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Quality Control and Translation Competence

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The present work shows the results of a pilot methodology, designed after a series of observations and documented from 2006, on the process of acquisition of Translation Competence (TC) of students of translation. This method of analysis, appointed Previous Protocol to Translation or PPT, emerged as an option in search of teaching strategies of translation. This PPT has provided data not only on how novice translators acquire the translation competence, but it has been uncovered some independent variables that directly affect their development. There has been, in the four semesters analyzed in this work, a clear pattern that shows that an appropriate quality control to translate (and to carry out punctual terminology management) determines a better or worse quality of the final product (translations); therefore, this reflects in a better translation competence in the novice students.

Keywords: Punctual Terminology Management, instrumental subcompetence, translation competence, correlation

Introduction

After the first Traductology subjects studied as part of the Doctoral Program in Translation and Interpretation given by the University of Granada, was born in us the concern to investigate the process-oriented translation, and to this end, we seek innovative tools and methodologies that will support us in our purpose.

In addition to discussing the conduct and the performance of the translator rookie to an actual translation situation, we found that the socioeconomic level of the students has a direct influence on the acquisition of the Translation Competence[1]. On the other hand, analyzing the wealth of data that the matrices have given us and that we obtained in the measurement of the different variables that make up the Translation Competence, we have found serendipity patterns.

There is a dependence between the variable "quality control in the search for keywords" or Punctual Terminology Management (PTM) with the quality of the processed products (translations) and, therefore, with the TC shown at that time by the subject.

We have discovered that an excellent quality control in terminology management (TM) is the one that determines a better or worse quality of the final product. Therefore, we believe it should be given emphasis to the training of teachers who teach terminology as a subject and update their teaching methodology.

Taking into account the results of the analysis of the matrix of the 2008-1 semester[2] (Appendix 1) that

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1 Cortez (2014b). "The socioeconomic level of translation students in the Faculty of Languages-Mexicali of UABC, as a conditioning variable in the acquisition of translation competence: An exploratory study". Available in the University of Granada, at http://digibug.ugr.es/bitstream/10481/34359/1/24145579.pdf; accessed on 2 of March 2015.

2 At the UABC the 2008-1 semester comprised from January to June of that year.

corresponds to the 19th generation of Bachelor's Degree in Translation of English Language and following with punctuality the PPT[3], we find: There is a direct correlation between the use of a high-quality control (in this case apply a comprehensive terminology management on time) and the results of the scores in the products delivered (translations made by students at fifth semester).

Previous Protocol to Translation

The PPT can be defined as the set of steps that involve the first reading of the text to be translated, investigating the unknown terms, and the re-reading and integration of the overall sense of the translation during the period of preliminary analysis (pre-translation) even before starting the capture of the translation project (Cortez, 2009, pp. 285-287).

Also, it is a strategy of observation of the development of the TC and a method of obtaining data of how the subject translates.

We are aware that in reality, the professional translators do not make a complete reading of the text, but "scan" the translation units and write the result immediately.

In the case of the observations, made in situ, students of translation of the Faculty of Languages-Campus Mexicali, the use of the PPT was a scaffolding (if you want to) in order to collect data on the process-oriented translation and at the same time a metacognitive strategy for students who were aware of the steps that require for the final product.

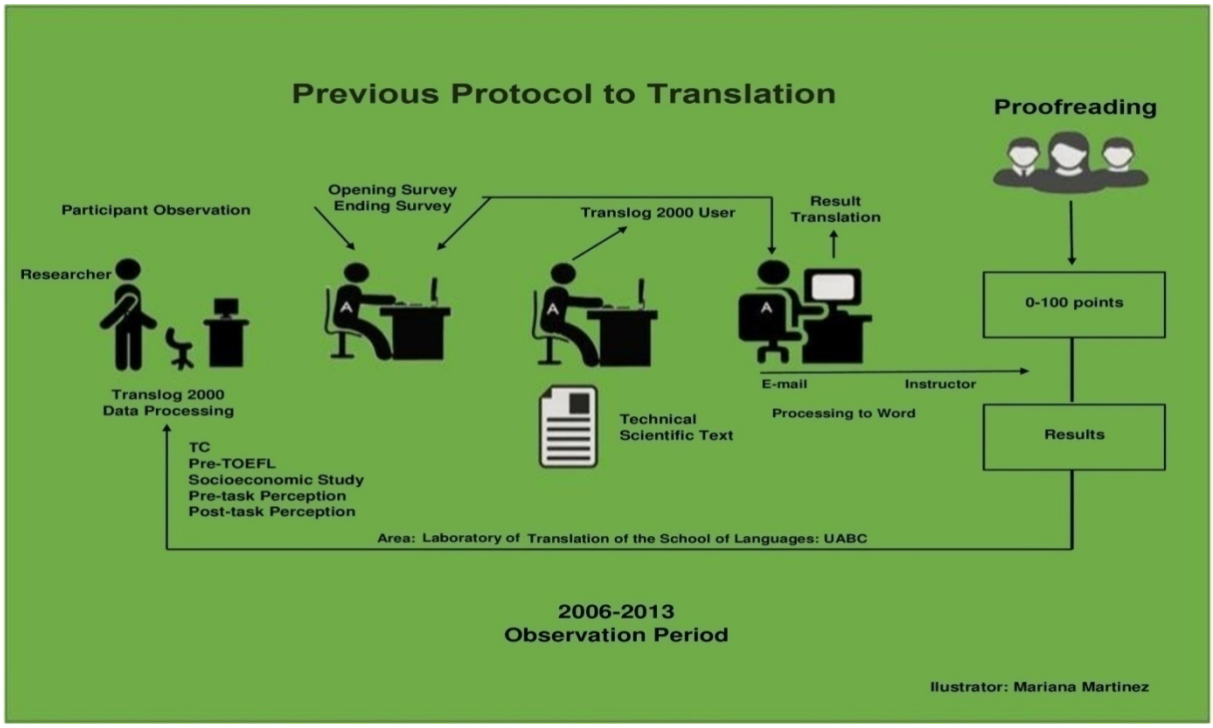

Figure 1. Scheme of the previous protocol to translation used in the Faculty of Languages-Mexicali of the UABC, where alumni (A) were observed when translating (Source: With data from Cortez, 2009, p. 287).

In Figure 1, you can see the workflow of translation projects and where students of intermediate level translate a technical-scientific text in one hour and 40 minutes within the environment of the program

[3] Cfr. Cortez (2009); Cortez, Basich, & Figueroa (2012); Cortez, Basich, & Figueroa (2013); Cortez, Figueroa, & Luna (2013).

Translog2000users. Four reviewers qualify the products with a scale of 0 to 100 points.

The PACTE Group

According to PACTE Group, the Translation Competence is composed of a series of sub-competencies interrelated, all of which are those that are needed to use the language (Figure 2).

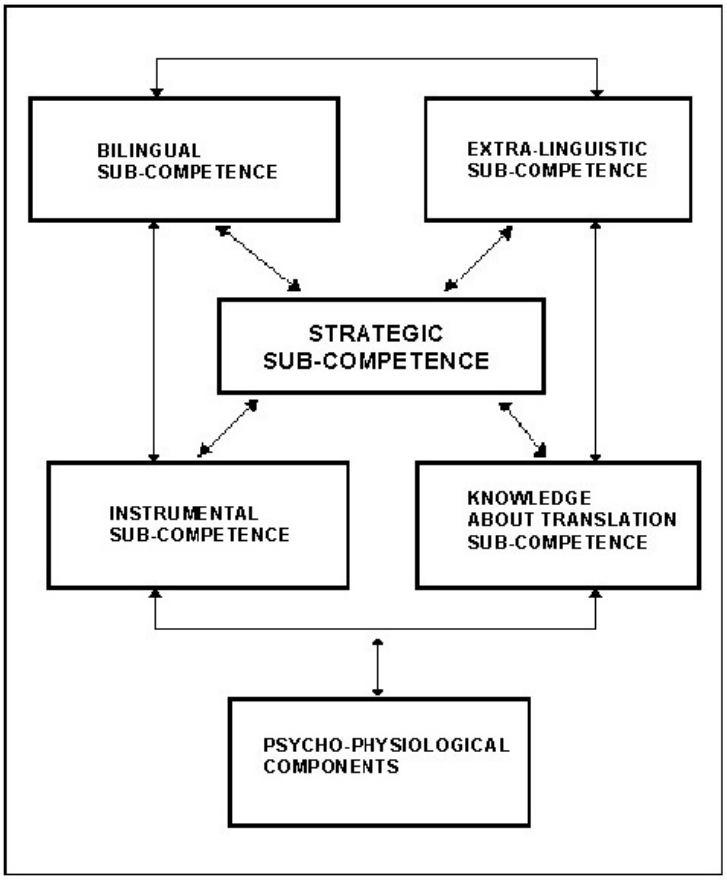

Figure 2. Translation competence model (Source: Internet/PACTE, 2003).

According to PACTE (2003), Translation Competence is achieved with the sum of series of interrelated sub-competencies (pp. 58-59). In the first place, the bilingual, which consists in the knowledge required to communicate in two languages.

In the second place, the extra-linguistics, in which predominates the declarative knowledge, both implicit and explicit, about the world in general and in particular areas.

In the third place, the knowledge about the Translation Competence, in which predominates the declarative knowledge, both implicit and explicit, about what translation it is and the aspects of the profession. Fourthly, the Instrumental Subcompetence, in which predominates the procedural knowledge that is related to the use of sources of documentation and technologies applied to translation.

In the fifth place, the Strategic Competence, in which guarantees the efficiency of the process and solves any problems that may arise.

This sub-competence, the group agreed, influences all others and directs the interrelationships between them, as controls the process of translation.

Finally, we have the psychophysiological sub-competence, which covers the different types of cognitive, attitudina, and psychomotor mechanisms (domain of stress, positive/negative perception of the degree of difficulty of the task, trust, memory, etc.) which is registered by a post-task questionnaire.

An Important Sub-competence

Maria Teresa Cabré (2002) recognized that the obstacles of transmission of specialized knowledge have their origin in the translator's lack of familiarity with the terminological units, its meaning in the discourse, and its possible correspondence in the target language.

The same author defined the terminology as one of the levels of activity of the terminologist and that is "resolution of the problems that poses a text of translation" (Cabré, 2000, p. 3).

For its part, according to Schnell and Rodríguez (2010, p. 186), the Terminology Competence corresponds to the ability to solve problems and to manage terminology.

Although the PACTE group considered the Terminological Competence implicit within the language skills that are part of the Instrumental Sub-competence, other authors such as Montero and Faber (2009, p. 5) highlighted the importance of terminology in a text as well as their level of aptitude for a particular degree of specialty, which are determining factors for the quality of the translation.

It seems necessary that the translator faces the terminological problems successfully during the analysis of the source text and the production of the target text. Even they propose an ideal syllabus for Terminology teaching in university faculties, which is a milestone by itself.

In summary, it is a research cognitive skill that the novice translator puts into play, in this case, to carry out a particular translation project. Among the skills described above, we analyze the Terminological Sub-competence[4] in the first level, such as the independent variable that directly affects the development of competence as a translator, and this according to what the data up to now, where our working hypothesis remains valid.

It should be added that in our analysis we show the problems of translation that caused the greatest pauses in the subject (where a break of five seconds or more made by ignorance or consultation is significant) either to give an immediate solution or postponed solutions, as listed by PACTE (2003, p. 89).

The More QC, the Better TC

According to what we have previously registered, there is a positive covariance between the realization of a good Punctual Terminology Management (quality control of the translation) and the quality of the product delivered (translations). Therefore, this reflects a good, very good, or excellent Translation Competence (TC), where *good* covers a range of 80-89/100, *very good* of 90-99/100, and *excellent* of 100/100 qualifying points[5]. In the semesters previously analyzed: 2013-1, 2012-2, and 2009-2, this suggests a pattern and it is repeated in the 2008-1 semester, reinforcing our hypothesis (Cfr. Cortez, 2014b, pp. 171-231).

As can be seen in Table 1, there is a positive correlation between the time invested in the PTM with a TC that goes from regular to good and very good, where there is a peak of 14'37 minutes invested in the quality control by the student (that got the School Merit)[6] with 99/100 in TC and students A2 (14.74), A5 (14.25), and A10 (12.78) with 80/100 of CT.

[4] Some authors named it as competence itself, but as we consider it, part of the holistic Translation Competence, we prefer to name it sub-competence.

[5] The scale is the one used by the UABC to evaluate the students.

[6] This prize is for the highest grade of the entire generation.

Table 1

Comparison Between Some Translation Problems, the Time Consumed in and Results of the TC VS the Pre-TOEFL Grades at 2009-2 Semester. Source: Research Data

Subjects session 2009-2	Number of translation problems	Time used to solve them (in minutes)	Percentage of total translation time	Translation competence	Linguistic sub-competence (Pre-TOEFL)
ALUMNA 4	8	14'37.49"	14.37%	99	90
ALUMNA 13	3	4'07.54"	4.07%	99	60
ALUMNA 10	7	12'78.02"	12.78%	80	82
ALUMNA 5	7	14'25.85"	14.25%	80	69
ALUMNA 1	4	6'58.53"	6.58%	80	62
ALUMNA 2	6	14'74.24"	14.74%	80	53
ALUMNA 6	2	2'17.39"	2.17%	70	90
ALUMNA 9	4	9'99.37"	9.99%	70	73
ALUMNA 8	6	15'50.78"	15.50%	70	61
ALUMNA 3	7	7'79.43"	7.79%	70	59
ALUMNA 11	7	12'51.53"	12.51%	65	47
ALUMNA 12	7	12'88.97"	12.88%	30	66
ALUMNA 7	7	20'60.71"	20.60%	30	60

The pattern is similar in 2012-2 and 2013-2, in any dispersion of variables are involved, such as a reduced linguistic sub-competence at the L2 which appears in subjects 3, 11, and 2, which have a greater solvency in their mother tongue. The highest time invested is for subject 8 (15'50 minutes) with a TC of 70/100. In any case, those who approved the exercise invested at least 4 to 15% of the available time of the project to the PTM. The examples of the subjects 7 and 12 are unique since they did not complete the project neither finished the B.Phil., because they quitted in the fifth and sixth semester respectively.

Subject 2 also shows deficiencies in L2, and s/he could enter into what is referred to as Grammar Competence in attrition, where the contrastive analysis that students apply can no longer be so grammar (in the fifth level, already fully enter the translator practice) to be more pragmatic. Strategic Sub-competence leads the Textual and Terminological Sub-competences[7].

Some authors distinguished between explicit and implicit grammatical knowledge. The first, according to Zobl (apud Lorenzo, 2004, p. 39), is a piece of knowledge that is forgotten in about three months.

On the other hand, implicit grammatical knowledge, according to Lorenzo (2004), is "a piece of knowledge that is essentially different, much more resistant to erosion and, thus, similar to the knowledge of the first language where the phenomenon of wear usually known as attrition is practically non-existent" (p. 39).

It is worth mentioning that the 2008-1 was the fourth semester analyzed text by text where it shows the development of the Terminological Competence and how it influences on the TC.

Materials and Methods

Supported in three matrixes (Appendix 1, 2008-1 Matrix) that were captured during eight years (Cfr. Cortez, 2014b, pp. 171-179)[8], we isolated and crossed the variables that could verificate our hypothesis.

Among the variables measured in each array are:

[7] It is important to underline that this study is a picture about how the TC is developed at intermediate level of the Translation Bachelor's Degree.

[8] Available in https://hera.ugr.es/tesisugr/24145579.pdf.

(1) Translation Competence[9] (score obtained in translation project);

(2) Linguistic sub-competence in L1 and L2 (scores in spelling test and Pre-TOEFL[10]);

(3) Surveys of input and output, pre- and post-translation task. Record the perceptions of the subject and His/er Psychophysiological Competence;

(4) Analysis of the log files of translations made by students in the Translog2000user program to find out how they solved the problems of translation and register of their Terminological sub-competence;

(5) Socio-economic Study.

Among the programs used to carry out the triangulation and the measurement of TC is Translog2000 in its version 1.0 Beta (4), developed by Jakobsen and Schou (Cortez, 2014a, p. 1). This computer program worked on the Windows operating system (Rooze, 2008, p. 18) and emerged as an alternative to the collection of data through Think Aloud Protocols.

Translog2000 allows you to save and study all text capture on a computer keyboard within the environment of the program, records the information of the exact time at which each typed, and allows you to play on the screen the capture process.

In this way, it is the computer and software which record the facts and avoid subjective bias that involve the simple human observation. Also, we use Excel for the capture of the variables of three arrays and Word 2010 version for the final presentation.

The measurement of the TC was triangulated using a ballot of observation: two questionnaires (pre- and post-task) and the translations as a product to qualify.

Four persons revised the translations: two professors of the faculty with more than eight years of experience in the area and two students from the last levels: The seventh and eighth.

The scale used by the readers/reviewers and established by the UABC, to assess students, goes from 0 to 100 points, where 59 is not approving and 60 shows, at the lowest grade, that the student knows translation.

About the text: It was a page with the theme of myopia. The translation (English to Spanish) of 412 words can be classified as technical-scientist. The text was converted to a .tpl extension for its translation within the program Translog2000user by the students. The program produces a .log text to be analyzed in the Translog2000 program by the researcher and finally becomes .rtf (Word) for later review and qualification.

Throughout the investigation remained the same environment, the Laboratory of Translation of the Faculty of Languages (Cortez, 2014b, p. 176). The average of the TC per student evaluated was obtained from the division of the sum of the four qualifications provided by the reviewers. The translations are handed out to the four readers/reviewers on paper with a key of identification by each student (to prevent the professor can skew the rating).

During this time of participant observation, we sought to apply the same protocol (PPT) in the groups consistently without changing the measurement instruments. Since 2006, the subjects observed were the students of the fifth semester of the Bachelor's Degree in Translation. The universe of the 2008-1 semester was of 15 subjects. In this sample, only 11 subjects met the eligibility requirements to be considered part of the same, that is to say, they were submitted to the measurement of the variables needed for this study.

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[9] As a matter of fact, the measured variable corresponds only to a translation sub-competence that implies the skillfulness of the student to translate. Is he capable of passing the sense from L1 to L2 or not? This translational ability is one of the six sub competences that form the Translation Competence as a whole.

[10] Preparing for the TOEFL (1991). We used the same scale in all semesters.

Test Execution and Subjects

Before the session of observation, the students received training for the management of the program Translog2000user. During the experiment, they read on the display or the board an electronic file with instructions and diagrams for the steps to follow to work within the same and captured the translation. Also, they were instructed and facilitated the use of dictionaries online and search engines.

We would like to clarify that there was no control group. However, from 2005, the PPT was tested in the different semesters. In this year we trained in the management of the new technology and we decided to treat to familiarize ourselves with the rest of the protocol.

Before the group started to translate and after reading the translation, students were asked to fill out the Questionnaire 1 (perception of work to do), which on average it took between five and 10 minutes. As part of the direct observations of the meeting, it was noticed that there was interaction among students, that is to say, the collaborative learning. In the end, to complete the task, they were asked to fill out the Questionnaire 2 (perception of the job done).

Analysis of 2008-1 Semester

Further, we carried out the breakdown of the terminology timely made by the individuals of the 2008-1 semester:

Table 2 presents translation problems that affected 73% of the universe of individuals. Among other things, we can highlight that the best averages in Translation Competence (TC) have a greater number of consultations of keywords, either to review its exact meaning or to know it. The maximum time used in the PTM, in the case of the term *Short-sightedness*, is 7 minutes 28 seconds 63 hundredths and the lowest rank was *Close work* with only 22 seconds 52 hundredths of a maximum of two hours. *Short-sightedness* corresponds to the title of the translation, so it probes the key principle that: Translating the titles absorbs unnecessary time and it is advisable to leave it until the end.

Table 2

Registration of the Problems of Translation and Time Invested From Highest to Lowest by the Subjects of the 2008-1 Semester

Translation problems for time spent in the 2008-1 semester					
Phrase/term		Maximum spent time (Min, Sec, Cents)	Phrase/term		Maximum spent time
1	Short-sightedness	7'28.63"	15	Allows light in	52.53"
2	Resulting from the eye	5'36.14"	16	Whilst	51.97"
3	Length of the eye	2'15.65"	17	Britain	50.28"
4	Medium degree	1'52.58"	18	High degree	43.47"
5	Mismatch	1'33.19"	19	Full-time education	35.95"
6	Mild degree	1'33.11"	20	Can still be seen	34.74"
7	Blurred	1'27.76"	21	Focusing power	29.93"
8	Increased curvature	1'05.89"	22	To run in	29.49"
9	Steeply curved	1'02.69"	23	Around puberty	29.24"
10	Lens	1'02.01"	24	Will stop getting	23.51"
11	Later life	77.58"	25	High degree myopia	22.80"
12	Book in	67.3"	26	Close work	22.52"
13	Optometrist	59.05"	27	Headache and tired eyes	X
14	Eye chart	53.12"			

Table 3 shows the maximum time consumed in the PTM by the 11 subjects. In the column on the left side, you can see the first 10 issues of translation (in green) that consumed the most time among 27 and who were the more repetitive in the four semesters examined.

Table 3

List (Highest to Lowest) of the Problems of Translation by Maximum Time Consumed and Recurrence of the Subjects at Each Term

Translation problems by recurrence during Punctual Terminology Management							
Phrase/term		Maximum spent time (Min, Sec, Cents)	Recurrence in subjects (number of cases with the problem)	Phrase/term		Maximum spent time (Min, Sec, Cents)	Recurrence in subjects (number of cases with the problem)
1	Short-sightedness	7'28.63"	7	15	Allows light in	52.53"	3
2	Resulting from the eye	5'36.14"	9	16	Whilst	51.97"	5
3	Length of the eye	2'15.65"	6	17	Britain	50.28"	3
4	Medium degree	1'52.58"	2	18	High degree	43.47"	2
5	Mismatch	1'33.19"	10	19	Full-time education	35.95"	5
6	Mild degree	1'33.11"	9	20	Can still be seen	34.74"	2
7	Blurred	1'27.76"	3	21	Focusing power	29.93"	4
8	Increased curvature	1'05.89"	3	22	To run in	29.49"	2
9	Steeply curved	1'02.69"	7	23	Around puberty	29.24"	4
10	Lens	1'02.01"	6	24	Will stop getting	23.51"	4
11	Later life	77.58"	3	25	High degree myopia	22.80"	6
12	Book in	67.3"	4	26	Close work	22.52"	4
13	Optometrist	59.05"	5	27	Headache and tired eyes	X	0
14	Eye chart	53.12"	6	28			

In addition, the fourth column shows the recurrences of the subjects for each translation problem, where *Mismatch* (in red) was the one that caused the greatest number of allusions as a translation problem in the 2008-1 semester and the terms *Headache* and *Tired eyes* did not register any problem, although in other semesters did.

Figure 3 clearly shows how the term *Mismatch* is the one with greater repetition as a problem of translation with a 45.45% of the sample while *Resulting from the eye* and *Mild degree* occupy the second place with 36.36%. Thirdly, we have *Short-sightedness* and *Steeply curved*, reaching an 18.18% of the time invested in PTM. It must be added that to establish the percentages each problem was individually analyzed.

Figure 4 shows how the translation of the title becomes the first problem of translation by consumption of time in the subjects participating in the experiment.

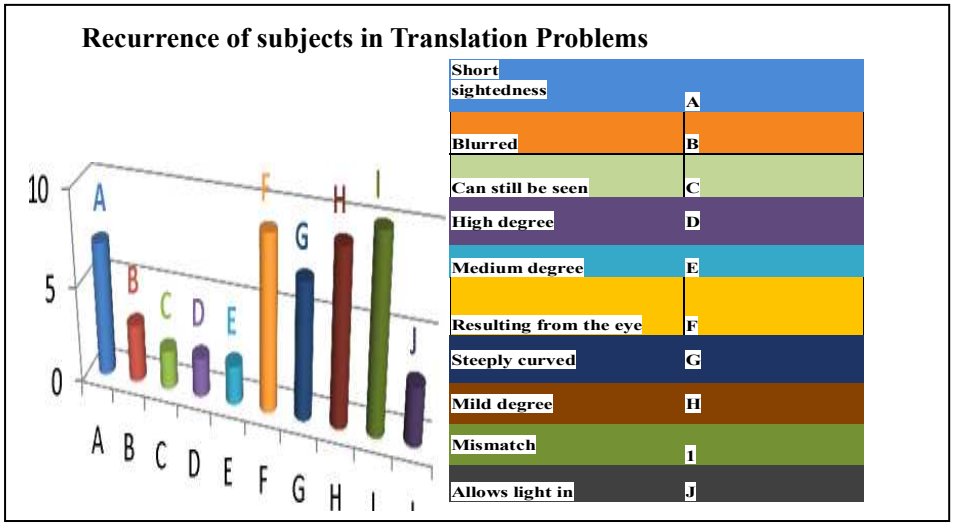
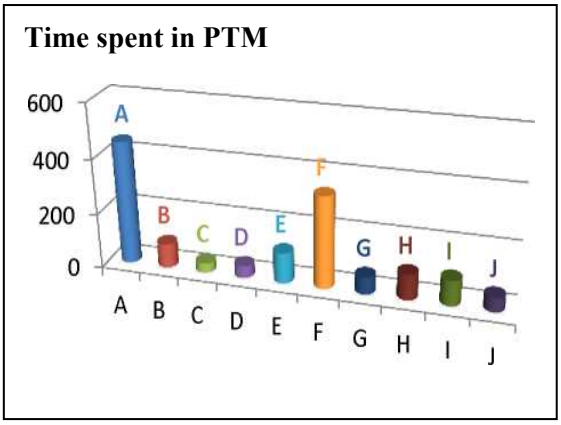


Figure 3. List of translation problems according to the recurrence in the subjects of the 2008-1 semester.



Translation problems	Time in seconds
A	448.63"
B	87.76"
C	34.74"
D	43.47"
E	135.58"
F	336.14"
G	62.69"
H	93.11"
I	93.19"
J	52.53"

Figure 4. List of translation problems according to the time that consumed the subjects of the 2008-1 semester in PTM.

About the consultations of the subjects during the search for terminology (Table 4), we can perceive a clear pattern. The better grades in TC (good: 80 to 89/100) have a correlation with a greater quality control in the punctual terminology management, that is to say, there is a greater consultation of keywords in the subjects who obtained higher scores in their TC.

Table 4

List of Translation Problems Compared to the TC Degree of the Subjects of the 2008-1 Semester

Constant query pattern					
Subjects	Translation competence	Rank of translation problems	Subjects	Translation competence	Rank of translation problems
A 1	84	15	A6	88	14
A2	89	15	A7	88	9
A3	80	13	A8	80	13
A 4	83	14	A9	85	13
A5	89	8	A10	92	8
			A11	93	2

In the cases of alumni A10 and A11 (whose TC is excellent: from 90 to 99/100 points), their brief PTM is proportional to its greater knowledge of the world (extra-linguistic sub-competence) and contacts with the language[11]. This phenomenon happened in 2008. Currently, the average age of the students is 21 years (Cortez, Basich, & Figueroa, 2013).

Also, we see that the subjects A2, A6, and A9 that got scores higher than 85/100 keep a quality control that goes from 13 to 15 translation problems consulted. On average, we can say that each student at the rank of good TC found 12.66 translation problems. As a result, 81% of the sample made a terminological search of at least eight translation problems.

Regardless of the time consumed, the trend is consistent with previous results in the 2013-2, 2012-2, and 2009-2 semesters[12].

Conclusion

About the Punctual Terminology Management, we can establish that there is a clear pattern that influences as an independent variable in the high qualifications of the translation competence that was exhibited by the students of intermediate level in the Bachelor's Degree in Translation. That is to say; this dependency relationship is perceived as follows:

The greater is the quality control to manage terminology (appropriate keyword query), the subjects will get a better score in their products; therefore, students will show a better translation competence.

On the other hand, the phenomenon of students at the ends of the spectrum (59/100 in the grades) has the next explanation: At the low end where scores are not passing grades, the subjects show a poor management of terms and therefore an insufficient TC, which leads us to infer that there is an inferior domain of the language to translate (Cortez, 2014b, p. 174).

This case mentioned above does not appear in the 2008-1 semester, where an excellent TC allows a brief terminology search due to a splendid command of the language and a greater knowledge of the world.

The topic at the local level is to reshape or adopt new models of Terminology teaching to the existing curriculum that was fruitful in its days of structuralism in vogue, the communicative approach, and which was taught as a history class by rote. We did not go through currents like functionalism and now cognitive theory but landed directly on applied technology (the praxis of Terminotics nowadays). The present work is worth to start the methodological reflection.

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[11] It should be noted that A11, A10, and A5, were the first of the class during the year 2008. Furthermore, A11 and A10 were upper than 45 years when they were studying the B. Phil., that is to say, greater experience in L2.

[12] Cfr. Cortez, 2014b, pp. 223-231.

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Appendix 1: Detail of the Matrix of Translation Problems in the 2008-I Semester