Analyzing the influence of reading purpose and translation experience on summary and translation tasks: an exploratory-experimental study

Análise da influência do propósito da leitura e da experiência em tarefas de resumo e tradução: um estudo exploratório-experimental

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ABSTRACT: This paper analyzes the influence of reading purpose and translation experience on the interface of reading and translation processes. Since this interface has not been fully explored, we propose this exploratory-experimental study in order to analyze the influence of reading purpose and translation experience on summary production tasks and translation tasks in the English-Portuguese language pair. Although this study’s participants’ sample was small and results significance could not be confirmed with statistical tests, results found seem to corroborate the hypothesis that target texts translated by professional translators were better evaluated than target texts produced by undergraduates. However, texts summarized by undergraduate students were better evaluated than those summarized by professional translators, which does not confirm another study hypothesis. Results also seem to confirm the hypotheses that professional

RESUMO: Este artigo analisa a influência do propósito de leitura e da experiência em tradução na interface dos processos de leitura e tradução. Como essa interface ainda não foi totalmente explorada, propomos este estudo exploratório-experimental para analisar a influência do propósito leitura e da experiência em tradução em tarefas de produção de resumo e de tradução no par linguístico inglês-português. Embora a amostra de participantes deste estudo seja pequena e não tenha sido possível confirmar a significância dos resultados com testes estatísticos, os resultados encontrados parecem corroborar a hipótese de que os textos-alvo traduzidos pelos tradutores profissionais são mais bem avaliados que os textos-alvo traduzidos pelos graduandos. Entretanto, os textos resumidos pelos estudantes foram mais bem avaliados do que aqueles resumidos pelos tradutores profissionais, o que não confirma outra hipótese deste estudo. Os resultados também parecem confirmar as
translators carry out summary production and translation tasks faster than English Language undergraduates. Therefore, in addition to translation experience and reading purpose influencing the quality of summarized and translated texts, as well as the time for task performance, repeated practice of summary production may influence the quality of the summaries produced.


1. Introduction

Although reading is part of translation processes, reading for translation has not been fully explored as an object of study yet (JAKOBSEN; JENSEN, 2008; ALVES, PAGANO, DA SILVA, 2011; HVELPLUND, 2017), neither has the field of translation studies exhausted the role of L2 reading in translation processes (SHREVE; SHÄFFNER; DANKS, 1993; WINFIELD 1, 2014). Bearing those aspects in mind, the present article analyzes the influence of translation experience and reading purpose on summary and translation tasks. Therefore, to perform this investigation, the following hypotheses are presented:

Hypothesis 1 (H1): Summarized texts produced by professional translators receive better grades from raters than texts summarized by English Language undergraduates.

Hypothesis 2 (H2): Target texts translated by professional translators receive better grades from the raters than target texts translated by English Language undergraduates.
Hypothesis 3 (H3): Professional translators perform summarization tasks faster than undergraduate students.

Hypothesis 4 (H4): Professional translators perform translation tasks faster than undergraduate students.

2. Theoretical frameworks

Since this study takes into account the fields of reading comprehension in Applied Linguistics and process-oriented research in Translation Studies, this section will review previous studies about cognitive processes in translation with a focus on studies that have examined the reading and translation interface.

Using a process-oriented approach, Shreve et al. (1993) investigate the role of reading in translation. The authors discussed the differences between reading for comprehension within a translation task and reading for comprehension in general reading tasks, arguing that these differences can depend on the general reader’s and translator’s objective. While the general reader tries “to extract information from the text and to respond to it in various ways (agreeing, disagreeing, replying, contradicting) (...) the translator could be expected to react less to its content and more to its linguistic and text-systemic character” (SHREVE et al., 1993, p. 27). Thus, the authors carried out an empirical study to test the hypothesis that “If reading for comprehension is embedded in a translation task, quantitative measures of the reading process will indicate the influence of the translation task.” (SHREVE et al., 1993, p. 27).

In the study by Shreve et al. (1993) thirty-three participants were divided into three groups with three different objectives in mind. One group (TRANS) had 10 translators in their first year of a master’s degree in translation, and they had to read a text with a view of translating it. The second group (PARA) was made up of 10 MA and doctoral students in English, who had to read a text with a view to paraphrasing it. Finally, the third group (COMP) had 13 MA and doctoral students in English, who had to read a text for general comprehension. As a result of the tasks performed, the
authors were able to examine the influence of translation against paraphrasing and to compare translating, paraphrasing and comprehension in terms of time needed to perform each task.

Results pointed that the TRANS group read the text slower (597 msec/word; 101 words/min), followed by the COMP group (564 msec/word; 106 words/min) and by the PARA group (455 msec/word; 132 words/min). Shreve et al. (1993) justify that the probable reasons for TRANS group taking longer to perform the task was related to problem-solving issues in translations. As for the COMP group, the authors suggest that participants took longer to read because they might be engaging in reading for full comprehension.

Other studies involving reading and translation established a relationship between eye movements, saccades, and eye focus (gaze) with cognitive processes. The eye-mind assumption proposes that the eye follows the mind (JUST; CARPENTER, 1980), which means that the object of visual focus is also the object of cognitive focus. With that assumption, the authors suggest that readers confer meaning to a word at the moment the eye focuses on it, and that is a fast, but complex process because it requires decoding, encoding, lexical access and parsing. Also, the model predicts that gaze times reflect the time needed for reading comprehension processes to take place. Furthermore, as the authors explain, thematic relevance and word frequency seem to lead to longer gaze times in the sense that the less frequent a word, the longer is the gaze time on that word, and also, the more relevant a word, the longer are gaze times. Therefore, gaze will be maintained as long as it is necessary for a reader to process a word. In this perspective, it is fair to suggest that cognitive resources play a fundamental role in reading for translation and reading during translation, since effective reading may require momentary word meaning associations. Yet, it is important to bear in mind the fact that those associations should not be too extensive because not every possible interpretation of a word on lexical, syntactic or semantic
level is possible to be kept active in working memory given its limited capacity (DANEMAN; CARPENTER, 1980; JUST; CARPENTER, 1980; KINTSCH; MANGALATH, 2011; TOMITCH, 2003).

Based on the eye-mind assumption, eye tracking has also been used in Translation Studies to investigate, for instance, cognitive effort and other aspects related to eye movement. Jakobsen and Jensen (2008), for example, used an eye-tracker to carry out a study with two groups of participants: one with six professional translators and another group with six translation students in order to study the effects on eye movements stemming from reading similar texts for two different purposes, that is to say, reading for comprehension and reading for subsequent translation. These participants read four similar texts to perform four different tasks, while their eye movements were being registered with a Tobii 1750 remote eye-tracker. In Task 1, participants had to read a text for comprehension, while in Task 2 they had to read a second text with a view to translating it. In Task 3, the participants read a text and simultaneously translated it orally, and in Task 4 they had to perform a written translation using Translog© 2006. Results showed that professionals performed the tasks faster than students. Regarding the other analyzed aspects, that is, task time, fixation frequency, gaze time and average fixation duration, results were consistent, and there was a linear progression from task to task. Moreover, in Task 4 students presented longer visual attention time to the source text than to the target text, differently from the professional translators, whose main focus was on their target texts.

Under two different experimental conditions, Alves, Pagano and Da Silva (2011) carried out an eye-tracking study similar to Jakobsen and Jensen’s (2008) one, with the same source texts, to investigate reading for different purposes: (i) to answer reading comprehension questions, (ii) to produce an oral summary of a text and (iii) to translate a text orally while reading it (sight translation). In one condition, two groups
of participants (translation students and professional translators) read three short news about the same topic, but with different rhetorical structures (Task A1, B1, and C1). In another condition, the participants read three short popular science news texts about three different topics, but with similar rhetorical structures (Task A2, B2, and C2). To avoid any task order effect, the task order in both conditions was randomized, but the text used for each task was the always the same.

One of Alves, Pagano and Da Silva’s (2011) partial hypotheses was that there would be a progression in total task time from Task A1 to Task C1, which would corroborate Jakobsen and Jensen’s (2008) findings. First of all, all means of total task time for both groups in Alves, Pagano and Da Silva (2011) are higher than in Jakobsen and Jensen (2008). Moreover, taking into consideration all the six participants of each group in Alves, Pagano and Da Silva’s (2011) study, the authors’ results point out that four students’ means from Tasks A1 to B1 decreased less than 15%, but for two of them their means increased more than 60%, being the outliers of their group. Among the professional translators, there was a decrease of the means from Tasks A1 to B1 for three of them and an increase for the other three, not exceeding 38% in any direction. By excluding the two students who were the outliers from their group, these authors’ results seem to be more representative.

Contrary to the authors’ assumptions, both professionals and students groups in average spent more time on Task A1 than on Task B1, which was considered to be more complex because it included both reading modalities (for comprehension first and then for summarizing) within the same task. The authors justify that this result and the fact that the means of total task time in Task A1 and B1 are higher than in Jakobsen and Jensen’s (2008) investigation suggesting that these results could be related to the participants’ profile, that is, their levels of proficiency and expertise, which were not previously assessed in either Jakobsen and Jensen’s (2008) or Alves, Pagano and Da Silva’s (2011) studies. Also, the fact that it was not possible to know if
the participants could read the text just once or re-read it to answer reading questions in Jakobsen and Jensen’s (2008) investigation could justify the difference found regarding the time to perform this specific task. As the authors expected, both participants’ groups took longer to perform Task C1 than Task A1 and B1. The means of this task for both groups of participants were also higher than the ones found by Jakobsen and Jensen (2008), leading the authors to argue that these higher means in their study could be due to the lack of familiarization of the Brazilian participants with the task (sight translation).

Recently, Hvelplund (2017) provided a categorization of four reading types that were conceived within the perspective of reading during translation. The four reading types are as follows: reading the source text, reading the source text while one translates it, reading the target text while it is still in progress, and reading the final target text. In contextualizing this categorization, the author identifies purpose as a “universal factor” (HVELPLUND, 2017, p. 55) and proposes that this factor influences reading more than text type and familiarity in the context of reading for translation. Ideally, reading for translation involves reading in depth for full comprehension. It is worth considering that when it comes to reading for translation, in addition to reading prior to translation, reading encompassed reading the target text in production as to monitor its emergence, as well as reading the final target text once the translation phase of the task was completed. Therefore, one can say that reading for translation and during translation are cognitively complex activities.

Apparently, monolingual reading, reading for translation, and reading while translating differ. Typically, according to Hvelplund’s study, monolingual reading flew steadily, with short, limited fixations of approximately 205-225 milliseconds, whereas reading while translating fixations were of approximately 212-218 milliseconds. Also, flow was interrupted for several actions including looking words up in the dictionary, monitoring typing and reading the ST. Unlike in the monolingual
reading process, in which attention is devoted to processing the text being read, in reading for translation or reading while translating, attention seemed to be quickly shifted from ST reading to TT typing throughout the translation process. Also, significant differences were noticed between reading during translation and monolingual reading in terms of the number of propositions constructed, held active and selected (HVELPLUND, 2017).

For the characterization of reading within models of translation processes, this article considers Bell’s (1991) model. The author depicts the translation process at the clause level and claims that the translation process contains an analysis phase and a synthesis phase, with each phase containing three stages, namely syntactic, semantic and pragmatic stages, as explained below. The analytical phase outlines the processing of the source text (ST) with lexical access and parsing predominating in the syntactic stage, and Systemic Functional Linguistics influencing the semantic stage. Simultaneously, tenor, mode and domain construct the analytical phase. The result of the analysis phase is the translator’s mental representation of the ST.

The synthesis phase characterizes the production of the target text (TT). In this phase, the translator plans the translation’s pragmatic, semantic and syntactic syntheses. The purpose of the translation influences the pragmatic phase variables of mode, tenor and domain, which, in turn, affect translation choices and decision-making processes. These variables are defined by Bell (1991) as follows:

- **tenor of discourse:** the relationship with the receiver which the sender indicates through the choices made in text
- **mode of discourse:** the medium selected for realizing the text
- **domain of discourse:** the ‘field’ covered by the text, the role it is playing in the communicative activity; what the clause is for, what the sender intended to convey; its communicative value. (BELL, 1991, p. 54; bold and italics as in original)
In the semantic stage, the mental representation constructed during the analysis phase is expressed into propositions; in the syntactic stage the translators encode the TT in the target language and simultaneously perform checks on the TT to ensure lexical and structural adequacy. This process is carried out clause by clause. For this reason, although there are parallel processes described in the previously explained syntactic phase, we would suggest that Bell’s (1991) model tends to conceptualize translation as a more linear than parallel process (WINFIELD, 2014).

In addition to being a process-oriented research, the present investigation took into account the product of the cognitive tasks undertaken for the study. In terms of the reading to translate task, the focus was on the quality of the target texts produced. Approaches to evaluation of translations vary from product to process-oriented investigations. Hansen discusses product quality evaluation and the different aspects that need to be taken into consideration to enable these evaluations, including assessment criteria, choice of evaluators, dealing with factors that can compromise translation quality evaluation as well as evaluation reliability and adequacy amongst other factors.

Hansen (2009) contends that the notion of quality in translation may differ from evaluator to evaluator depending on their theoretical background in translation, as well as their attitudes and beliefs about translation. This variability makes evaluation of translations a complex endeavour. When it comes to translation research, one of the options proposed to deal with the characteristic complexity involved in translation quality evaluation may be to have a few evaluators who are competent enough to analyze and evaluate translations. Another option is to have the researcher analyze translation quality together with other rates provided that criteria are set and followed in order to avoid subjectivity in the evaluations. Another suggestion given by the author is to make sure evaluators have access to the source texts.
By drawing on the mentioned theories and concepts, this study investigated the influence of reading purpose and translation experience on the product and on the process of summarization and translation tasks, applying the following methodology in an exploratory-experimental research as it is detailed in the Materials and Methods section.

3. Materials and Methods

This section provides information about the methods used to collect and analyze data. Data triangulation (ALVES, 2003) was applied as a methodological practice to increase the validity of the research findings. Therefore, besides using Translog© 2006 to collect data, raters analyzed the textual productions (both summarized and target texts) of the participants as described as follows.

3.1 Research Design

The research design comprised two different experimental tasks (summary and translation) that participants performed using Translog© 2006 (JAKOBSSEN; SHOU, 1999) and a training session that participants performed before the experimental tasks. Data collection was carried out in two different sessions that occurred one week apart. The first data collection was preceded by an application of a sample TOEFL-based proficiency test in order to evaluate participants’ L2 proficiency.

The experimental tasks consisted of summarizing an ST originally written in English (Task 1) and translating the same text into Portuguese (Task 2). It is worth mentioning that participants were instructed to summarize their texts in Portuguese, their L1. That decision was taken in order to control for L2 effects on the summaries produced (for further discussion of these effects, see WINFIELD, 2010). Participants were not allowed to use the internet browser, in order to control for intervening variables in the research.
It is worth mentioning that the present researchers counterbalanced the order in which participants carried out the tasks to control for order effects. Hence half of the participants carried out the summarization task first and the other half carried out the translation task first in a similar manner to procedures taken in previous studies such as the research carried out by Alves, Pagano and da Silva (2011).

3.2 Participants

This was a small-scale exploratory study with six adult participants, ranging from the age 21 to 45 (M=25). Based on a profile questionnaire in which the participants provided information about their translation experience and use of L2 (English), among other personal and academic information, they were divided into two smaller groups, one group with four undergraduate students who were in the seventh semester of a Bachelor’s degree course at Universidade Federal de Santa Catarina and the other group contained two professional translators, who had at least ten years of translation experience.

Participants also took a sample Test of English as a Foreign Language (hereinafter, TOEFL test) before the study took place, in order to evaluate participants’ language proficiency and completed a questionnaire with questions about their reading experience and habits. Descriptive statistics for the TOEFL-based proficiency test showed that the mean across test participants was 97.5, that is, the average score, and the median 96.25, i.e. the middle score, in the set of participants’ scores. Since all participants scored above 87%, indicating TOEFL levels ranging from B2 to C1, they were considered proficient in English in terms of reading comprehension and structure of written English. Although TOEFL tests may be considered lacking in its validity to confirm proficiency in English, we also considered the fact that all participants were in the seventh semester of a Bachelor’s degree in English from a
Brazilian university as an indicator of language proficiency. Together, these characteristics were taken as evidence of proficiency in that language.

3.3 Source Texts

The two source texts (ST) that participants summarized and translated were narratives adapted from an epic novel by Noah Gordan (1986) (*The Physician*). Text 1 contained 194 words (Appendix A) and Text 2, 248 (Appendix B). Although there was a difference of 54 words between Text 1 and Text 2, our intention was to use authentic texts from the same domain to control for this domain variable but maintaining their authenticity. Also, texts presented the necessary narrative structure elements as proposed by Thorndyke (1977), namely, setting, theme, plot and resolution, to ensure that participants would read typical narratives.

Following the tendency towards using authentic texts in reading teaching and research (CROSSLEY *et al*., 2007; DAVIES, 2005; TOMITCH, 2003; WINFIELD, 2010), the present study used two authentic texts that came from the same novel in order to maintain the same genre, topic and rhetorical structures in both study texts. Since the research being related here is based on a doctoral dissertation that investigated inference generation in addition to the task variables that are reported and discussed in this article, it was necessary to use texts that would provide opportunities for inference generation. Bearing that in mind, the researchers opted for two narrative texts because the literature on inferences in discourse comprehension have indicated that narrative texts offer relevant findings about inference generation, which grounded the analyses of inferences in that research (GRAESSER; KREUZ, 1993; GRAESSER *et al*., 1994; VAN DEN BROEK *et al*., 1995; VAN DIJK; KINTSCH, 1983). Having said that, this article focuses on participants’ experience and reading purpose, as already mentioned, and inferences are out of the scope of the present study.
3.4 Translog© 2006 and profile questionnaires

Participants filled in two profile questionnaires. The first one was based on Caldart’s (2012) questionnaire and provided information on participant’s previous experience in L2 reading. The second questionnaire was intended to obtain information on participants’ experiences in using the L2 (English) and engaging in translation activities (ROTHE-NEVES, 2002).

Process data were collected using Translog© 2006, which is a key logging tool, created at Copenhagen Business School, that allows online recording of keystrokes and mouse movements while a text is being produced (JAKOBSEN; SHOU, 1999). In addition, Translog© 2006 records the time it takes for a task to be completed, including the time a participant takes before starting typing the text and the pauses that occur during task completion. These latter features were considered useful for this research because time taken to complete the tasks and pauses recorded during task performance may indicate cognitive effort during task processing (ALVES, 2003, 2005b; ALVES; BUCHWEITZ, 2006; ALVES, 2007; LA CRUZ et al., 2014; VIEIRA, 2017 among others). After completing the tasks, the participants freely verbalized about their performance while watching the task reproduction in Translog© 2006. Thus, they could provide information about what was difficult and easy in relation to performing the tasks.

3.5 Procedures for Data Collection

Data collection was carried out in two sessions, one week apart. In the first session, participants were asked to complete a proficiency test in English focusing on text comprehension and written structure of English. This test was based on a TOEFL ITP test sample. After the test, participants had a training session to get familiarized with the study task procedures and instruments. Immediately afterwards, they
performed the experimental tasks (reading to summarize a text; reading to translate a text) for one of the study texts.

Upon completion of each task, participants were shown their key-logging data using the replay function of Translog© 2006 and were asked to verbalize their thoughts about their performance of the task in their L1, Portuguese. In order to avoid influencing participants’ retrospections, the retrospective protocols were performed without any specific guidance that could lead to what kind of data we wanted to obtain. Thus, the participants were only asked to watch the reproduction of their summary or translation tasks by clicking the Replay button and comment freely on the performance after each experimental task. In other words, this research used free retrospective protocols as recommended in the area (ALVES; PAGANO; DA SILVA, 2011; FERREIRA; GOTTARDO; SCHWIETER, 2018).

In the second session, participants performed the experimental tasks for the text which they had not used in the first session. Subsequently, the researcher reproduced the key-logging data of the task they have just completed using the Replay function in Translog©, and these participants verbalized their thoughts about their performances in the task performed for the text used in that session. Since this was the last session of the study, the researcher who collected data gave participants feedback on their TOEFL test in terms of the scores achieved by each participant. After raters had given grades to the summarized and target texts produced by each participant, the main researcher sent each participant an email message informing his/her grades that raters had attributed to their summarized and target texts.

3.6 Procedures for Data Analysis

Translog© 2006 collected data was used to provide the total task time participants took to complete the experimental tasks. In addition, the texts that were summarized and translated using this program were analyzed and graded by four
raters. Two raters were graduate students from the English Program at *Universidade Federal de Santa Catarina* whose research areas were reading, teaching and cognition, whereas two other raters were graduate students from the Translation Program at the same university.

In order to prevent subjectivity in the evaluation of this research’s final products, products of the reading + summarization tasks and the reading + translation tasks were graded by four raters, who were selected based on their academic and professional experience. Raters 1 and 2 were PhD candidates from the Graduate Program of English (PPGI) at UFSC; their area of research is language and cognition and their master’s degree research was in the area of reading comprehension. Raters 3 and 4 were PhD candidates from the Translation Studies Graduate Program (PGET) at UFSC; at the time of data collection, Rater 3 had 5 years’ experience in translation and Rater 4 had 10 years’ experience in translation. They both held master’s degrees in the area of translation studies.

Each study task was rated according to a specific framework, which is described next. Both raters received a file via e-mail containing a “raters’ pack.” Each pack consisted of PDF files of the source texts used in the study, a model of analysis for the summarization task in Microsoft Word, a Word file entitled “Materials for Raters” with instructions, and the products of the summary task and translation task (Appendix C and D).

### 3.6.1 Data Analysis for Reading + Summary Tasks

Grading of the final products of the summary tasks was carried out based on a framework for narrative structure based on Thorndyke (1977), which predicted that the elements of setting, theme, plot, and resolution would be identified in narrative structures. As previously mentioned, raters were provided with models of the summary to help them grade the summaries produced by this study’s participants.
Raters had to read the aforementioned summaries and classify each element (namely: *setting, theme, plot,* and *resolution*) as being present, partially present, or absent.

Classification grades were as follows:

- Present = 10 points,
- Partially present = 5 points, and
- Absent = 0 points.

Raters graded all the summaries produced by the study’s participants for Text 1 and Text 2. For each summary produced, grading consisted of classifying each element of the narrative structure, then adding the points attributed to find a total for each summary, and that total was considered the final grade for each summary produced. The maximum total of points that a summary could have was 40 (Appendix C).

### 3.6.2 Data Analysis for Reading + Translation Tasks

The final products of the translation tasks were evaluated according to a set of questions from a previous empirical study, which had been considered valid and reliable for the evaluation of translation quality. This scale was adapted from Rothe-Neves (2002), and it is presented below:

- Is the translation fluent and easy to read?
- Is the translation grammatically correct?
- Is the translation free of inconsistent information?
- Is the vocabulary used suitable?
- Is the vocabulary used consistent throughout the text?
- Was the overall result satisfactory?

Each question was rated according to the Likert scale below:

1 = Not at all
2 = Not very well
3 = Partially
4 = Very well
5 = Totally
Raters were instructed to read and grade each target text produced by each participant for Text 1 and Text 2. With access to the source text, the raters read and graded 12 target texts by answering the abovementioned set of questions using the previous Likert scale. The highest grade a target text could receive was 30 (Appendix D).

Non-parametric statistical methods were employed to analyze data from grades and total time task. Spearman’s rank correlation coefficient to assess the association between two variables, and Mann-Whitney U, a non-parametric test due to the sample size to compare differences between two independent groups, were used for the analyses of quantitative results from the grades of the task products and task times yielded by information logged in Translog© 2006. Process data were registered in the software in terms of total task times, hence, process and product data were triangulated.

4. Results

In this section, quantitative results are brought forth in order to assess the research hypotheses. Four research hypotheses were verified by Spearman’s rank correlation coefficient for the association between two variables (i.e. reading to summarize tasks and reading to translate tasks) and Mann-Whitney U to compare differences between two independent groups, namely professional translators and undergraduate students from a Bachelor’s degree in English.

The statistical significance for the results was set as $p < 0.05$. These results are presented as follows, firstly by analyzing the influence of translation experience on the quality of summarized and target texts, and on the time to perform summarization and translation tasks.

Studies in translation process research usually investigate three groups of participants: foreign language students, translation students and professional...
translators (RODRIGUES, 2002). In addition to those groups, field specialists (DA SILVA; PAGANO, 2017) and foreign-language teachers (PACTE, 2003, 2009) have been taking part in more recent studies. This highlights the importance of translation experience as an independent variable in the search for understanding the translation process. For this reason, the influence of this variable was investigated in two out of four hypotheses in this study. Concerning H1, “Summarized texts produced by professional translators have higher quality grades than texts summarized by English Language undergraduates”, we assumed that summarized texts produced by professional translators would be better evaluated and also have higher quality grades than texts summarized by English Language undergraduates. R program was used to perform the statistical tests, and Spearman’s Rho test was used to measure the strength of the relationship between experience and total task time variable. Results concerning experience are presented below in Table 1:

Table 1 – Mean grades given by raters to the summarized texts produced by professional translators and undergraduate students (Text 1 and Text 2).

<table>
<thead>
<tr>
<th></th>
<th>GRADE TEXT 1</th>
<th>GRADE TEXT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROFESSIONAL</td>
<td>Mean</td>
<td>25,0000</td>
</tr>
<tr>
<td>TRANSLATORS</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>7.07107</td>
</tr>
<tr>
<td>UNDERGRADUATE</td>
<td>Mean</td>
<td>30,0000</td>
</tr>
<tr>
<td>STUDENTS</td>
<td>N</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>7.35980</td>
</tr>
<tr>
<td>Total</td>
<td>Mean</td>
<td>28,3333</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>7.01189</td>
</tr>
</tbody>
</table>

SD = Standard Deviation

Note: Significance tests set to p>0.05. Text 1, $p=0.36$ Text 2 $p=0.33$.

Source: author (2014).

According to the results in Table 1, professional translators’ mean grades were 25, whereas university students’ mean was 30 for the summarized Text 1 and the highest grade was 32.5. For Text 2, university students exhibited 29.38 as the mean, while professional translators showed the mean as 25 and the highest grade was 36.25.
In order to account for the highest grades mentioned in this analysis section, separate results for each research participant for the reading to summarize and the reading to translate tasks for Texts 1 and 2 were calculated taking into account each rater’s grade. Grades were added up and divided by four, which is the number of raters that took part in this research and are displayed in Table 2 as follows:

Table 2: Mean grades given by raters to the summarized and target texts produced by each participant

<table>
<thead>
<tr>
<th>Summary – Text 1 Grade</th>
<th>Summary – Text 2 Grade</th>
<th>Translation – Text 1 Grade</th>
<th>Translation – Text 2 Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 (PTR)</td>
<td>32,5</td>
<td>27,75</td>
<td>27,75</td>
</tr>
<tr>
<td>P2 (PTR)</td>
<td>23,75</td>
<td>31,25</td>
<td>22,5</td>
</tr>
<tr>
<td>P3 (STD)</td>
<td>30</td>
<td>31,25</td>
<td>25</td>
</tr>
<tr>
<td>P4 (STD)</td>
<td>36,25</td>
<td>28,75</td>
<td>23,75</td>
</tr>
<tr>
<td>P5 (STD)</td>
<td>26,25</td>
<td>17,5</td>
<td>20</td>
</tr>
<tr>
<td>P6 (STD)</td>
<td>21,25</td>
<td>25</td>
<td>21,75</td>
</tr>
</tbody>
</table>

P = participant; PTR = professional translator; STD = undergraduate student

As Table 2 shows, P4 (STD) presented the highest grade for the summary task in Text 1 (36,25), while P2 (PTR) had the Text 2 highest grade (31,25). Based on these grades and on Spearman Rho results for H1, we can suggest that there is a tendency that undergraduate students had slightly higher grades in comparison to professional translators, which goes against the first hypothesis in this study.

One possible explanation for this unexpected result could be linked to the amount of practice the students who participated in this study had in producing summaries in their undergraduate Bachelor’s degree in English, contrasting with professional translators, who are not usually requested to perform summarizing tasks in their professional life. One of the requirements for completing this course is to write a final paper, for which the students need to devote part of their time to reading and summarizing text to produce it. However, this possibility could not be confirmed by the results as the difference between the two groups is not significant neither for Text...
1 ($p=0.355$) nor Text 2 ($p=0.325$) as seen in Table 1, thus not confirming this hypothesis probably due to the small sample of participants in this study.

The second hypothesis stated that the target texts produced by professional translators would have higher quality grades than target texts translated by English Language undergraduates. The results that test this hypothesis are indicated in Table 3 below:

Table 3 – Grades from raters who assessed the target texts produced by professional translators and undergraduate students (Text 1 and Text 2).

<table>
<thead>
<tr>
<th></th>
<th>GRADE TEXT 1</th>
<th>GRADE TEXT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROFESSIONAL TRANSLATORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>25.7500</td>
<td>28.0000</td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.76777</td>
<td>.70711</td>
</tr>
<tr>
<td>UNDERGRADUATE STUDENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>24.7500</td>
<td>23.3750</td>
</tr>
<tr>
<td>N</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>2.53111</td>
<td>4.38511</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>25.0833</td>
<td>24.9167</td>
</tr>
<tr>
<td>N</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>2.17754</td>
<td>4.16433</td>
</tr>
</tbody>
</table>

Texto 1: TTT= Total Task Time  SD = Standard Deviation
Note: Significance tests set to $p>0.05$. Text 1, $p=0.0058$ Text 2, $p=0.0064$.
Mean and standard deviation results are displayed in seconds.
Source: author (2014).

Table 3 exhibits grades for the translation tasks for Texts 1 and 2. The mean for professional translators was 25.75, which is slightly higher than the mean for university students (24.75) in Text 1. Although scores for Text 2 show a greater difference between the means across the two groups, results were not significant ($p=0.064$).

The grades above, although not significant, indicate a slight tendency towards higher grades in the target texts produced by professional translators. These results, together with the higher grades for the summarized texts by undergraduate students, seem to contribute to previous research findings about the relationship between

In addition to product grades, total task times were analyzed as dependent variables in this study. Table 4 displays results for total task time for the summarization task, related to the third hypothesis, which presupposed that professional translators summarize texts faster than English Language undergraduates.

Table 4 – Total task times in the summarization tasks comparing professional translators to university students (Text 1 and Text 2).

<table>
<thead>
<tr>
<th></th>
<th>TTT TEXT 1</th>
<th>TTT TEXT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROFESSIONAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>270,0000</td>
<td>466,0000</td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>29,69848</td>
<td>138,59293</td>
</tr>
<tr>
<td><strong>UNDERGRADUATE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>455,5000</td>
<td>511,7500</td>
</tr>
<tr>
<td>N</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>172,94026</td>
<td>117,32114</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>393,6667</td>
<td>496,5000</td>
</tr>
<tr>
<td>N</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>165,21945</td>
<td>112,50911</td>
</tr>
</tbody>
</table>

TTT = Total Task Time  SD = Standard Deviation
Note: Significance tests set to $p>0.05$. Text 1, $p=0.17$ Text 2, $p=0.36$
Mean and standard deviation results are displayed in seconds.
Source: author (2014).

These results show that professional translators carried out the summarization tasks for Texts 1 and 2 in a shorter period of time, in comparison to undergraduate students. In relation to Text 1, the mean was 270 seconds for professional translators and 455 seconds for university students. Although it is possible to detect a difference between the two groups in terms of the total task time in the summarization task for Text 1, the results did not reach statistical significance ($p>0.17$).

Regarding Text 2, the results showed that professional translators took 466 seconds to perform the summarization task and undergraduate students took 511
seconds. This difference between the two groups was lower than for Text 1, and it also had no statistical significance ($p>0.36$). Concerning the results for the translation task, total task time results are displayed in Table 5 displays. These results are related to the fourth hypothesis, which stated that professional translators translate texts faster than English Language undergraduates.

Table 5 – Total task times in the translation tasks of professional translators and undergraduate students.

<table>
<thead>
<tr>
<th></th>
<th>TTT TEXT 1</th>
<th>TTT TEXT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROFESSIONAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSLATORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1088,5000</td>
<td>1766,0000</td>
</tr>
<tr>
<td>N</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>170,41273</td>
<td>137,17872</td>
</tr>
<tr>
<td><strong>UNDERGRADUATE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STUDENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1384,0000</td>
<td>2133,7500</td>
</tr>
<tr>
<td>N</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>596,13254</td>
<td>638,50000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1285,5000</td>
<td>2011,1667</td>
</tr>
<tr>
<td>N</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>492,25796</td>
<td>533,32632</td>
</tr>
</tbody>
</table>

TTT= Total Task Time   SD = Standard Deviation
Note: Significance tests set to $p>0.05$. Text 1, $p=0.60$ Text 2, $p=0.36$
Mean and standard deviation results are displayed in seconds.
Source: author (2014).

Time needed to complete the translation task was in average shorter for professional translators, 1088 seconds, against 1384 seconds for undergraduate students, thus helping confirm results from previous study that compared performance of professional translators and translation students (JAKOBSSEN; JENSEN, 2008). However, the results of the present study did not reach statistical significance ($p=0.60$). As for Text 2, the same tendency was found, that is, professional translators ($M=1766$) performed the translation task faster than the undergraduate students ($M=2133$), but these results were not statistically significant. The lack of statistical significance in this exploratory study might be explained by the small sample size, leading to a lack of statistical power.
As mentioned before, the trend found in the results of the present study are in line with previous findings on the relationship between task total time and experience in the performance of translation tasks, pointing out that more experienced translators devote part of their translation process time to reviewing their target texts in order to improve them, differently from less experienced translators, who, in general, spend more time on the drafting phase (ALVES, 2003; BUCHWEITZ; ALVES, 2006; FERREIRA; SCHWIETER; GOTTARDO; JONES, 2016; JAKOBSEN, 2002, among others). These results allow us to propose that translators’ professional experience may benefit not only the translation product per se, but other language related activities as found in Rothe-Neves’ (2002) research on the influence of cognitive characteristics (working memory capacity and translation experience) on four cognitive tasks, namely copying text from L1 in the L1, L1 text writing, L2 reading and translating from L1 to L2. Based on those research findings, it is possible to suggest that quantitative results from the present research show a slight tendency towards experience benefiting practice in terms of time needed to perform the experimental tasks, that is, the summarization and translation tasks.

5. Final remarks

This exploratory-experimental study aimed at analyzing the effect of reading purpose and translation experience on product quality and the time that participants took to perform the reading to summarize and the reading to translate tasks. Thus, it may contribute to a reflection about convergence points stemming from reading comprehension processes and translation processes.

Four hypotheses were tested in this study by analyzing the influence of translation experience on the quality of summarized and target texts, as well as on the total time needed to perform summarization and translation tasks. The first and the second hypotheses analyzed, respectively, the influence of translation experience on
the quality of summarized and translated texts. Results were not statically significant, but they showed a tendency indicating that summarized texts produced by undergraduate students were better evaluated by raters, thus going against our first hypothesis. However, the results concerning the target texts pointed to higher grades in the texts translated by professional translators, which was the assumption of our second hypothesis.

Regarding the third and fourth hypothesis, they respectively presupposed that professional translators would perform summarization and translation tasks faster than undergraduate students. Although the results did not reach statistical significance, they suggested that professional translators tend to perform both tasks faster than undergraduate students, as we had predicted. Concerning the translation task, the results of this study corroborate previous studies that analyzed the influence of translation experience on time to perform a translation task, showing that professional translators perform translation tasks faster than undergraduate students.

Having said that, it is possible to identify pedagogical implications in the present research in the sense that results regarding the quality of the summarized and translated texts and the total time to perform the tasks point to the need for deliberate practice (SHREVE, 2006) in translation didactics. If undergraduate students are encouraged to perform both translation and summarization tasks throughout their degree course, their textual productions can be better evaluated and be produced in less time as they progress in the course as a result of deliberate practice.

Moreover, it seems that results concerning previous experience and reading purpose were coherent across the experimental tasks and texts in the sense that previous experience tended to benefit the summarized and translated texts analyzed in the present study. Therefore, it is possible to say that reading to summarize and reading to translate have similarities and differences that remain open for future research. In conclusion, as with most small-scale studies, results from this research
cannot be generalized and the tendencies observed need further investigations with more participants, as we have already emphasized, in order to make this contribution effective.

References


PACTE. Results of the validation of the PACTE Translation Competence model: Acceptability and Decision-making. Across Language and Cultures. 10(2), 207-230, 2009. DOI https://doi.org/10.1556/acr.10.2009.2.3.


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APPENDIX A

SOURCE TEXT 1

It was past midnight and most of the hospital slept. Now and again a patient cried out or wept. Nobody saw him remove Qasim’s meagre belongings from the little room. In the room, under two of the legs at one end Rob placed a board so the table tilted, and on the floor under the lower end he set a basin. He needed ample light and prowled the hospital, stealing four lamps and a dozen candles, which he set around the table as though it were an altar. Then he brought Qasim from the charnel house and laid him on the table.

Even as Qasim lay dying, Rob had known he could break the commandment.

Yet now the moment was at hand and he found difficulty to breathe. He wasn’t an ancient Egyptian embalmer who could call in a despised “paraschiste” to open the body and absorb the sin. The act and the sin, if any, must be his own.

He picked up a curved, surgical knife called a bistoury and made the incision, slicing open the abdomen from the groin to the sternum. The flesh parted crisply and began to ooze blood.

APPENDIX B

SOURCE TEXT 2

Records of the Ispahan Medical Party
Inscribed on the 28th Day of the Month of Rabia II, in the 413th Year After the Hegira

Blood-letting, cupping, and purging appear to have little effect. The relationship of the buboes to dying of this plague is interesting, for it continues to hold true that in the event the bubo bursts or steadily evacuates its green smelly discharge, the patient is likely to survive. It may be that many are killed by the terribly high fever that eats the fat from their bodies. But when the buboes suppurate, the fever drops precipitously and recuperation begins.

Having observed this, we have laboured to ripen the buboes that they might open, applying poultices of mustard and lily bulbs; poultices of figs and boiled onions and a variety of drawing plasters. Sometimes we have cut open the buboes and treated them like ulcers, with but little success. Often these swellings affected partly by the distemper and partly by their being too violently drawn, become so hard no instrument can cut them. These we have attempted to burn with caustics, with poor results. Many died raving mad with the torment and some during the very operation, so that we may be said to have tortured these poor creatures even to death. Yet some are saved. These might have lived without our presence in this place, but it is our comfort to believe we have been of assistance to a few.

(signed)
Jesse ben Benjamin
Clerk

APPENDIX C

EXCERPTS PROVIDED IN RATERS’ PACK – READING FOR SUMMARIZATION TASK (AUTHOR 1, 2014)

Dear rater,

Please see below the models of analysis for the summaries produced by this study’s participants. The model should work as guidance for your analysis of the summary data. The models should be used only for the summary data, in other words, they are not intended for use with the translation data.
APPENDIX D

EXCERPTS PROVIDED IN RATERS’ PACK – READING FOR TRANSLATION TASK (AUTHOR 1, 2014)

In this section, you will be asked to read 18 translation excerpts produced by participants 1 to 9 based on the source texts you are receiving in this rater’s pack, the PDF entitled “Source Texts”¹. In addition to reading the excerpt, you will be asked to rate each translated text using a scale containing six questions that are designed to help you evaluate the translations produced. This scale has been adapted from Rothe-Neves (2002), and it is presented below:

1. Is the translation fluent and easy to read?
2. Is the translation grammatically correct?
3. Is the translation free of inconsistent information?
4. Is the vocabulary used suitable?
5. Is the vocabulary used consistent throughout the text?

¹ For further details, refer to AUTHOR 1 (2014).
6. Was the overall result satisfactory?

Please score the participants’ translations by answering the six questions below and attributing points using a Likert scale as:

1 = not at all
2 = not very well
3 = partially
4 = very well
5 = totally

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