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Analyzing the attitudes of translation students towards cat (computer-aided translation) tools

Caner Çetiner [a] *

[a] *Kırıkkale University, Department of English Translation and Interpreting, Kırıkkale, 71100, Turkey*

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Abstract

Translation profession has witnessed some technological innovations in recent years. The triggering reason behind these innovations has been the ever-increasing workload. Translation tools came to be seen as an aid to handle this workload. To this end, emerging translation technologies have come to front. There are many studies that take professional translators' views about these technologies into consideration. However, the studies dealing with the acceptance of these tools by translation students or investigating their attitudes towards these tools are limited. In this study, translation students' attitudes towards translation technologies are analyzed with pre-and post-test questionnaires based on some research questions. The analysis shows that there are some statistically significant differences between pre-and post-test scores obtained with the questionnaires applied before and after the training. This result supports the view that students develop a positive attitude after they are taught the benefits of using computer-aided translation tools and more classes should be allocated for translation technologies in translation training programs.

Keywords: Translation technology; translation training; translation tools; computer-aided translation; translation memory

1. Introduction

Technology has assumed a dominant and defining role in the translation industry. This means that it seems unlikely to resist the changes brought about by translation tools within the translation community. In order to stress the importance of these tools for translators, Bowker points out that translation tools have become a prerequisite for professional translators to survive in such a demanding translation market (2015:88). For this reason, seeing the market demands, many professional translators have learned to use these tools. They try to make use of the benefits provided by these tools. However, according to some translators these tools are a threat to their future rather than being an aid as they think that the machines will replace them professionally. In order to enlighten professional translators' fears and to investigate their attitudes or general views towards these tools or to gain an insight into the benefits of using these tools, some surveys were carried out. For instance, the study carried out by Dillon and Fraser (2006) concludes that younger translators have a more optimistic view about translation memory than

* Corresponding author. Tel.: +90-318-3574242/4267
E-mail address: canercetiner@kku.edu.tr

experienced translators. Nevertheless, there are not enough studies that take students' attitudes towards translation technology into consideration.

1.1. Literature review

The effect of technology on translation both as an occupation and as a process is undeniable. However, there is still not a consensus among translation departments over the teaching of translation tools despite the increasing need. That is, in some departments this need is covered by a person, fully competent to use and teach programs while in others the course is only elective or taught by a person, who himself becomes aware of the programs only after the course is given to him. To cover the need in this area and to standardize the lessons on translation tools, some projects have been carried out with the European Union funds. To name a few of them, Letrac (1998), Ecolore (2002), Ecolotrain (2005), Optimale (2010) are some of these projects. As stated by Balkul (2015) in his comprehensive thesis on the teaching of translation technologies in Turkey, the main aims of these projects are to integrate translation tools into the curriculum and to teach translation technologies in translation departments.

As for Turkey, Şahin (2013) draws attention to the fact that there is a lack of consistency among universities in regard to the integration of technology into their curriculum. However, the problem is not merely integrating the course into the curriculum. After the integration, there arises another important issue over teaching of translation tools as to which tool should be taught. This problem usually occurs on account of the financial restrictions over the purchase of the software. Yet, given the importance and necessity of teaching these tools is so clear under the real market conditions, the restrictions and limitations should be overcome by the effort of translation training programs, which define their main objective to train qualified translators for the market. This view is further stressed by Gümüş in her thesis that sheds light on the translation training programs in Turkey as follows:

"Employment in each professional context has specific requirements, which requires training translators for a global market with diverse technological requirements. This brings us to the conclusion that, although translator-training programs cannot allocate time to teach every single TM tool, they may incorporate in their curricula the basics of TMs and how they are used in producing translations" (2014: 33).

Bowker (2015: 93) enlarges on this issue by noting that "a fundamental understanding of the main principles of these tools is essential and to this end, it is preferable to use and teach at least two different tools". To this end, some CAT (Computer-Aided Translation) tools are offered as free academic editions or free personal editions in order to help the translation departments and academic staff working in this area, as well as freelance novice translators. To provide students with a range tools used in the real market, the trainer can assume the mediator and facilitator role and direct students to use these free academic editions.

Another issue that must be taken into consideration should be the students' reactions to using these tools. This is of great importance since some students may become introvert during technology classes resulting from his or her computer illiteracy or they may have not enough motivation to benefit from these tools. This problem can also be overcome by the teacher as when he or she assumes the facilitator role during the class (Kiraly, 2000). Yet, the studies that take students' attitudes towards translation technologies are limited considering the importance of the situation. For this reason, in this study the attitudes of translation students towards translation technology are investigated with attitude questionnaires developed and tested by the researcher for reliability and validity.

The purpose of this study is to test the relationship between teaching CAT tools and translation students' attitudes towards translation tools at Kırıkkale University. The study is to be performed with

pre-test and post-test experimental research design, in which undergraduate level English translation students at Kırıkkale University will constitute the main participant group.

1.2. Research questions

The study intends to analyze translation students' attitudes towards CAT (Computer-Aided Translation) tools according to the criteria defined above.

The research questions are formulated as follows:

1. Are there any statistically significant changes in the attitudes of translation students towards CAT tools after they take a course on CAT tools?

2. Does the course on CAT tools significantly change the attitudes of translation students towards the relationship between the use of translation technology and productivity?

3. Does the course on CAT tools significantly change the attitudes of translation students towards the relationship between the use of translation technology and their perception of translation quality?

2. Method

As stated above, the primary aim of this study is to analyze whether students' attitudes towards CAT tools change after they are given a course on these tools. Thus, the study was formulated as an experimental study with single group pre-test post-test research design. For the analysis of the collected data, statistical analysis methods were used, for which SPSS PASW 18 was employed.

2.1. Participants

Two groups of participants were included in the study. One of these groups was used during the pilot study and the other group was used in the main study. 63 students from different translation departments such as Arabic, Persian and French Translation and Interpreting departments at Kırıkkale University formed the first group, while 66 students formed the main study group who were the real subjects that would take the Computer-Aided Translation course offered by the English Translation and Interpreting Department.

The participants of the study have Turkish as the mother tongue and English as their foreign language, though there were some bilinguals coming from Germany and the USA. The number and gender of participants in the main study are shown in Table 1.

Table 1. Participant statistics and profile of the study

Number					
		N	Valid	66	
			Missing	0	
Gender					
		Frequency	Percent	Valid	Cumulative Percent
Valid	Female	30	45,5	45,5	45,5
	Male	36	54,5	54,5	100
		66	100	100	

2.2. Instruments

The data about students' attitudes towards CAT tools was collected through an attitude scale developed by the researcher. The scale was applied with a questionnaire to see whether there is a significant difference before and after the course. The questionnaire uses a 5-point Likert type, ranging from "strongly disagree" to "strongly agree, in which strongly disagree corresponds to 1 point while strongly agree corresponds to 5 points. Before the actual study, the scale was tested for its validity and reliability. To this end, the scale was applied to the 63 students that would not be used in the actual study. The reliability of the scale was ensured as seen in Table 2.

Table 2. Pilot Test Reliability Score

Reliability

Case Processing Summary		N	%
Cases	Valid	63	100,0
	Excluded	0	,0
	Total	63	100

Reliability Statistics

Cronbach's Alpha	N of Items
,790	15

After the reliability of the scale had been ensured, the questionnaire was applied to students at the start of the term as a pre-test. A short brief on the questionnaire was given to the students and it was stressed that they didn't need to write their names and they were asked just to read all the items and answer the questions sincerely. The pre-test was followed by one term lesson on Computer-Aided Translation Tools.

2.3. Selection of the Items

The application of the pilot test was done only after the comprehensibility and coherence of the items had been ensured. To this end, first a pool of items was created building upon the most significant issues in the field. For this reason, some previous studies and surveys focusing on the advantages and disadvantages of using translation memory, computer-aided translation, translation technology were taken into consideration (Webb, 1992; Christensen & Schjoldager, 2011; LeBlanc, 2013; Reinke, 2013; Şahin, 2013). Then, these items were read by the students that would not be used in the main study and then expert opinion was taken. According to the feedback taken from the students, unclear items were defined. After unclear or ambiguous items were deleted and some were modified, the final form of the pilot test was created.

2.4. Data collection procedures

The study used quantitative data gathered by a questionnaire containing items regarding the attitudes of translation students towards computer-aided translation tools. The method of administration was a pre- and post-test method. The instrument was applied to the same students at the start and at the end of the term in order to see whether the students' attitudes changed within the course of instruction. By this way, it was possible to see whether there occurred a statistically significant change in the attitudes of

translation students towards CAT tools. After the post-test was conducted, the results were analyzed using SPSS PASW 18.

2.5. Instruction

This study was performed as a part of the Computer-Aided Translation course. It is a compulsory lesson for the 2nd year undergraduate students at Kırıkkale University. The course is given in one term and it takes 2-course hours in a week. As the curriculum was amended in the year when this application was performed and this course was newly put into the second year of the curriculum, 3rd year undergraduate students were also given a chance to take the course in that term lest they should graduate without taking this course.

Memsource Academic Edition was used as the main CAT tool while other programs such as Wordfast Anywhere, SDL Trados and Google Translators' Toolkit were also mentioned. The aims of the course are to familiarize the students with translation technology in general and to help students learn the basic components of the Memsource Academic Edition in detail. As stated by Li and Zhang (2010:561), "the application of CAT technology in translation curriculum contributes to cultivate the students' ability to resolve practical problems and technique translation problems". For this reason, students are always given a floor to solve problems themselves and the trainer tries to integrate the students at every phase of the class.

As the main components of an ordinary CAT tool, TM (Translation Memory) and Terminology Management functions are stressed during the course. Furthermore, students can also have a chance to create projects themselves thanks to the availability of Project Manager users in adequate numbers provided by the Memsource Academic Edition. To see the benefits provided by the Translation Memory, students are allowed to align texts and import these texts into the TM. However, Machine Translation function is disabled for fear that students may tend to use raw Machine Translation and not to translate themselves.

In the first two weeks of the course, the theoretical aspects of translation technology were mentioned. The main differences between Machine Translation and Computer Aided Translation were stressed, as well. During the class students were always welcomed to ask questions or tell their opinions about the class. After the first two-weeks in the class, the lecturer showed how a typical translation project was created and how translation memory and term base were included in that project. Then, students got the opportunity to have hands-on training with the help of the lecturer in the computer lab. Not only purely technical texts such as a hair-straightener's manual or a user guide of a vacuum cleaner but also semi-technical texts such as WHO's Health Reports or UN's newsletters on Refugee crisis were used for translation.

For the last 4 weeks, the lecturer gave them a term assignment. For this assignment, the students were split into groups, each of which included a project manager, a terminologist, an editor and a translator. Each of these persons had a key role in the assignment. Each group was given three texts, two of which were to be used for the purpose of alignment and the remaining one was the target text to translate using TM (translation memory) which would be created using the alignment. The terminologist was responsible for collecting the terms to be used during the translation. The editor was responsible for creating TMs and converting the text into different file formats. As for the project manager, he/she was the person who was responsible for the smoothness of the phases and general coordination of the project. The project manager was asked to compile the works and submit the project as a whole. At the end of the term the same questionnaire was applied again as a post-test. The same procedures that were followed during the pre-test were performed again.

3. Results and Discussion

For the first research question of the study, the figures in Table 3 shows that the average points for the attitudes in the post-test are statistically higher than the average points in the pre-test ($p < .05$). Based on these statistics it can be said that the students developed a positive attitude towards computer-aided translation after the course. That the students learned the general benefits of using a translation tool had a profound effect on this result. It can be claimed that learning these benefits changed the situation of CAT tools in the minds of students.

Table 3. Mean and Standard Deviation of the Pre-test and Post-test
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
Pair 1	pre-test	43,2576	66	9,08813	1,11867	,001
	post-test	49,8182	66	10,60030	1,30481	

As for the other questions of the study, the items regarding the questions were summed separately and compared for the pre-test and post-test. The second research question of the study is on the relationship between the use of translation tools and productivity. This relationship is a subject that is often mentioned in the translation field (Yamada, 2011) and there are some previous studies that investigated the views of professional translators on this issue (Bowker, 2005; Guerberof, 2008). However, the student perspective on this issue needs to be investigated in detail. For this reason, it was thought that the items in this questionnaire could be a starting point for further studies, as well.

The pre-test and post-test results regarding the relationship between the use of translation tools and productivity were compared using paired sample t-test again and given in Table 4.

Table 4. Comparison of Pre-test and Post-test Results for Research Question 2
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean	Sig. (2- tailed)
Pair 1	pre-test	11,6515	66	3,23677	,39842	,022
	post-test	13,0606	66	3,20038	,39394	

As the figures show, the students developed a positive attitude towards the relationship between the use of translation tools and productivity. This is clear from the difference between the pre-test and post-test ($0,022 < .05$). This increase of translation productivity and performance from students' perspectives was analyzed in a study conducted by Şahin (2013) with undergraduate students at a foundation-funded university.

This difference can be a result of the fact that students realized the benefits of learning how to use possibilities of translation technology including translation memories, search engines, term banks, corpuses. Moreover, the fact that they were given weekly and termly assignments to use these possibilities effected the students' attitudes towards translation technologies. By means of these systems,

students could search and find terms in parallel texts and align these parallel texts so that they could create their translation memories. Thus, the time allocated for term search decreased and the efficiency increased. To sum up, translation technologies, namely translation memory and term bases increase the speed of translation and this increase affects the perspectives of the students towards productivity.

The last question of the study was intended to consider the students' attitudes towards the relationship between the use of translation technology and students' perception of translation quality. For this purpose, items intended to measure students' attitudes towards translation quality were selected and compared for pre-test and post-test.

Table 5. Comparison of Pre-test and Post-test Result for the Research Question 3
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean	Sig. (2- tailed)
Pair 1	pre-test	3,6212	66	1,90356	,23431	,006
	post-test	4,6970	66	2,37920	,29286	

As the results in Table 5 show, there is a statistically significant change in the attitudes of translation students between the pre-test and post-test. This means that students developed a positive attitude regarding the perception of the quality of translations done with translation tools. This change in the attitudes of students can be referred to the fact that students realized the practical benefits of translation tools especially quality assurance functions. By means of this quality assurance function, students learned how to use the spell-checker or how to be alert for non-translated segments.

4. Conclusions

This study reports on the attitudes of undergraduate level translation students towards translation technology with an attitude scale applied by the researcher at the start and end of the term within the English Translation and Interpreting Department at Kırıkkale University. Since translation market attaches great importance to productivity and quality in translations, being able to use translation tools is a key factor to make the translation process faster and ensure high quality translations. To this end, it is of great importance to teach undergraduate level students these tools.

As the data derived from comparing the pre-test and post-test results show, the students developed a positive attitude towards translation tool. This general research question of the study was supported by a second question on the relationship between the use of translation tools and productivity and a last question on the relationship between the use of translation tools and students' translation quality perspective. For all of these questions, students developed a positive attitude after they took CAT (Computer-Aided Translation) tools course. This can be explained by the fact that students realized the benefits and advantages of using a tool such as quality assurance function, aligning text for translation memory.

This study is important in that it aims at providing an insight as to integrating and designing courses on technology into the curriculum of undergraduate level translation programs. Another significance of the study is that it is one of the few studies that take students' views into account. For this reason,

building on the challenges faced during the course and focusing on the students' views, this study gives implications for allocating more time on translation technology course and teaching multiple tools.

The current study can be developed to cover more students at different universities or to take the students' level of foreign language into consideration in further studies. By this way, more comprehensive results can be attained. Moreover, the study can be supported by more variables such as students' level of general IT knowledge or being able to use specific software to increase the reliability rate of the results. Last but not the least, this study can be adapted to be used for language pairs other than English-Turkish so that views of the students studying translation in other foreign languages can be taken into consideration.

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Çeviri öğrencilerinin Bilgisayar-Destekli Çeviri (BDÇ) araçlarına yönelik tutumlarının incelenmesi

Öz

Çeviri mesleği son yıllarda bazı teknolojik gelişmelere şahit olmuştur. Bu gelişmeleri tetikleyen sebep gittikçe artan iş yüküdür. Bilgisayar Destekli Çeviri araçları artan bu iş yüküne çare olarak görülmeye başlanmıştır. Bu amaçla, her geçen gün yeni bir çeviri aracı ortaya çıkmaktadır. Profesyonel çevirmenlerin, gelişen bu çeviri araçlarına yönelik tutumlarını inceleyen bir dizi çalışma bulunmaktadır. Ancak bu araçların çeviri öğrencileri tarafından kabul görmesini veya çeviri öğrencilerinin bu araçlara yönelik tutumlarını inceleyen çalışma sayıca kısıtlıdır. Bu çalışmada, çeviri öğrencilerinin gelişen çeviri teknolojilerine yönelik tutumları bazı araştırma sorularına dayanarak oluşturulan ve ders öncesi ve sonrasında anket yöntemiyle uygulanan tutum ölçeği aracılığıyla incelenmiştir. İnceleme sonuçlarına göre ders öncesi ve sonrasında öğrencilerin çeviri teknolojilerine yönelik tutumlarında istatistiksel olarak anlamlı farklar gözlemlenmiştir. Bu sonuç öğrencilere Bilgisayar Destekli Çeviri araçları öğretildiğinde bu araçlara yönelik tutumlarının olumlu yönde değiştiği ve çeviri eğitimi veren programlarda bu teknolojilerin öğretimine yönelik daha fazla ders ayrılması gerektiği görüşünü desteklemektedir.

Anahtar sözcükler: Çeviri teknolojileri; çeviri eğitimi; çeviri araçları; bilgisayar destekli çeviri; çeviri belleği

AUTHOR BIODATA

Caner Çetiner is a Research Assistant at Kırıkkale University, Department of English Translation and Interpreting. He received his BA degree from Dokuz Eylül University, Department of English-German-Turkish Translation and Interpreting. He holds his M.A. from Translation Studies at Sakarya University. He is currently a Ph.D student at Gazi University, Department of Translation and Cultural Studies. His research areas include translator training, translation technologies, machine translation post-editing.