Technology in Translator Training: The Case of Turkey

Çevirmen Eğitiminde Teknoloji: Türkiye'deki Durum

Mehmet ŞAHİN*

Abstract

Teaching and learning with technologies has become an important part of many subject fields, including translation and interpretation. Courses on translation technologies have started to be included in the translation curriculum with an aim to provide students with sufficient technological competence so that they become more productive and competitive in the translation market. In Turkey, as it is the case in many European countries, there seems to be no consistency among universities in regard to the integration of technology in their curriculum at the undergraduate level. The current study aims at exploring the overall approach towards integration of technology in translation and interpretation or translation and interpreting studies departments in the country. Another aim of the study is to present a case study based on data collected in a translation technology course from a total of 62 undergraduate students in three consecutive years at a foundation-funded, a middle-sized university. The study also seeks to contribute to the effort of creating a blueprint for the contents of a technology course to be included in translator and interpreter training programs at an undergraduate level. Courses on translation technologies, if any, as presented in universities' websites, are used as a basis to discuss the place of technology in the translation curriculum in Turkey. The data for the case study were collected through online surveys after the completion of the translation technologies course. The surveys were designed to investigate the participants' views on technology, benefits of the technology course offered in their program, and on their experience using translation memory systems supported by machine translation. The data were analyzed both quantitatively and qualitatively. The results showed that translation students in the case study were highly interested in learning and using new technologies and they preferred to spend more time on certain tools and software. The participants benefited from the course to a great extent and more than two thirds of the participants reported that one course on translation technologies was not enough to master all tools and software. The course on translation technologies presented in

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* Yrd. Doç. Dr., İzmir Ekonomi Üniversitesi, Fen Edebiyat Fakültesi, İngilizce Mütercim Tercümanlık Bölümü , mehmet.sahin@ieu.edu.tr

the study is likely to present an ideal starting point for the promotion of such courses in newly established programs and a good comparison measure for other translation programs in the country. Based on the findings of the study, it can also be suggested that there needs to be more focus on and more consistency about the place of technology in translation curricula.

Keywords: translation technologies, translator training, translation curriculum, technology, translation memory systems

Öz

Teknoloji kullanarak öğretmek ve öğrenmek bir çok alanın önemli bir parçası haline gelmiştir ve buna mütercim tercümanlık (ya da çeviribilim) da dahildir. Çeviri teknolojileri dersleri artık çeviri müfredatlarına eklenmektedir ve bu derslerin amacı öğrencilere çeviri piyasasında daha verimli ve rekabetçi olmak için yeterli teknoloji yetkinliğini kazandırmaktır. Türkiye'de, birçok Avrupa ülkesinde de olduğu gibi, üniversiteler arasında lisans düzeyinde teknolojinin müfredata dahil edilmesi konusunda bir tutarlılık yoktur. Bu çalışma ülkedeki mütercim tercümanlık ya da çeviribilim bölümlerine teknolojinin dahil edilmesi konusundaki genel tutumu incelemeyi amaçlamaktadır. Çalışmanın bir diğer amacı orta ölçekli bir vakıf üniversitesinde verilmekte olan bir çeviri teknolojileri dersinde üç yıl boyunca 62 öğrenciden toplanan verilere dayanarak bir vaka çalışması sunmaktır. Çalışma aynı zamanda mütercim tercümanlık ve çeviribilim bölümlerinde verilen teknoloji dersleri için bir kılavuz oluşturma çabasına da katkıda bulunmayı amaçlamaktadır. Üniversitelerin ağ sitelerinde verilen bilgiler doğrultusunda – programa dahil ise – çeviri teknoloji dersleri, teknolojinin Türkiye'deki çeviri müfredatındaki yerini tartışmak için temel olarak alınmıştır. Vaka çalışması için veriler çeviri teknolojileri dersinin tamamlanmasından sonra çevrimiçi anketler aracılığıyla toplanmıştır. Anketler katılımcıların teknoloji, programları çerçevesinde aldıkları teknoloji dersinin faydaları ve bilgisayar çevirisi destekli çeviri belleği sistemleri kullanma deneyimleri hakkındaki görüşlerini incelemeye yönelik tasarlanmıştır. Veriler hem nicel hem de nitel olarak analiz edilmiştir. Sonuçlara göre, çeviri öğrencilerinin yeni teknolojileri öğrenme ve kullanma konusunda çok ilgili oldukları ve bazı araç ve yazılımlar üzerinde daha fazla durulmasını tercih ettikleri söylenebilmektedir. Katılımcılar teknoloji dersinden büyük ölçüde faydalanmışlardır ve katılımcıların üçte ikisinden fazlası tüm araç ve yazılımları tam anlamıyla öğrenmek için tek bir dersin yeterli olmadığını belirtmiştir. Bu çalışmada ana hatları sunulan çeviri teknolojileri dersi yeni kurulmuş bölümlerde benzeri derslerin teşvik edilmesi için ideal bir başlangıç noktası ve ülkede hâlihazırda mevcut diğer çeviri bölümleri için iyi bir kıyas noktası sayılabilmektedir. Çalışmanın sonuçlarına dayanarak çeviri müfredatlarında teknolojiye daha fazla yoğunlaşılması ve teknolojinin yeri konusunda daha tutarlı olunması gerektiği salık verilebilmektedir.

Anahtar sözcükler: çeviri teknolojileri, çevirmen eğitimi, çeviri müfredatı, teknoloji, çeviri belleği sistemleri

Introduction

In the second decade of the 21st century, a translator needs more than basic computer skills to survive in the market. Technology-enhanced new learning environments are likely to bring novice translators closer to their future working environments, where technology

is involved almost in each stage of the translatorial action. As the field of translation technologies has successfully grown as a new discipline (Alcina, 2008) and tools used in the translation practice are changing, it is becoming a necessity to learn and teach with new technologies (Austermühl 2001, Bowker 2002, Olvera-Lobo et al. 2009, Şahin 2009, Gürçağlar-Tahir 2011, Ersoy & Balkul 2012). The profile for an ideal translator, drawn up by the Directorate-General for Translation of the European Commission, underlines the importance of technological knowledge by including as a required skill the "capacity to master computer-assisted translation and terminology tools, as well as standard office-automation software"[1]. On the other hand, the integration of technology in teaching is also emphasized. Olvera-Lobo (2005) underlines the importance of teaching with technology:

> […] translation teachers cannot ignore computer technology in the training of their students and in their own professional development. This is particularly obvious in today's translation market, which we briefly describe, and which can justly be called global, decentralised, specialised, dynamic, virtual, and demanding. (p. 133)

In their article which analyzes the changes in the translation profession with the influence of information technologies, Lebtahi and Ibert (2004) underline the emergence of ease of access to various resources, which, in turn, is likely to increase competitiveness between general translators and specialized translators. This, of course, demonstrates the importance of teaching translation students to access the reliable information using information technologies effectively. High level of computer skills is considered as an essential component of translator training programs (Marechal 2005, Gonzáles Davies 2004). Samson (2005) takes a step further and suggests that computer skills should not be limited to only one course but distributed across different courses within the translation curriculum. Citing Kingscott (1996), Bowker (2002) states:

> [...] unless technology-related issues are integrated into translator-training programmes, there is a real danger that the university teaching of translation may become so remote from practice that it will be marginalized and consequently be widely perceived as irrelevant to the translation task. The gap between technological advances and pedagogical practices must be closed. (pp. 13-14)

In the EMT (European Master's in Translation) expert group report titled "Competences for professional translators, experts in multilingual and multimedia communication"[2], six types of competences are proposed "within the overall context of university education for translators": translation service provision, language, intercultural, information mining, thematic, and technological.

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[1] http://ec.europa.eu/dgs/translation/workwithus/staff/profile/index_en.htm
[2] http://ec.europa.eu/dgs/translation/programmes/emt/key_documents/emt_competences_translators_en.pdf

Figure 1: Competences for Professional Translators

For the technological competence, the components included are:

> Knowing how to use effectively and rapidly and to integrate a range of software to assist in correction, translation, terminology, layout, documentary research (for example text processing, spell and grammar check, the internet, translation memory, terminology database, voice recognition software)

> Knowing how to create and manage a database and files

> Knowing how to adapt to and familiarise oneself with new tools, particularly for the translation of multimedia and audiovisual material

> Knowing how to prepare and produce a translation in different formats and for different technical media

> Knowing the possibilities and limits of MT [machine translation]

Although these competencies are envisaged for the master's degree level, it can be argued that undergraduate programs should take them into consideration while designing their translation curricula. It should also be noted that most translation graduates in Turkey start their professional life right after they finish their undergraduate studies; whereas the ones that choose to pursue a master's degree in translation mostly prefer to stay on the academic path rather than working as professional translators.

Students' General Computer and Technology Skills

It is a fact that today's students are surrounded with technology. Almost all students have access to the Internet at home and/or at schools; have social networking accounts; use basic word processing programs for their classes; and some of them even have mobile

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access to the Internet and a variety of applications; in short, they are "digitial natives" (Prensky, 2001). Nevertheless, this does not always mean that students are able to use those technologies and the Internet in an effective way so as to succeed in their subject fields. In the case of translation students, it is of high importance that they find ways to have access to reliable resources for their assignments; use up-to-date hardware and software to increase their productivity; and learn how to use technology effectively for their professional development. Most translation programs aim to include such skills in their curriculum by offering courses on translation technologies (TT).

Courses on Translation Technologies at Universities in Turkey

There are currently (as of 27 March 2013) 17 universities which have 4-year translation programs (English-Turkish) in Turkey. Most of these programs were launched in the last decade with the mushrooming of foundation-funded universities in the country. There is one master's degree program focused on translation technologies[3] whereas several universities offer graduate programs in translation studies in general. In addition to the increase in the number of translation programs in the last decades, another important development has been the launch of the Bologna Process,[4] a program which seems to aim at creating a European higher education zone by facilitating the mobility of students through European Credit Transfer System (ECTS). Turkey has been so far so eager to get involved in this process and most universities already received the ECTS label and many others are in the process of receiving it. This, of course, is also reflected in the curricula of the universities as they adapt their programs to meet the Bologna requirements. Although many institutions seem to seek for a standardized curriculum for most of their programs, no common approach to the course contents is adopted when it comes to TT.

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[3] http://www.dogus.edu.tr/tr/akademik/enstituler/sosyal/ceviriteknoloji_amac.asp
[4] https://bologna.yok.gov.tr/?page=duyurular&v=read&i=175

Table 1: Courses on Translation Technologies at Undergraduate Programs

(English-Turkish) in Turkey as of 27 March 2013.

University	Type	Technology Course(s)	Elective / Compulsory	Semester offered
Atılım University	Foundation	Computer Technologies & Translation	Compulsory	7
Beykent University	Foundation	1. Translation Technologies[5] 2. Terminology Management 3. Research Tools and Technology in Translation	1. Elective 2. Elective 3. Elective	N/A[6] N/A 7
Boğaziçi University	Public	Information Technologies for Translators (and Interpreters)[7]	Compulsory	3
Çankaya University	Foundation	None	-	-
Dokuz Eylül University[8]	Public	None	-	-
Ege University	Public	Localization in Translation	Elective	N/A
Hacettepe University[9]	Public	1. Translation Tools 2. Machine Translation 3. Localization	1. Compulsory 2. Elective 3. Elective	4 N/A N/A
İ. D. Bilkent University	Foundation	1. Computer Literacy I 2. Technology for Translators 3. Computer Literacy II	1. Compulsory 2. Elective 3. Elective	2 N/A N/A
İstanbul Arel University	Foundation	1. Translation Technologies 2. Applications of Information Technologies	1. Compulsory 2. Compulsory	3 4
İstanbul University [10]	Public	Information Technologies for Translation	Compulsory	6
Izmir University of Economics	Foundation	1. Computer-Assisted Translation Studies 2. Computer-Assisted Translation and Localization	1. Compulsory 2. Elective	5 7 or 8
Kırıkkale University[11]	Public	1. Translation Tools I 2. Translation Tools II 3. Computer-Aided Translation	1. Elective 2. Elective 3. Elective	3 4 7

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[5]   The first two courses are listed in the course description document (http://www.beykent.edu.tr/WebProjects Uploads/04_04MutTercIng_DersT_Dec2011.pdf) but not included in the curriculum.

[6]   not applicable

[7]   This course is only listed in the Turkish version of the department web site (http://www.transint.boun.edu. tr/?q=node/12)

[8]   The curriculum in English was not available in the department web site.

[9]   The curriculum in English was not available in the department web site.

[10]   The curriculum in English was not available in the department web site. (This link is not available as of December 14, 2013. The new department web site (http://edebiyat.istanbul.edu.tr/ingilizceceviri/) does not include the curriculum at all.)

[11]   No description about the courses is available in the web site.

University	Type	Technology Course(s)	Elective / Compulsory	Semester offered
Okan University[12]	Foundation	Information Technologies for Translation	Compulsory	6
Trakya University[13]	Public	1. Computer I 2. Computer II	1. Compulsory 2. Compulsory	3 4
Yaşar University	Foundation	None		
Yeditepe University	Foundation	Computer-Aided Technical Translation	Elective	N/A
Yeni Yüzyıl University	Foundation	Computer Aided Translation	Elective	7

As it can be seen in Table 1, there does not seem to exist any standard among universities as to what is needed in terms of technological competence in the translation programs in Turkey. However, in a period where national standards for the translation profession are being set[16], it would not be wrong to argue that it is a necessity for all of the translation programs in the country to provide their students with the necessary technological skills needed for the translation market.

This paper aims to present a case study, exploring the scope and effectiveness of a technology course in a translation and interpretation degree program at a foundation-funded, medium-sized university in Turkey in order to determine whether such a course would prepare students for the translation market with sufficient level of competence in technology. The paper intends to create a blueprint for designing a technology course to be included in translator and interpreter training programs at an undergraduate level in the context of Turkey (also to be customized for other contexts). The current study will also reflect students' attitude towards learning about and using translation technologies based on the case of one of the institutions listed in Table 1.

Method

The data for this study were collected over three years (from 2009 to 2012) through online surveys administered at the end of a technology course designed for translation and interpretation students by the author as the instructor of the course. The main motive for the data collection was to conduct action research in order to explore ways to evaluate and improve the quality and effectiveness of the course. Both quantitative and qualitative data were collected. The quantitative data were presented using descriptive statistics and qualitative data were coded into key terms.

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12 The English version of the curriculum was "under construction".

13 The curriculum in English was not available in the department web site. (This link is not available by December 14, 2013.)

14 http://www.tobb.org.tr/Lists/DuyurularListesi/Attachments/717/
    %C3%87evirmen%20Seviye%206%20Taslak%20UMS.pdf

Participants

A total of 62 students of translation and interpretation at Izmir University of Economics participated in the study. The participants took a course on translation technologies in their fifth semester as part of their four-year study program. All participants had already taken an introductory course on computer and information technologies in their first year of study as part of a general requirement for all university students. The participants all had Internet and computer access both at home and on campus.

Computer-Assisted Translation Studies Course

The course that the participants were enrolled in was called "Computer-Assisted Translation Studies". This course was first offered as an elective course but within the framework of the Bologna Process, it was integrated into the curriculum as a compulsory course to be offered in the fifth semester of the four-year program. The class was held in a translation and interpreting lab which is specially designed for translation students. The class was three class hours (each 50 minutes) and lasted for 15 weeks. The course aimed to develop students' computer skills and make them efficient in using technology in translation studies. At the end of the course students were expected to be able to (1) improve their digital literacy, (2) use the Internet for conducting effective searches, (3) transfer theory into practice by examining the place of technology in translation process, (4) improve computer skills, (5) find resources to facilitate translation process, (6) use open-source applications and software in translating texts, (7) compare traditional translation with computer-assisted translation, (8) use technology for professional purposes by creating web sites and subscribing to portals and discussion groups on translation, and (9) follow the developments and new technologies available for the business of translation.

The course included both theory and practice. Students did readings on topics and completed hands-on activities in the laboratory. Students were also assigned a number of activities to complete at home at their own pace. The exams were also composed of both theoretical and practical questions, the latter constituting 70% of the grade. The main software programs and applications included in the course are given in Table 2.

Table 2: An Overview of the Course on Translation Technologies

Session	Topics	Programs / Applications / Tools
1-2-3	Word processing Online communication Search Engines	Microsoft Word, Open Office Google Mail, Skype, Google Chat
3	Scanning texts and OCR technologies Speech recognition	ReadIris, Google OCR, Abby FineReader Windows Speech Recognition, Dragon Naturally Speaking 11, Dikte
3	Desktop Publishing Software	Microsoft Publisher, Scribd
4	Online document management systems	Google Documents, Zoho, Live Office
4-5	Web editors Online and Social Bookmarking	Nvu, Google Sites Google Bookmarks, delicious.com
6-7-8-9	Terminology Tools Translation Memories	Wordfast, Google Translator Toolkit, TRADOS
7	Web 2.0 Language Tools for Browsers	Facebook, Twitter, Tumblr, Pinterest, StumbleUpon, WordPress FoxLingo, LiquidWords, Logos
10	Machine Translation	Google Translate, Bing Translator, BabelFish, Systran
11-12	Localization Corpora and Translation	*Only theory through examples*
13-14	Sound Editing Image Editing Video Editing Open source applications	Audacity, GoldWave Picasa, Paint, GIMP Windows Movie Maker

Procedure

Within the framework of this course, the students completed a translation project in which they were asked to translate a certain part of a text in English into Turkish language using Google Translator Toolkit (GTT), an online free translation memory system in which texts are, if desired, pre-translated by Google Translate MT system and post-edited by users. The students created their individual glossary for the text and uploaded them into GTT. The texts were mostly technical texts and not translated into Turkish yet. The texts were pre-translated by Google in the GTT and the students post-edited the translations. The students were also asked to review two other sections translated by their peers and to add comments related to the translation quality. Students were asked to write a two-page report about their experience while completing the project. Since the focus of the course was students' experience with using technology, the translations were not evaluated in terms of quality or accuracy. However, all translations and comments posted

for each section were checked by the author. At the end of the semester, the students were administered a survey via Google Forms. The survey consisted of Likert-scale, multiple-choice, checkboxes, "choose from a list", and open-ended questions.

Results and Discussion

The participants' answers to the survey questions helped to determine the level of effectiveness of a technology course in a translation and interpretation degree program at a foundation-funded, medium-sized university in Turkey. The participants' views on technology use in the translation process and their answers to open-ended questions provided an insight into the design on technology courses for translation students.

Based on the participants' self-reports, there was a significant difference between the comfort level of the participants with computers and technology in general before and after taking the course. Although all of the participants had a previous experience with computer technologies through a course that they took before the TT course, more than half of them were not quite comfortable with computers and technology in general. After the completion of the course, only one of the participants reported that s/he was not very comfortable. In parallel with this finding, the participants' experience level with translation technologies increased to a great extent by completing the TT course.

The participants' attitude toward the use of technology and the need to learn those technologies was quite positive. Only five students disagreed with the proposition that translation technologies are important in the translation field today. Almost all of the participants evaluated translation technologies in the translation field today as useful and agreed translation technologies will be important in their future work.

The main barriers to using translation technologies in translation experience have also been investigated in the study. The top five barriers listed by the participants were the high price of tools (n=32), concern about technical problems and/or lack of support (n=23), lack of necessary computer skills and knowledge (n=16), being uninformed about where to find information about tools (n=14), and concern about problems related to incompatibilities between different tools (n=14). Only five participants reported that they have not encountered any barriers and only two indicated that the tools are not useful at all. Seven participants reported that they did not feel comfortable with technologies. Twelve participants did not know what tools to use whereas eight indicated that they did not have time to learn how to use translation tools.

After the completion of the course, the participants were more interested in learning about electronic dictionaries and term banks (n=43), translation memory systems (n=42), terminology management systems (n=41), machine translation systems (n=30), active terminology recognition tools (n=29), web tools and search engines (n=24), word processors (n=22), bilingual concordancers (n=20), and term extractors (n=20). The main motivations of participants' for learning more about translation technologies were saving time and/or being more efficient (n=53), improving quality of work (n=50), increasing income (n=32), being more competitive (n=30), meeting the employer's requirements

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(n=27), and staying current in the field (n=26). Eleven participants stated that they were interested only because they were required to learn these technologies in their studies. Five of the participants indicated that they planned to pursue research in the field of translation technologies. Only one participant stated that s/he was not really interested in learning more.
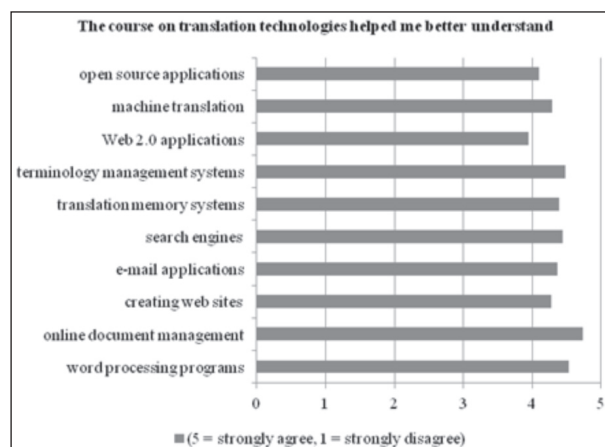

Chart 1: The Contribution of the Course on Translation Technologies

The participants evaluated (translation) technologies useful in almost all stages of professional translation tasks such as sending/receiving work; managing files; doing factual, terminology and language-related research, information and terminology management; producing a draft translation; and revising a translation. The participants reported that the course on translation technologies helped them better understand the tools and programs covered in the course as presented in Chart 1. After the completion of the course which is described above in detail, almost all of the participants reported that only one course on translation technologies was not enough to be well-prepared for the translation profession (see Chart 2).
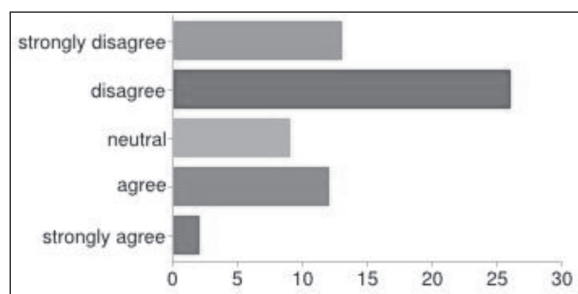

Chart 2: Only One course on Translation Technologies Is Enough?

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The participants believed that if they used translation technologies in their translation work, they could increase their performance and productivity as presented in Chart 3.
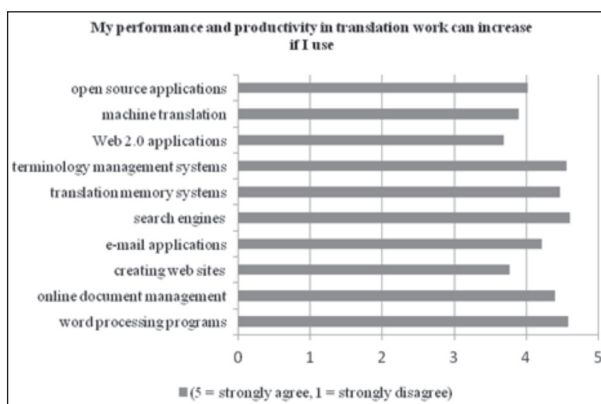

Chart 3: Performance and Productivity with the Use of Translation Technologies

Suggestions for improving the course

The participants were asked in the survey to express their opinions about possible improvements that can be made in the translation technologies course. The most striking result was that almost all of the participants found the course quite effective and helpful. More than two thirds of the participants stated that a second course on translation technologies should be added to the curriculum. Most participants preferred to see more of certain components included in the syllabus; particularly TRADOS, MT systems, and other translation-related software or tools. The participants also expressed their wish for spending more time on practicing with tools and programs in order to excel in them.

Google Translator Toolkit Experience

Based on their experience with Google Translator Toolkit (GTT), the participants evaluated the overall effectiveness of this translation memory system, as well as the terminology management and the MT component within this system (see Charts 4-5).
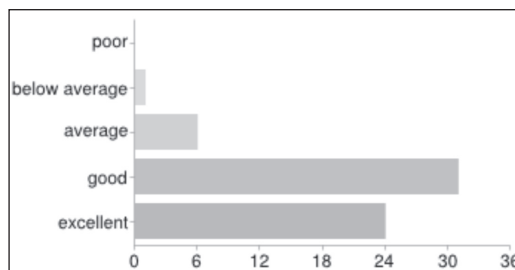

Chart 4: Overall Effectiveness of the Translation Memory System

Upon their completion of translation projects in which they used GTT translation memory system, the participants answered open-ended questions to indicate advantages and disadvantages of working with such a system. Their answers were coded and key points were listed. About one third of the participants did not see any disadvantage (n = 17), the most frequently mentioned disadvantage was the poor quality of the MT output (n = 25). Dependency on the Internet connection and the need to have technical skills were the two disadvantages reported by five participants. Other disadvantages were automatization of the translation process, dependency on Google, incompatibility of such systems with literary texts, complicated nature of such systems, the fact that using such systems may limit creativity, privacy and security concerns were some of the disadvantages listed by less than four participants each. The advantages were saving time (n = 32), working efficiently (n = 25), ease (n = 13), speed (n = 11), collaboration (n = 10), consistency (n = 7), and professionalism (n = 6). Few of the participants also mentioned that GTT increased quality and provided flexibility. The ergonomics of such a TM system (indirectly, by saving time) and the fact that it is free of charge were also listed as advantages by the participants.
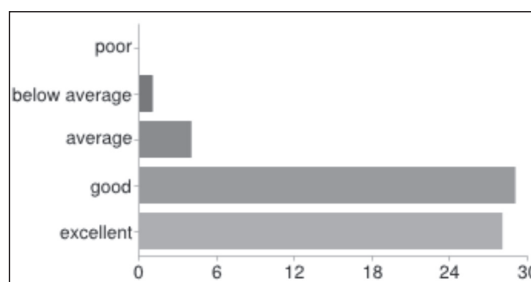

Chart 5: Overall Effectiveness of the Terminology Management System

57 participants indicated that they were planning to use a translation memory system so that they could increase productivity (n=48), ensure terminological consistency (n=44), avoid the drudgery of repetitive texts (n=35), work more effectively as part of a team (n=34), edit the first draft of translations more easily (n=30), ensure quality assurance (n=28), and meet employer requirements (n=16).

MT effect on translation

The participants were finally asked to express their views on possible effects MT could have on the translation profession. Their reaction to the use of MT in the translation process was overall positive (see Chart 6). About half of the participants considered MT a helpful tool to use in the translation process, which can help them save time. About one third of the participants indicated that human translators are still inevitable in the translation process and MT is not suitable for most text types. Nine participants reported that MT can be a threat to translators as and if it develops constantly.
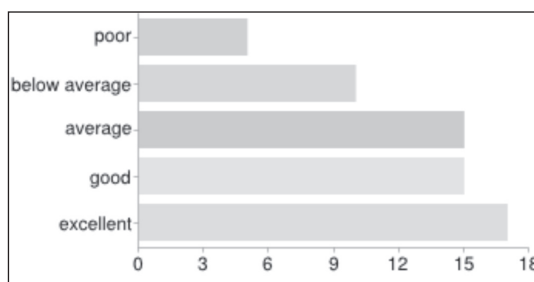
Chart 6: Overall Effectiveness of the Machine Translation System

Conclusion

The current study aimed to give an overview of the current approach of universities in Turkey in regard to the place of translation technologies in their translation curricula, and to present a case study reflecting the situation in one of those institutions based on a longitudinal study using surveys administered in three consecutive years.

Table 1 presented the list of courses on translation technologies offered at universities in Turkey. The most striking conclusion from this piece of information seems to be that there is no uniform approach among the institutions in this sense. Some of the institutions offer such courses as elective, some as compulsory courses. Some of the universities do not have such courses in their curriculum at all. Some offer these courses early in their program whereas others towards the end of the curriculum. In a time where the country is trying to establish a set of standards for the translation profession, it seems that concrete steps need to be taken towards a consistent approach towards teaching translation technologies to translation and interpretation students. This does not, however, suggest that a rigid uniformization should be ensured among universities; each institution should be able to base their approach on a needs analysis and customize their syllabi according to the level, background, and interests of their students. Nevertheless, the need for technology-competent instructors seems to be a must for each translation department in order to offer such translation courses in an effective way.

Another important conclusion of the current study is that translation students show a positive attitude towards learning about technology and its use in the translation process. First of all, almost all participants benefited significantly from a course on translation technologies and felt more comfortable with using technologies in the translation process. They considered translation technologies as indispensable for their professional future in all stages of translation tasks and had a desire to learn more about technologies in order to save time, increase efficiency and quality of their work. Accordingly, more than two thirds of the participants believed that only 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.

Upon their experience with Google Translator Toolkit system, which works as an online translation memory system supported by an MT (machine translation) system, again

by Google; the participants expressed their views about using TM (translation memory) systems in the translation process. All participants, except five, indicated that they plan to use TM systems in their future work since they deemed such tools quite useful for their profession. The advantages such as saving time, increasing efficiency and speed, allowing collaboration outweighed the disadvantages, such as dependency on Internet connection. However, the participants had mixed views on the use of MT in the translation project, i.e. MT as an integrated part of the TM system. Although most participants saw MT as a helpful tool, poor quality of the MT results for the English-Turkish language pair was the most reported disadvantage. A third of the participants considered MT as ineffective in most text types and humans still inevitable in the translation process.

Finally, it can be argued that technology deserves to have a more important place in the translation curriculum in Turkey and the students, at least the sample presented as a case study in the current paper, seem to be ready to learn more about technology and eager to use it more effectively in their translation tasks and work. This creates an excellent opportunity to consolidate the acquisition of technological competence, among other competences, by translation students. To this end, 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. Such a move is likely to contribute to and encourage the development of new tools and software for the Turkish language, increase quality and productivity, and foster professionalism in the translation field.

The current study can be used as a sample and modified to investigate students' attitude towards technology in other institutions to have a more comprehensive view of the overall picture in the country. For further studies, other stakeholders, such as instructors and employers, can be included in the study to analyze the place of technology from multiple perspectives.

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