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Evolution of Linguistic Sub-competence in English in Students of Translation in the Mexicali Campus of the Language School

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This research report is part of an empirical-experimental study (2006-2017) through which we seek to find answers to the question "How do translators translate?", posed by the Process of Acquisition of Translation Competence and Evaluation (PACTE) Group and, in particular, record how the language to be translated evolves. The object of our study (5th-semester students in the Bachelor's degree in translation) has produced a constant pattern in measurements of linguistic sub-competence in L2 (LSL2). This finding leads us to infer that the range of scores they exhibit, which goes from satisfactory to fair (60-79 on a scale of 100), constitutes normal LSL2 development in the acquisition of holistic translation competence, at least in the Mexicali campus of the Language School. The variable measured exhibits a covariance of 15/100 and a similar fluctuation is found in the ranges for transfer sub-competence (TRSC) in the subjects studied in this diachronic study. This is highly significant; the information collected may provide key clues to understanding how curricula function in real time, without having to wait until students graduate.

Keywords: translation competence, linguistic sub-competence in L2, transfer sub-competence, scale, PACTE group[1].

Introduction

Our first-hand experience—firstly as students and then as teachers—of the development of the six sub-competences necessary to gain translation competence (TC) at the Mexicali campus of the Language School of the Autonomous University of Baja California (UABC) has enabled us to witness, over different generations of students, a decline in encyclopaedic knowledge or extra-linguistic sub-competence—in the words of PACTE (2003)—or in what Kelly (2002) described as *cultural competence*, which includes not just encyclopaedic knowledge about the countries where the relevant languages are spoken, but also…values, myths, perceptions, beliefs, behaviours, and the textual representations thereof (p. 14).

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[1] According to its own website, PACTE has been a competitive research group since 1997 and a consolidated research group in Catalonia since 2002. It was a member of the *Institut de Neurociències* of the *Universitat Autònoma de Barcelona* (2001-2009). PACTE initiated the thematic network TREC (Translation, Research, Empiricism, Cognition), which brings together experts in empirical and experimental research in translation from around the world, and coordinated it for two years. Available at: http://grupsderecerca.uab.cat/pacte/en.

We have also noted, how subjects' socio-economic level affects the acquisition of translation competence and the linguistic and transfer sub-competences (LSL2 and TRSC, respectively), which are directly linked to the language to be translated (Cortez, 2014).

In the past, students over 21 years of age, who enjoyed increased experience and extra-linguistic knowledge, overcame their weaknesses or shortcomings in the instrumental/professional sub-competence using the strategic sub-competence (Cortez, Basich, & Figueroa, 2012)[2].

Besides, this analysis of the translation competence acquisition process, which can be said to fall under the action-research approach (Hatim, 2001), used two basic resources—a computer and computer program intended only for academic use (Translog2000)—to adapt the Process of Acquisition of Translation Competence and Evaluation (PACTE) Model to the Mexican reality, and specifically, to an analysis of undergraduate students' progress, in an attempt to further the study of process/product-oriented translation, contribute to science, and improve the educational service on offer.

The objective of this study is to explore how LSL2 progresses in intermediate-level students. We have detected a pattern that reflects a more or less steady development over nine years. On average, LSL2 ranges from 72.50 to 78.56 in the pre-TOEFL test, which leads us to conclude that in the fifth semester, students' competence in the language to be translated is *fair* and developing on a par with their TRSC.

Therefore, the following variables were analysed:

(a) measurement of linguistic sub-competence in L2 (language to be translated) using the pre-TOEFL test (1991).

(b) measurement of the transfer sub-competence (essence of TC) with a scale proposed by Colina (2009, p. 258) and adapted by Guajardo (2013, pp. 152-153) to measure the quality of products (translations); this scale can also be converted to the 0-100, scale used by the UABC.

Our research questions are the following: (1) "How does intermediate-level students' linguistic sub-competence in L2 progress?"; and (2) "Are there any patterns in the development of the sub-competences that make up holistic translation competence?".

This leads us to hypothesise that LSL2 and TRSC (two of the most important sub-competences) begin maturity from the fifth semester onwards[3]. This is crucial in gaining the translation skills needed to graduate from the Bachelor's degree in translation.

In order to establish a record of the state of sub-competences and draw comparisons with earlier measurements (Cortez, Figueroa, & Luna, 2013; Cortez, Basich, & Figueroa, 2015), the methods and materials employed were the same as in a longitudinal study of TC (Cortez, 2014). A linguistic-contrastive scale was implemented, but this was convertible to a 0-100 scale as used previously (Cortez, 2009; Cortez et al., 2012; Cortez et al., 2013; Cortez & Figueroa, 2014).

State of the Art

Translation competence has been widely studied, and process studies have put forward several descriptive models (having set aside the prescriptive theorisation).

[2] Specifically, by using computers and software to translate electronic texts (as opposed to texts on paper) and produce a translation using the MS Office suite, OpenDocument, etc.

[3] During the experimental probes in 2005, we tested Translog2000 user in third and fourth levels, but most of subjects failed to accomplish the translation task. It was the fifth semester the one that showed the required competences to finish the task.

With regard to this methodology, Bell (1991) envisioned that it may be more feasible to consider developing an approach instead of a theory, "(…) an orientation to the problem of describing and explaining the translation process which derives from an amalgam of insights from psychology and linguistics into the nature of the activity of translating" (p. 27).

One of the author's expectations regarding a theory of translation is that models provide patterns and explanations of what has been done after translation:

> (…) models which offer probabilistic *post facto* explanations of what has been done, rather than deterministic *a priori* models which claim to predict what will be done (…) models of the dynamics of the process itself rather than static descriptions of the structure of the product (…). (Bell, 1991, p. 28)

Sciences that have contributed methodologies to the study of translation include cognitive and experimental psychology, and in particular Think Aloud Protocols (TAPs). In this respect, Bernardini (2001) draw attention to a failure to question their applicability to translation:

> Such a method of data collection, known as "thinking aloud", has been imported from the cognitive sciences and applied to translation research, often with little reflection on the consequences inherent in the application of the approach to the new research framework. Theoretical justifications have been imported without questioning their applicability to the new settings, and the validity of the method as a whole has been assumed rather than proved. (pp. 241-242)

Neuroscience has provided significant contributions to the field by yielding a wealth of information on how experts, or in our case specialised translators, need—just like professional pianists—at least 10 years to master their art in order to become experts in their area.

However, Hansson, Buratti, and Allwood (2017) acknowledged that this period can be shorter:

> In expert research it has been argued that it takes about 10 years to become an expert in a field (Hayes, 1989; Ericsson, 1996), although the results in other studies have indicated that this time may be shorter for more gifted persons. (p. 1)

From the late 1990s, experts in translation studies have sought to describe the translation process and establish a fairly linear association between the process and the result, or the product, in an attempt to determine when a translation is good and acceptable in order to outline the right (ideal) model for an optimal process—if a universal model is desired, and for the sake of simplicity, the "ABC" of translation—that will deliver a top-quality product. One specific example of normalisation in the quality of translation services is the Revision Manual produced by the Spanish Language Department of the Directorate-General for Translation (DGT) of the European Commission.

However, Gummerus and Paro, as cited in Muñoz Martín (2006, p. 133), put forward a convincing case that in many cases, the quality of a translation does not depend on the translator's competence or expertise, but rather on cooperation between all those involved in producing the text.

In her work on the origin of process-oriented research, Hansen (2003) asserted that:

> …process research started with Krings (1986), Gerloff (1987) and House (1988). Other scholars like Tirkkonen-Condit (1990), Jääskeläinen/Tirkkonen-Condit (1991), Lörscher (1991), Kiraly (1995), Kussmaul (1998) and Jääskeläinen (1999) produced important results. The dominant research method was the use of think-aloud-protocols (TAPs). (p. 27)

Early studies on productivity (process/product) were conducted by the Carnegie-Mellon Group, led by Herbert Simon (Pozo, 2006, p. 228), one of the fathers of the cognitive psychology of information processing. A very similar method is employed in all these studies. The author explains that a series of kinematic problems

was given to a group of experts and another group of novices (the number of which ranges from one to 11). Each problem required solving several rectilinear motion equations. The analysis used TAPs, and the problems were easy and could be solved in a couple of minutes.

Pozo (2006) pointed to quantitative differences between experts and novices in solving equations, as novices make more mistakes and, on average, take four times as long as experts to solve a problem. Just like in the exact sciences, in translation studies, models are created to contrast reality and replicate experiments until they fail, and it is these endeavours that give rise to theories and methods. As a result, the methodological findings obtained by applying these models will help to adapt curricula to the surrounding reality, which is changing at a dizzying pace and at times outstrips educational institutions.

Indeed, there is no magical formula for evaluation, but studying the processes and products allows us to improve course content and measure the quality of translations more objectively and efficiently. Other models that seek answers to the translation process include work by Wilss (1976), Bell (1991), Neubert (2000), and Kelly (2002, 2005). According to Rodríguez-Inés (2013, p. 166), "Alves and Gonçalves (2007) and the PACTE group (2013) are the only empirically-validated studies"[4].

Evaluation in Translation

Various authors consider that although it is important to take into account pragmatic and textual factors in translation (Colina, 2009), this trend is not reflected in students' translations. This can be attributed in large part to the fact that students do not view translation as a process but rather a product. It is, to a degree, the theoretical inertia and reflection of the prescriptive development that preceded the field of translation studies, which now analyses the process and product of translation from the perspective of cognitive science.

Guajardo (2013) suggested that using scoring scales as a tool to evaluate student translations reduces, to an extent, subjectivity in this aspect of the teaching-learning process. The author makes reference to the pursuit of objectivity conducted by Colina (2009), who proposed a functional-componential model, "a translation quality evaluation based on a theoretical approach (functionalist and textual models of translation) that can be applied in professional and educational contexts" (p. 240). With the help of colleagues, Colina (2008) designed a componential, functionalist, and textual tool for translation quality assessment (TQA) to enable holistic evaluation. This scale was adapted to conduct this study in the Mexicali campus of the Language School.

Angelelli (2009, p. 38) supported too that scoring scales enable more systematic and holistic evaluation, and adds that in general, such scales encompass all the sub-competences included in translation competence. In the same vein, Messina (2008) asserted that "presently, there is a trend in the field of translation evaluation toward a more methodical approach, based on a more objective system involving sophisticated, comprehensive scoring scales and systems" (p. 438)[5]. According to Messina, it was at the Congress of the International Federation of Translators in Paris in 1954 that more specific evaluation methods were first sought. Another example of the importance of the translation profession, which entails not just providing quality services but also training highly-qualified professionals, is given by the Spanish National Agency for Quality Assessment and Accreditation or ANECA (2019-2023) and its "White paper", which evaluates the design of undergraduate programmes in translation and interpretation in Spain and compares them to the rest of the European Union[6].

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[4] TN: The translation is my own.
[5] idem.
[6] Available at https://bit.ly/J8BmIH.

Generally speaking, there are three ways to evaluate a translation: at a macrotextual level, at a microtextual level, and through skopos theory, defined by House (2009) as the "term used to refer to the purpose of a translated text, taken to be the primary concern in the purpose-oriented view of translation" (p. 118).

Furthermore, there is a hybrid (Williams, 2004) that attempts to strike a balance in measuring the most important aspects through an argumentation-centred approach to translation quality assessment (TQA) that strives for quality in translation. The author himself defines it as a type of evaluation. But in a later study, Williams (2009) warned that like any scientific endeavour, the model is not exempt from subjectivity and value judgements. However, we agree that any evaluation should be based on criteria of goodness:

> Thus, in my view, TQA cannot and should not be values-free: to be useful, it must be based on criteria of goodness. Otherwise, all we do is describe defects and strong points in translations. Naturally, we strive to be as objective as possible in designing and applying TQA models, and to be successful, we must ensure that our TQA models and procedures pass the test of *validity* and *reliability*. (p. 5)

Williams's model can be summarised by the idea that every source text contains an argumentative macrostructure, and that it is this structure that the translator must keep in the target text. This does not mean that there are no other textual functions or characteristics present, or that they are not important, but what is important is that the translator maintains the argumentative macrostructure. This is a key consideration in the argumentation-centred approach.

With regard to quality in translation, Martín (2010) made reference to the Canadian Language Quality Measurement System (1985; 1987), which led to Sical III (*Système canadien d'appréciation de la qualité linguistique*) and its proposed scale. The origin of the whole scale is explained by Larose (1998), and establishes two types of errors: (a) errors of meaning or translation errors; and (b) language errors. These can both be subdivided into major and minor errors. Major errors are described as follows:

> The complete failure to render the meaning of a word or group of words conveying an essential part of the message of the document. Typical examples are a significant omission, a translation contradicting the meaning of the source text, or unintelligible jargon (…) an error of form can at the same time be an error of meaning and (…) a language error can cause a mistranslation or at the very least impede the reader's understanding of the translation. (Williams, 1989, p. 24)

In the Canadian Language Quality Measurement System (Sical III), a translation receives one of the following four grades: (a) of superior quality; (b) fully acceptable; (c) revisable; and (d) of unacceptable quality.

In a 400-word text (taken as a basic working unit), Larose (1998, p. 17) noted that a translation must not contain a single major error to achieve categories (a) and (b). Only one major error is permitted for category (c), and more than one major error in the translation results in a grade of (d) unacceptable. Up to six minor errors are allowed for grade (a), 12 for (b), and 18 for (c).

On the other hand, the Spanish Association for Standardization and Certification (AENOR) published in 2015 their international standard ISO 17100:2015, that establishes the quality of the delivered product. On their web-page announce: "The TSP [Translation Service Provider] must have a documented process to ensure that the personnel selected to carry out the translation tasks have the required competencies and qualifications (2015, p. 12)".

As can be seen, evaluation is an issue of great interest to translators, organisations, and translation agencies on the one hand, but also translation scholars and educators on the other. According to Martín (2010, p. 231), this is reflected in the attention it generally receives in Translation Studies, for instance, Hatim and Mason (1997, pp. 197-212), Hurtado (2001, pp. 156-169), Kelly (2005, pp. 9-18), Mayoral (2001, pp. 120-124), and more specific works on the topic, such as House (1997), Waddington (2000), and Williams (2004)…[7].

Williams (1989) himself asked, "How can one evaluate the quality of an industrial-scale translation program when, in the eyes of many academics and practitioners, translation quality assessment (TQA) is too subjective or too rigid to yield valid, reliable results?" (p. 13).

Among models that focus on microstructure include Colina's (2009) model, which comprises four fields for evaluation: (1) target language; (2) functional and textual adequacy; (3) non-specialised content; and (4) specialised content and terminology. Together, the measured items, give a total of 100 points. This model was used in the Mexicali campus of the Language School in Guajardo's (2013) study "A multifunctional model of translation evaluation". The adapted scale or rubric (see Appendix 1) measures four levels of errors, and provides for a maximum of 56 points, which would be equivalent to 100/100 on other scales.

Transfer Sub-competence

To revisit empirical studies on TC, the PACTE Group has conducted since 1997 holistic, empirical-experimental research into TC and its acquisition (Rodríguez-Inés, 2013).

The PACTE Group examines both the process and the product in direct and inverse translation, and works with six language combinations: English, French, and German, combined with Spanish and Catalan.

The PACTE Group (2003) defined translation competence as the underlying system of knowledge necessary to translate. By the same token, the group states that TC: (a) is expert knowledge; (b) is, above all, procedural knowledge (as opposed to declarative knowledge); (c) is made up of various interrelated sub-competences; and (d) includes a strategic component that is of particular importance (p. 46).

In the group's model, TC comprises five sub-competences (bilingual, extra-linguistic, knowledge of translation, instrumental, and strategic), and psychophysiological components.

On the other hand, Hurtado (2001, p. 383) called "transfer competence" to the same named by Neubert (2000) and Hansen (1997) as "translatorial subcompetence". Neubert (2000, p. 6), however, situated transfer sub-competence within the "distinguishing domain" of a translator. In this profession, the TRSC dominates over the other sub-competences; in other words, the author argues that transfer skills integrate language, text, subject, and culture knowledge for the sole purpose of satisfying transfer needs.

Nonetheless, Neubert (2000) stressed that "…a near-perfect knowledge of the niceties of the grammatical and the lexical systems of the source and the target languages are basic ingredients of translation competence (p. 7)." On the same line, according to Englund Dimitrova (2005, p. 19), translation ability can develop into translator competence, through formal learning and training and/or through gaining practical professional experience. So, translator competence can develop into translation expertise.

Materials and Methods

The logic to select the measured variables to be compared (SCTR and SLL2) has to do with the fact that the translator works with the language as a tool, in this case English. That is, in previous research, we have

[7] TN: The translation is my own.

already seen this covariance between the level in the handling of the language to be translated and the sub-competence of transfer. The same methodology was retaken in this study, in order to look for parallels or the absence of them.

Although the pre-translation protocol (PPT, in Spanish) has, in the past, been applied in the fourth semester of the Bachelor's degree programme (Cortez, 2009, 2014; Cortez et al., 2013, Cortez et al., 2015), and has even been contrasted with seventh-semester students (Cortez et al., 2012), we have observed that it is from the fifth semester (intermediate level) onwards that students possess a developing TC that enables them to carry out projects successfully. In other words, the quality of translations is better than in third semester (in which they only acquire translation techniques) and the fourth semester (in which they begin to gain familiarity with the translation process, but not in a specialised manner, as occurs in later semesters). PPT (see Appendix 2) is a model designed to observe the translation process and record how translation competence develops in students.

It should be made clear that during the first three semesters of the degree programme, students consolidate their linguistic and extra-linguistic knowledge of their mother tongue and foreign language, and as a result, we believe that TRSC, which is part of TC, is directly dependent on a well-developed linguistic sub-competence in L2 and greater knowledge of the world (extra-linguistic sub-competence).

A total of 171 subjects, of which 41% were enrolled solely in fifth semester, made up the study population and had their linguistic sub-competence in L2 measured in this study. These were taken from a universe of students of the Bachelor's degree in translation (from the fifth, sixth, seventh, and eighth semesters)[8].

This data analysis is centred on subjects studying during the first semester of 2017 (2017-1: February to June). In order to obtain a sample with a margin of error of just 9%, with 50% heterogeneity and a 95% confidence level, we followed the guidelines provided by Netquest (a company dedicated exclusively to developing technology for online research solutions)[9]. With these percentages, we isolated 41.52% of all students enrolled in the Bachelor's degree in translation. These students underwent a test of their linguistic sub-competence, and participated in TRSC measurement during the experiment, which replicated the pre-translation protocol (Cortez, 2014).

Because the manipulation of data was triangulated, the revision of products was done by participating translation teachers/reviewers that had at least five years' experience translation teaching in the Mexicali campus of the Language School.

One of the computer programs used to triangulate and measure TRSC was Translog2000, beta version 1.0, developed by Arnt Lykke Jakobsen and Lasse Schou. Jakobsen (2006, p. 96) stated that "The original purpose for which *Translog* was created was to be an automatic, subject independent tool for collecting hard, supplementary process data to the softer data collected by means of introspection, retrospection and think-aloud". The author recalls that Think Aloud Protocols was taken from Psychology (p. 95): "(…) standard method for eliciting, evaluating and analysing such subjective or qualitative verbal data was formulated by Ericsson and Simon (1980) and comprehensively in *Protocol Analysis* (1984/1993) by the same authors".

About the program (De Rooze, 2008, p. 18), said that makes it possible to record and study all keylogging on a computer keyboard within the software environment. Translog2000 logs information about the exact time

[8] With the honourable exception of a few active translators, third and fourth-semester students are seldom able to handle a translation of a substantial length and level of difficulty, as the groundwork for translation competence is still being laid.

[9] Website available at https://goo.gl/mqbgXP.

at which each keystroke operation is made and makes it possible to replay the typing process on the computer screen.

By applying the same methodology, our intention was the address the same object of study with the same tools in order to analyse changes in the variables. One of the mentioned was the pre-TOEFL exam (1991) that comprises 100 questions: 40 from Section 2 "Structure and Written Expression", and 60 from Section 3 "Vocabulary and Reading Comprehension". This section is designed to measure students' ability to recognise standard written English. The group was provided a copy of the handbook and a test.

TRSC measurement is reflected in the subjects' translation of a text about myopia. The source text contains 412 words and students were asked to translate it from English to Spanish. The text, which falls under the genre of popular science, was taken from the Internet and converted to a .tpl extension so that students could type their texts within the Translog2000 user program. Translog2000 was used to process the texts and convert them to Microsoft Word 2010[10].

Consistency or Disparity in Variables

The scale used to measure the consistency or disparity between sub-competences originates from the study *El nivel socioeconómico de los estudiantes de traducción en la Facultad de Idiomas-Mexicali de la UABC, como variable condicionante en la adquisición de la competencia traductora: Un estudio exploratorio* (The socio-economic level of translation students in the Mexicali campus of the Language School of the UABC as a determining variable in the acquisition of translation competence: An explanatory study) (Cortez, 2014), in which it was found that within the most privileged socio-economic strata (S1 and S2, with a monthly family income of 20,000 Mexican pesos [MXP] or more), a disparity of over 15/100 points between variables was the exception and not the rule, unlike in the most economically disadvantaged sector, Stratum 3 (S3, with a monthly family income below 10,000 MXP), where this occurred to a greater extent. In S1 and S2, (a) there was a better balance between proficiency in the language to be translated (LSL2) and the transfer sub-competence (with a difference of less than 15/100 points between the variables); (b) subjects passed all tests with at least 60/100; and (c) no subjects from S1 or S2 failed.

Results and Discussion

Our analysis of the grades obtained in LSL2 (the pre-TOEFL test) by the fifth-semester students in 2017-1 is presented below. The scale used to record LSL2 goes from 0 to 100 and indicates whether students possess the necessary level in their L2 to transfer meaning from L1 to L2. This scale is also regulated by Article 65 of the by-laws of the UABC[11].

For the purposes of our study, subjects achieving 100/100 are considered "excellent" in the variable measured. A grade between 90 and 99 is considered "very good", with a grade between 80 and 89 being "good", 70 to 79 *fair*, and 60 to *69* "satisfactory". A mean score of 59/100 or less is considered "inadequate" and is graded with a "fail". Consequently, if a subject exhibits scores of 90/100 in TRSC and 60/100 in LSL2, this suggests a significant discrepancy between the two, or polarisation between sub-competences (Cortez, 2014)[12].

[10] Website available at https://goo.gl/YkJKge.
[11] Website available at https://goo.gl/4vCB7k.
[12] In 2014, we found that a discrepancy of 15/100 was most common. However, more substantial discrepancies between sub-competences, like 18/100, 20/100, or 30/100, may be indicative of more serious problems or other situations. 60/100 in LSL2 and 40/100 in TRSC almost indicates a failing grade. 70/100 in LSL2 and 95/100 in TRSC clearly shows an increasing TRSC. It is worth studying these cases carefully because there are unmeasured variables that may influence results.

Table 1 shows the historical development of intermediate-level LSL2. Historically, the average grade ranges from 78.56 to 72.50/100, since records began in 2006-1 and up to 2017-1, with a 10-point drop in semesters 2009-2/2010-1 and 2011-2 (which exhibited a slight recovery with a grade of 68.4). For the 2017-1 semester, four years after the last measurement, the unit grade average was 72.50, which remains in the "fair" range for LSL2. The mean for the entire 2006-1/2013-2 period was 71.33, which again is within the "fair" range. Thus, this appears to be a constant.

Our attempt to interpret the data on the state and progression of translation students' LSL2 in the Language School leads us to state the following, while avoiding any speculation as to a possible explanation:

There is little variation in the range of LSL2 values from the 2006 analysis to date, which go from 67.07 to 78.56/100 and range from "satisfactory" to "fair". Within this range, the 2017-1 semester exhibits a score of 72.50/100, which is close to the general mean. This reveals a pattern, or constant learning curve, in the LSL2 maturation process.

The downward curve observed between 2006 and 2011, which amounts to 10 percentage points, may be explained (and it is here that we enter the realm of the experiential) by the fact that the 2008-2 semester was the last cohort with subjects over 40 years of age who participated in the measurement of variables as regular students[13]. In other words, groups that lacked adult references or models—who were already assimilated into the profession and had experience working as translators—became classes of students fresh out of secondary school with an average age of 21[14]. These were no longer people that needed to certify their knowledge, but young university students. The 2013-2 group exhibits a slight increase, which is explained by the overwhelming competitiveness within the class.

The average grade of 72.50/100 in the fifth-semester groups in the 2017-1 semester leads us to the firm belief that a *regular* mark in LSL2 is what prevails in our students today. In other words, a recurring, static development of students' LSL2 suggests that our fifth-semester students only exhibit an intermediate level at this stage; their translation competence is still maturing, and their sub-competences are being implemented constantly in a bid to gain expertise. It is however necessary to contrast this data with the data produced by eighth-semester students, who are about to graduate, to determine the true evolution of the variables measured.

Table I

Comparison of Pre-TOEFL Results in Semesters 2006-2017

Subjects	Semesters 2006-1/2006-2 2007-1/2007-2	Semester 2008-2*	Semester 2009-2**	Semester 2010-1	Semester 2011-2	Semester 2012-2	Semester 2013-2	Semester 2017-1
Student 1	90	89	90	81.5	86	94	90	83
Student 2	85	83	90	78.5	84	92	84	80
Student 3	85	82	82	76.5	78	82	84	79
Student 4	83	75	73	75.5	78	79	84	79
Student 5	83	72	69	65	77	73	83	78
Student 6	82	64	66	61.5	76	69	83	77
Student 7	82	62	62	62.5	73	67	80	76
Student 8	80	61	61	53.5	67	65	78	76

[13] The author was the coordinator of the bachelor's degree in translation from 2006 to 2013.

[14] TN: *alumnos regulares*, or "regular students", are those who are have passed all the courses they have enrolled in. Subsequent semesters may still include "irregular students" who are repeating a course they have previously failed.

(table 1 continued)

Subjects	Semesters 2006-1/2006-2 2007-1/2007-2	Semester 2008-2*	Semester 2009-2**	Semester 2010-1	Semester 2011-2	Semester 2012-2	Semester 2013-2	Semester 2017-1
Student 9	80	58	60	53	65	58	78	76
Student 10	79		60		65	57	73	76
Student 11	76		59			56	72	75
Student 12	75		47				72	74
Student 13	75		53				71	74
Student 14	71						71	73
Student 15	71						64	72
Student 16	60						63	70
Student 17	Did not answer						62	69
Student 18	Did not answer						60	64
Student 19							55	64
Student 20								62
Student 21								61
Student 22								54
Average	78.56	71.77	67.07	67.5	68.4	72	74.05	72.50

*Notes. *Last Generation of B.A in English Translation. ** First Generation of B.A. in Translation.*

Table 1 shows the wide range of results from the pre-TOEFL test, included in the study "The socio-economic status of translation students in the Mexicali campus of the Language School of the UABC as a conditioning variable in the acquisition of translation competence: an exploratory study", which we compare with the current state of LSL2 at the intermediate level of the Bachelor's degree.

Contrast With TRSC

In the 2017-1 semester, the fifth-semester morning-session students obtained a general average of 82.25% in TRSC, compared to 70.91 in LSL2, resulting in a discrepancy of 11.34/100 points. This result falls within the averages found historically in previous studies (see Table 2).

On the other hand, the fifth-semester afternoon-session class, in which 33.33% of students took part, achieved 88.66% in TRSC compared to a LSL2 of 74.1 (pre-TOEFL test). This gives a difference of 14.56/100, which borders on polarisation between the two sub-competences, for which the maximum parameter was 15/100.

Taking into account the measurements by Cortez (2014), and with respect to the phenomenon of discrepancy between TRSC and LSL2 across the sample, it is worth stating the following:

Only 3.70% of the overall sample exhibited a discrepancy between the two variables and are in economic Stratum 1 (S1)[15]. Interestingly, (this stratum) has the highest scores for TRSC and a pre-TOEFL (PT) score that ranges from "fair" to "good", meaning that this stratum maintains acceptable levels in both competences. A further 7.40% of the overall sample were in S2 and displayed a discrepancy between TRSC and PT above 15/100 points. Most important of all, however, is that all subjects passed in both variables.

Students exhibiting the same discrepancy in S3 make up 20.98% of the total sample, and include the only subjects not to pass the PT. This is highly significant, as this phenomenon is not observed in S1 or S2 (strata

[15] A socio-economic study (Cortez, 2014) establishes three income levels: stratum 1 (S1): income over 20,000 Mexican pesos a month; stratum 2 (S2): income between 10,000 and 20,000 Mexican pesos a month; stratum 3 (S3): income under 10,000 Mexican pesos.

with greater purchasing power)[16] Cortez (2014, p. 272).

As a result, the historically-observed discrepancy of less than 15 points between LSL2 and TRSC is repeated (see Appendix 3). This leads us to infer that this is the state of competences at this intermediate level. The 2010-1 and 2011-2 semesters are the exception to the rule, as polarisation in these semesters reaches 22.83/100 and 20.6/100 points, and the average for the 2013-2 semester verges on the 15/100 benchmark set in 2014 (see Table 2).

Table II

Historical Comparison of Pre-TOEFL and TRSC Results, From Semesters 2006-1 to 2017-1

Subjects	Semesters 2006-1/2006-2 2007-1/2007-2	Semester 2008-2*	Semester 2009-2**	Semester 2010-1	Semester 2011-2	Semester 2012-2	Semester 2013-2	Semester 2017-1
Pre-TOEFL average	78.56	71.77	67.07	67.5	68.4	72	74.05	72.50
TRSC average	83.68	83.33	71	90.33	89	83.6	88.31	81.81
Polarisation of sub-competences	5.12/100	11.56/100	3.93/100	22.83/100	20.6/100	11.6/100	14.26/100	9.31/100

*Notes. *Last Generation of B.A in English Translation. ** First Generation of B.A. in Translation.*

Table 2 shows the results of the historical comparison between LSL2 and TRSC at the intermediate level of the bachelor's degree in translation.

This does not mean that, as teachers, we should not engage actively in accelerating the development of students' sub-competences with better methodologies in teaching translation, along with frameworks that shorten the time it takes for subjects to acquire a level of expertise.

To revisit our initial statement, it is necessary to compare the TRSC and LSL2 results in other levels (sixth to eighth semesters) to ascertain whether it is primordial to acquire an excellent grammatical competence (GC) to become a good translator, or whether GC (Bachman, 1990) dissipates in the last few semesters of study to give way to the strategic, textual, and contrastive sub-competences involved in translation[17].

According to Bachman and Palmer (2004), grammatical knowledge is involved in producing or understanding formally correct sentences or expressions. This includes knowledge of vocabulary, syntax, phonology, and graphology.

Lorenzo (2004), on the other hand, claimed that[18]:

> (…) explicit grammatical knowledge has proven to easily fade into oblivion within short periods of time, with some authors putting the figure at about three months (Zobl, 1995). Implicit grammatical knowledge, however, appears to be an essentially different kind of knowledge, much more resistant to erosion, and similar therefore to knowledge of one's first language, in which the phenomenon of decay generally known as attrition is virtually non-existent. (p. 39)

We believe that the contrastive analysis performed by students at this stage becomes less grammatical (by fifth semester, they are fully immersed in translation practice) and is more pragmatic, led by their strategic, textual, and terminological competences.

Indeed, grammatical knowledge and the contrastive sub-competence are consolidated during the first three semesters of the bachelor's degree, and it is in the bachelor's degree in language teaching that they are more commonly practised on a daily basis. Afterwards, from the fourth to eighth semester, other sub-competences

[16] TN: The translation is my own.
[17] This is the primary focus of the pre-TOEFL test.
[18] TN: The translation is my own.

come into play that are geared towards training the future translator, such as the strategic sub-competence, which helps students to seek solutions and solve problems.

We are currently analysing the LSL2 results from other semesters, in other words, the integration of grammatical knowledge into contrastive, textual, and terminological sub-competences, and the transition from the former to the latter. It should be noted that discursive competence, which is present in language teaching, and defined by Fernández (2010) as the ability to interact linguistically in an act of communication, by understanding or producing texts with meaning perceived as a coherent whole, and which are appropriate for the situation and topic (p. 351), is implicit in the textual and cultural sub-competences. Even though the immediate nature of the speech act is not the same in translation—unlike in interpretation—and years or decades may pass before the speech act is translated[19]. As a result, translation sometimes becomes a dialogue between author and translator—a re-expression of centuries gone by. One example is a translation of the Bible adapted for five-year-old children living today.

In this digital age, it goes without saying that the instrumental/professional sub-competence has undergone major changes in the interest of immediacy. Students are able to search for information and read up on topics instantly, as opposed to a not-too-distant past in which dictionaries, manuals, printed reference texts, etc., were the only source of documentation. These forms of research have now been relegated to a second tier. Of course, having information just a click away also helps to boost LSL2, as students are able to find quick and reliable answers to language-related questions.

Returning to historical LSL2 averages, Table 1 provides data that should not be taken lightly. There is a pattern that goes from 60-79/100 in LSL2 (a "satisfactory" to "fair" sub-competence) in the samples from groups in semesters 2006-1-2/2007-1-2/2008-2/2009-2/2010-1/2012-2/2013-2, in contrast to 2017-1. Therefore, it can be inferred that, at least at the intermediate level of the translation degree programme in the Language School in Mexicali, students' level of the language to be translated ranges from "satisfactory" to "fair". It should be stressed that individual scores reach the "good" (80-89/100), "very good" (90-99/100), and "excellent" (100/100) ranges.

It should also be highlighted that a 10-point drop was recorded beginning in the 2009-2 semester, which recovered to the 70-79/100 range by 2012-2. The subjects in the 2008-2 semester were the last class to follow the 1997-1 curriculum, whereas the 2009-2 semester was the fifth class to follow the curriculum implemented in 2006-2.

Conclusions

It is certain that over nine years, measurements have shown a constant pattern in LSL2 development, and the subjects' average grade in the language to be translated is considered *fair* (71.91/100). This is undoubtedly a constant. We believe this recurrence is significant and provides clues to understanding the development of sub-competences in undergraduate students. Furthermore, it reveals how novices develop sub-competences as they acquire expertise in translation. These findings are also a chance to help students improve their all-round translation competence as soon as possible, by consolidating sub-competences crucial for the future exercise of their profession.

[19] TN: The translation is my own.

It is possible that an International English Language Testing System (IELTS) exam would have been more appropriate to determine subjects' true communicative competence. It must be remembered that this isolated measurement is a "photograph" that may be influenced by factors or variables not measured in this study. The extent of students' progress in the final stages of the degree programme has yet to be interpreted.

Still needed is a careful examination of the students' pauses, translation problems, and handling of terminology in the final versions of their products. A comparison will determine whether there is a repetition of the patterns observed in previous experiments, with respect to the searches students carry out to handle isolated terms and solve translation problems.

With regard to grammatical competence in attrition, translators may be unable to explain exactly what grammatical change they made in a modulation, an adaptation or transposition in a given section of a translation from L1 to L2, but they are able to identify errors in a text, and their holistic TC—led by their strategic sub-competence—is able to handle a translation assignment adequately, meaning they automate the process once they activate the "flow" from the "translator's chip"[20]. To revisit Neubert and Shreve (1992), "Translation process is the activation of competence in a translation situation. The result of the translation process is a target text. Thus, translation is a kind of text production" (p. 43). And since translation is a largely cognitive task, achieving automation is a key premise of expertise in a professional translator.

This research contributes to translation studies—its limitations notwithstanding—by providing an exploration (bearing in mind that it is part of a two-year study) and record of the competences that play a role in translator training within a classroom setting. We believe that this experiment reveals an area of opportunity to help students reduce their zone of proximal development so that their weaknesses and deficiencies are addressed, accelerating their standard development and shortening their learning curve, instead of waiting until they graduate—or, in the words of some experts (Hayes, 1989), 10 years—to take steps to help them achieve expertise.

However, the question "Why does grammatical knowledge dissipate?" remains unanswered for future research. We assume that this knowledge is polarised such that it is integrated into other sub-competences, whereas the TRSC and the strategic sub-competence mature and boost holistic translation competence. New instruments need designing to provide more answers[21].

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[20] Although the terms are used metaphorically, translator training does engage the left hemisphere of the brain, and specifically Broca's and Wernicke's areas (for language production and language comprehension, respectively). Here we touch on the field of psycholinguistics and the functioning of the translator's brain according to Faber and Jiménez (2004, p. 28).

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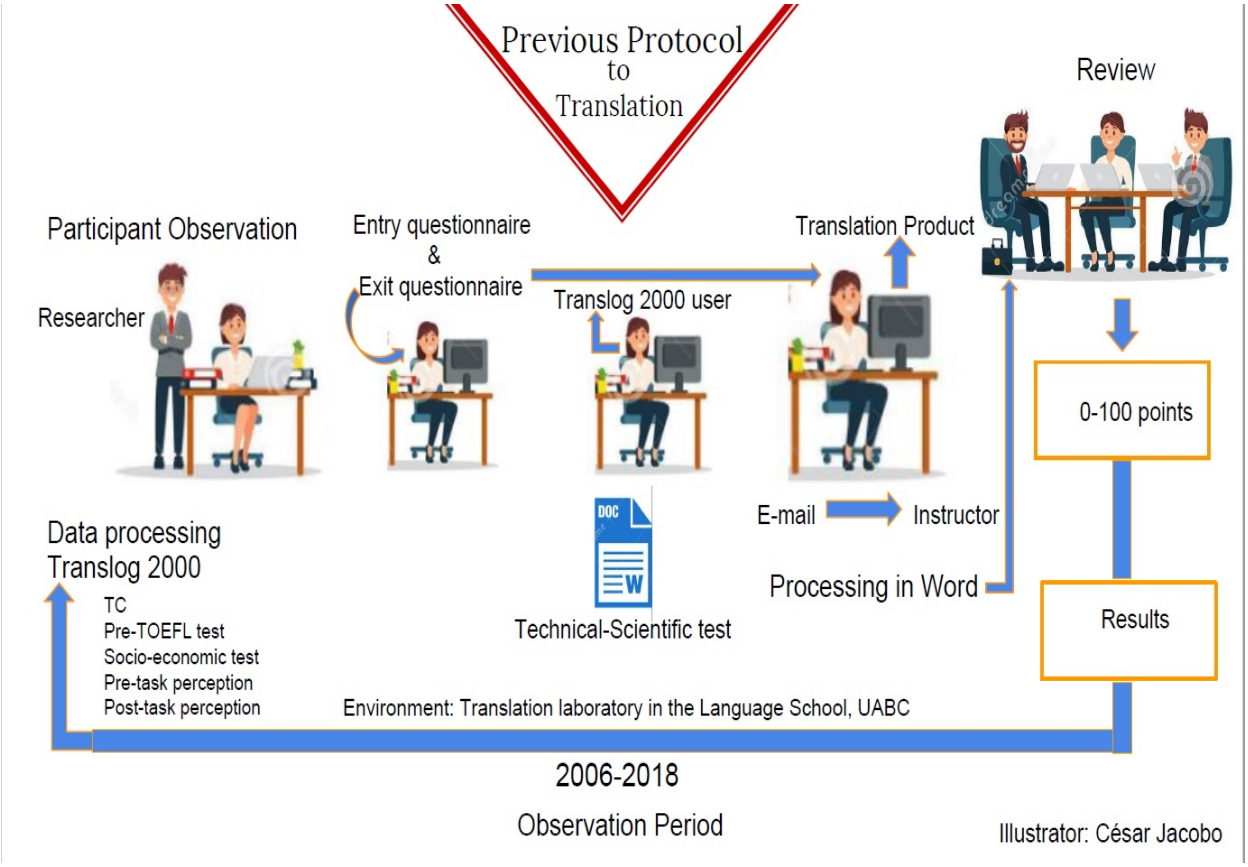
Appendix 1: Assessment Scale

Colina's (2009) scale, adapted for the Mexicali campus of the Language School

The following format uses a scale from 1 to 4, in which the higher the score, the better the translation:				
1 (many errors)	2 (some errors)	3 (minimal errors)	4 (no errors)	
Evaluation of linguistic and lexical aspects and the translation process				
a. Agreement in gender and number.	1☐	2☐	3☐	4☐
b. Cohesion and coherence in verb tenses.	1☐	2☐	3☐	4☐
c. Appropriate terminology used.	1☐	2☐	3☐	4☐
d. Appropriate register used.	1☐	2☐	3☐	4☐
e. Punctuation.	1☐	2☐	3☐	4☐
f. Spelling (accents, capital letters, etc.).	1☐	2☐	3☐	4☐
g. Cultural adaptations (abbreviations, expressions, etc.).	1☐	2☐	3☐	4☐
h. Mistranslations (countersense).	1☐	2☐	3☐	4☐
i. Mistranslations (incorrect meaning).	1☐	2☐	3☐	4☐
j. Senseless text.	1☐	2☐	3☐	4☐
k. Unjustified omissions.	1☐	2☐	3☐	4☐
l. Unjustified additions.	1☐	2☐	3☐	4☐
m. Evidence that a careful review was performed.	1☐	2☐	3☐	4☐
n. Reproduction of the original format.	1☐	2☐	3☐	4☐
	Total: __/56			

Appendix 2: Pre-translation Protocol



Appendix 3: Comparative Table for TRSC and LSL2 in Stratum 3 (2006-2013)

Subjects in S3	Var. 11	Var. 12	Var. 13	Var. 21	Var. 22
Semester	Parents' salary	Mother's level of education	Father's level of education	TRSC	LSL2
Male student 1	10,000 MXP	Upper secondary school	University	95	64
Female student 2	10,000 MXP	Lower secondary school	University	93.33	62
Female student 3	10,000 MXP	Lower secondary school	Upper secondary school	93	72
Female student 4	10,000 MXP	Vocational secondary school	Lower secondary school	92.33	63
Female student 5	10,000 MXP	University	Upper secondary school	91.66	80
Male student 6	10,000 MXP	University	University	91	65
Female student 7 (University merit award)	10,000 MXP	University	University	90	83
Female student 8	10,000 MXP	University	Upper secondary school	75	83
Female student 9 (University merit award)	10,000 MXP	Upper secondary school	Lower secondary school	90	77
Female student 10	10,000 MXP	Upper secondary school	Upper secondary school	90	73
Female student 11	10,000 MXP	Primary school	Upper secondary school	90	72
Female student 12	10,000 MXP	Lower secondary school	Lower secondary school	90	61
Female student 13	10,000 MXP	Primary school	Primary school	89.33	55
Male student 14	10,000 MXP	Upper secondary school	Lower secondary school	88	Did not answer
Female student 15	10,000 MXP	Upper secondary school	University	87.66	78
Male student 16	10,000 MXP	Lower secondary school	Did not answer	87.66	73
Male student 17	10,000 MXP	University	Upper secondary school	87.33	90
Male student 18	10,000 MXP	University	Upper secondary school	86.25	58
Female student 19	10,000 MXP	Upper secondary school	University	86	67
Female student 20	10,000 MXP	University	Upper secondary school	85.75	79
Female student 21	10,000 MXP	Primary school	No schooling	85.66	71
Male student 22	10,000 MXP	Master's degree	Upper secondary school	85	82
Male student 23	10,000 MXP	Teacher training college	Upper secondary school	85	80
Female student 23	Did not answer	University	University	82.75	69
Female student 25	10,000 MXP	University	Upper secondary school	82.50	65
Female student 26	10,000 MXP	Upper secondary school	University	80	82
Female student 27	10,000 MXP	Primary school	University	85	58
Female student 28	10,000 MXP	Primary school	Primary school	80	69
Female student 29	10,000 MXP	University	University	80	62
Female student 30	10,000 MXP	Lower secondary school	University	80	53

Note. Table shows good and very good TRSC in Stratum 3. Any 15-point differences are highlighted in grey. Variability in stratum 3 was 46.66% and can show a learning problem (Source: Cortez, 2014, p. 274).