

Enhancing Translation Students' Sight Translation Skills: A cognitive approach

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Abstract:

This paper sought to explore the impact of cognitive training on students' performance at sight translation. The methodology consisted of testing out a number of exercises with students in their first year of a Master's program in translation. Participants were evaluated to allow for a needs analysis, to which an intervention plan was designed and carried out over the course of four weeks. Students were then reassessed, revealing the impact that training had on their performances. The results revealed considerable improvement and suggested a similar approach could help translation and interpreting trainees acquire the cognitive skills necessary for their training in a more systematic way.

Keywords: sight translation; cognitive skills; translation didactics, translator and interpreter training; action research.

1. Introduction

Research into translation has witnessed a remarkable shift since the introduction of the Interpretive Theory and Holmes' *Map* of Translation Studies in the early 1970's. Translation as an established field of study was beginning to branch out into various other disciplines such as psychology, cognitive science and neuro-linguistics, shedding light for the first time on the *process* of translating. As the *product* is but the result of a certain process, more research into understanding the inner-workings of the translator and interpreter's mind was encouraged, in an attempt to demystify the mechanisms that render such an operation – interpreting more notably - possible (Lee-Jahnke, 2005). This was carried out with the help of cognitive science, which seeks to explore and understand the human brain's different mental processes. This endeavour was particularly of use when dealing with interpreting, known to be one of the most complex human activities, and which until then was mostly touched upon by practitioners by means of professional experience and introspection (Seleskovitch & Lederer 1989).

Our focus in this study will be on sight translation in relation to translation and interpreting teaching methodology. If research into the interpreter's training is fairly new and scarce, data regarding sight translation and its teaching methods are even more limited (Lee, 2012). There is little to no set rules and principles on how to introduce sight translation to students, and it is often based off trainers' own efforts to construct methods and adapt them to their learners. The problem presenting itself then is that of students' training in sight translation, considered to be of paramount importance for further training in interpreting and how it is often neglected. We have decided to approach the subject from a cognitive point of view, exploring how introducing cognitive exercises might contribute to developing students' mental skills required for performing ST.

Through this study, we aim to showcase how this methodology might alleviate some of trainees' struggles in the early stages of their training by implicating practical strategies and procedures designed to enhance their cognitive functions like reading comprehension, concentration and oration.

2. Cognitive Implications for Sight Translation Practice

Sight translation can be defined as a process which ‘involves the transposition of a message written in one language into a message delivered orally in another language’ (Lambert, 2004). The translator/interpreter is presented with a text and is required to translate it orally in a short period of time, which makes it a hybrid mode combining properties from both translation and interpreting. Sight Translation may have been dealt with as an interpreting variant seeing as the product is in oral form, yet ST deals with a written text as its source material, as opposed to a spoken discourse in Simultaneous or Consecutive interpreting (Agrifoglio, 2004). In cognitive psychology, listening and reading are two different cognitive functions requiring different procedures. This distinction results in different problems encountered by interpreters and trainees when performing, such as *linguistic interference*, owing to the visual text being constantly visible in front of the interpreter’s eyes, an issue which does not arise in the other modes. This was well-represented in Gile’s Effort Model for sight translation (2009).

In their *Complete Course*, Setton and Dawrant (2016) consider Sight Translation as a “*classic ‘interference-busting’ exercise*” (p.105) and an efficient tool in helping students understand the notion of linguistic interference better, as well as the ways it could manifest itself when interpreting. Furthermore, Weber (1990) mentions that Sight Translation encompasses four major skills which all interpreters must acquire and master: rapid text analysis, avoiding word-for-word interpretation, rapid conversion of information from one language to another and public speaking techniques (p.50). Developing these skills through Sight Translation exercises can help conference interpreting students initiate training in more difficult modes such as consecutive interpreting.

It is therefore evident that sight translation is a necessary skill for translators and an important exercise at the early stages of interpreter training which can allow trainees to develop common skills required for interpreting such as *deverbalisation*, concentration and oration. Due to the

lack of theorizing allotted to sight translation, trainers often attempt to experiment with their students. However, adequate and systematic instruction is necessary in order to reach the desirable results of any training program, and a perfect balance between theory and practice is crucial for giving structure to the learning process and reaching its pre-determined goals. Making use of cognitive science and applied linguistics in this regard can contribute greatly to achieving this aim.

2.1 A cognitive approach to teaching translation

Cognitive science is a broad area of research featuring a number of disciplines such as psychology, linguistics, neuroscience and philosophy. More explicitly, it aims to explore the nature of the complex system that is the human mind and how it '*receives, stores, retrieves, transforms, and transmits information*' (Stillings, 1987).

This interdisciplinarity is what eventually led to the major contributions made to Psycholinguistics and its study of the language and the mind, resulting in a substantial impact on education and language learning, which are our main focus in this study. Psychologists and linguists have therefore come together in order to study the different mental processes and their correlation to language learning difficulties for the sake of better understanding and alleviating those struggles (Lee-Jahnke, 2005).

How does this apply to Translation studies? Observing the logic behind the development of translation studies in relation to cognitive science might help answer that. The complexity of the human mind and its ability to acquire remarkable skills and competences through experience and learning are what drives research into cognition. Bilingualism is one example of such mental faculties, and the studies showing the impact of bilingualism and language learning on the improvement of mental capacities on levels exceeding the merely linguistic ones have brought more attention towards studying the translator and interpreter's mind (Babcock, 2015). This has eventually given rise to what is known today as Cognitive Translation Studies (CTS), an area of study dedicated to '*studying the*

cognitive aspects of communicative production, reception and interaction of all participants in events where more than one language variety or lect is used' (Xiao & Muñoz, 2020, p.1). It becomes evident then that integrating a cognitive approach to translation research and training is consequential for the advancement of this field and a key step to resolving various problems and difficulties encountered by learners, trainers and practitioners of translation and interpreting alike.

2.2 Applied linguistics and action-research

In line with the above, we thought it instrumental to make use of applied linguistics in our research. In applied linguistics, the general centre of attention is trying to understand *how* and *why* a language application is done. In translation, which uses languages as its main instruments, that would mean it should focus on how the act of translating is achieved and for what purpose. In his book titled "Teaching and researching translation", Hatim (2013) reflects on the practical contribution of applied linguistics to translation teaching, touching upon **action research**, which is aimed towards involving participants in self-awareness and self-criticism as a way to improve their performances.

Research in translation and interpreting is often seen as theoretical and reflective, whereas teaching and interpreting are seen as the actual *action*. Research and practice were thus dealt with separately. It is important however to try and merge the two in a way that allows for a systematic and 'practical' reflection that goes beyond abstract concepts and is materialized into real developed skills. Such an approach is labeled **practice-driven action research**, aimed towards 'changing three things: practitioners' *practices*, their *understandings* of their practices, and the *conditions* in which they practice' (Kemmis, 2009). In translation studies, this means involving learners in the learning process all while investigating how the results might contribute to the elaboration of an altogether theoretical and practical approach.

How can learners take an active part in such an operation? The stimulating element in such an endeavor would be the '**intellectual appeal**'

(Hatim, 2013). Participants will learn how to get better at what they do, which in this case is translating and interpreting, a practice that the majority of learners and trainees say they lack mastery of even by the end of their programs. That is accomplished by encouraging trainees to adopt a critical reflection of their acts and skills and evaluate the result of their *repetitive actions* in order to explore ways to improve them:

‘Through reflection, he [*the practitioner*] can surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialized practice, and can make new sense of the situations of uncertainty or uniqueness which he may allow himself to experience’. (Schön, 1983: 61)

This viewpoint falls in line with that of cognitive science which encourages *metacognition* and retrospection. Since the process of translating and interpreting is complex and cannot be observed closely and analyzed, it is only reasonable to use the help of self-analysis and criticism as we have seen in translation research with the use of procedures such as Think-aloud-protocols. In practice-driven action research, it could be more reliable to use *immediate retrospection* (Hatim, 2013), as it is more suitable for identifying strategic decisions that the participant is able to use on the spot for solving the cognitive problems that may arise from a highly-demanding task like interpreting.

Taking all of this into account, this study will be a small attempt at applying these principles to observe the possible implications of such an approach on the didactics of translation, and teaching sight translation in particular.

3. Methodology

3.1 Context

The purpose of this study is to investigate the role that cognitive exercises can play in improving students' skills at sight translation, and to explore learners' readiness to take an active part in their learning process. A number of exercises targeting the mental skills required for interpreting have been elaborated in recent decades, and some of these exercises are meant to be superintended by the trainers, while others can be provided as guidelines for learners for further improvement outside of the classroom (Ghiselli, 2021). The exercises administered in this study were elaborated in a similar fashion to the exercises and activities presented in prominent works (Gillies, 2017, Setton & Dawrant, 2016), and in accordance with students' needs and current situation.

The study was conducted at the University of Abu Bakr Belkaid, Tlemcen, with the participation of two first-year Translation master students (Arabic-English-Arabic) during the second semester of their program (academic year of 2021-2022). The two-year program combines modules in both translation and interpreting, with an emphasis on the former.

The participants were presented with the study, its aims and methodology. Students had been introduced to interpreting the previous semester, tackling the subject only theoretically and had surface-level knowledge about it. As for sight translation, students only recognized it as a mode of oral translation and had not had any actual practice.

3.2 Course Design and assessment

The research problem stemmed from the belief that implementing certain tasks and exercises targeting a specific set of mental skills could contribute to enhancing students' abilities and offering some theoretical and practical prospects for future pedagogical purposes. In order to test out this hypothesis, an action plan was elaborated, taking into account students' needs in accordance with the course's fixed goals.

ST might be a cross between translation and interpreting, but it is generally accepted as leaning more towards interpreting as the translation is produced orally in addition to the elements of limited time and immediate

execution (Lee, 2012). For this, the criteria for assessing learners' performance in the experiment will be based on the essential elements of a good interpretation, i.e., linguistic and terminological accuracy, respecting target-language properties and good speech delivery. Despite the lack of an agreed-upon method for assessment in translation didactics, research into this area has grown considerably in the past few decades revealing new approaches to evaluating students' learning process, including the **constructive alignment** approach which we resorted to in the practical part of this research (Esqueda & Echeverri, 2019). The approach comprises of three major elements: the intended learning outcomes, the teaching and learning activities and the assessment. Following these guidelines, we designed our course accordingly:

3.2.1 Learning outcomes

By the end of the experiment, students should be able to perform sight translation of a text (300 words) successfully. This means the final product should conform to the norms of a relatively good oral interpretation and sight translation: containing all the main ideas provided in the text accurately, with a proper translation of the terms, idiomatic expressions and collocations with little to no linguistic interference, all delivered in a clear, coherent and comprehensible manner and in a short period of time (2-3 minutes).

3.2.2 Teaching and learning activities

The experiment will be divided into three stages: the pre-test, the intervention phase and the post-test. The first stage helps us to determine students' lacunae and needs, which in turn allows us to design the necessary exercises and activities to be introduced in the intervention phase.

3.2.3 Assessment

The results of the post-test should indicate if the desired outcomes of the learning and teaching process were achieved. The following rubric shows the overall criteria of assessment:

Table 1. Assessment Criteria for the Teaching and Learning Goals

Excellent	Shows good command of language (syntax, grammar, vocabulary), renders all the provided information accurately with no omissions or distortions, translates properly with no linguistic interference (terms, collocations, idiomatic expressions), avoids long pauses, hesitations and filler words, respects time limits.
Good	Shows good command of language (syntax, grammar, vocabulary), renders most of the provided information accurately with little to no omissions or distortions, translates properly with little to no linguistic interference (terms, collocations, idiomatic expressions), avoids long pauses, hesitations and filler words, respects time limits.
Satisfactory	Shows average command of language (syntax, grammar, vocabulary), renders most of the provided information accurately with some omissions or distortions, translates properly with some linguistic interference (terms, collocations, idiomatic expressions), commits occasional long pauses, hesitations and filler words, takes a relatively long time.
Poor	Shows poor command of language (syntax, grammar, vocabulary), renders some of the provided information accurately with many omissions and distortions, translates poorly with a lot of linguistic interference (terms, collocations, idiomatic expressions), commits long pauses, hesitations and filler words, takes a long time.
Unsatisfactory	Shows bad command of language (syntax, grammar, vocabulary), renders a few of the provided information accurately with many omissions and distortions, translates poorly with a lot of linguistic interference (terms, collocations, idiomatic expressions), commits long pauses, hesitations and filler words, wastes a lot of time.

3.3 Procedure

3.3.1 Pre-test

The first phase of the experiment revolved around introducing the scope of the study to the participants and explaining the aims and desired outcomes, as well as conducting an initial test to evaluate their overall levels and capacities.

In the first part of the lecture, participants were introduced to sight translation again in more detail: definitions, principles and the skills necessary to perform it (rich background knowledge, good command of both source and target languages, reading comprehension, deverbalisation and satisfactory oration). Once the theoretical part was introduced, a small exercise was presented in which students were given a short text (100 words) from an article of a recent event they were all familiar with. Students were first asked to read the text carefully, and then attempt to recount the main ideas in the target language. This showed a lack in reading comprehension as they could only recall the general topic with no further information, and the participants admitted they had read across the text passively without concentrating fully on what was being presented. An analysis and dissection of the text followed with everyone's participation, where the text was read again carefully, the main ideas extracted and difficult words and expressions identified and explained.

Students got a first glance of the main difficulties they might encounter when performing sight translation, the most prevalent being **linguistic interference** and inability to detach from the linguistic form of the messages. The participants had difficulties translating collocations, terms and idiomatic expressions orally despite them being relatively easy. This could be explained through Gile's Gravitational Model (2020) as students admitted they hadn't practised or read enough in their language pairs. Students also neglected the differences in language structures (English being a subject language whereas Arabic is a verb language) as well as proving their inability to detach themselves from the written form of the text and focus on the meaning and delivering it properly. This was remedied through the introduction of the principles of the interpretive theory.

These issues were addressed briefly and superficially as an introduction, after which students were asked to attempt to interpret the text orally a final time where they were able to render all the main ideas of the text easily in a coherent and sequential manner. At the end of the session,

the participants were asked to take a pre-test. Each participant was individually presented with a 300 word text of a familiar recent topic and asked to do a sight translation from English into Arabic. The participants were given a few minutes to read the text before attempting to interpret, and the renditions were recorded for later analysis.

Student A and Student B's recordings lasted for 14 and 9 minutes respectively. The results showed their struggle with the aforementioned skills, where they showed signs of:

- **Stress:** participants were often fidgeting, repeating or correcting themselves.
- **Lack of concentration and understanding:** participants would read the same passages multiple times and often misinterpret the ideas. In one example, both participants failed to pay attention and translated the word '*Saddens*' as 'مفاجئ', which is the equivalent of '*Sudden*'. In another example, in a passage stating that "*parents were escorted to an ambulance before the rescue of their child*", one of the participants interpreted it as "*parents called for an ambulance to rescue their child*".
- **Inability to relate information to background knowledge:** despite acknowledging the recent and trending event described in the text, participants failed to attach the information to background knowledge which resulted in them skipping or omitting certain obvious details, like the description of the rescue process which was broadcast live and explained all over the news and social media globally.
- **Pauses and hesitations:** participants would take several long pauses and use filler words frequently (er, uh, um...).
- **Neglecting language structure differences:** both participants failed to respect the correct sentence order when rendering the speech into Arabic, always beginning with the subject instead of the verb.

Although TAPs were not used during the session, participants would deliberately voice their thoughts and feelings which gave further insight into their reasoning process and feelings at the time. They would

occasionally state out loud that they hadn't understood a passage or that they didn't know the equivalents of certain words.

Based on the data collected in the first session and the pre-test, an intervention plan was elaborated.

3.3.2 Intervention phase

After careful analysis of the recordings, three major difficulties were detected:

- Insufficient general knowledge and linguistic competence.
- Lack of concentration and reading comprehension.
- Overlooking the proper language structures when translating from English into Arabic.

Over the course of four weeks, with an average of 3 sessions per week, we attempted to alleviate some of these challenges by introducing a number of exercises aimed towards helping students develop their skills, as well as gain a better understanding of the underlying cognitive functions that they ought to master and improve gradually.

Exercise 1: Background knowledge

In order to improve their general knowledge and enrich their vocabulary, participants were asked to read and orally summarize news articles daily in both languages. In the classroom, the participants were encouraged to share information about relevant topics and discuss them in detail which would also help them improve their speaking skills. By staying up-to-date with the news, the texts and topics dealt with in the classroom were becoming familiar and students found it easier to relate the information given in the text to what they already know, thus interpreting more confidently.

Exercise 2: Reading for gist

Students were instructed to read with the intent of retelling the events as an interesting story with all the important details. Prompted by questions from the instructor, they would get asked to search for the logic behind the events (what happened? When? Where? Who was involved? Why?). This allowed

them to visualize the provided facts in their mind's eye and they were soon able to recount the details without reading the text a second time. Once this was achieved, the students were asked to perform the same task faster and with longer, more complex texts, as a way to develop quicker reading comprehension abilities.

Additionally, deverbalisation and re-expression are important features of the interpreting process. Sight translation is bound by time where clients often request to be given a summary of the document's essential contents. Due to the different characteristics of written and spoken discourse, interpreters are required to be as concise and accurate as possible, and that requires separating the message from its linguistic form and delivering the meanings in an intelligible oral form. In light of this, the participants were encouraged to try and deliver the main ideas and message without deep emphasis on the minor or unnecessary elements and without adhering strictly to the written form. Eventually, this exercise helped reduce students' struggle with linguistic interference and they were able to see the meanings beyond the visible words.

Exercise 3: Sentence drills

As a way to master the correct transition from English into Arabic without disregarding the structural differences, the participants were handed a box filled with scraps of paper containing single sentences in English. They were then asked to successively take turns picking out a sentence and reading it directly with the aim of locating the main verb, before moving into the remaining elements and giving the translation as quick as possible. This procedure would be repeated until all sentences are done. Once students were able to correctly interpret the sentences at first sight, they would move to longer paragraphs, and eventually a full text, applying the same strategy. This proved effective as they no longer had trouble adhering to the correct word order when interpreting from English into Arabic.

Due to Covid-19 restrictions, most of the sessions were held remotely via online learning platforms, with face-to-face encounters amounting to 2

hours per week. For this reason, we made sure participants grasped the strategies given in class effectively and had a clear understanding of the steps and procedures they were required to follow. The follow-up online sessions were then devoted to supervising and accompanying the participants in their self-improvement process by replicating the previous exercises, delivering new material, reviewing practice recordings and providing feedback. This approach corresponds to the notion of reflective practice and action research discussed earlier, and must be encouraged as institutions shift towards distance learning and other hybrid modes of learning increasingly.

3.3.3 Post-test

On the final day of the experiment, the participants were once again given a 300-words text about a recent relevant topic in English and asked to do a sight translation. The final renditions were recorded and assessed according to the criteria laid down in the rubric.

4. Results and discussion

The data gathered from the pre-test and post-test were put together and analysed. In the following results, we chose not to focus on all linguistic and translation errors as those require a different methodology and assessment criteria. Our emphasis was more on the students' performances and indications of cognitive load problems like stress, self-repetition, lack of confidence when speaking and overall misunderstanding of the text.

Table 2. Student A's Overall Performance

Criteria	Pre-test	Post-test
Total length	14'8"	7'49"
Duration of pauses	4'52"	1'40"
N° of repetitions	64	17
N° of omissions	3	0

The initial review of the first participant's recordings shows evident disparity. In the pre-test, the student spoke in a monotonous tone that would make it difficult for the listener to follow the chain of events and the long pauses and recurrent repetitions often interrupted the coherence of the text.

The participant also failed to re-express the ideas in a manner closer to a natural expression in the target language, resorting to a literal translation of terms, collocations and idiomatic expressions on multiple occasions. For example:

- **Expressed his condolences** was translated into: أصدر تعازيه
The correct translation of the collocation should have been: / قدم تعازيه
أعرب عن تعازيه
- **A five-year-old boy who was trapped for four days in a deep well in Morocco has died** was translated into:
الطفل...أأ...الطفل ذو العشر...ذو الخمس سنوات سقط في البئر...إختفى لمدة أربعة أيام
في البئر في المغرب وتوفي.

The post-test however showed better results, as the student succeeded in delivering all the main ideas in a confident and pleasant tone, and managed to give a proper interpretation of the ideas in a stylistically acceptable way despite a few inaccuracies, with adequate translation of terms and collocations. For example:

- **...but the situation began getting out of control in early 2021** was translated into: لكن الوضع بدأ يخرج عن السيطرة في أواخر عام 2021
- **But the US and its allies are imposing unprecedented economic sanctions against the country** was translated appropriately as: لكن الولايات المتحدة وحلفائها يفرضون عقوبات اقتصادية غير مسبقة ضد البلد.

Table 3. Student B's Overall Performance

Criteria	Pre-test	Post-test
Total length	9'25"	1'40"
Duration of pauses	5'41"	10"
N° of repetitions	7	2
N° of omissions	8	5

The results of the second participant showed great contrast between the pre-test and the post-test. In the pre-test, the student showed complete lack of understanding of the text, often distorting the meaning and pausing for up to 2 minutes at a time with multiple interjections, repeating herself frequently and skipping over entire passages sometimes. For example:

- ***King Mohammed VI expressed his condolences to the boy's parents*** was translated as follows:

قام الملك محمد السادس ب...أأ...وقام الملك محمد السادس ب...بتعزية والدي الطفل.

- ***Hundreds of villagers and others had gathered to watch the rescue operation*** was translated as follows:

الملايين من سكان الحي قاموا بدعم كل العمليات المساعدة.

In the post-test on the other hand, the participant managed to relay the events expressed in the text despite a few occasional omissions, and was able to recount the main ideas in a way adhering to the principles of interpreting and oral presentations, breaking free from the literal form of the written text.

In order to determine the extent to which cognitive training and practice-based action research can impact translation students' performance in sight translation; we worked out the following hypothesis:

Incorporating exercises and activities targeting learners' cognitive functions in translation training contributes to enhancing trainees' skills considerably.

The final results of the experiment indicated that implementing strategies aimed towards enhancing translation trainees' cognitive skills can have a deep impact on their learning process and affect their performance positively. In the span of 4 weeks, the participants went from having no experience in sight translation or interpreting, to being able to give a satisfactory performance of a relatively demanding task, as well as having acquired and developed skills that are necessary for their learning like reading comprehension, translation and public speaking.

This approach also shows how action research helps instill into learners self-regulatory and reflective behaviours which could eventually help them claim responsibility of their own learning and develop effective problem-solving strategies when encountering any future learning difficulties.

Admittedly, the quasi-experiment requires further development and application on a larger scale. Initially, the group partaking in the study consisted of 5 volunteers, 3 of which failed to commit to the full duration of the experiment and eventually abandoned. Their withdrawal from the study could be attributed to the lack of personal motivation as well as the overall difficult circumstances impacting the educational scene and students' attitudes towards learning at the time the study had been conducted, as studies indicated that the sanitary conditions and changing of study modes due to the pandemic had affected students' motivation and engagement levels at schools and universities considerably (Martin, 2023).

Nevertheless, the results of the study remain promising and prompt further practical research in teaching sight translation, as well as translator and interpreter training and the need to involve trainees in the teaching-learning process.

5. CONCLUSION

Translation studies as a discipline has set the ground for a more systematic research into the practice of translation and interpreting. New approaches and methods are constantly being explored and tested out with the help of various other disciplines such as cognitive psychology. Cognitive skills exercises are gradually being implemented in translation and interpreting programs, arguably for the role they play in alleviating some of students' struggles in the early stages of their training. In light of this, this paper sought to examine the effect of a number of exercises on students' performance at sight translation, all while shedding light on the concept of action research and what it could imply for trainers and course designers. The participants showed great enthusiasm and commitment to the tasks

given to them, and hoped to see more practical training implemented in their training.

We believe that walking trainees through the basic principles of mental learning processes and teaching them the proper ways to learn and self-improve can lead them to acquire the ability to analyze their abilities and weaknesses in order to come up with the strategies they need to overcome various learning difficulties.

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