

Observing trainee-translators' user activities with screen recorder: A process-oriented approach

Jeremiah Nwachukwu

Department of Modern Languages

Rivers State University, Port Harcourt, Nigeria

felix.nwachukwu@ust.edu.ng

Abstract

Translation Process Research (TPR) primarily adopts different approaches to monitor how translators perform their tasks (Jakobsen & Jensen, 2008) with a view to identifying techniques and procedures for good quality translation (Lörscher, 2016, 601). In sub-Saharan Africa, studies that investigate translation processes are scarce. This article, therefore, discusses an empirical study conducted, using the Blueberry FlashBack screen-recording software to observe the processes of source text comprehension and translation by third-year students of French in South African. Analyses of the subjects' user activity data indicated how screen-recording software revealed both the time each task's segment was performed and how many times online dictionaries were consulted. Findings suggest among others, that the total time spent in performing a task is a product of how many times online dictionaries were consulted. Since translation studies are primarily focused on products (target texts), it is recommended that more attention be paid to process studies.

Keywords: Translation Process Research, user activities, screen recorders, total task time, external resources

Introduction¹

Translation Studies (henceforth TS) an aspect of Applied Linguistics, which scientifically and systematically studies translation in its different forms, has assumed an independent

¹ The short research stay at KU Leuven, where this paper was put together, was funded by the Coimbra Group Scholarship Programme for Young African Researchers (www.coimbra-group.eu/scholarships/sub-saharan-africa/)

status especially in recent years. Consequently, many scholars who previously were conducting research in translation from other disciplines, such as psychology, education, linguistics and literary studies, etc (Heibert & Raphael 1996, 550ff), have now gained independence and have become members of an autonomous academic discipline. This independence stems, among other things, from the relatively recent descriptions of various hitherto ignored activities that are undertaken under translation (see Baker, 1993). One of such activities is developing theoretical foundations for monitoring the activities of translators at work. The argument in support of this is that methodically observing translators could reveal translation strategies and skills that can be emulated by other translators to enhance their performances (Lauffer, 2002, 59). Didactically, the replay of recorded translation students' protocols can help students to monitor their own user activities to facilitate self-improvement.

While this process-oriented practice is widespread in other parts of the world, it seems to have received relatively less attention in sub-Saharan Africa. In most cases, the issues that are considered under "translation" in Nigeria are product-oriented studies involving contrastive analyses of translations and their source texts. These studies basically concentrate their efforts on mapping the similarities and dissimilarities of (usually) two languages and producing descriptive results (see Rabadán, 2008, 104). While such studies have been instructive in demonstrating how a number of same realities are conceptualised and expressed by speakers and learners of the contrasted languages, studies that examine the process of these conceptualisations are virtually non-existent. A quick search for *translation in Nigeria* and other related terms on Google scholar returns results that are indicative of a more linguistic-based approaches to translation. Many articles published under translation in peer-reviewed journals focus on literary translation criticism, thus neglecting the human side of translation. As translation is still considered a tool for the study of foreign languages in Nigerian universities, it is only reasonable to conduct research studies that are considered beneficial to improving the teaching and learning of foreign languages. Although plausible in one sense, this arrangement confirms the outmoded vision of translation studies in Nigeria.

This paper therefore provides a brief overview of the evolution of translation studies to situate the study on the process-oriented paradigm of the discipline. To demonstrate the applicability of a screen-recording tool in Translation Process Research, an overview of an empirical study conducted to gather data on trainee translators' user activities is described and the results of the study are presented.

Literature review

This section presents the distinction between translation and translation studies and traces the historical evolution of the discipline. The status of the field of translation studies and its various (sub)disciplines are described.

Evolution of translation studies as a modern discipline

Although it has been claimed that "...translation and interpreting are two of the [second] oldest activities in the annals of human history" (Jungwha, 2003; see also Dunne, 2014), theorising about translation did not begin until the 4th century BC. The first documented discourse on the subject was in Marcus Tullius Cicero's preface to his translation of Greek writings into Latin. The Roman rhetorician and politician outlines his approach to translation thus: "And I did not translate them as an interpreter, but as an orator, keeping the same ideas and forms.... And in so doing, I did not hold it necessary to render word for word...." (See Munday, 2016). Subsequently, St. Jerome translated the Greek Bible into Latin known today as the Latin Vulgate. Known as the most famous of all Western translators, St. Jerome had undertaken several major translations and defended his work against critics by citing Cicero in the following words: "Now I not only admit but freely announce that in translating from the Greek – except of course in the case of the Holy Scripture, where even the syntax contains a mystery – I render not word-for-word, but sense-for-sense."

The notions of word-for-word and sense-for-sense have subsisted in translation theoretical discourse for over a thousand years, taken up by succeeding scholars who had christened them differently. They are known today as literal versus free translations, although the notion of *free translation* has assumed several forms and degrees over the years. Between 4th and mid-20th centuries, several translation scholars (such as John Dryden, William Tyndall, Étienne Dolet, Martin Luther, Schleiermacher, Ezra Pound, Walter Benjamin, among others) had prescribed their own methods of translation along this same pair using mere linguistic parameters (see Venuti, 2021). During this period, known today as prescriptive and pre-disciplinary translation era (Gentzler, 2014), trainings for the practice of translation were rather done outside the walls of the university. The only discourse on translation was how it can assist in the learning of foreign languages.

Through the roles played by translation in Europe after the Second World War, extensive discussions about the theory of translation in the latter part of the 20th century became perceptible. Russian-American structural linguist, Roman Jakobson (1959, reproduced in 2012), for example, identified three categories, namely: intralingual, interlingual and intersemiotic translations. Prominent among the scholars whose impact in the field is felt

today by every translation scholar, are the French-Canadian duo, Jean-Paul Vinay and Jean Darbelnet who, in 1958, published their landmark *Stylistique comparée du français et de l'anglais*. In it they outline a series of approaches considered as linguistic guidelines that translators should follow. While Vinay and Darbelnet were not really the first to explain these approaches (for “they drew on Charles Bally and borrowed some organizational concepts from Alfred Malblanc”, (as highlighted by Pym, 2016), they made these approaches a household name. Eugene Nida and Peter Newmark significantly broached the subject of equivalence, a term that has generated the most controversy in the field of translation until today. According to Suzani & Khoub (2019, 35):

Nida (1964)² argues that there are two different types of equivalence: formal equivalence and dynamic equivalence. Formal equivalence consists of a target language item which represents the closest equivalent of the source language word or phrase. Nida and Taber (1969) make it clear that formal equivalents are not always found between language pairs.

It is important to note that these early scholars conducted research in translation while domiciled in other academic departments such as psychology, education, linguistics, foreign languages and literary studies, etc. (Heibert & Raphael, 1996). Such domains (in addition to history, anthropology, economics, etc.) had been home to academic discourse on translation (Bassnett & Lefevere 1992, p. xi) before TS as a separate discipline gained foothold in the years preceding 1980. As a matter of fact, the blueprint for the establishment of Translation Studies as a discipline was provided by James Holmes in his 1972 seminal paper titled *The Name and Nature of Translation Studies* (see Holmes 2000; Munday, 2012 for details). As a proof that TS evolved from other disciplines, Holmes’ paper was even presented in the translation panel of the Third International Congress of Applied Linguistics in Copenhagen. As we shall see in Figure 1 below, it became obvious that translation was a broad field after all and started receiving institutional autonomy. Gentzler (2014, 14) reports that:

[T]ranslation Studies as a discipline in and of itself began in Belgium at the University of Leuven in 1976, but the university itself, the oldest extant Catholic university in the world, dates back to 1425.

According to Lemaire (2018, 29), the relatively nascent nature of translation studies has led non-specialists to mistake the discipline for the practice of translation. While modern TS is a relatively recent field, still being housed in other departments (cf. Gile, 2015, 1),

² The title of Nida’s book is *Toward a science of translation*.

various institutions around the world have for centuries been involved in training translators and interpreters (Mounin, 1963, 10). A few that come to mind are the University of Geneva's Faculty of Translation and Interpreting (FTI, formerly ETI), founded in 1941, one of the oldest translation and interpreting schools in the world, and the famous *École Supérieure d'Interprètes et de Traducteurs* (ESIT) of the Sorbonne University, where the late Danica Seleskovitch and Marianne Lederer worked and popularised the Interpretive Theory that every translation process scholar is conversant with. In Africa, there is the prestigious Advanced School of Translators and Interpreters (ASTI) of the University of Buea in Cameroon, established in 1986. This school has trained hundreds of brilliant translators and interpreters for the African and world markets.

It must be said that there are more translator training centres outside the walls of the university than within. However, many universities around the world have well established departments of translation studies. A few that appreciate the enormity of work done in this field of study have created faculties of translations, such as Johannes Gutenberg-University of Mainz in Gernersheim, Germany (Carl, Gutermuth & Hansen-Schirra, 2015), Universitat Autònoma de Barcelona in Spain (Hatim & Mason, 1997), University of Granada in Spain (Olvera-Lobo & Gutiérrez-Artacho, 2017) and the University of Geneva in Switzerland (Lambert, 2013, 16). In Nigeria, the Abia State University, Uturu, has a well-established translation training component that is well-known in the Nigerian university system. According to Mombe (2019), Abia State University is the only State University in Nigeria whose students embark on internship as part of their translator-training programme. In the case of Ignatius Ajuru University of Education, Port Harcourt, for example, translation forms a section under the Department of French and International Studies, where several research studies are undertaken for Ph.D. and Master degrees and a Postgraduate Diploma in Translation. This trend is not exclusive to Ignatius Ajuru University. It appears that this is the way it works for several foreign language departments in Nigerian universities.

The Holmes/Toury map

As stated earlier, the structure of James Holmes seminal paper was represented in a diagrammatic form that has come to be known as 'Holmes' Map'. The map played a principal role in creating the awareness which prompted institutionalisation of the field and charted a course in TS research. The map was graphically created, not by Holmes himself, but by Gideon Toury in whose publication it featured for the first time (Munday, 2009). Figure 1 below shows a sample of Holmes' map of TS as elaborated in Toury (2012, 4).

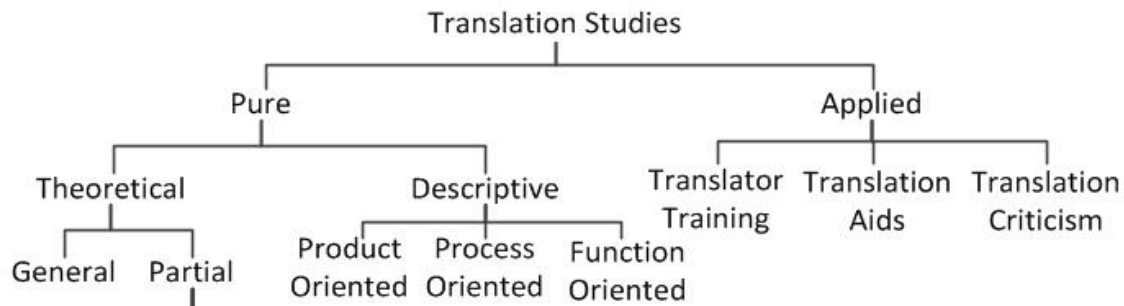


Figure 1: Holmes' Map of Translation Studies

In explaining the various activities inherent in TS, Holmes identifies the field as comprising two major parts, namely pure and applied. As can be seen from the map, most of the activities performed in the field are done under the pure side while, as Munday (2012, 17) observes, the applied side remains underdeveloped. Detailed description of the map has been undertaken by a few scholars such as Holmes (2000), Munday (2012), and Toury (2012). In this review, I do not focus on the applied part of the discipline which, as illustrated in an extended map by Munday (2012, 19), deals with the roles that knowledge of TS plays, especially in the present digital age. The two principal concerns of pure TS, in Holmes' (2000, 176) words, are:

- (1) to describe the phenomena of translating and translation(s) as they manifest themselves in the world of our experience, and (2) to establish general principles by means of which these phenomena can be explained and predicted.

According to Holmes, the former explains descriptive TS (DTS) while the latter defines theoretical TS (ThTS).

As translation studies kept developing and gaining autonomy in a few universities around the world (Ning & Domínguez, 2016), more research projects were (and are still) being undertaken to occupy their various places under each of the different branches of this relatively new field. While some studies under pure TS are strictly theoretical or descriptive in nature, others have combined both theoretical and descriptive approaches of enquiry. As is common in other disciplines, results of a particular approach and a combination of approaches can also occupy a position under the applied side of the field, for example, in the training of future translators. The availability of contents for the training of translators will depend on the amount of information gathered from a systematic observation of professional translators at work, and the identification of more

successful translation behaviours (that is, translational actions peculiar to a specific translator) capable of yielding good translation results. The sub-branch concerned with this task, which has received a significant amount of attention over the years, is referred to as process-oriented descriptive translation studies or Translation Process Studies (TPS).

Process Studies in Translation

James Holmes (2000, 177) reveals that this subdivision “concerns itself with the process or act of translation itself”. This aspect of TS considers the processes or the activities that lead to the translation products referred to by Munday (2012, 17) as the “psychology of translation”. According to Lauffer (2002, 59):

accessing the ‘black box’ and gaining a better understanding of what goes on during translation will advance the field of study, open new areas of research, and improve the way translation is viewed and taught.

One other possible assumption in favour of this enquiry could be to support the stipulation of Principle 4 of the ISO 9000 series on quality management principles. It states that “a desired result is achieved more efficiently when activities and related resources are managed as a process” (ISO, 2012). The possible inference is that the enquiry of the process of translation has become necessary because a product is said to be as good as the process leading to its production.

Judging by the number of earlier theoretical postulations available on the subject, awareness of the need to examine the translation process predates 1972 by several years (Hurtado Albir, Alves, Englund Dimitrova & Lacruz, 2015). As in the case of research in other fields, TPR is undertaken using various instruments, many of which are already popular in other disciplines. The first instrument used to elicit process data in translation was referred to as TAP (Think-Aloud Protocols) studies. TAP is a verbal reporting technique which requires translators to verbalise their thoughts while they perform their translation tasks. These recorded protocols are, thereafter, replayed, transcribed and the relevant data extracted for analysis of the behaviours of the participants. From Kiraly (1995) we understand that Dechert and Sandroock (1984), Gerloff (1986), Krings (1986), Lörcher (1986), and Königs (1987) were among the first set of scholars to employ verbal reporting in their studies.

In addition to the above, a much more empirical approach, recently named ‘translation process research’ or TPR (cf. Jakobsen, 2014; Alves 2015; Orrego-Carmona et al., 2018; Carl et al., 2019; Vanroy et al., 2021), has been adopted. Since the first set of process

studies pioneered by Ursula Sandrock's research in 1982 (cf. Shreve & Angelone, 2010, 3; Toury 2012), several other studies have been and are constantly being undertaken. In recent years, many of these studies have employed increasingly complicated methods in revealing (especially) translation behaviours that characterise translators' expertise. The identification of these translators' qualities has played a major role in explaining specific degrees of fundamental skills and knowledge required for translators to perform their tasks (Massey & Ehrensberger-Dow, 2011). This is termed 'translation competence' (TC). In addition to the available number of tools used in examining the translation process, screen recorder has proved to be one of the most easily accessible and affordable.

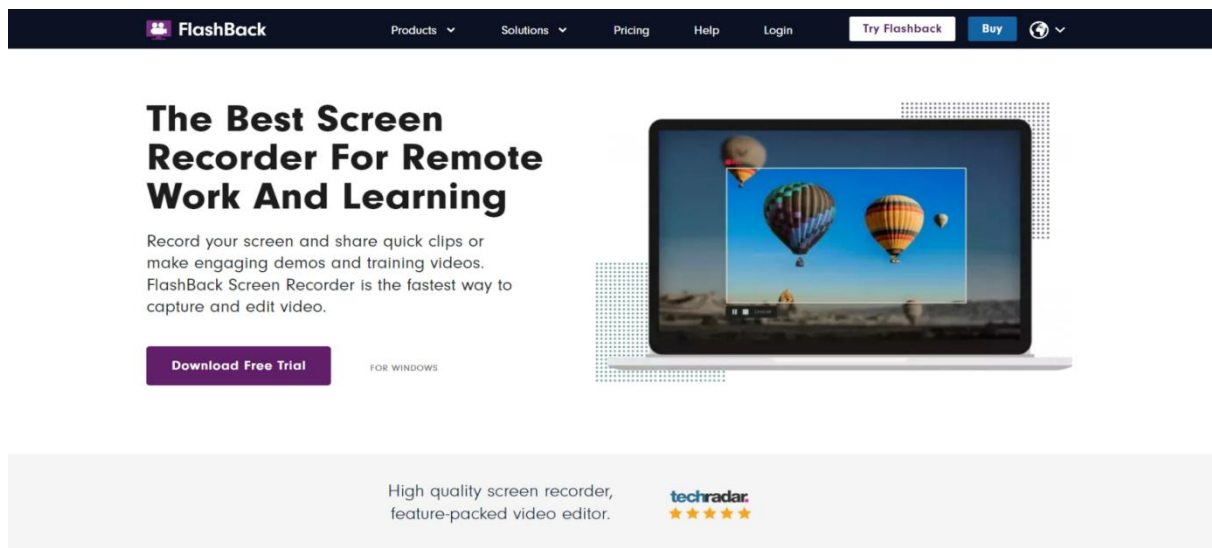
Screen recorder

Screen recording is a computer software that records all on-screen activities on the computer, giving users the opportunity to replay the video file and observe everything done during the recording process. As the computer has become an integral part of the translator's working tools (Ehrensberger-Dow & Massey, 2013), in TPR and translator training, it has been identified as a useful tool in monitoring the overall performance of translators. Translation behaviours that can be monitored include, among other things, extended pauses in screen activity and information retrieval from various computer-based resources like online electronic dictionaries, parallel texts, etc. A scholar, known to be popular in the use of screen recorder, is Erik Angelone. Angelone (2010), for example, studied how five students and a professional translator manage uncertainty in choosing from temporary target text alternatives that crop up during translation. In Angelone (2020), the focus of the use of screen recorder was to assess the performance of translators by comparing their target texts with the recorded process data.

A number of screen-recording software products are on paid subscription while others are available free of charge. Prominent among the available brands are Camtasia (compatible with Macs), ScreenRec (the free version of which allows for only a five-minute recording at a time), Open Broadcaster Software, Blueberry FlashBack³ Express, etc. Some of these can perform key logging functions and record the user's face at the same time. One important advantage of screen recording is that it is useful for translator-trainee self-evaluation. It is, for instance, evident from the roles played by screen recording that it allows the researcher to monitor the following activities: lookups, information retrieval, revision activity, etc., (Angelone, 2010). In recent versions of Windows PCs such as Windows 11, for instance, a screen recording function is preinstalled. In most computers, screen recording function is activated by a combination of the following keys:

³ Blueberry Flashback is accessible from <http://www.flashbackrecorder.com>.

Windows+Alt+R. The difference between the preinstalled Windows screen recorder and Blueberry FlashBack, which was used to record the experiment explained in this article, is that the Windows preinstalled version does not have a pause function during recording. Another major difference is that, unlike the free version, which displays plain pictures of the screen activity, the playback of BB FlashBack recording contains multiple calibrations on the screen that enable the researcher to easily identify a specific time when a particular activity of interest was performed. The Homepage of BB FlashBack is presented in Figure 2 below.



Make Your Point With Video

Use FlashBack Screen Recorder to make screen captures you'll want to share.

Figure 2: Homepage of BBFlashback

As seen from Figure 2, it is possible to opt for either a 30-day free trial version or the full version, which may be purchased and installed on any functional computer system. Launching the software for use would display the image shown in Figure 3 below.

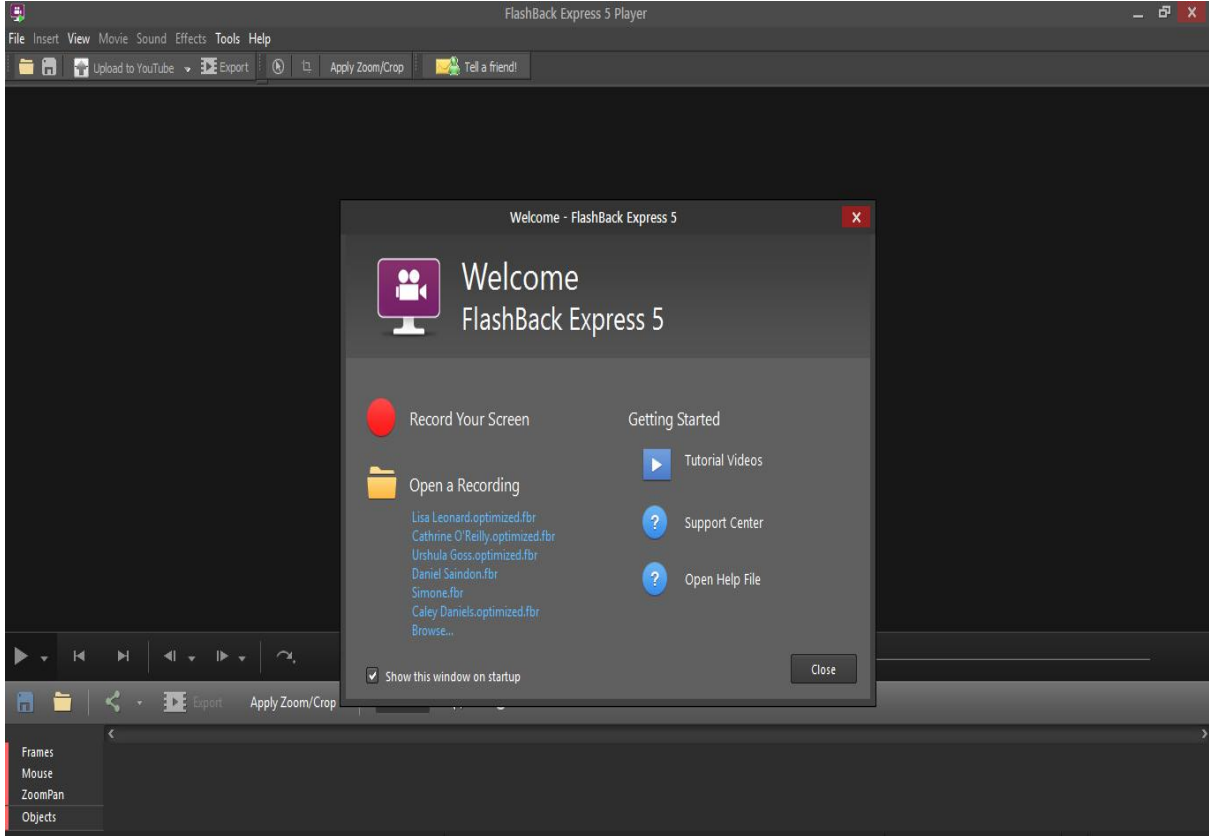


Figure 3: BBBFlashback welcome page

The activity which one wants to accomplish with the screen recorder determines the link that will be favoured in Figure 3. For first time users, *Open a Recording* link would enable the user to start up the recording of whatever experiment the user wishes to launch. In the following section, part of the empirical study undertaken with the use of the software is described.

Materials and methods

This methodology is rather a description of how the screen recording software works in demonstrating the nature of translation process research. No attempt is made in this section to provide a detailed systematic approach that was taken to conduct the research. Interested readers may refer to the extensive description provided by Nwachukwu (2017).

In order to observe and obtain information on how [trainee] translators process a text that is given to them to translate, seven students of French were selected to perform a series of tasks ranging from reading a news article⁴ (written in French) to answering text comprehension questions on the text and translating the text into English. The text which was extracted from the online version of a popular French tabloid, *Libération*, is excerpted below:

A l'époque, en passant en revue ses chers compagnons du Minorange, « Martin» avait préféré au super «Bouygues Boy» l'homme du sérail TF1, Nonce Paolini, ancien DRH, dircom et DG de la chaîne. Plus jeune mais plus capé que le fidèle corse, le bien-né Gilles Péliçon pouvait pourtant mettre en avant un CV de boss du CAC 40 déjà long comme le bras : après avoir fait ses armes chez Novotel au sein du groupe familial, ce diplômé de l'Essec et titulaire d'un MBA de Harvard avait dirigé successivement Euro Disney et Bouygues Telecom avant de revenir prendre les rênes du groupe Accor en 2006. Mais, bien que proche de Martin Bouygues, l'ambitieux Péliçon souffrait d'un gros handicap : le pro de l'hôtellerie et des forfaits mobiles ne connaissait pas grand-chose au monde de la télévision...

In addition to other ancillary instructions, the students were asked to work individually on a computer and verbalise their thoughts since the audio and video recordings of their screen activities were activated. It is important to remember that the rationale behind recording online activities of experimental participants is to take note of how each of them performs the duties assigned to them and to record the behaviours that are of particular interest to the researcher. The focus of this article, in an experiment that covers numerous variables, was to observe how the students responded to the instructions that were given to them. The instructions were as follows:

- Task 1 Carefully read the text below and complete the exercises (Tasks 2 and 3) that follow.
- Task 2 Answer the following questions.
- Task 3 Please translate the article above into English to be published in the “top appointments” column of the weekly bulletin of Stellenbosch University Faculty of Administration and Management magazine.

For simultaneous visualisation, *Ctrl+Alt+S* shortcut was used to divide the Microsoft Word window containing the text into two parts to enable the source text/target text setup

⁴ http://www.liberation.fr/futurs/2015/10/28/gilles-pelisson-un-super-bouygues-boy-aux-commandes-de-tf1_1409517

that is characteristic of translation and text processing experiments using the computer. By so doing, the source text (the original text) can be placed at the upper segment of the windows so that the student could provide their responses below as shown in Figure 4.

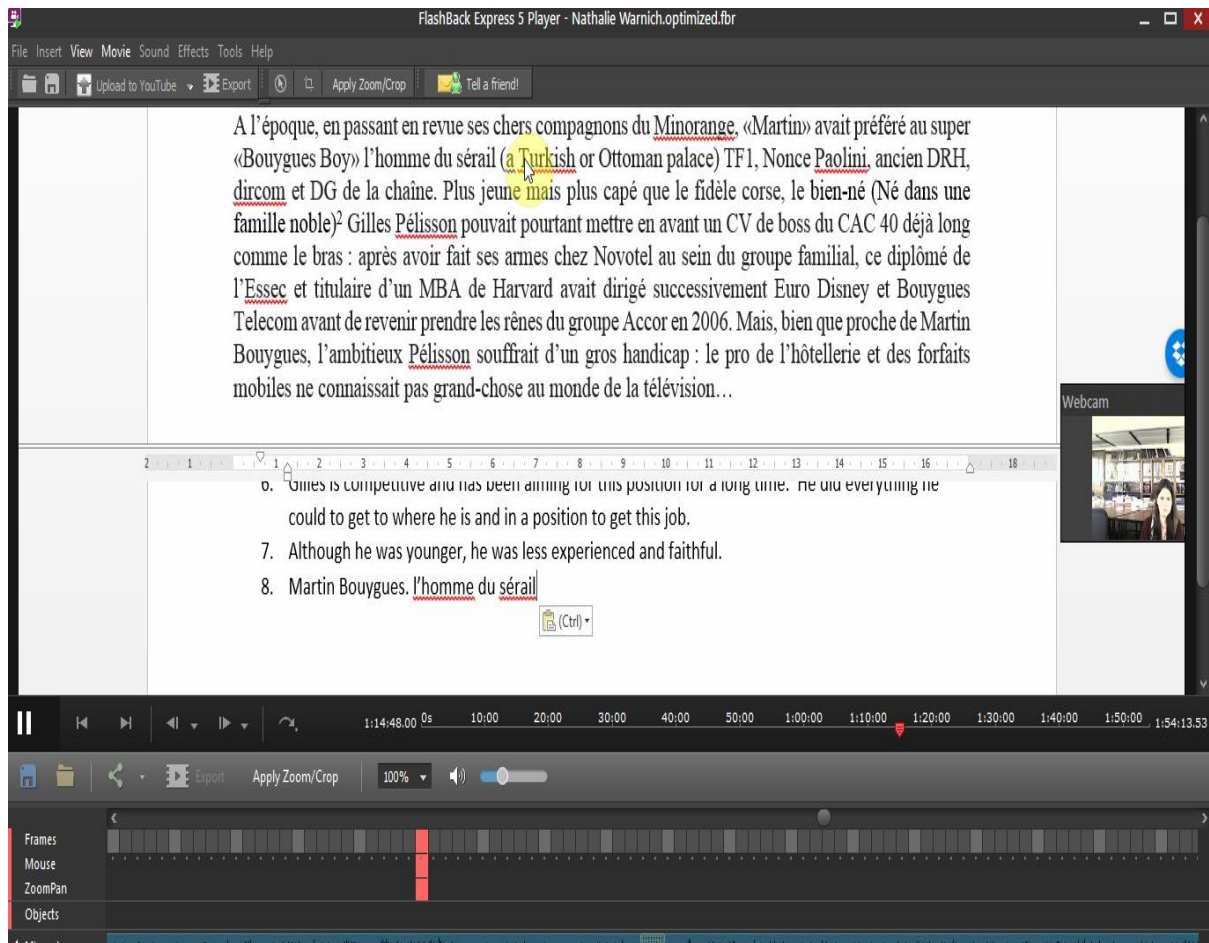


Figure 4: Divided window to enable task completion

As indicated previously, the user interface of BBFlashback has several options to monitor various activities such as individual task time, strategic and nonstrategic off-screen activities, dictionary use (see Figure 5), facial expression, etc. Recall that the face of the user is carefully displayed at the right-hand corner of the screen. The next figure shows the user browsing through one of the several online multilingual dictionaries which form part of the translator's working tools.

As can be seen below, Figure 5 displays the Windows version of *Reverso*, one of translators' most favourite online dictionaries. The student was searching for the word *jetons*, which is not in the excerpt she was working on. The researcher noticed that the student conducted an internet search to enable her to retrieve the text in its entirety in order to understand the text as a whole. It was at 12 minutes 23 seconds into the exercise that the student attempted to verify the meaning of *jetons*, which she found in another segment of the text. It was also observed from the audio and video replay of the one hour, 33 minutes and 37 seconds recording that the student spent more time outside the text windows than she did working on the text. Those times were spent consulting the online dictionary and reading other comparable websites.

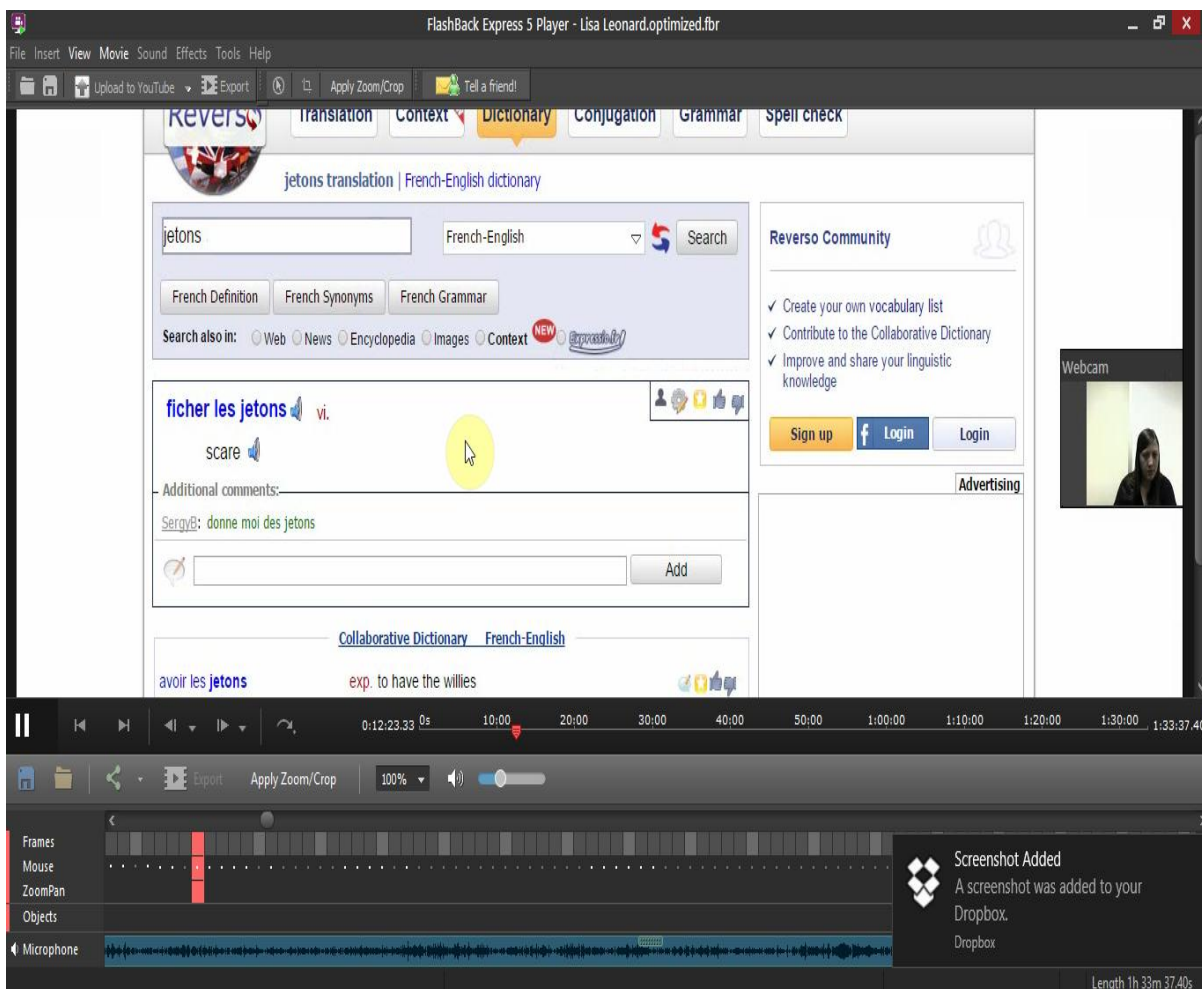


Figure 5: Interface showing dictionary use

Findings

At the end of the exercise, the software was paused, stopped and the data saved on the computer system to be replayed. For the exercise described in this article, the information retrieved from the replay of the recorded protocols are presented in Table 1 below.

Table 1: Process data on task time and use of external resources

Participan ts	Initial reading task time	Graph- plotting task time	Part of text- comprehension exercise task time				Translatio n task time	Total task time	Number of external lookups
			Q2	Q4	Q7	Q8			
Mem 1	10:37	09:19	06:08	04:09	01:27	02:07	27:08	79:27	17
Mem 2	08:16	09:22	06:02	03:12	04:33	03:32	49:35	99:20	43
Mem 3	11:08	19:27	05:21	04:27	03:39	05:23	38:12	97:54	30
Mem 4	04:23	17:16	10:37	06:19	02:01	04:21	36:07	93:37	53
Mem 5	15:07	37:36	09:05	01:04	01:37	03:05	35:04	114:13	33+GT
Mem 6	02:01	13:22	08:13	00:13	00:07	01:22	13:04	48:37	0
Mem 7	04:16	19:06	12:52	03:01	02:26	02:19	13:47	100:38	67

Information in Table 1 shows data on how long each of the seven students performed the various stages of the tasks assigned to them as part of the investigation process. In addition to task time, the table displays the number of times each of the participants consulted external resources, such as looking up an online dictionary or encyclopaedia or Google translator. We know, for example, through the information on Table 1 that Member 6 never consulted any form of external resources. She performed the entire tasks without any form of assistance outside the text. No wonder her total task time was shorter than the rest of her colleagues. From the data, we now confirm that more than half of the time spent in performing text processing exercise were spent in consulting external resources. Member 5 not only consulted online dictionaries 33 times, but she also Google-translated the text into English so that she could better understand it.

Contributions

Among the several advantages of screen-recording software is the tool's benefit in recording the number of times users consulted other online resources. As indicated in Figure 5, since BBFlashback records all screen activities, any observational study that requires taking stock of the number of times the user consulted external resources outside the word document can yield insightful results if the recording is carefully monitored and analysed. Similarly, it is a way of monitoring the compliance of study participants to the tasks assigned to them. In studies that require strict adherence to laid down steps, a replay of the screen-recorded process can be instrumental in determining any irregularity in the way the students performed the tasks. In the case of translation product evaluation, screen recording has the potential to reveal the activities a participant performed that resulted in the quality of translation produced. In other words, a user's product can be compared with the process to identify actions and behavioural patterns during text processing that can be attributed to success in translation.

Apart from the number of times online dictionaries are used, the duration of the user's task can be calculated. For example, the researcher will be able to find out how long it took a user to complete the task that was assigned to him or her. If the investigation requires that so many users be compared, the typing or reading speed of the participants can equally be profiled. Finally, because the face of the participants can be seen on the screen, it is possible to tell the exact things each user did at a particular point in the process of performing the task.

Conclusion

In this paper, an attempt has been made to draw attention to the aspect of translation that has received less attention, especially in Nigeria. This is possible because of the numerous activities which we know can be performed under "translation". Observing translators while they perform their tasks can reveal certain factors that would otherwise have been impossible to detect. Since the computer has recently become an integral part of the language practitioner and researcher's working tools as has been variously emphasised in several studies, the screen recorder has proved to be a useful tool in other aspects of applied linguistic studies, such as reading studies, text editing, etc. These results obtained can now be instrumental in the teaching of text processing strategies instead of relying on mere intuition that has no empirically founded bases. Previous process studies have, for instance, shown that expert translators consult less dictionary. For example, Pym (2003) has through observing translators' user activities, defined translation competence as the ability to generate a series of more than one viable target

text (TT1, TT2 ... TTn) for a pertinent source text (ST) and the ability to select only one viable TT from this series, quickly and with justified confidence.

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