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Revising with *translationQ*: Technology and its impact on the Revision Process and the Development of Thematic Competence in LSP

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Abstract

translationQ is a computer-assisted revision tool developed by the Belgian company Televic and the KU Leuven Faculty of Arts. Similar to computer-assisted translation tools, the software can automatically detect translation errors by identifying any possible matches between the target segments and the items saved by the human reviser in a revision memory. This is aimed at speeding up the revision work, reducing the task repetitiveness and increasing the consistency of revisions (van Egdom, 2021, pp. 214–215), especially for large volumes of translations, and ultimately objectify the translation assessment (Akbari & Shahnazari, 2019). The University of Padova is one of the fist having implemented this software for the revision of MA-level specialised translations. Drawing on a preliminary empirical testing, this paper will report on the implications of using *translationQ* for the (summative) revision (Hatim & Mason, 1997, p. 166; Durieux 1998, cited in Saridakis & Kostopoulou, 2003) of large volumes of translations. More specifically, the adaptation of the revision procedure to the software architecture will be examined, with special reference to the advantages and limits resulting from the implementation of technology in the revision workflow for teaching and research purposes. Also, the paper will suggest how the software can be successfully integrated in the specialised translation class to help trainees develop thematic competence (EMT Expert Group, 2009) through the discussion and analysis of terminological and phraseological errors.

Keywords: *translationQ; revision; thematic competence; translation quality assessment; LSP terminology; LSP phraseology.*

Introduction

The development of translation technology has often stemmed from the needs of the translation market and mainly targeted final institutional and private end-users and, more recently, translation professionals. Machine translation (MT) and computer-assisted translation (CAT), for instance, have been developed to replace human mediation and to speed up human translation, respectively. Only after their (combined) implementation in the translation workflow, they have been integrated in

translator education to help trainees develop the technological skills required in the professional market. Unlike MT and CAT tools, *translationQ* has not migrated from the market to the classroom, but has been purposely designed to support revisers in a typical educational scenario, where training activities or (summative) assessment often involve the need to revise multiple target versions of the same source texts (STs).

Using translationQ in the classroom: its impact on revision and research

Similar to CAT tools, *translationQ* can automatically detect any matches between the items (i.e. translation errors, TEs) previously saved by a human reviser in a revision memory (RM) and the segment that is being revised. Not only does this significantly speed up the revision work by semi-automatically retrieving errors, implementing corrections and providing feedback, but also increases its consistency by applying the same penalties to repeated errors and considerably reduces frustration caused by repetitive tasks.

If *translationQ* undoubtedly improves the quality and consistency of revision, it also influences the revision process, as CAT tools did with the translation process. When revising large volumes of translations, the human reviser cannot but revise each text in full before moving to the following one and the consistency check between translations is mostly limited to doubtful segments. Revision can thus be defined as vertical, since it is only or mainly performed on the whole translated text. With *translationQ*, revision is carried out both vertically and horizontally, as the reviser corrects the full target text segment by segment and can also decide whether to simultaneously apply the same correction(s) and penalty to the segments of other translations including the same error. Yet, this necessarily disrupts the vertical revision process and impairs to some extent its effectiveness, with special reference to the identification of potential smoothness and logic issues within individual translations, which ultimately require a final additional rereading. However, it is also worth noting that the items in the RM can be easily accessed and filtered, which allows the reviser to check whether errors have been consistently labelled and scored, thus performing a horizontal consistency check of all translations that would be otherwise impracticable, where not impossible. Hence, the traditional (vertical) revision process is to be adapted to the software architecture for the reviser to fully exploit its potential and actually increase the quality and consistency of revision work.

The items in the RM can also serve for teaching and research purposes. First, since the items can be sorted by their frequency and typology, the most common errors in terms of both revision parameters and frequency can be easily identified and used as rich points (PACTE, 2009) or PIEs (Kockaert & Segers, 2017) for future assignments or eventually examined with students to point out (the reasons behind) their errors as well as other potential correct solutions. Finally, the same data can be analysed both quantitatively and qualitatively to monitor the development of (specialised) translation competence (TC) and/or one or more of its components, as illustrated in this paper.

Methods

This study is specifically aimed at analysing and monitoring the development of one of the main components of (specialised) TC, i.e. thematic competence (EMT Expert Group, 2009), in a sample of 98 first-year MA translation students at the University of Padova. The data were collected through two different English into Italian LSP translation assignments having an increasing level of specialisation and dealing with astronomy and IT, respectively; these were performed at regular intervals during the course, i.e. halfway through and at the end of the training programme. The translations were corrected in *translationQ* and the data in the RMs were eventually analysed both synchronically and diachronically.

The analysis considered the data concerning two specific revision parameters that are key to assess the development of the students' "knowledge in specialist fields and applications" (EMT Expert Group, 2009, p. 7), i.e. terminological and phraseological errors, including both the incorrect and inconsistent use of LSP terminology and phraseology. These were first analysed quantitatively, to determine: (a) the number of items (NoI), i.e. the terms or phrases which resulted in TEs; (b) their absolute (AF) and cumulative frequency (CF), i.e. the frequency of individual items and the overall frequency of TEs, respectively; (c) their distribution (DoE); (d) the average frequency of errors per item (E/I); (e) the average frequency of errors per student (E/S). Finally, errors were also considered in a qualitative perspective to examine the type of error as well as its potential cause(s).

Results

Terminological errors

With reference to thematic knowledge and competence, terminology represented the major translation issue for most students in the sample. In quantitative terms (Table 1), the NoI has increased in the second assignment, possibly due to the growing level of specialisation of the STs. However, given the parallel decrease in the CF of terminological errors, quantitative data do not indicate a growing difficulty in retrieving and using correct terminology; conversely, they suggest that terminological errors are more evenly distributed in the second test, which would imply that students have on average managed to overcome the thorniest terminological issues in the ST and consequently reduced the overall impact of terminological errors on their translations.

Table 1. Quantitative data on terminological errors.

	NoI	***CF***	***E/S***	***E/I***
Test 1	39	163	1.66	4.18
Test 2	57	125	1.28	2.19

Further confirmation is found in the data concerning the E/S and the E/I, showing that students have moderately improved their thematic competence since (1) they made on average fewer terminological errors (E/S) and (2) managed to find suitable equivalents for the items representing actual terminological issues and only made occasional errors, as testified by the decrease in the E/I.

This is particularly evident when considering the DoE (Figure 1), which shows how terminological errors clustered around specific items in Test 1, while they are more equally spread across the 57 items in Test 2.

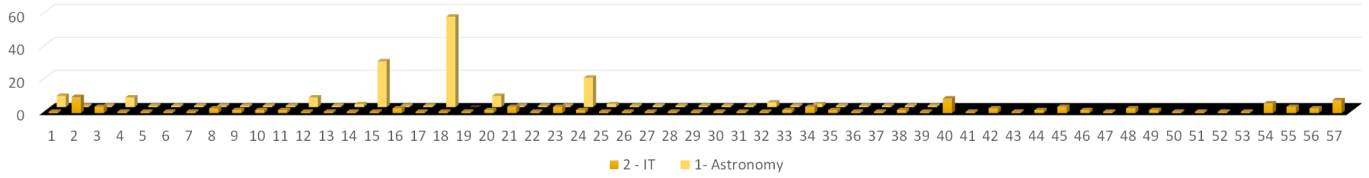

Figure 1. Distribution of terminological errors.

The DoE can also support trainers/researchers in identifying the terms that (most) commonly resulted in TEs and consequently improve the impact of their revision/analysis on their class/research activities. It is precisely the DoE that guided the qualitative analysis of errors in this study, which considered the top 10-percent items within each task, i.e. the top 3 in the first assignment and the top 5 in second one, as shown in Table 2.

Table 2. Qualitative analysis of terminological errors.

1- Astronomy				
ST	*TT item*	*Revision*	*AF*	*Possible reason(s)*
…astronomers spotted an extra *wiggle* in the star's…	oscillazione	perturbazione	55	Level of technicality (General language vs. LSP)
…astronomers spotted an extra wiggle in the star's *motion*…	movimento	moto	28	Level of technicality (General language vs. LSP)
…may be caused by the *gravitational pull* of a second, larger planet...	spinta gravitazionale	attrazione gravitazionale	18	Limited skills in terminology management

2 – IT				
Today, an *AV company*'s response time to new threats…	azienda antivirus/ azienda AV	azienda di antivirus	10+4	Calque/Interference
…response time to new threats and the *proactive detection* that their product offers…	rilevamento preventivo	rilevamento proattivo	9	Limited skills in terminology management
… these criteria often do not consider *complex viruses*…	virus mutanti // virus multipartiti/o	virus complessi	8+6+4	Limited skills in terminology management
…a virus that changes *its appearance* in host programs.	la sua composizione fisica/le sue caratteristiche	il suo aspetto/ il suo codice	4+4	Level of technicality (General language vs. LSP)
…a virus that changes its appearance in *host programs*.	programmi di hosting	programmi host	4	Interference Limited skills in terminology management
The *decryption routine* (known as the "decryptor")...	routine di mutazione	routine di decrifratura	4	Limited skills in terminology management

In both tests, terminological errors can be ascribed to three main reasons: (a) the inability to select equivalents with the right level of technicality/specialisation for specific terminology, especially when this is borrowed from general language (e.g., "motion", "wiggle", "appearance"); (b) limited competence in retrieving information about and/or understanding concepts and conceptual relations, which caused either the selection of equivalents corresponding to different concepts (e.g., "spinta gravitazionale", "rilevamento preventivo", "programmi di hosting", "routine di mutazione") or that of hyponyms where equivalent terminology was available (e.g., "virus mutanti", "virus multipartiti/o"); (c) calque (e.g., "azienda antivirus"/"azienda AV") and interference, which also determined a shift in the referred concept (e.g., "programmi di hosting").

Phraseological errors

The quantitative analysis of phraseological errors (Quinci & Musacchio, forthcoming) led to similar results, thus confirming an overall improvement in the development of thematic competence. It can be noted that, unlike the previous diachronic analysis, quantitative data here show a decrease also in the NoI (Table 3), which suggests that the development of thematic competence mainly concerned in this study the ability to retrieve correct phraseology. This seems further confirmed when comparing the NoIs

of phraseological (16 and 13) and terminological errors (39 and 57), which quantitatively show that LSP terminology posed more critical issues as compared to LSP phraseology in both tasks.

Table 3. Quantitative data on phraseological errors.

	NoI	***CF***	***E/S***	***E/I***
Test 1	16	84	0.86	5.25
Test 2	13	21	0.21	1.62

Similar to the previous analysis, the DoE (Figure 2) shows that phraseological errors mostly concern specific items, whose number decreases from 4 to 2 in Test 2.

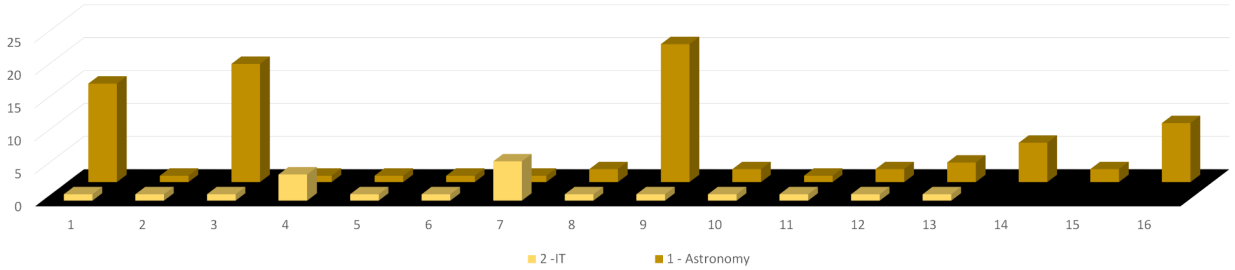

Figure 2. Distribution of phraseological errors.

Also from a qualitative perspective, the reasons behind phraseological errors appear to largely parallel those leading to terminological errors. More specifically, these include: (a) calques resulting in the failure to adopt a suitable level of technicality, especially when general-purpose language is used in the ST (e.g., "to have a planet" was translated as "avere un pianeta"; "changes made by the virus" became "i cambiamenti che il virus fa"); (b) the use of infrequent or incorrect collocations (e.g., "un sistema di anelli brillante" instead of 'luminoso' or "localizzare una minaccia" instead of 'rilevare').

Discussion

The quantitative analysis of terminological and phraseological errors suggests that terminology might represent the major issue in the development of thematic competence, and that this can be successfully monitored and analysed thanks to the data provided by *translationQ*. The DoE revealed that, despite the (high) number of items resulting in TEs, these initially tend to cluster around a limited number of items and eventually spread more evenly, thus suggesting a growing ability in solving terminological and phraseological issues.

From a qualitative perspective, both terminological and phraseological errors seem to be connected to a limited number of reasons, among which the failure to adopt a suitable level of technicality and the interference and calques resulting from the use of general-purpose terminology in specialised STs appear to be the most problematic. Interestingly, both issues have equally led to either terminological or phraseological errors, which suggests that purposely developed activities could have a significant impact on the development of thematic competence.

Conclusions

This paper pointed out the impact of technology in the revision process of large volumes of translations and presented an analysis of terminological and phraseological errors aimed at motoring the development of thematic competence in a sample of first-year MA students. The analysis showed how the data obtained from *translationQ* can serve both training and research purposes as they can help identify the most common reasons leading to terminological and phraseological errors, plan targeted activities to address such issues, and ultimately monitor the development of thematic competence as well as individual performances in a longitudinal perspective. The most problematic items identified on the basis of the DoE can be also used as rich points (PACTE, 2009) or PIEs (Kockaert & Segers, 2017) for both research and assessment purposes. Finally, if supported by repeated analysis of different assignments, this methodology might also help determine whether different subject fields and/or text typologies are associated with specific types of terminological and phraseological errors, which would have clear and direct implications in the training of specialised translators.

References

[1]. Akbari, A., & Shahnazari, M. (2019). Calibrated Parsing Items Evaluation: A Step towards Objectifying the Translation Assessment. *Language Testing in Asia*, 9(1). https://doi.org/10.1186/s40468-019-0083-x

[2]. EMT Expert Group. (2009). *Competences for professional translators, experts in multilingual and multimedia communication*. Retrieved from http://ec.europa.eu/dgs/translation/programmes/emt/key_documents/emt_competences_translators_en.pdf

[3]. Hatim, B., & Mason, I. (1997). *The Translator as Communicator*. London & New York: Routledge.

[4]. Kockaert, H. J., & Segers, W. (2017). Evaluation of legal translations: PIE method (Preselected Items Evaluation). *Journal of Specialised Translation*, (27), 148–163.

[5]. PACTE. (2009). Results of the Validation of the PACTE Translation Competence Model: Acceptability and Decision Making. *Across Languages and Cultures*, 10(2), 207–230. Retrieved from http://www.akademiai.com/openurl.asp?genre=article&id=doi:10.1556/Acr.10.2009.2.3

[6]. Quinci, C., & Musacchio, M. T. (forthcoming). *Analysing, Revising and Teaching LSP Phraseology: An Integrated Approach*.

[7]. Saridakis, I. E., & Kostopoulou, G. (2003). Methods and the role of revision in academic and professional environments of translation. Proceedings of the 4th FEDER.CEN.TR.I. Conference, *The Translation Industry Today: Communication - Standardisation - Education*, *Bologna 10-11 October 2003*, 68–82.

[8]. van Egdom, G.-W. (2021). Improving Revision Quality in Translator Training with *translationQ*. In M. Koponen, B. Mossop, I. S. Robert, & G. Scocchera (Eds.), *Translation Revision and Post-editing Industry Practices and Cognitive Processes* (pp. 203–225). London & New York: Routledge.

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