, and localisation of video games, software, and websites, along with DTP and AVT-related tasks like subtitling. The role of the translator has evolved alongside technological advancement, with tasks and projects now demanding they be conscious of and capable with formatting, layout, design, and a battery of multimedia elements as well as language. The Saudi national transformation agenda Vision 2030 has begun to transform and diversify the economy, with a stated aim of advancing a knowledge-based foundation. This has caused an explosion of interest in translation services from almost every sector and set targets for areas like entertainment and tourism that heavily involve translators, increasing not only the competencies required, but the pressure on universities to produce industry-ready graduates who can compete on a global level.

The set of competencies required also come with a package of tools that translators should be able to effectively employ in their daily work, and these have been identified in two categories: MT and CAT tools. The most frequently used MT tools in the industry are Google Translate and Microsoft Translator, with the former by far the most popular. As free tools, these are extremely cost-effective, and their high level of accessibility has brought them into widespread general use both inside and outside professional translation. The CAT tools found to be in most frequent use were Trados Studio, memoQ, SmartCAT, and Phrase, as these are not only accessible but handle the English-Arabic language pair efficiently. Their high perceived ease of use and cloud-based nature additionally facilitate their widespread adoption, especially in the post-COVID working landscape, as they can be applied when working remotely.

The technological competence of Saudi translators, as assessed by themselves and by employers, can be placed along the spectrum of Howell's (1982) model of competence development between the early and advanced stages of conscious competence. This means that with the application of deliberate focus and effort, they are capable of using some technologies in their work but might struggle with skilled tasks or when using unfamiliar tools. With core competencies such as post-editing, TM, TB, and file processing, Saudi translators demonstrate advanced conscious competence but are at the early stage of conscious competence with other essential areas like QA features, TMS, markup languages, localisation, subtitling, and DTP. BA training deficiencies represent the most likely explanation for this, with participants citing it specifically. Programmes responsible for producing translators are not currently equipping them with the necessary competencies, as shown by the comparative analysis in this thesis that found minimal difference between graduates of translator training programmes and language-related programmes in terms of competence levels. The quasi-longitudinal comparison additionally found a notable improvement in translators' technological competence between 2018 and 2025, as many are taking charge of their own CPD, which also explains the current level some have attained. Organising and pursuing CPD without support or early career guidance from an employer leads to a financial burden and an inefficient use of time, as translators may not know which areas to prioritise or which are most relevant for their career. Saudi translators have not yet reached the level of unconscious competence, whereby they are fully capable of using technology automatically and independently, so the quality of their translations may be insufficient, especially when under pressure or working to deadline. The lack of employer support for CPD must be understood by BA programme designers, as this increases the urgency of reforming curricula to best prepare graduates for the workplace.

Training for translators in Saudi Arabia takes place across two pathways: translator training programmes and language-related programmes. Translation technology training is largely absent from the latter, representing a significant gap between their stated aim of producing well-qualified translators and their curriculum content. However, even in translator training programmes, technology training is inconsistent between universities: some introduce it early (Year 1-2), others introduce it late (Years 3-4), and others consider it an optional extra. The disparities between graduates that this creates affects employability and is among the reasons for the differences observed in technological competence. These inconsistencies are one part of a wider problem related to a lack of standardisation across all Saudi BA programmes resulting from poor inter-programme coordination and communication. Programme content, course

titles, teaching and assessment strategies, and scheduling all show considerable differences between universities. This causes disparities in exposure to translation technologies and subsequent development of technological competence, causing employers to set their expectations based on incomplete information. Nevertheless, the majority of Saudi BA programmes still employ trainer-led teaching strategies involving lectures and demonstrations rather than learner-centred teaching that provides practical experience, primarily due to infrastructural challenges including a scarcity of well-equipped labs, limited access to software tools, and little to no off-campus support for licences. This is compounded by low levels of trainer expertise in translation technology: many trainers in current BA programmes come from a TESOL, linguistics, or literature background rather than anything to do with translation. This means they are not trained to effectively incorporate translation technology into BA curricula, creating greater differential exposure to competencies essential in the industry. This influences the competencies that are taught, and current programmes do not yet cover such areas as localisation, subtitling, data mining, corpora, QA features, TMS and DTP. This reflects the profound academia-industry gap observed in this thesis, as these are all competencies highly valued in modern translation workflows, so BA programmes are not sufficiently preparing graduates for the working environment they hope to enter.

The answers to these three research questions allow exploration of the overarching research question of this thesis, which relates to the improvements which can be made to BA programmes. The recommendations are made in accordance with the participant insight gained throughout the research, from programme directors, trainers, translators and employers, and observations drawn from the findings. The establishment of a Translation Accreditation Council (TAC), representing the first proposal, would provide a shared platform for coordination and standardisation among the academic translation community in Saudi Arabia. Setting and defining clear standards for all aspects of programmes that can be pursued to gain accreditation from the NCAAA and facilitating the sharing of best practices, TAC would give much-needed clarity to stakeholders in the field, from directors to curriculum designers to students, and bring programmes into line with each other and the requirements of the industry. To help this process, universities should invest in infrastructure improvements such as modern labs, full software licences, cloud-based services for off-campus access, and reliable internet connectivity. Partnerships with translation technology providers made through the TAC network can allow programmes to secure educational licences and training materials.

A novel proposal made in this thesis is the establishment a national Saudi Digital Translation Lab (SDTL), a collective resource to centralise the distribution of software licences and facilitate training and research. This concept is related to the existing Saudi Digital Library (SDL), which networks academic resources and publishers between Saudi universities. SDTL would equalise access to the tools and technologies translators need to thrive in the workplace and reduce programme costs while supporting the move to student-centred teaching recommended in this thesis. Integrating Simulated Translation Bureaus (STBs) into teaching practice is a major step toward the teaching and assessment modernisation required in Saudi Arabia, as these allow students to gain (near)authentic experience with modern workflows and collaborate on translation projects in a way which reflects the working conditions of the industry. The evident benefits of this initiative should encourage Saudi universities to join the International Network of Simulated Translation Bureaus (INSTB), facilitated by the TAC network, thereby advancing the goals of Vision 2030 to compete academically on a global level and adopt international best practices. This can be further supported by the implementation of the EMT Translator Training Profile to bring the CPD efforts of translation trainers into line with industry standards and trends, acknowledging the multifaceted nature of the role and focusing on technological competence.

Students can be exposed to translation technologies in a more structured way and earlier than they are at present through progressive curriculum reform, standardised across the board through TAC, which gradually introduces them across two stages. The first stage (Years 1-2) involves the basics of the competencies required by the industry, and the second (Years 3-4) builds on these skills and allows students to practice more advanced uses of the technologies and professional aspects of the industry. Upon entry into the workplace, rather than having to engage in self-driven CPD efforts to fill competence gaps, translators should be encouraged to join the wider professional community through networks and associations such as SATA (local) and FIT (international). These can provide guidance for CPD priorities and career development, particularly in specialised areas, and allow Saudi translators to further engage with the global translation industry. Supporting this, Saudi employers must invest in both internal and external CPD for translators and establish graduate-industry transition initiatives, matching their CPD with organisational objectives, further progressing their own goals by boosting productivity and the objectives of Vision 2030 by enhancing the quality and reputation of the Saudi translation industry. The government, through its Human Capability Development Program (HCDP), can further support the training and upskilling of translators through grants and incentives while

SATA takes a leading role in encouraging them to gain professional accreditation and formally track their CPD involvement. These proposals, based on the findings of this thesis, intend to help develop BA programmes so they align with industry requirements, which in turn will boost the whole industry, benefit stakeholder groups at all levels, and contribute to the goals of the Vision 2030 agenda.

## 8.2 Contribution of the Thesis

The findings and recommendations of this thesis make contributions to the literature, the Saudi translation industry, students, and Vision 2030. It fills a gap identified in the existing literature around the lack of study encompassing the requirements of the translation industry, translator technological competence, and the state of BA translation technology training in Saudi Arabia, representing a novel contribution by holistically assessing all three of these across all BA programmes responsible for preparing translators, so informed recommendations can be made for programme development for more effective delivery of translation technology training. Additionally, the quasi-longitudinal comparison made in this thesis is the first of its kind, revealing changes in industry requirements and competence levels over time, particularly as the period saw the dramatic changes brought about by technological advancements and the influence of the COVID-19 pandemic.

The practical contributions extend to all stakeholder groups. First, aligning BA programmes with the technology-related requirements of the translation industry and implementing the proposed recommendations will significantly enhance the employability of BA graduates in the translation industry by standardising their translation technology training and equalising their learning experiences through broader exposure to the technologies required by future employers. More confident, industry-ready graduates are competitive in both the local and global translation markets, giving them better career prospects and professional standing. Second, highly qualified translators with dedicated CPD support from their employers are more able to excel in producing high-quality work and engage in more collaborative projects, increasing the reputation of the performance of Saudi translators. Employers of these translators would see an increase in productivity and therefore profitability, gaining a return on their investment in CPD and helping the move toward a knowledge-based economy and the development of the industry. Such lessons are easily applicable in other Gulf countries, but they are relevant in the translation industries of every country, as formal support of translators to engage in CPD augments the desire of many to take up these courses on their own, as has been noted in this research. Third, multiple contributions are made to the Vision 2030 national

transformation plan and the advancement of national interests. The proposals are designed to align translation technology training in Saudi Arabia with international best practices and improve the ranking of Saudi universities so at least five are present in the top 200 by 2030. Producing students with above-average results when compared against global indicators not only fulfils a national objective, but also places Saudi students on an equal playing field in international universities. Importantly, translators will play a major role in the broader diversification of the Saudi economy, taking on projects in the growing entertainment, tourism, and religious sectors, among others.

From this Saudi case, lessons can be drawn applicable to other academic contexts. Identifying the misalignment of BA programmes in Saudi Arabia with industry requirements clearly highlights the importance of frequent, industry-oriented updates to programme content and CPD strategies. This is true everywhere, and more so in an environment of technological change so rapid that a course updated once a year may be outdated before it is even completed. Additionally, the quasi-longitudinal element of this thesis tracking changes in the industry (for example, SMT moving to NMT around 2016 and to GenAI tools around 2022) is something that should be carried out as a matter of course in order to supply academic programmes with the data required to ensure they can align with industry requirements as far as possible.

The Saudi case provides relevance to the global translation industry and the wider Translation Studies community in no small part because demand for human translators is growing in Saudi Arabia but contracting in many other geographical contexts. The country's less developed AI infrastructure, the complexity of the Arabic language, the limited availability of Arabic language datasets for MT training, the source language competence of translators dealing with considerable variations between the versions of Arabic, the greater preponderance of institutional rather than commercial translation, Saudisation policy, and the fact that Saudi employers often deliberately seek graduates of broader language-related programmes rather than purely translator training programmes all explain this phenomenon.

AI infrastructure in the developed world has been integrated and improved over many years, with the automation of routine tasks now commonplace, whereas it is a far more recent introduction to the Arabic-speaking world, including Saudi Arabia. The rate of adoption has been considerably slower despite the emphasis placed on AI by Saudi Vision 2030, and the development of Saudi-specific tools has not been a priority. Human translators are therefore in greater demand than they are in other countries, especially in domains requiring particular

confidentiality and cultural sensitivity. This reliance is continuing to grow as a result of the characteristics of the Arabic language itself, as it is morphologically rich, syntactically flexible, and highly inflected. This is further complicated by the fact that not only does Arabic have multiple registers, but a wide range of dialects used by large numbers of people across many different countries, with variations including Egyptian, Gulf, Levantine, and Maghrebi. Each of these contains distinct vocabulary and cultural nuances that must be observed and translated carefully. Such complexities have created problems for MT in the past, and as many of the GenAI tools most commonly available cannot account for the specificities of the cultures that speak Arabic, the impetus to further integrate them as a matter of course has been limited. In addition, the slower adoption of MT and GenAI in the Arab translation industry may also be linked to the limited availability of high-quality Arabic datasets used to train these tools, which restricts their overall accuracy and reliability. Instead, human expertise has been employed to maintain a professional standard of quality in translation.

The translation industry in Saudi Arabia and other linguistically- and culturally-adjacent countries is predominantly employed in work originating from institutions like the government and similar organisations rather than commercial sectors, marking another significant difference from the largely commercial nature of Western translation. National projects like Saudi Vision 2030 require specific language ranging from the legal to the religious so domain-specific accuracy is critical, meaning human translators remain in demand. Institutions are also much less likely than commercial enterprises to take innovative risks by using technology-driven translation, so whereas in much of the world translators are finding their employment threatened, this is not the case in Saudi Arabia. The government policy of Saudisation itself mandates that Saudi citizens are preferred in employment, with translators from elsewhere being actively replaced with Saudis trained within the country. This brings about even greater demand than the purely market-driven systems found in many other countries, which often incentivise outsourcing translation services and reducing demand in the domestic translation industry. Related to this is the almost unique preference of Saudi translation employers for graduates of language-related rather than translation-specific programmes; in most other countries, the reverse is true, where only graduates of translator training programmes can be considered for work in the translation industry. This makes the findings of this thesis especially relevant, as Saudi Arabia here presents a case whereby the mismatch between what is taught on the BA programmes of those who enter the translation industry and what is required by the industry itself exacerbates the national problems caused by a situation which is already different

from most of the world. All of these elements have combined to cause an explosion in demand for human translators in Saudi Arabia, a state of affairs which stands in stark contrast to many other countries.

There are several lessons that can be drawn from the Saudi case to apply to the global translation industry. The first of these is that granularity of the details of specific geographical areas and the policies and socio-economics of these areas can have a major impact on local translation markets. In many ways Saudi Arabia is an extremely modern country, with a great deal of wealth and an advanced level of government infrastructure, and its rapid development has seen it increasingly begin to resemble many other highly developed nations. However, its culture, history, society, and politics mean it is also unique, and these factors and many more have shaped its training systems, domestic industry requirements, and specific demand patterns. Therefore, it is clear that there is no 'one-size-fits-all' in the globalisation of translation, and the fundamental technological changes that have taken place in the global translation industry are not uniform. This means that change is urgent in countries that are currently 'left behind', and the adoption of global translation organisations involving countries at every level must be accelerated in order to advance the prosperity of the entire industry, especially with regard to lesser-resourced languages and under-explored contexts.

This thesis further demonstrates the role played by technological infrastructure and the complexity of the languages involved in translation – without steps taken to redress the balance between countries' readiness to integrate new and emerging technologies into standard practice and greater efforts to train GenAI models with a wider range of languages, international gaps will only widen. Addressing the content and training offered by BA programmes and improving CPD across domestic translation markets are effective ways that a country (like Saudi Arabia) can boost its own presence in the global translation industry, but a more connected approach across the world would accelerate the process for all countries, including those in a less favourable position than Saudi Arabia, which has significant wealth, strategic global positioning, and forward-looking government initiatives. Aligning translator training with industry requirements and implementing CPD within the industry represent two steps that this thesis proposes must be taken to bring the translation industry of any country into line with a global industry now dominated by cutting-edge technologies. Taking these steps can bring about a situation in which a country is able to leverage the advantages lent by its unique political, cultural, social and linguistic circumstances to compete and collaborate within the global translation industry on a more mutually-beneficial playing field.

## 8.3 Limitations of the Thesis

This thesis, like all research, has its limitations. The study of Saudi Arabia from a base in the UK meant that problems were encountered in communication and coordination with participants, particularly for the focus group discussions which took place in the second phase. These had to be conducted via Zoom, so some interpersonal elements such as nonverbal cues, group dynamics, and rapport-building may have been lost. The geographical distance involved made recruitment more complex and time-consuming as coordinating participants' time around their busy schedules proved challenging, with some unable to take part. Delays were encountered, so fewer participants were included, and only one session was possible with each group, whereas more sessions would have included different individuals and therefore a broader range of perspectives. The use of a group setting for the qualitative data collection, while allowing ideas to be shared and openly discussed, may have caused some participants to be more reticent than they may have been in a one-to-one interview.

A significant limitation to be acknowledged is the sample size of the employer group. The employer survey generated only 46 valid responses, and only a small number volunteered for the focus group. However, of these, none were available for involvement in the second phase, so the research proceeded without their qualitative input. This means the results for this phase are less complete than initially planned, representing an area for further research. Finally, the necessarily limited time and financial resources available for this thesis limited its scope in that a deeper level of statistical analysis could have been undertaken with the quantitative data, and more participants could have been invited to take part in the focus groups across a greater number of sessions.

The methodological design employed in the translator study was based on participants' self-perceptions, as they were asked to assess their own technological competence. In the context of this research, self-assessment of this kind is likely to generate overestimations, for both personal reasons whereby the translator does not want to think of or describe themselves as less competent than they feel they should be, and for professional reasons, whereby they are likely to consider themselves more competent with technology they use every day than they might more objectively be adjudged. For the employer study, it may be the case that the employers themselves were not aware of the latest requirements of the industry as it is practically impossible for one individual to stay abreast of every technological development, particularly when simultaneously dealing with the other aspects required of their position. Until a client presents an employer with a request calling for particular tools or methods, they may not even

know of the existence of such requirements. Therefore, the results of the employer study in determining current translation industry requirements are limited to the state of knowledge of the participants, and also open to bias in that it is hard to imagine an employer admitting that they are not up to date with the cutting edge of their industry. However, the design of the studies in this thesis was subjective, in order to fulfil its main aim of achieving a comprehensive understanding of the current state of the translation industry in Saudi Arabia. Therefore, such limitations can be ascribed to the majority of qualitative research, and what is lost in measurable data is made up for with a rich and personalised view. This can provide direction for future research which could collect objective data via experiments or task-based assessments.

An overall limitation of this research is its technological focus, especially in the areas of GenAI. Developments are accelerating and debates are ongoing, so any study in this area will not be fully up to date at any stage. In this case, the data collection took place in 2021-2022, and ChatGPT was launched in late 2022, so the data analysis cannot account for the revolutionary effect that this tool is having on the translation industry. In addition, the two surveys (OPTIMALE and EMT) in the first phase of this research were adapted from instruments designed in 2012 and 2017 (respectively), so they do not cover AI. The topic was broached in the second phase, which took place in 2023, with participants invited to discuss the influence of AI on their translation work. Future research can methodologically fully incorporate GenAI and any related technologies that may emerge in the near future, as well as addressing some of the other limitations identified in this section.

### 8.4 Avenues for Future Research

The progressive curriculum design proposed in this thesis can represent an area of further study to determine the usefulness of its outcomes and identify challenges or limitations that may be encountered. This could be cross-sectional, surveying student and trainer satisfaction, and such results could be compared with similar past findings to judge the effectiveness of the proposal in a more longitudinal design which tracks how and to what extent translation technologies and GenAI become embedded in academic programmes for future translators.

The quasi-longitudinal comparison conducted in this thesis produced interesting results that were not accounted for in its original scope. Therefore, this could represent a study of its own which longitudinally measures changes in industry requirements, the evolving technology landscape, and graduate preparedness in BA programmes. This would provide stakeholders

with the information they need to continue aligning academic training with the realities of the industry and allow them to factor changing trends into curriculum and teaching strategies.

A more involved exploration of the implementation of CPD for trainers would fill a gap in the literature and improve the quality of training provided by BA programmes, addressing the concern around trainer expertise deficiencies identified in this thesis. If this were also of a longitudinal design, such a study could determine faculty training needs and help universities provide appropriate developmental support by allowing analysis of the effectiveness of structured CPD approaches including seminars, induction, orientation, peer mentoring, and short courses. Those found to be most effective could be further refined and supported by employers, professional associations, and the government, leading to improved translator outcomes in the translation industry.

This research was unable to conduct classroom observations to allow the collection of practical first-hand data about the actual teaching of translation technology, student engagement with various aspects of the programme, and how the structure and content of translation teaching could be improved in line with industry expectations. A future study could collect and analyse such data through a qualitative observational comparison of classroom practice with workplace practice and make recommendations that materially improve the delivery of translation-related BA content. This would also validate the findings of this thesis by collecting a different kind of data and determining dimensions that may have been missed in the present methodology.

Future research could augment the results of this research, which focused on BA programmes, by accounting for post-graduate and doctoral programmes. Analysing these curricula and charting their progression from BA studies to more advanced areas of translation technologies would contribute to a holistic mapping of translator training. This would enhance the transition between levels, improve student engagement, and reduce repetition or recycling of teaching content while ensuring a smoother development of technological competence and industry preparedness. Studies measuring the impact of a greater number of MA graduates on the translation industry could determine their influence on the status of the profession and of the role of the translator, and whether the professionalisation of the industry as a whole is significantly improved.

Finally, the structured template provided in this thesis can be applied in other under-researched markets and less-resourced languages to examine the academia-industry gap from different angles and determine whether similar patterns exist in contexts facing comparable educational

or technological challenges. Such comparative investigations would broaden the understanding of how translation technology training evolves under varying economic, linguistic, and institutional conditions. They would also contribute to developing context-based solutions and strategies that enhance translator training and strengthen the global dialogue on aligning academic programmes with industry requirements.

Closing the gap between BA programmes and industry requirements is both necessary and achievable. The recommendations made in this thesis will allow Saudi Arabia to compete on a global level in translator training, and in conjunction with its proposals to advance the Vision 2030 agenda across all sectors, can contribute to making the country a world leader in academic excellence, improve the professional lives of Saudi university graduates, and raise the quality of the Saudi translation industry.

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# Appendices

## Appendix 1. The Translator Survey

**Information Sheet**

**Dear Translator,**

You are invited to participate in a research study conducted by Abdelalah Al-Solami, a PhD candidate in Translation, University of Swansea, UK.

This research has been granted ethical approval from the ethics committee of Swansea University, and it has a number of aims, including:

1) to investigate the current state of using translation technologies in the Saudi translation industry and examine translators' technological competence through self-assessment.
2) to identify the technology-related competencies that professional translators highly need in their daily work, so that we can develop translator training programmes in Saudi universities.
3) To investigate the current state of CPD among translators and how they approach CPD in terms of planning and implementation.

This questionnaire is available in both English and Arabic, and it should take no more than 10 minutes to complete. The researcher will appreciate your contribution by answering all questions and writing your comments in the free text boxes. Your participation is very important and totally voluntary. You can also withdraw from the study at any time without giving any reason.

**Consent Form**

Please read the following statements, and if you agree, please click yes to continue. If you do not agree, please click no, and you will not be required to proceed further.

- I understand that my participation is totally voluntary, and I can withdraw from the study at any time without giving a reason.
- I know that I have the opportunity to ask any questions (by e-mail or phone) before and after submitting the questionnaire.
- I am aware that the data will be gathered for research purposes only and the results will be anonymised and treated with strict confidentiality.

If you agree with the above statements, please click yes to proceed to the questionnaire.

- Yes
- No

**Section 1: Demographic Information**

1.1 What is your gender?

- Male
- Female

1.2 What is your age?

- 18-25
- 26-35
- 36-45
- 46 or more

1.3 What type of organisation do you work in (as an in-house translator) or translate for (as a freelance translator)?

- Governmental organisation or company
- Semi-governmental organisation or company
- Private organisations or companies (other than LSP)
- Language Service Provider (LSP)

1.4 How many years of experience do you have?

- Less than 5 years
- 5-10 years
- 11-20 years
- More than 20 years

1.5 Are you a member of any national or international translation association?

- Yes
- No

1.6 Do you plan to be a member of the Saudi Translators Association?

- Yes
- No

1.7 Please type the main language pair you are translating between.

**Section 2: Academic backgrounds**

2.1 What is your highest qualification that you have obtained or are currently working towards?

- Bachelor's degree
- Master's degree
- Other / please specify here ……

2.2 Which university did you obtain the BA degree from?

- List of all Saudi universities

2.3 What BA academic programme will/did you graduate from?

- English Language programme
- Translator Training Programme
- Linguistics/Literature programme
- Other / please specify here ……..

2.4 Have you received any training in MT during your BA degree?

- Yes, only the theoretical aspect
- Yes, only the practical aspect
- Yes, both theoretical and practical aspects
- Not at all

2.5 Have you received any training in CAT tools during your BA degree?

- Yes, only the theoretical aspect
- Yes, only the practical aspect
- Yes, both theoretical and practical aspects
- Not at all

**Section 3: Importance of technology-related activities**

3.1 Please rate the importance of each of the following translation technology-related activities in your daily work on the following scale: not required, not so important, important, or essential. You can also select the I do not know this technology option if you are not familiar with a specific activity.

| | **Technology-related activities** |
|---|---|
| 1 | Information mining - search strategies |
| 2 | Information mining - evaluation of sources |
| 3 | Text and/or corpus analysis using concordancers, etc. |
| 4 | Corpus construction (mono-, bi- or multilingual) |
| 5 | Use of term bases |
| 6 | Computerised terminology extraction |
| 7 | Translation Memory use |
| 8 | TM construction (alignment and/or import) |
| 9 | Use of shared (server-based) Translation Memories |
| 10 | Use of shared (cloud-based) Translation Memories |
| 11 | Use of shared (cloud-based) termbases |
| 12 | MT used / post-edited in a CAT tool interface |
| 13 | MT used / post-edited outside a CAT tool |
| 14 | Construction of statistical MT engines. |
| 15 | Human evaluation of MT output |
| 16 | Evaluation of MT output using metrics (e.g. BLEU) |
| 17 | Training of statistical MT engines |
| 18 | Website localization |
| 19 | (Non-games) software localization |
| 20 | Games localization |
| 21 | Multimedia translation (subtitling) |
| 22 | Multimedia translation (dubbing/voiceover) |
| 23 | Translation management systems |
| 24 | Quality Assurance features of CAT tools |
| 25 | Desktop publishing |
| 26 | Speech recognition |

**Section 4: Competence self-assessment: translation tools and technology-related competencies**

4.1 Please indicate which translation tools you frequently use and rate your ability to use each tool you selected on the following scale: weak, sub-competent, average, competent, or excellent. You can skip the tools not used by selecting the N/A option.

| | **Software tools** |
|---|---|
| 1 | Across |
| 2 | Alchemy Catalyst |
| 3 | SmartCAT |
| 4 | Atril Déjà Vu |
| 5 | CafeTran Espresso |
| 6 | Fluency |
| 7 | Google Translate |
| 8 | Translators Toolkit |
| 9 | KantanAI |
| 10 | Lilt |
| 11 | Lingobit Localizer |
| 12 | Matecat |
| 13 | MemoQ |
| 14 | (Memsource Cloud) Phrase |
| 15 | MetaTexis |
| 16 | Microsoft (Bing) Translator |
| 17 | MultiTrans |
| 18 | OmegaT |
| 19 | MultiTerm |
| 20 | Passolo |
| 21 | Trados Studio |
| 22 | Star Transit |
| 23 | Systran |
| 24 | Termstar |
| 25 | WebCorp |
| 26 | Wordbee |
| 27 | Wordfast Anywhere |
| 28 | Wordfast Classic |
| 29 | Wordfast Pro |
| 30 | Wordsmith Tools |
| 31 | XTM |

4.2 Please rate your level of ability in each of the following technology-related competencies using the following scale: weak, sub-competent, average, competent, or excellent. You can select the N/A option if the competence is not required in your daily work.

| | **Technology-related competencies** |
|---|---|
| 1 | Ability to pre-edit texts for machine translation. |
| 2 | Ability to post-edit machine translation. |
| 3 | Ability to configure machine translation systems. |
| 4 | Ability to use translation memory systems. |
| 5 | Ability to extract and manage terminology. |

6 Ability to process files and convert files to different formats.
7 Ability to understand and use markup languages (HTML, XML).
8 Ability to localise multimedia websites.
9 Ability to understand software/video game localisation processes.
10 Ability to understand mobile technologies.
11 Ability to use and parameter desktop publishing tools.
12 Ability to program and/or modify simple macro-commands.
13 Ability to use speech recognition systems (dictated translation).

**Section 4: CPD provision and support**

4.1 Do you have a personal professional development plan to improve your translation competence?

- Yes
- No

4.2 Does your employer (work entity) provide you with any CPD-related activity specifically to enhance your technological competence?

- Yes
- No

4.4 Please indicate how frequently your employer (work entity) provides you or supports your attendance in the following CPD activities using the scale: never, occasionally, regularly.

| | **CPD activities** |
|---|---|
| 1 | Seminars/workshops |
| 2 | Orientation/induction programs |
| 3 | On-the-job training programs |
| 4 | Mentoring junior translators |
| 5 | Guest speakers |
| 6 | In-house short courses with internal trainers |
| 7 | In-house short course with external trainers |
| 8 | Collaborative training with other organisations |
| 9 | Collaborative training with academic institutions |
| 10 | Attendance at conferences |
| 11 | Attendance at pre- or post-conference workshops |
| 12 | Paid courses with external educational platforms |
| 13 | External study courses |
| 14 | Visits to other translation settings |

| Q. Can you participate in the second phase of this research, which will be conducted as an online focus group? |
|---|
| ➢ Yes/please write your name and contact details<br>➢ No |

**End of the translator survey**

## The Arabic Version of the Translator Survey

**القسم الأول: المعلومات الشخصية**

1.1 ما هو جنسك؟
- ذكر
- أنثى

1.2 كم عمرك؟
- 18 - 25
- 26 – 35
- 36 – 45
- 46 أو أكثر

1.3 ما نوع المؤسسة أو الجهة التي تعمل بها؟
- جهة حكومية
- جهة شبه حكومية
- شركة خاصة (غير تعليمية أو متخصصة في الترجمة أو الخدمات اللغوية)
- شركة أو مؤسسة تقديم خدمات الترجمة أو الخدمات اللغوية

1.4 كم عدد سنوات خبرتك كمترجم؟
- أقل من 5 سنوات
- 5 إلى 10 سنوات
- 11 إلى 20 سنة
- أكثر من 20 سنة

1.5 هل أنت عضو في أي جمعية ترجمة محلية او دولية؟
- نعم
- لا

1.6 هل تخطط أن تصبح عضواً في جمعية الترجمة السعودية (ساتا)؟
- نعم
- لا

1.7 فضلاً اذكر اللغات الأكثر استخداماً في الترجمة

**القسم الثاني: المعلومات الأكاديمية**

2.1 ما هو أعلى مؤهل أكاديمي حصلت عليه؟

- درجة البكالوريوس

- درجة الماجستير

- غير ذلك

2.2 ما هي الجامعة التي حصلت/سوف تحصل على درجة البكالوريوس منها؟

- قائمة بأسماء الجامعات السعودية

2.3 ما هو البرنامج الأكاديمي الذي تخرج/تي منه في مرحلة البكالوريوس؟
- بكالوريوس اللغة الانجليزية
- بكالوريوس الترجمة
- بكالوريوس في اللغات أو اللغويات أو الأدب
- أخرى / فضلاً اذكره هنا

2.4 هل تلقيت أي تدريب على أدوات الترجمة الالية خلال مرحلة البكالوريوس؟
- نعم / الجانب النظري فقط
- نعم / الجانب العملي فقط
- نعم / كلا الجانبين النظري والعملي
- لم أتلق أي تدريب

2.5 هل تلقيت أي تدريب على الترجمة بمساعدة الحاسوب خلال مرحلة البكالوريوس؟
- نعم / الجانب النظري فقط
- نعم / الجانب العملي فقط
- نعم / كلا الجانبين النظري والعملي
- لم أتلق أي تدريب

**القسم الثالث: أهمية الأنشطة المتعلقة بتقنيات الترجمة**

3.1 فضلاً حدّد أهمية الأنشطة التالية والمتعلقة بتقنيات الترجمة في عملك اليومي كمترجم وذلك حسب المقياس التالي غير مطلوب – غير مهم جداً – مهم – ضروري أو يمكنك اختيار لا أعرف هذه التقنية

**الأنشطة المتعلقة بتقنيات الترجمة**

1 التنقيب عن المعلومات - استراتيجيات البحث
2 التنقيب عن المعلومات - تقييم المصادر
3 تحليل النصوص أو المكانز اللغوية باستخدام المطابقات وغيرها
4 بناء المكانز اللغوية (أحادية أو ثنائية أو متعددة اللغات)
5 استخدام قواعد المصطلحات
6 استخراج المصطلحات المحوسبة
7 استخدام ذاكرات الترجمة
8 بناء ذاكرات الترجمة بالمحاذاة أو الاستيراد
9 استخدام ذاكرات الترجمة المشتركة (القائمة على الخادم)
10 استخدام ذاكرات الترجمة المشتركة (القائمة على السحابة
11 استخدام قواعد المصطلحات (القائمة على السحابة الإلكترونية)
12 الترجمة الآلية المستخدمة أو المحررة لاحقاً في واجهة أداة
13 الترجمة الآلية المستخدمة أو المحررة لاحقاً خارج أداة الترجمة
14 بناء محركات الترجمة الآلية الإحصائية
15 التقييم البشري لمخرجات الترجمة الآلية
16 تقييم مخرجات الترجمة الآلية باستخدام المقاييس
17 تدريب محركات الترجمة الآلية الإحصائية
18 توطين المواقع
19 توطين البرامج (غير الألعاب)
20 توطين الألعاب
21 ترجمة الوسائط المتعددة (ترجمة الأفلام)
22 ترجمة الوسائط المتعددة (الدبلجة / التعليق الصوتي)
23 أنظمة إدارة الترجمة
24 ميزات ضمان الجودة لأدوات الترجمة بمساعدة الحاسوب
25 النشر المكتبي
26 خاصية التعرف على الكلام

**القسم الرابع: التقييم الذاتي في استخدام أدوات وتقنيات الترجمة**

4.1 الرجاء اختيار أدوات الترجمة التي تستخدمها في عملك بشكل دائم ثم قيّم مدى كفاءتك في استخدام هذه الأدوات وذلك حسب المقياس التالي ضعيف – أقل من مؤهل – متوسط – مؤهل – ممتاز أو غير مطلوب

**أدوات الترجمة**

| | |
|---|---|
| 1 | Across |
| 2 | Alchemy Catalyst |
| 3 | SmartCAT |
| 4 | Atril Déjà Vu |
| 5 | CafeTran Espresso |
| 6 | Fluency |
| 7 | Google Translate |
| 8 | Translators Toolkit |
| 9 | KantanAI |
| 10 | Lilt |
| 11 | Lingobit Localizer |
| 12 | Matecat |
| 13 | MemoQ |
| 14 | (Memsource Cloud) Phrase |
| 15 | MetaTexis |
| 16 | Microsoft (Bing) Translator |
| 17 | MultiTrans |
| 18 | OmegaT |
| 19 | MultiTerm |
| 20 | Passolo |
| 21 | Trados Studio |
| 22 | Star Transit |
| 23 | Systran |
| 24 | Termstar |
| 25 | WebCorp |
| 26 | Wordbee |
| 27 | Wordfast Anywhere |
| 28 | Wordfast Classic |
| 29 | Wordfast Pro |
| 30 | Wordsmith Tools |
| 31 | XTM |

4.3 الرجاء تقييم مدى كفاءتك في المهارات التقنية التالية وذلك حسب المقياس التالي ضعيف – أقل من مؤهل – متوسط – مؤهل – ممتاز أو غير مطلوب

**المهارات المتعلقة بتقنيات الترجمة**

| | |
|---|---|
| 1 | القدرة على استخدام أنظمة ذاكرات الترجمة |
| 2 | القدرة على استخدام أنظمة التعرف على الكلام |
| 3 | القدرة على تحرير وإعداد النصوص قبل الترجمة الآلية |
| 4 | القدرة على التحرير اللاحق للترجمة الآلية |
| 5 | القدرة على استخراج وإدارة المصطلحات |
| 6 | القدرة على معالجة الملفات وتحويلها إلى أنواع وصيغ مختلفة |

7 القدرة على فهم واستخدام لغات الترميز والاختصارات) مثلhtml ،
8 القدرة على برمجة وتعديل أوامر الماكرو
9 القدرة على استخدام وتهيئة أدوات النشر المكتبي
10 القدرة على توطين مواقع الوسائط المتعددة
11 القدرة على فهم عمليات توطين برامج وألعاب الفيديو
12 القدرة على فهم واستخدام تقنيات الأجهزة المتنقلة
13 القدرة على تهيئة أو تكوين أنظمة الترجمة الآلية

**القسم الخامس: فرص التطوير المهني المستمر**

5.1 هل لديك أي خطة تطوير مهنية شخصية لتحسين كفاءاتك ومهاراتك في الترجمة؟

- نعم

- لا

5.2 هل الجهة أو الشركة التي تعمل فيها أو تترجم لها تدعمك بأي فرص تطوير مهني لتحسين كفاءتك في تقنيات الترجمة بشكل خاص؟

- نعم

- لا

5.3 فضلاً حددّ مدى تكرار حضورك بدعم من الجهة أو الشركة التي تعمل فيها أو تترجم لها في كل من أنشطة التطوير المهني المستمر التالية وذلك حسب المقياس التالي لا يوجد أبداً – بشكل متقطع – بشكل دائم

**أنشطة التطوير المهني المستمر**

1 حلقات دراسية أو ندوات أو ورش عمل
2 برامج توجيهية أو تعريفية
3 برامج تدريب داخل جهة العمل
4 توجيه ومتابعة المترجمين المبتدئين
5 متحدثون ضيوف
6 دورات قصيرة داخل العمل مع مدربين من داخل العمل
7 دورات قصيرة داخل العمل مع مدربين من خارج العمل
8 تدريب تعاوني مع جهات عمل أخرى
9 تدريب تعاوني مع مؤسسات أكاديمية
10 حضور مؤتمرات
11 حضور ورش عمل قبل أو بعد المؤتمرات
12 دورات مدفوعة مع منصات تعليمية خارج العمل
13 دورات دراسية خارج جهة العمل
14 زيارات لجهات وشركات ترجمة أخرى

س/ هل يمكنك المشاركة في المرحلة الثانية من هذه الدراسة والتي ستكون على شكل مجموعات مركزة عبر الإنترنت؟

- نعم، الرجاء كتابة الاسم ووسيلة التواصل

- لا

## Appendix 2. The Employer Survey

**Information Sheet**

**Dear Participant,**

You are invited to participate in a research study conducted by Abdelalah Al-Solami, a PhD candidate in Translation, University of Swansea, UK.

This research has been granted ethical approval from the ethics committee of Swansea University, and it has a number of aims, including:

1) to investigate the current state of using translation technologies in the Saudi translation industry and how competent translators are to deal with such technologies, from the employers' perspective.
2) To identify which technology-related competencies employers look for when hiring new translators, so that we can develop translator training programmes in Saudi universities.
3) To explore the current state of CPD and the extent to which employers facilitate their translators' professional development.

This questionnaire is available in both English and Arabic, and it should take no more than 10 minutes to complete. The researcher will appreciate your contribution by answering all questions and writing your comments in the free text boxes. Your participation is very important and totally voluntary. You can also withdraw from the study at any time without giving any reason.

**Consent Form**

Please read the following statements, and if you agree, please click yes to continue. If you do not agree, please click no, and you will not be required to proceed further.

- I understand that my participation is totally voluntary, and I can withdraw from the study at any time without giving a reason.
- I know that I have the opportunity to ask any questions (by e-mail or phone) before and after submitting the questionnaire.
- I am aware that the data will be gathered for research purposes only, and the results will be anonymised and treated with strict confidentiality.

If you agree with the above statements, please click yes to proceed to the questionnaire.

- Yes
- No

**Section 1: General Information**

1.1 What is the type of your organisation?

- Governmental organisation or company
- Semi- Semi-governmental organisation or company
- Private organisation or company (other than LSP)

Language Service Provider (LSP)

1.2 What is the total number of translators (full-time + freelance) in your organisation or company?

- Less than 5
- 5 to 10
- 11 to 20
- More than 20

1.3 Which of the following competencies does your organisation or company test before recruiting new translators, whether in-house or freelance translators? You can choose more than one answer.

- Language and culture
- Translation
- Technology
- Personal and Interpersonal (e.g., time management, teamwork)
- Service Provision (e.g., negotiate with the client, manage translation projects)

1.4 Please type the most commonly requested language pair provided by your organisation, service or department.

…….

**Section 2: Importance of Translation Technology-related Competencies**

2.1 Please rate the importance of each of the following technology-related competencies when you are looking for new translators using the following scale: not required, not so important, important, essential.

| | **Technology-related competencies** |
|---|---|
| 1 | Ability to pre-edit texts for machine translation. |
| 2 | Ability to post-edit machine translation. |
| 3 | Ability to configure machine translation systems. |
| 4 | Ability to use translation memory systems. |
| 5 | Ability to extract and manage terminology. |
| 6 | Ability to process files and convert files to different formats. |
| 7 | Ability to understand and use markup languages (HTML, XML). |
| 8 | Ability to localise multimedia websites. |
| 9 | Ability to understand software/video game localisation processes. |
| 10 | Ability to understand mobile technologies. |
| 11 | Ability to use and parameter desktop publishing tools. |
| 12 | Ability to program and/or modify simple macro-commands. |
| 13 | Ability to use speech recognition systems (dictated translation). |

**Section 3: Competence Assessment: Translation Tools and Technology-related Activities**

3.1 Please indicate which translation tools your translators frequently use and rate their competencies in using each tool selected on the following scale: weak. sub-competent, average, competent, or excellent, in addition to N/A if the tool is not used.

| | **Software tools** |
|---|---|
| 1 | Across |
| 2 | Alchemy Catalyst |
| 3 | SmartCAT |
| 4 | Atril Déjà Vu |
| 5 | CafeTran Espresso |
| 6 | Fluency |
| 7 | Google Translate |
| 8 | Translators Toolkit |
| 9 | KantanAI |
| 10 | Lilt |
| 11 | Lingobit Localizer |
| 12 | Matecat |
| 13 | MemoQ |
| 14 | (Memsource Cloud) Phrase |
| 15 | MetaTexis |
| 16 | Microsoft (Bing) Translator |
| 17 | MultiTrans |
| 18 | OmegaT |
| 19 | MultiTerm |
| 20 | Passolo |
| 21 | Trados Studio |
| 22 | Star Transit |
| 23 | Systran |
| 24 | Termstar |
| 25 | WebCorp |
| 26 | Wordbee |
| 27 | Wordfast Anywhere |
| 28 | Wordfast Classic |
| 29 | Wordfast Pro |
| 30 | Wordsmith Tools |
| 31 | XTM |
| 32 | Other |

3.2 How do you describe the technological competences of your translators in the following activities on the following scale: weak. sub-competent, average, competent, or excellent, in addition to N/A if the activity is not required.

| | **Technology-related activities** |
|---|---|
| 1 | Information mining - search strategies |
| 2 | Information mining - evaluation of sources |

| | |
|---|---|
| 3 | Text and/or corpus analysis using concordancers, etc. |
| 4 | Corpus construction (mono-, bi- or multilingual) |
| 5 | Use of term bases |
| 6 | Computerised terminology extraction |
| 7 | Translation Memory use |
| 8 | TM construction (alignment and/or import) |
| 9 | Use of shared (server-based) Translation Memories |
| 10 | Use of shared (cloud-based) Translation Memories |
| 11 | Use of shared (cloud-based) termbases |
| 12 | MT used / post-edited in a CAT tool interface |
| 13 | MT used / post-edited outside a CAT tool |
| 14 | Construction of statistical MT engines. |
| 15 | Human evaluation of MT output |
| 16 | Evaluation of MT output using metrics (e.g. BLEU) |
| 17 | Training of statistical MT engines |
| 18 | Website localization |
| 19 | (Non-games) software localization |
| 20 | Games localization |
| 21 | Multimedia translation (subtitling) |
| 22 | Multimedia translation (dubbing/voiceover) |
| 23 | Translation management systems |
| 24 | Quality Assurance features of CAT tools |
| 25 | Desktop publishing |
| 26 | Speech recognition |

## Section 4: CPD Provision and Support

4.1 Which Competencies do you think your translators need more training in? You can choose more than one option.

- Language and culture
- Translation
- Technology (e.g., use of MT, CAT tools)
- Personal and Interpersonal (e.g., time management, teamwork)
- Service Provision (e.g., negotiate with the client, manage translation projects)

4.2 Please indicate how frequently your organisation provide translators (freelancers or in-house) with the following CPD activities on the Likert scale: never, occasionally, regularly.

| | **CPD activities** |
|---|---|
| 1 | Seminars/workshops |
| 2 | Orientation/induction programs |
| 3 | On-the-job training programs |
| 4 | Mentoring junior translators |
| 5 | Guest speakers |
| 6 | In-house short courses with internal trainers |
| 7 | In-house short course with external trainers |
| 8 | Collaborative training with other organisations |

9 Collaborative training with academic institutions
10 Attendance at conferences
11 Attendance at pre- or post-conference workshops
12 Paid courses with external educational platforms
13 External study courses
14 Visits to other translation settings

| Q. Can you participate in the second phase of this research, which will be conducted as an online focus group? |
| --- |
| ➢ Yes/please write your name and contact details<br>➢ No |

**End of the employer survey**

## The Arabic Version of the Employer Survey

القسم الأول: معلومات عامة

1.1 ما نوع المؤسسة أو الشركة التي تعمل بها؟

- جهة حكومية
- جهة شبه حكومية
- شركة خاصة (غير تعليمية أو متخصصة في الترجمة أو الخدمات اللغوية)
- شركة أو مؤسسة تقديم خدمات الترجمة أو الخدمات اللغوية

1.2 كم العدد الإجمالي للمترجمين الذين يعملون في جهة عملك؟

- أقل كم 5
- 5 إلى 10
- 11 إلى 20
- أكثر من 20

1.3 أيّ من الكفاءات التالية تختبرها جهة عملك قبل توظيف مترجمين جدد سواء كانوا مترجمين موظفين أو مترجمين مستقلين؟ يمكنك اختيار أكثر من إجابة.

- اللغة والثقافة
- الترجمة
- التقنية (على سبيل المثال: استخدام أدوات الترجمة بمساعدة الحاسوب والترجمة الآلية)
- المهارات الشخصية والتعامل مع الآخرين (على سبيل المثال: إدارة الوقت والعمل الجماعي)
- تقديم الخدمات (على سبيل المثال: التفاوض مع العميل وإدارة مشاريع الترجمة)
- أخرى

1.4 فضلاً اذكر/ي اللغات الأكثر استخداماً في الترجمة في جهة عملك؟

.....

**القسم الثاني: أهمية المهارات المتعلقة بتقنيات الترجمة**

2.1 الرجاء تقييم أهمية المهارات المتعلقة بتقنيات الترجمة وفقاً لمتطلبات العمل عند البحث عن مترجمين جدد لجهة عملكم وذلك حسب المقياس التالي: مهارة غير مطلوبة – مهارة غير مهمة – مهارة مهمة – مهارة ضرورية.

**المهارات المتعلقة بتقنيات الترجمة**

1. القدرة على استخدام أنظمة ذاكرات الترجمة
2. القدرة على استخدام أنظمة التعرف على الكلام
3. القدرة على تحرير وإعداد النصوص قبل الترجمة الآلية
4. القدرة على التحرير اللاحق للترجمة الآلية
5. القدرة على استخراج وإدارة المصطلحات
6. القدرة على معالجة الملفات وتحويلها إلى أنواع وصيغ مختلفة
7. القدرة على فهم واستخدام لغات الترميز والاختصارات) مثلhtml ،
8. القدرة على برمجة وتعديل أوامر الماكرو
9. القدرة على استخدام وتهيئة أدوات النشر المكتبي

10 القدرة على توطين مواقع الوسائط المتعددة
11 القدرة على فهم عمليات توطين برامج وألعاب الفيديو
12 القدرة على فهم واستخدام تقنيات الأجهزة المتنقلة
13 القدرة على تهيئة أو تكوين أنظمة الترجمة الآلية

**القسم الثالث: تقييم كفاءة المترجمين في استخدام أدوات وتقنيات الترجمة**

3.1 الرجاء اختيار أدوات الترجمة التي يستخدمها المترجمين في عملهم بشكل دائم ثم قيّم مدى كفاءتهم في استخدام هذه الأدوات وذلك حسب المقياس التالي ضعيف – أقل من مؤهل – متوسط – مؤهل – ممتاز أو غير مطلوب

**أدوات الترجمة**

1 Across
2 Alchemy Catalyst
3 SmartCAT
4 Atril Déjà Vu
5 CafeTran Espresso
6 Fluency
7 Google Translate
8 Translators Toolkit
9 KantanAI
10 Lilt
11 Lingobit Localizer
12 Matecat
13 MemoQ
14 (Memsource Cloud) Phrase
15 MetaTexis
16 Microsoft (Bing) Translator
17 MultiTrans
18 OmegaT
19 MultiTerm
20 Passolo
21 Trados Studio
22 Star Transit
23 Systran
24 Termstar
25 WebCorp
26 Wordbee
27 Wordfast Anywhere
28 Wordfast Classic
29 Wordfast Pro
30 Wordsmith Tools
31 XTM

3.2 1 الرجاء تقييم مدى كفاءة مترجميكم في الأنشطة المتعلقة بتقنيات الترجمة التالية وذلك حسب المقياس التالي : ضعيف – أقل من مؤهل – متوسط – مؤهل – ممتاز أو غير مطلوب.

**الأنشطة المتعلقة بتقنيات الترجمة**

1 التنقيب عن المعلومات - استراتيجيات البحث
2 التنقيب عن المعلومات - تقييم المصادر
3 تحليل النصوص أو المكانز اللغوية باستخدام المطابقات وغيرها
4 بناء المكانز اللغوية (أحادية أو ثنائية أو متعددة اللغات)
5 استخدام قواعد المصطلحات
6 استخراج المصطلحات المحوسبة
7 استخدام ذاكرات الترجمة
8 بناء ذاكرات الترجمة بالمحاذاة أو الاستيراد
9 استخدام ذاكرات الترجمة المشتركة (القائمة على الخادم)
10 استخدام ذاكرات الترجمة المشتركة (القائمة على السحابة
11 استخدام قواعد المصطلحات (القائمة على السحابة الإلكترونية)
12 الترجمة الآلية المستخدمة أو المحررة لاحقاً في واجهة أداة
13 الترجمة الآلية المستخدمة أو المحررة لاحقاً خارج أداة الترجمة
14 بناء محركات الترجمة الآلية الإحصائية
15 التقييم البشري لمخرجات الترجمة الآلية
16 تقييم مخرجات الترجمة الآلية باستخدام المقاييس
17 تدريب محركات الترجمة الآلية الإحصائية
18 توطين المواقع
19 توطين البرامج (غير الألعاب)
20 توطين الألعاب
21 ترجمة الوسائط المتعددة (ترجمة الأفلام)
22 ترجمة الوسائط المتعددة (الدبلجة / التعليق الصوتي)
23 أنظمة إدارة الترجمة
24 ميزات ضمان الجودة لأدوات الترجمة بمساعدة الحاسوب
25 النشر المكتبي
26 خاصية التعرف على الكلام

**القسم الرابع: فرص التطوير المهني المستمر**

4.1 ماهي الكفاءات التي تعتقد أن مترجميكم يحتاجون فيها إلى مزيد من التدريب؟ يمكنك اختيار أكثر من إجابة.

- اللغة والثقافة
- الترجمة
- التقنية (على سبيل المثال: استخدام أدوات الترجمة بمساعدة الحاسوب والترجمة الآلية)
- المهارات الشخصية والتعامل مع الآخرين (على سبيل المثال: إدارة الوقت والعمل الجماعي)
- تقديم الخدمات (على سبيل المثال: التفاوض مع العميل وإدارة مشاريع الترجمة)
- أخرى

4.2 الرجاء تحديد مدى تكرار تقديم جهة عملك أو شركتك لأنشطة التطوير المهني المستمر التالية للمترجمين سواءً الموظفين أو المستقلين وذلك حسب المقياس التالي: لا يوجد أبدا ، بشكل متقطع ، بشكل منتظم.

**أنشطة التطوير المهني المستمر**

1 حلقات دراسية أو ندوات أو ورش عمل
2 برامج توجيهية أو تعريفية
3 برامج تدريب داخل جهة العمل
4 توجيه ومتابعة المترجمين المبتدئين
5 متحدثون ضيوف
6 دورات قصيرة داخل العمل مع مدربين من داخل العمل
7 دورات قصيرة داخل العمل مع مدربين من خارج العمل
8 تدريب تعاوني مع جهات عمل أخرى
9 تدريب تعاوني مع مؤسسات أكاديمية
10 حضور مؤتمرات
11 حضور ورش عمل قبل أو بعد المؤتمرات
12 دورات مدفوعة مع منصات تعليمية خارج العمل
13 دورات دراسية خارج جهة العمل
14 زيارات لجهات وشركات ترجمة أخرى

س/ هل يمكنك المشاركة في المرحلة الثانية من هذه الدراسة والتي ستكون على شكل مجموعات مركزة عبر الإنترنت؟

- نعم، الرجاء كتابة الاسم ووسيلة التواصل

- لا

## Appendix 3. The Academic Survey

## Section 1: General Information

1.1 What is your university?
- List of all Saudi universities

1.2 What is the type of your university?
- Public university
- Private university

1.3 Is your BA programme dedicated to translator training?

| Yes | No, |
|---|---|
| If **yes** is chosen, respondents go to Q1.10 | If **no** is chosen, respondents were asked to write the title of their BA programme and continue to Q1.4 |
| | 1.4 Does your programme have an objective to provide the translation industry with professional translators?<br>➢ Yes<br>➢ No |
| | 1.5 Do you think the graduates from your programme are eligible to work as professional translators?<br>➢ Yes<br>➢ No |
| | 1.6 Does your programme teach any translation-related course?<br>➢ Yes, please write the names of all courses<br>➢ No |
| | 1.7 What aspects do translation courses cover in your programme?<br>➢ Theory only<br>➢ Practice only<br>➢ Both theory and practice<br>➢ No translation courses at all |
| | 1.8 How frequently your programme's objectives are updated?<br>➢ 1-3 years<br>➢ 4-6 years<br>➢ 7-9 years<br>➢ Over 10 years |
| | 1.9 How frequently do you update the curriculum of your programme?<br>➢ 1-3 years<br>➢ 4-6 years<br>➢ 7-9 years<br>➢ Over 10 years |

1.10 Do you teach any course in translation technologies, whether compulsory or optional, in your programme?

| Yes | No |
|---|---|
| If **yes** is chosen, respondents continue to **section 2** to answer the full version of the survey | If **no** is chosen, respondents continue to Q1.11 and end the survey. |
| | 1.11 Does your programme have a future plan to include any translation technology course?<br>➢ Yes<br>➢ No /please write the reasons |
| | End of survey |

**Section 2: Overall teaching approach**

2.1 In which years do you teach translation technology courses according to the study plan?

- Year 1
- Year 2
- Year 3
- Year 4
- Year 5

2.2 We currently teach and assess the theory and practice of translation tools.

- Yes
- No

2.3 What is the approximate minimum percentage of (compulsory) study time that a student must devote to translation tools? Note, study time here means the proportion of time that students are expected to spend dealing with translation technologies out of their weekly total working time, including (lecture time, private study time, etc).

- Less than 10%
- 10% to 25%
- More than 25%

2.4 (Optional) If more than 25%, please explain:

……

2.5 What is the approximate maximum percentage of (compulsory + optional) study time that a student can devote to translation tools?

- Less than 10%
- 10% to 25%
- 25% to 50%
- More than 50%

2.6 (Optional) If more than 50%, please explain:

……

2.7 How many COMPULSORY courses are mainly devoted to translation tools and technologies?

- None
- One course
- Two courses
- Three courses or more

2.8 Please name/describe compulsory modules/courses:

……

2.9 How many OPTIONAL courses are mainly devoted to translation tools and technologies?

- None
- One course
- Two courses
- Three courses or more

2.10 Please name/describe optional modules/courses:

……

2.11 Your approach to tools training:

| | Yes | No |
|---|---|---|
| We teach and assess generic/free tools | | |
| We teach and assess commercial / paid-for tools | | |
| We teach tools from the perspective of translators | | |
| We teach tools from the perspective of project managers (e.g. management of | | |
| We teach tools from the perspective of translation companies (e.g. client portals) | | |

2.12 Please give a short statement of your core and optional tools training strategy

……

**Section 3: Types of training activities**

3.1 Please indicate which activities involving translation-related technologies you teach, whether they are compulsory or optional, and whether they play a major or minor role in your programme (e.g. an optional activity may be a major component of the programme for students who take it). Here is the Likert scale: N/A, Optional – minor, Optional – major, Compulsory – minor, or Compulsory – major. Note: N/A means the activity is not taught at all.

**Technology-related activities**

1 Information mining - search strategies
2 Information mining - evaluation of sources
3 Text and/or corpus analysis using concordancers, etc.
4 Corpus construction (mono-, bi- or multilingual)
5 Use of term bases
6 Computerised terminology extraction
7 Translation Memory use

8 TM construction (alignment and/or import)
9 Use of shared (server-based) Translation Memories
10 Use of shared (cloud-based) Translation Memories
11 Use of shared (cloud-based) termbases
12 MT used / post-edited in a CAT tool interface
13 MT used / post-edited outside a CAT tool
14 Construction of statistical MT engines.
15 Human evaluation of MT output
16 Evaluation of MT output using metrics (e.g. BLEU)
17 Training of statistical MT engines
18 Website localization
19 (Non-games) software localization
20 Games localization
21 Multimedia translation (subtitling)
22 Multimedia translation (dubbing/voiceover)
23 Translation management systems
24 Quality Assurance features of CAT tools
25 Desktop publishing
26 Speech recognition

3.2 Please comment on the range of technology-related activities in your programme, including any not listed above:

……

3.3 Do you integrate translation technologies into other courses in your programme?

- Yes

- NO

3.4 Please identify the role of tools in other courses not specifically devoted to them using the following scale: N/A, Optional – minor, Optional – major, Compulsory – minor, or Compulsory – major. Note: N/A means technology is not taught at all.

1 Introduction to translation
2 Translation theory
3 Practical translation classes
4 Skills lab / simulated translation company
5 Internship/Practicum
6 Extended Translation Project
7 Dissertation

**Section 4: Translation software tools taught, and licenses held**

4.1 Please indicate which translation software you teach, whether each package is compulsory (Comp.) or optional (Opt.), and the approximate ratio of students to licences that you hold (Free or ≤1 means that either no licence is required, or you have one licence per student or better; 1.1 - 2.9 that there are between 1 and 3 students for every licence; and ≥3 that there are three or more students for every licence). You only need to select an option for tools that you teach.

| | **Software tools** |
|---|---|
| 1 | Across |
| 2 | Alchemy Catalyst |
| 3 | SmartCAT |
| 4 | Atril Déjà Vu |
| 5 | CafeTran Espresso |
| 6 | Fluency |
| 7 | Google Translate |
| 8 | Translators Toolkit |
| 9 | KantanAI |
| 10 | Lilt |
| 11 | Lingobit Localizer |
| 12 | Matecat |
| 13 | MemoQ |
| 14 | Memsource Cloud |
| 15 | MetaTexis |
| 16 | Microsoft (Bing) Translator |
| 17 | MultiTrans |
| 18 | OmegaT |
| 19 | MultiTerm |
| 20 | Passolo |
| 21 | Trados Studio |
| 22 | Star Transit |
| 23 | Systran |
| 24 | Termstar |
| 25 | WebCorp |
| 26 | Wordbee |
| 27 | Wordfast Anywhere |
| 28 | Wordfast Classic |
| 29 | Wordfast Pro |
| 30 | Wordsmith Tools |
| 31 | XTM |
| 32 | Other |

4.2 Please describe your tools selection and licence holding strategy, including any relevant constraints and limitations:

……

**Section 5: Tools themes: teaching and assessment**

5.1 Please indicate which of the following Tools themes your programme teaches and rate their importance in the following scale: not important at all, not very important, neutral, important, very important.

| | **Themes** |
|---|---|
| 1 | History and development of translation tools |
| 2 | Theory and principles of translation tools |
| 3 | Tools as part of a translation-related project |
| 4 | Tools in and for themselves (i.e. as software packages) |
| 5 | Tools in collaborative translation |
| 6 | Generic file management and data security skills |
| 7 | Advanced Office skills (e.g. macros) |
| 8 | Professional roles and workflows |
| 9 | Translation industry structure and future development |
| 10 | Industry standards (e.g. ISO 17100) |
| 11 | MTPE issues |
| 12 | Legal issues (e.g. around TM ownership) |

5.2 Please comment on your answers in 5.1:

……..……

5.3 Please indicate which teaching and assessment strategies your programme uses, and rate their importance in the following scale: not important at all, not very important, neutral, important, very important.

| | **Strategies** |
|---|---|
| 1 | Learning through staff lecture /demonstration |
| 2 | Autonomous learning from manuals and Help systems |
| 3 | E-learning (online delivery) |
| 4 | Blended learning |
| 5 | Learning through individual work |
| 6 | Learning through team and group work |
| 7 | Learning through simulated translation company activity |
| 8 | Assessment by individual work |
| 9 | Assessment by group or teamwork |
| 10 | Assessment by practical tools-based task |
| 11 | Assessment by analytical and descriptive report |
| 12 | Assessment by general essay |
| 13 | Assessment by professional certification tests |

5.4 Please comment on your answers in 5.3

……..……

**Section 6: Staff training, IT facilities and technical support**

6.1 Who teaches tools and technologies in your programme?

- We only use salaried academic staff
- We only use external professionals
- Most of our teachers are academic staff
- Most of our teachers are external professionals
- About half of our teachers are academics and the others external professionals
- Other (please comment in 6.2)

6.2 Comments on teaching staff

……..……

6.3 What qualifications do your tools teachers have?

- All our tools teaching staff hold a formal qualification in translation technology.
- Most of our tools teaching staff hold a formal qualification in translation technology.
- About half of our tools teaching staff hold a formal qualification in translation technology.
- Most of our tools teaching staff do not hold a formal qualification in translation technology
- None of our tools teaching staff hold a formal qualification in translation technology.

6.4 Comments on trainers' qualifications

……..……

6.5 How much experience do tools teachers have?

- All our tools teaching staff have 5 years or more experience of teaching translation technology
- Most of our tools teaching staff have 5 years or more experience of teaching translation technology
- About half of our tools teaching staff have 5 years or more experience of teaching translation technology.
- Most of our tools teaching staff do not have 5 years or more experience of teaching translation technology
- None of our tools teaching staff have 5-year experience of teaching translation technology

6.5 Comments on trainers' expertise

……..……

6.6 Do you have big enough labs to teach translation technologies?

- Yes
- No

6.7 Facilities: what is the ratio of students in tools classes to tools-equipped networked workstations? (e.g. 2: 1 means two students for each workstation)

- 1: 1 or better
- Between 1: 1 and 2: 1
- 3: 1 or worse

6.8 Comments on students/workstations ratio

……

6.9 Can students access labs outside class time?

- Yes
- No

6.10 Comments on lab access

……

6.11 Can students access tools remotely from off campus?

- All tools
- Most tools
- Some tools
- No tools

6.12 Can students install stand-alone tool licences on their personal devices?

- All tools
- Most tools
- Some tools
- No tools

6.13 Are students' personal devices integrated into your tools classes?

- Yes, we rely on them in one or more modules/units
- Yes, as an optional extra in one or more modules/units
- No, all our classes use only lab facilities

6.14 Please comment on your answers to 6.11, 6.12 and 6.13:

……

6.15 Servers and technical support:

| Statements | Yes | No |
|---|---|---|
| We have one or more server(s) dedicated to Translation programmes. | | |
| We share one or more server(s) with other specialised programmes. | | |
| We can use one or more generic institutional server(s) | | |
| We have technical support staff dedicated to our Translation programme(s) | | |
| We share technical support staff with other specialised programmes | | |
| We rely on generic institutional technical support | | |

6.16 Please comment on the IT facilities and technical support available to your programme:

……

**Section 7: Future prospects**

7.1 Looking ahead over the next five years, how likely is your programme to experience the following opportunities and challenges? Please rate your answers on the scale: very unlikely, unlikely, neutral, likely, or very likely.

| | Opportunities and Challenges |
|---|---|
| 1 | Student demand for our Translation programme(s) will increase. |
| 2 | We expect to develop one or more new Translation-related programme(s). |

| | |
|---|---|
| 3 | We expect the translation technology element of our programme(s) to expand. |
| 4 | We expect to introduce training in different types of translation tools. |
| 5 | We expect to develop one or more collaborative programme(s) with other institutions. |
| 6 | We expect to introduce/expand alternative teaching methods (e-learning). |
| 7 | Translation technology will become more complex and diverse. |
| 8 | Translation tools will migrate from local installations to the Cloud. |
| 9 | Fully automatic translation (MT) will become more important in the industry |
| 10 | Newly-qualified staff with translation technology training will become available |
| 11 | Industry involvement with Translation programmes will increase |
| 12 | Our future developments will be limited by lack of trained staff |
| 13 | Our future developments will be limited by lack of money |
| 14 | Our future developments will be limited by lack of IT facilities |
| 15 | Our future developments will be limited by lack of technical support. |
| 16 | Our future developments will be limited by lack of official (institutional/governmental) support. |

Can you participate in the second phase of this research, which will be conducted as an online focus group?

- Yes/please write your name and contact details
- No

**End of the Academic Survey**

**The Arabic Version of the Academic Survey**

**القسم الأول: معلومات عامة**

1.1 ماهي جامعتك؟

- قائمة بأسماء جميع الجامعات السعودية

1.2 ما نوع جامعتك؟

- جامعة حكومية
- جامعة خاصة

1.3 هل برنامج البكالوريوس في قسمكم متخصص في الترجمة؟

| No, | Yes |
|---|---|
| إذا تم اختيار الاجابة لا، تم سؤال المستجيبون بكتابة عنوان برنامجهم الأكاديمي والاستمرار إلى السؤال 1.4 | إذا تم اختيار الاجابة نعم، ينتقل المستجيبون إلى السؤال 1.10 |
| 1.4 هل يهدف برنامجكم الأكاديمي أن يزود سوق الترجمة بمترجمين محترفين؟<br>- نعم<br>- لا | |
| 1.5 هل تعتقد أن خريجي برنامجكم الأكاديمي مؤهلون للعمل كمترجمين محترفين؟<br>- نعم<br>- لا | |
| 1.6 هل تقومون بتدريس أي مواد ترجمة في برنامجكم؟<br>- نعم، الرجاء كتابة أسماء المواد<br>- لا | |
| 1.7 ماهي الجوانب التي تقومون بتدريسها في مواد الترجمة في برنامجكم الأكاديمي؟<br>- نظري فقط<br>- عملي فقط<br>- نظري وعملي<br>- لا يوجد مواد ترجمة | |
| 1.8 ما مدى تكرار تحديث أهداف برنامجكم الأكاديمي؟<br>- 1 - 3 سنوات<br>- 4 – 6 سنوات<br>- 7 – 9 سنوات<br>- أكثر من 10 سنوات | |
| 1.9 ما مدى تكرار تحديث المنهج الدراسي لبرنامجكم الأكاديمي؟<br>- 1 - 3 سنوات<br>- 4 – 6 سنوات<br>- 7 – 9 سنوات<br>- أكثر من 10 سنوات | |

1.11 هل لديكم أي مادة تقنيات الترجمة سواء إجبارية أو اختيارية ضمن المنهج الدراسي الحالي في برنامجكم؟

| No | Yes |
|---|---|
| إذا تم اختيار الإجابة لا، يستمر المستجيبون للإجابة عن السؤال 1.12 ومن ثم يتم الانتهاء من الاستبيان | إذا تم اختيار الإجابة نعم، ينتقل المستجيبون إلى القسم الثاني للإجابة على كامل الاستبيان |
| 1.12 هل لديكم أي خطة مستقبلية لتدريس تقنيات الترجمة ضمن المنهج الدراسي؟<br>- نعم<br>- لا، الرجاء ذكر الأسباب | |
| End of survey | |

**القسم الثاني: النهج العام في تدريس تقنيات الترجمة**

2.1 في أي سنة دراسية يتم تدريس مادة/مواد تقنيات الترجمة حسب الخطة الدرسية؟

- السنة الأولى
- السنة الثانية
- السنة الثالثة
- السنة الرابعة
- السنة الخامسة

2.2 نقوم حاليًا بتدريس وتقييم نظرية وتطبيق أدوات الترجمة

- نعم

- لا

2.3 ما هي النسبة المئوية الدُنيا التقريبية لوقت الدراسة (الإجباري) الذي يجب على الطالب تكريسه لتعلم تقنيات الترجمة؟ ملاحظة، وقت الدراسة هنا يعني نسبة الوقت المتوقع الذي يجب على الطالب أن يقضيه في التعامل مع تقنيات الترجمة من إجمالي وقت الدراسة الأسبوعي بما في ذلك (وقت المحاضرات، وقت الدراسة الخاص ... إلخ)

- أقل من 10%
- من 10% إلى 25%
- أكثر من 25%

2.4 إذا كانت النسبة تزيد عن 25٪، يرجى التوضيح أو التعليق على ذلك (اختياري)

.....

2.5 ما هي النسبة المئوية القصوى التقريبية لوقت الدراسة (الإجباري + الاختياري) الذي يمكن للطالب تكريسه لتعلم تقنيات الترجمة؟

- أقل من 10%
- من 10% إلى 25%
- من 26% إلى 50%
- أكثر من 50%

2.6 إذا كانت النسبة تزيد عن 50٪، يرجى التوضيح أو التعليق على ذلك (اختياري)

.....

2.6 كم عدد المواد الإجبارية المخصصة بشكل أساسي لتقنيات الترجمة في برنامجكم الأكاديمي؟

- لا يوجد
- مادة واحدة
- مادتين

- ثلاث مواد أو أكثر

2.7 الرجاء كتابة اسم أو وصف لمواد تقنيات الترجمة الإجبارية

.....

2.8 كم عدد المواد الاختيارية المخصصة بشكل أساسي لتقنيات الترجمة في برنامجكم الأكاديمي؟

- لا يوجد
- مادة واحدة
- مادتين
- ثلاث مواد أو أكثر

2.9 الرجاء كتابة اسم أو وصف لمواد تقنيات الترجمة الاختيارية

.....

2.10 منهج (أسلوب) التدريب المستخدم في تدريس تقنيات الترجمة

| | نعم | لا |
|---|---|---|
| نقوم بتدريس وتقييم الأدوات العامة / المجانية | | |
| نقوم بتدريس وتقييم الأدوات التجارية / المدفوعة | | |
| نقوم بتدريس الأدوات من منظور المترجمين | | |
| نقوم بتدريس الأدوات من منظور مديري المشاريع (مثل إدارة الموردين أو إدارة ذاكرات الترجمة إلخ.) | | |
| نقوم بتدريس الأدوات من منظور شركات الترجمة (مثل بوابات العملاء) | | |

2.11 الرجاء كتابة موجز قصيرعن استراتيجيتكم في التدريب على الأدوات الأساسية والاختيارية.

.....

القسم الثالث: الأنشطة التدريبية المتعلقة بتقنيات الترجمة

3.1 الرجاء تحديد أنشطة تقنيات الترجمة التي تقومون بتدريسها سواء كانت إجبارية أو اختيارية وما إذا كانت تلعب دورًا رئيسيًا أو ثانويًا في منهجكم الدراسي للبرنامج (مثلاً قد يكون النشاط اختيارياً، ولكنه عنصر رئيسي في المنهج للطلاب الذين يدرسونه)

**الأنشطة المتعلقة بتقنيات الترجمة**

1 التنقيب عن المعلومات - استراتيجيات البحث
2 التنقيب عن المعلومات - تقييم المصادر
3 تحليل النصوص أو المكانز اللغوية باستخدام المطابقات وغيرها
4 بناء المكانز اللغوية (أحادية أو ثنائية أو متعددة اللغات)
5 استخدام قواعد المصطلحات
6 استخراج المصطلحات المحوسبة
7 استخدام ذاكرات الترجمة
8 بناء ذاكرات الترجمة بالمحاذاة أو الاستيراد
9 استخدام ذاكرات الترجمة المشتركة (القائمة على الخادم)
10 استخدام ذاكرات الترجمة المشتركة (القائمة على السحابة
11 استخدام قواعد المصطلحات (القائمة على السحابة الإلكترونية)
12 الترجمة الآلية المستخدمة أو المحررة لاحقاً في واجهة أداة

13 الترجمة الآلية المستخدمة أو المحررة لاحقاً خارج أداة الترجمة
14 بناء محركات الترجمة الآلية الإحصائية
15 التقييم البشري لمخرجات الترجمة الآلية
16 تقييم مخرجات الترجمة الآلية باستخدام المقاييس
17 تدريب محركات الترجمة الآلية الإحصائية
18 توطين المواقع
19 توطين البرامج (غير الألعاب)
20 توطين الألعاب
21 ترجمة الوسائط المتعددة (ترجمة الأفلام)
22 ترجمة الوسائط المتعددة (الدبلجة / التعليق الصوتي)
23 أنظمة إدارة الترجمة
24 ميزات ضمان الجودة لأدوات الترجمة بمساعدة الحاسوب
25 النشر المكتبي
26 خاصية التعرف على الكلام

3.2 الرجاء المشاركة باي تعليق على هذه المجموعة من الأنشطة المتعلقة بتقنيات الترجمة أو ذكر أي أنشطة غير مذكورة.

.....

3.3 هل يتم دمج تقنيات الترجمة كجزء من أي مواد دراسية أخرى في برنامجكم؟

- نعم

- لا

3.4 الرجاء تحديد دور تقنيات الترجمة في المواد الدراسية غير المخصصة لها على وجه التحديد؟

مواد الترجمة العملية
مقدمة في الترجمة
نظرية الترجمة
محاكاة شركات الترجمة
التدريب العملي
مشروع الترجمة
بحث التخرج

**القسم الرابع: أدوات الترجمة والرخص المتوفرة**

4.1 الرجاء تحديد برامج الترجمة التي تقومون بتدريسها في برنامجكم سواء كانت إجبارية أو اختيارية، وعدد الطلاب التقريبي بالنسبة إلى رخص البرامج التي تمتلكونها

(مثلا: مجاناً أو<1 تعني أن برنامج الترجمة لا يتطلب رخصة لإستخدامه أو أن لكل طالب رخصة خاصة لإستخدام البرنامج، بينما 1.1 إلى 2.9 تعني أن هناك مابين طالب إلى ثلاثة طلاب لكل رخصة برنامج، وتعني <3 أن هناك أكثر من ثلاثة طلاب أو أكثر لكل رخصة برنامج.

**أدوات الترجمة**

| | |
|---|---|
| 1 | Across |
| 2 | Alchemy Catalyst |
| 3 | SmartCAT |
| 4 | Atril Déjà Vu |
| 5 | CafeTran Espresso |
| 6 | Fluency |
| 7 | Google Translate |
| 8 | Translators Toolkit |
| 9 | KantanAI |
| 10 | Lilt |
| 11 | Lingobit Localizer |
| 12 | Matecat |
| 13 | MemoQ |
| 14 | (Memsource Cloud) Phrase |
| 15 | MetaTexis |
| 16 | Microsoft (Bing) Translator |
| 17 | MultiTrans |
| 18 | OmegaT |
| 19 | MultiTerm |
| 20 | Passolo |
| 21 | Trados Studio |
| 22 | Star Transit |
| 23 | Systran |
| 24 | Termstar |
| 25 | WebCorp |
| 26 | Wordbee |
| 27 | Wordfast Anywhere |
| 28 | Wordfast Classic |
| 29 | Wordfast Pro |
| 30 | Wordsmith Tools |
| 31 | XTM |

4.2 الرجاء كتابة شرح مختصر عن اختياركم برامج الترجمة واستراتيجيتكم للإحتفاظ برخص هذه البرامج، بما في ذلك أي قيود أو معوقات ذات صلة برخص البرامج.

.....

**القسم الخامس: مواضيع وطرق تدريس وتقييم تقنيات الترجمة**

5.1 الرجاء تحديد أي من مواضيع تقنيات الترجمة التالية يتم تدريسها ضمن المنهج الدراسي في برنامجكم الأكاديمي مع تقييم مدى أهميتها على المقياس التالي: غير مهم على الإطلاق، غير مهم، محايد، مهم، مهم جدًا.

| |
|---|
| تاريخ وتطور تقنيات الترجمة |
| نظريات ومبادئ تقنيات الترجمة |
| تقنيات الترجمة (حزم البرامج) |
| تقنيات الترجمة في الترجمة التعاونية |
| إدارة الملفات العامة ومهارات أمن البيانات |
| المهارات المكتبية المتقدمة (أوفيس) |
| الأدوار المهنية وسير العمل |
| هيكل سوق الترجمة وتطوره في المستقبل |
| معايير سوق العمل (مثل ISO17100) |
| قضايا حول التحرير اللاحق للترجمة الآلية |
| القضايا القانونية (مثل ملكية ذاكرات الترجمة) |

5.2 الرجاء كتابة تعليقك حول إجابات السؤال السابق

.....

5.3 الرجاء تحديد وسائل أو استراتيجيات تعليم وتقييم أدوات الترجمة التي يتم استخدامها في برنامجكم الأكاديمي مع تقييم مدى أهميتها على المقياس التالي: غير مهم على الإطلاق، غير مهم، محايد، مهم، مهم جدًا.

التعليم من خلال محاضرات أو شرح عضو هيئة التدريس
التعليم الذاتي من خلال الكتيبات الإرشادية وأنظمة التعليمات المساعدة
التعليم الإلكتروني (عبر الإنترنت)
التعليم المدمج
التعليم من خلال العمل الفردي
التعليم من خلال العمل الجماعي
التعليم من خلال محاكاة نشاط شركة الترجمة
التقييم من خلال العمل الفردي
التقييم من خلال العمل الجماعي
التقييم من خلال مهمة عملية قائمة على تقنيات الترجمة
التقييم من خلال تقرير تحليلي وتوصيفي
التقييم من خلال كتابة مقال عام
التقييم عن طريق اختبارات الشهادات المهنية

5.4 الرجاء كتابة تعليقك حول إجابات السؤال السابق

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**القسم السادس: مؤهلات أعضاء هيئة التدريس والمرافق والدعم الفني**

6.1 من يقوم بتدريس أدوات وتقنيات الترجمة في برنامجكم الأكاديمي؟

- أعضاء هيئة تدريس بدوام كامل

- مهنيون خارجيون

- معظم المعلمين لدينا هم أعضاء هيئة تدريس

- معظم المعلمين لدينا هم مهنيون خارجيون

- حوالي نصف معلمينا هم من الأكاديميين والآخرين من المهنيين الخارجيين

- أخرى – الرجاء التوضيح في السؤال التالي

6.2 التعليق على أعضاء هيئة التدريس

.....

6.3 ما هي المؤهلات التي لدى أعضاء هيئة التدريس في برنامجكم الأكاديمي؟

- جميع أعضاء هيئة التدريس لدينا حاصلون على مؤهلات رسمية في تقنيات الترجمة

- معظم أعضاء هيئة التدريس لدينا يحملون مؤهلات رسمية في تقنيات الترجمة

- حوالي نصف أعضاء هيئة التدريس لدينا يحملون مؤهلات رسمية في تقنيات الترجمة

- معظم أعضاء هيئة التدريس لدينا لا يحملون مؤهلات رسمية في تقنيات الترجمة

- لا يحمل أي من أعضاء هيئة التدريس لدينا مؤهلًا رسميًا في تقنيات الترجمة

6.4 التعليق على مؤهلات أعضاء هيئة التدريس

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6.5 ما مدى خبرة معلميّ أدوات وتقنيات الترجمة في برنامجكم الأكاديمي؟

- جميع أعضاء هيئة التدريس لديهم خبرة 5 سنوات أو أكثر في تدريس تقنيات الترجمة

- معظم أعضاء هيئة التدريس لديهم خبرة 5 سنوات أو أكثر في تدريس تقنيات الترجمة

- حوالي نصف أعضاء هيئة التدريس لديهم خبرة 5 سنوات أو أكثر في تدريس تقنيات الترجمة

- معظم أعضاء هيئة التدريس ليس لديهم خبرة 5 سنوات أو أكثر في تدريس تقنيات الترجمة

- لا يمتلك أي من أعضاء هيئة التدريس لدينا خبرة 5 سنوات في تدريس تقنيات الترجمة

6.5 التعليق على خبرة أعضاء هيئة التدريس

.....

6.6 هل لديكم معامل كبيرة بما يكفي لتدريس تقنيات الترجمة؟

- نعم

- لا

6.7 ما هو معدل الطلاب في مواد تقنيات الترجمة بالنسبة إلى محطات العمل الحاسوبية المتصلة بالشبكة والمجهزة بالأدوات؟

- 1 : 1 أو أفضل

- بين 1 : 1 و 2 : 1

- 3 : 1 أو أكثر

6.8 الرجاء كتابة تعليق حول معدل الطلاب بالنسبة لمحطات العمل الحاسوبية

.....

6.9 هل يمكن للطلاب الدخول إلى معامل الترجمة خارج وقت المحاضرات؟

- نعم

- لا

6.10 الرجاء كتابة تعليق حول دخول الطلاب إلى معامل الترجمة.

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6.11 هل يمكن للطلاب الدخول على أدوات الترجمة عن بُعد من خارج الحرم الجامعي؟

- كل الأدوات

- أغلب الأدوات

- بعض الأدوات

- لا يوجد أبداً

6.12 هل يمكن للطلاب تثبيت رخص أدوات الترجمة المستقلة على أجهزتهم الشخصية؟

- كل الأدوات

- أغلب الأدوات

- بعض الأدوات

- لا يوجد أبداً

6.13 هل يتم دمج أجهزة الطلاب الشخصية في محاضرات أدوات الترجمة؟

- نعم، نعتمد عليها في مادة أو أكثر

- نعم، نعتد عليها بشكل اختياري في مادة أو أكثرلا

- لا، نستخدم مرافق معاملنا فيكل المحاضرات

6.14 الرجاء كتابة تعليق حول أي من الإجابات السابقة

.....

6.15 الخوادم والدعم الفني

| | نعم | لا |
|---|---|---|
| لدينا خادم واحد أو أكثر مخصص لبرنامج الترجمة | | |
| نتشارك خادماً واحداً أو أكثر مع برامج أكاديمية أخرى | | |
| يمكننا أن نستخدم خادم مؤسسي عام أو أكثر | | |
| لدينا فريق دعم فني مخصص لبرنامج الترجمة | | |
| نتشارك فريق الدعم الفني مع برامج متخصصة أخرى | | |
| نعتمد على الدعم الفني المؤسسي العام | | |

6.16 الرجاء كتابة تعليق حول تقنية المعلومات والدعم الفني المتاح لبرنامجكم الأكاديمي.

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**القسم السابع: الآفاق والتطلعات المستقبلية**

7.1 بالنظر إلى المستقبل على مدى السنوات الخمس القادمة، ، ما مدى احتمالية أن يواجه برنامجكم الأكاديمي الفرص والتحديات التالية؟ يُرجى تصنيف إجاباتك على المقياس التالي غير مرجح جدًا - غير مرجح - محايد - محتمل - محتمل جدًا.

| | |
|---|---|
| 1 | سيزداد طلب الطلاب على برامجنا الأكاديمي في الترجمة |
| 2 | نتوقع تطوير برنامج أو أكثر جديد متعلق بالترجمة |
| 3 | نتوقع توسع تدريب تقنيات الترجمة في برامجنا الأكاديمي |
| 4 | نتوقع تقديم تدريب على أنواع مختلفة من تقنيات الترجمة |
| 5 | نتوقع تطوير برنامج أو أكثر من البرامج التعاونية مع مؤسسات أخرى |
| 6 | نتوقع تقديم/توسيع طرق تدريس بديلة (مثل التعلم الإلكتروني) |
| 7 | ستصبح تقنيات الترجمة أكثر تعقيدًا وتنوعًا |
| 8 | ستنتقل أدوات الترجمة من الخوادم المحلية إلى السحابة |
| 9 | ستزداد أهمية الترجمة الآلية بالكامل في سوق العمل |
| 10 | سيتوفر معلمون مؤهلون حديثًا ومدربون على تقنيات الترجمة |
| 11 | سيزداد مشاركة سوق العمل في البرامج الأكاديمية في تخصص الترجمة |
| 12 | ستكون تطوراتنا المستقبلية محدودة بسبب نقص أعضاء هيئة التدريس المدربين |
| 13 | ستكون تطوراتنا المستقبلية محدودة بسبب نقص التمويل |
| 14 | ستكون تطوراتنا المستقبلية محدودة بسبب نقص مرافق تقنية المعلومات |
| 15 | ستكون تطوراتنا المستقبلية محدودة بسبب نقص الدعم الفني |
| 16 | ستكون تطوراتنا المستقبلية محدودة بسبب نقص الدعم الرسمي (المؤسسي/الحكومي). |

س/ هل يمكنك المشاركة في المرحلة الثانية من هذه الدراسة والتي ستكون على شكل مجموعات مركزة عبر الإنترنت؟

- نعم، الرجاء كتابة الاسم ووسيلة التواصل

- لا

**Appendix 4: Focus Group Discussion Questions for the Translator Group**

**(Semi-Structured Interview Guide)**

Section 1: Translation Technology Training during BA Studies

- Did you receive any training in translation technology during your BA studies? If yes, how do you describe it?

- Could you please tell us more about your practical experience with translation technologies during your BA studies? And what tools did you train on and how?

- From your perspective, how do you describe your competence in using translation tools and technologies when entering the translation industry?

Section 2: Importance of Translation Technology in Translators' Work

- How do you describe the importance of translation technologies in your work as a translator? And which technologies do you find the most important in your work?

- Could you please describe how the use of translation technology affects your work and the competitiveness of the translation industry?

Section 3: Competence in Using Translation Technology

- How do you describe your competence in the tools and technologies you frequently use and handle in your work?

- Please tell us more about the technologies you feel more competent in and those in which you need further development.

- Do you continuously develop your competence in these technologies? If yes, how do you do that?

Section 4: Continuing Professional Development (CPD)

- How do you plan for your professional development? Tell us more about the challenges you face in CPD planning.

- How do you describe the support you receive from your employers for CPD?

## Appendix 5: Focus Group Discussion Questions for the Programme Director Group (Semi-Structured Interview Guide)

Section 1: Introduction and Icebreaker Question

- How do you describe the current state of teaching translation technology in your programmes? And how ready are your programmes in terms of training facilities, hardware, software tools, and licenses?

Section 2: Curriculum Design and Development

- How do you describe the process of curriculum design and development in your programmes?

- Could you please tell us about the contact between your programmes and the industry?

- To what extent do you describe the integration of translation technology into your curriculum? Do you encourage trainers to use translation technologies in other courses?

Section 3: Link between BA Programmes and the Translation Industry

- To what extent does your programme collaborate with industry stakeholders to improve the training in translation technology you offer?

- What industry feedback do you receive about the technological competence of graduates?

- How would you describe the extent to which your curriculum addresses the technology-related requirements of the translation industry?

Section 4: Challenges

- What are the challenges faced by trainers in teaching translation technologies? And how do you support them?

- What are the challenges faced by students in learning translation technologies?

- What are the challenges faced by your programmes in keeping up with the technology-related requirements of the translation industry?

Section 5: Suggestions for improvements

- What changes do you suggest in the content of translation technology-related courses?

- How do you think translation technology training can be improved in your programmes?

- Can you think of anything else that would be a barrier or facilitator of teaching translation technology in Saudi BA programmes?

**Appendix 6: Focus Group Discussion Questions for the Trainer Group**

**(Semi-Structured Interview Guide)**

Section 1: Introduction

- How do you describe the current state of teaching translation technology in your programmes? And how do you describe the available facilities, hardware, software tools, and licenses?

- Could you please share your experience in teaching translation technology-related courses?

Section 2: Curriculum Content and Training Approach

- What are the key technology-related competencies you cover in the existing curriculum?

- How do you teach the theory and practice of translation technology training? And tell us more about the teaching strategies you use in these courses?

- How do you assess students' knowledge and competence in using translation technologies?

Section 3: Link between BA programmes and the translation industry

- How do you describe the collaboration between your programmes and the translation industry stakeholders?

- To what extent do you think your curriculum aligns with the technology-related requirements of the translation industry?

- What industry feedback do you receive about the technological competence of new graduates? And how does this influence your teaching content and strategies?

Section 4: Challenges and Opportunities

- What are the challenges you encounter when teaching translation technologies?

- Could you please tell us more about integrating translation technologies across the curriculum? And what challenges exist that prevent trainers from using these technologies in other courses?

Section 5: Suggestions for Improvements

- How do you think translation technology training in your programme can be improved?

- What suggestions do you have to align your curriculum with the requirements of the translation industry?

## Appendix 7: Ethical Approval for the First Research Phase

**Project Ethics Assessment Confirmation|Cadarnhad o Asesiad Moeseg Prosiect**

coahresearchethics@swansea.ac.uk <coahresearchethics@swansea.ac.uk>
Thu 12/17/2020 11:37 AM
To:ALSOLAMI A. [redacted]
Cc:Fernandezparra M.A. <[redacted]

This is an automated confirmation email for the following project. The Ethics Assessment status of this project is: APPROVED

Applicant Name: Abdelalah Alsolami
Project Title: Translation Technologies in Saudi Arabia's Universities: Assessment, Prospects, and Challenges within The Framework of Vision 2030.
Project Start Date: 1/10/2020
Project Duration: 4 Years
Approval No: SU-Ethics-Student-171220/3529

## Appendix 8: Ethical Approval for the Second Research Phase

**Project Ethics Assessment Confirmation|Cadarnhad o Asesiad Moeseg Prosiect**

coahresearchethics@swansea.ac.uk <coahresearchethics@swansea.ac.uk>
Tue 1/24/2023 4:13 PM
To:ALSOLAMI A. [redacted]
Cc:Maria Fernandez Parra <[redacted]>

This is an automated confirmation email for the following project. The Ethics Assessment status of this project is: APPROVED

Applicant Name: Abdelalah Alsolami
Project Title: The Adoption of Translation Technologies in the Contemporary Translation Market in Saudi Arabia and their Teaching in the Academic Translation Programmes, Assessment, Prospects and Challenges within the Framework of Vision 2030
Project Start Date: 01.10.2020
Project Duration: 4 Years
Approval No: SU-Ethics-Student-240123/6048