Visually Impaired Novice Translators in Using Translation Techniques

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Abstract

Background:
This study aims to determine the translation techniques used by visually impaired translators in translating popular scientific texts. Visually impaired translators were used as the subjects of this study because when compared to sighted translators, visually impaired translators had a different way of doing translation activities. The difference in this performance is influenced using text-to-speech tools they use. Apparently, this phenomenon has not been discussed by various specialized translation research previously and by involving blind translators as research subjects directly, translation techniques can be expected to be identified naturally.

Methodology:
Using popular scientific texts in the field of psychology, two visually impaired translators were assigned to translate 24 sentences in a translation experiment. To analyze the data that was collected, the researchers used analytical techniques consisting of a domain, taxonomy, and componential analysis.

Findings:
Since they are too dependent on text-to-speech aids, visually impaired translators use a lot of literal and discursive creation translation techniques. The appearance of these two techniques in their translation implies that the resulting translation cannot match the context of the sentence. This happens because text-to-speech applies word-for-word reading.

Conclusion:
It is important for visually impaired translators to understand the weaknesses of their translation. Translators should minimize the use of literal and discursive creation translation techniques when translating popular scientific texts. One way is to improve their translation competence.

Keywords: popular scientific text; translation techniques; visually impaired translators.

1. INTRODUCTION

In the context of translation, the researchers found the fact that blind people have also entered the realm of translation by becoming professional translators. However, the existence of visually impaired translators has not received sufficient publication or attention, both from the general public and from researchers in the field of translation (Nugroho et al., 2016). However, several studies related to translation and people with special needs have also been discussed by Kurz & Mikulasek (2004), Hernández-Bartolomé & Mendiluce-Cabrera (2004), Utray et al. (2009), Berge & Ytterhus (2015), and Dewit (2014).

From our identification, the studies done by Kurz & Mikulasek (2004), Utray et al. (2009), Berge & Ytterhus (2015), and Dewit (2014) have one thing in common, namely the deaf as research subjects or beneficiaries of these research. These studies focus on the impact of sign language interpreting and subtitling on the acceptability of information received by deaf or hard-hearing persons. Furthermore, the research of Hernández-Bartolomé & Mendiluce-Cabrera (2004) is the only study involving the visually impaired as beneficiaries of the software named Audesc. Audesc is an audio descriptive program that functions to translate visual images in films into an audio description that can be heard by the blind. The audio can provide an understanding to the visually impaired about the storyline of a film because not all film scenes can be understood by the blind, especially non-dialogue scenes.

As far as the researchers are aware, the research that uses a blind translator as the subject is only done by Nugroho et al. (2016) and Suryaningtyas & Cahyono (2018). Both of them analyzed the results of translations carried out by the blind, but the translations were not based on a special assignment. We think this has implications for methodological weaknesses because researchers do not have clarity on the translation process carried out by blind translators. The translation results of their research may have been through the intervention of the editor or proofreader, so the purity of the translation for the blind cannot be identified.

The originality of the translation made by visually impaired translators is important in a study because the translators has their way of translating that is different from the sighted ones (Nugroho, 2017). Visually impaired translators use a tool to access text called a screen reader. By using this tool, translators can access the source text on a computer by converting the written form into a voice that can be heard by the blind. In Indonesia itself, the blind mainly use a screen reader called JAWS or Job Access with Speech (Sidiq, 2018). Unfortunately, linguistically, JAWS has weaknesses that can interfere with the fluency of the blinds when translating a text (Nugroho, 2017). The weakness is the inability to identify stress, juncture, and intonation.

JAWS inability to identify stress here means that this tool is unable to distinguish stress-based English word classes such as nouns or verbs, for example 'love (noun) which is stressed at the beginning of a word which means "love" or lo've (verb) which means "love" pressed in the middle of a word meaning "to love". Furthermore, the tool's weakness in terms of junctures or word transitions also means that this tool is not able to explain the difference between the sounds of "nitrate" and "night rate" because the transitions of the two words are very thin and difficult to identify based on sound alone. Finally, the deficiency of the text-to-speech tool to distinguish rising and falling intonation in a sentence can also make it difficult for visually impaired translators. This problem can result in a decrease in the quality of the translations that the visually impaired translators produce because understanding the meaning of a language is closely related to the suprasegmental element (Yurtbasi, 2012; Demirezen, 2015).

To be able to overcome problems in translation, a translator needs a certain way; that is using or applying translation techniques (Molina & Albir, 2002). According to Ardi (2017), the use of translation techniques is an effort made by translators to overcome problems at the micro-level of the text. Choosing the right translation technique is very crucial because the right translation technique will improve the quality of the translation, on the other hand, the wrong technique will reduce the quality degree (Zainudin & Awal, 2012). The translation techniques analyzed in this study are sourced from 18 techniques developed by Molina & Albir (2002). Research related to the analysis of translation techniques has been carried out by several researchers, such as Nathania & Thren (2012), Rahesa & Rosa (2020), and Febryanto et al. (2021), but the subject of the translators involved are professional translators (Nathania & Thren, 2012; Febryanto et al., 2021) and student translators (Rahesa & Rosa, 2020), not a blind translator. As far as the researchers are concerned, most of the research on translation techniques does not involve the blind as translators. This is also one of the research gaps with previous studies.

Thus, to measure how visually impaired translators deal with translation problems through the translation techniques they use, this study has the following problem formulation: what are the translation techniques used by visually impaired translators in the translations they produce from a translation assignment? The researchers believe that the researchers can have a research novelty that can complete the research of Nugroho et al. (2016) and Suryaningtyas & Cahyono (2018) who also use visually impaired translators as their research

subjects but do not use real translation assignment activities as a way to objectively identify the translation abilities of the blinds.

2. METHODOLOGY

The phenomenon raised from this research is the translation phenomenon of visually impaired translators. This phenomenon is then explored with a translation assignment that must be done by the research subject. This is also known as actual translation assignment (Krein-Kuhle, 2003). The language pair used in this study was English (source language) and Indonesian (target language). Indonesian was chosen as the target language because according to Jancova (2010), translators' native language is the most natural language to be able to express their thoughts.

The subjects of this study were visually impaired students. They were novice translators with the status of students majoring in English who had taken advanced translation courses and had a CEFR B2 level of language competence. Due to the requirements, there were only two entry-level visually impaired translators (AT and EPT) who met these requirements. The subjects of this study were given a translation assignment using the tools they normally use, such as JAWS. The time allotted to the subject was limited to one hour for translating popular scientific texts.

The selection of popular scientific texts was based on two things: 1) popular scientific textbooks play an important role in the development of science; and 2) as a means of scientific writing to reach a wider audience (Lewenstein, 2018). For these two reasons, the researchers used popular scientific texts in the field of psychology as a means of translation assignments for visually impaired translators since this field of science is one of the best-selling topics in the classification of nonfiction science books (Yucesoy et al., 2018).

To obtain data, the researchers carried out three stages of data collection, namely preparing research subjects, giving translation tests to research subjects, and conducting verification or retrospective interviews to research subjects regarding the results of translation tests (Lauffer, 2002). The data from the translation test results were then segmented by sentence. There was a total of 24 sentences in the translation test given to visually impaired translators.

The researchers used data analysis techniques consisting of domain analysis, taxonomy, and componential (Spradley, 1980). In domain analysis, the researchers classified the sentence data to determine the translation technique (Molina & Albir, 2002) used by the translator. In taxonomy analysis, tabulation of the number of translation techniques is made

to know the pattern of using translation techniques from the most to the least. In the componential analysis, the reasons for visually impaired translators to use certain patterns of translation techniques can be identified.

3. FINDINGS

From the results of the test of giving translation assignments to the two visually impaired translators, the following are the results of the analysis of the translation techniques used by both of them.
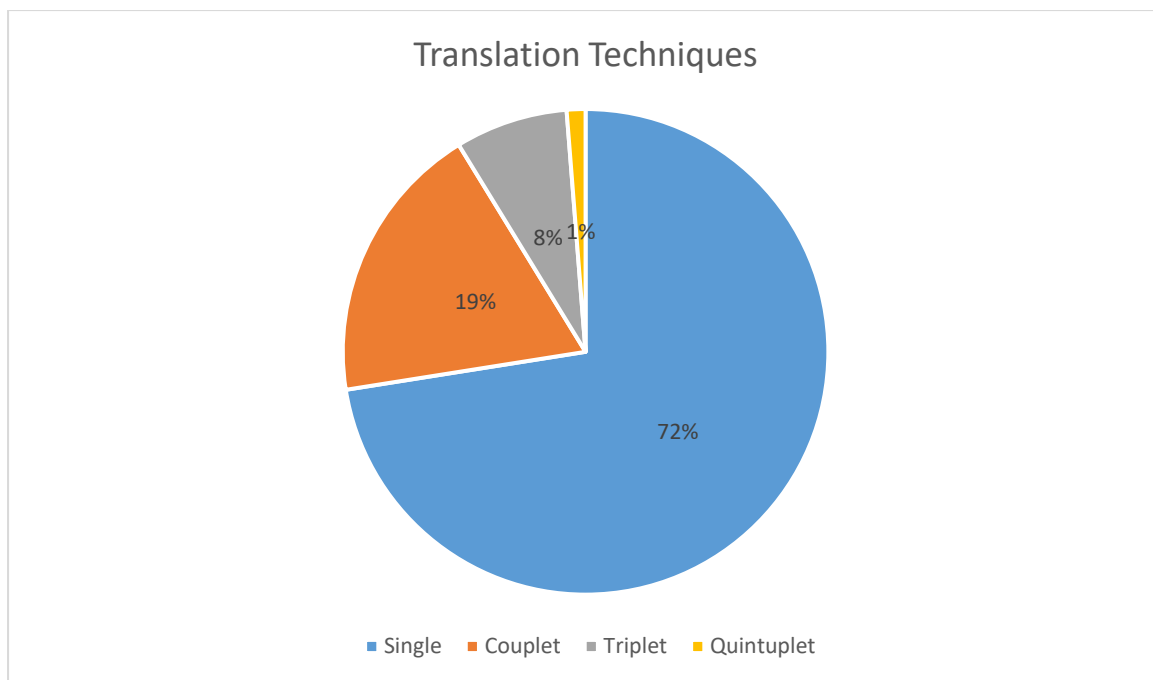

Figure 1 Combination Patterns of Translation Techniques

From Figure 1, the researchers can identify that visually impaired translators use four patterns of a combination of translation techniques, namely single, couplet, triplet, and quintuplet translation techniques. Unsurprisingly, the mostly used pattern is single pattern usage. This finding proves that the translators do not put any extra efforts to solve translation problems they face.
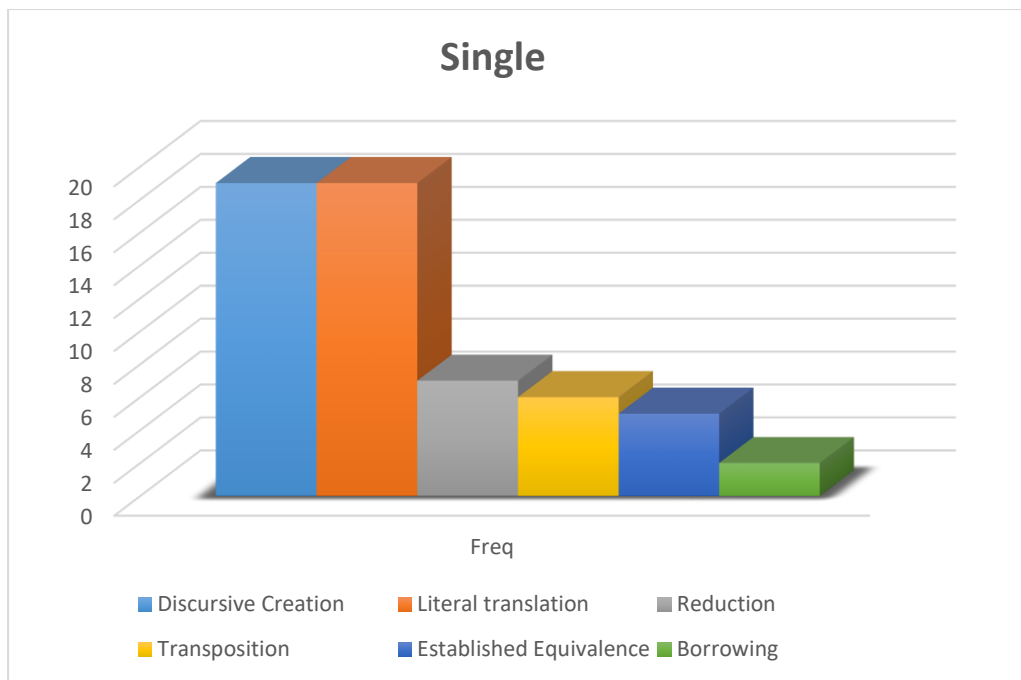
Figure 2 Single Pattern Usage of Translation Techniques

A single translation technique means that there is one translation technique used by a blind translator to solve a translation problem. Surprisingly, the mostly used translation techniques are discursive creation and literal translation. This proves that when translators experience translation problems, the solution they use is to translate outside the context of the sentence or translate according to what they hear on their screen reader devices without looking into the context of the sentence.
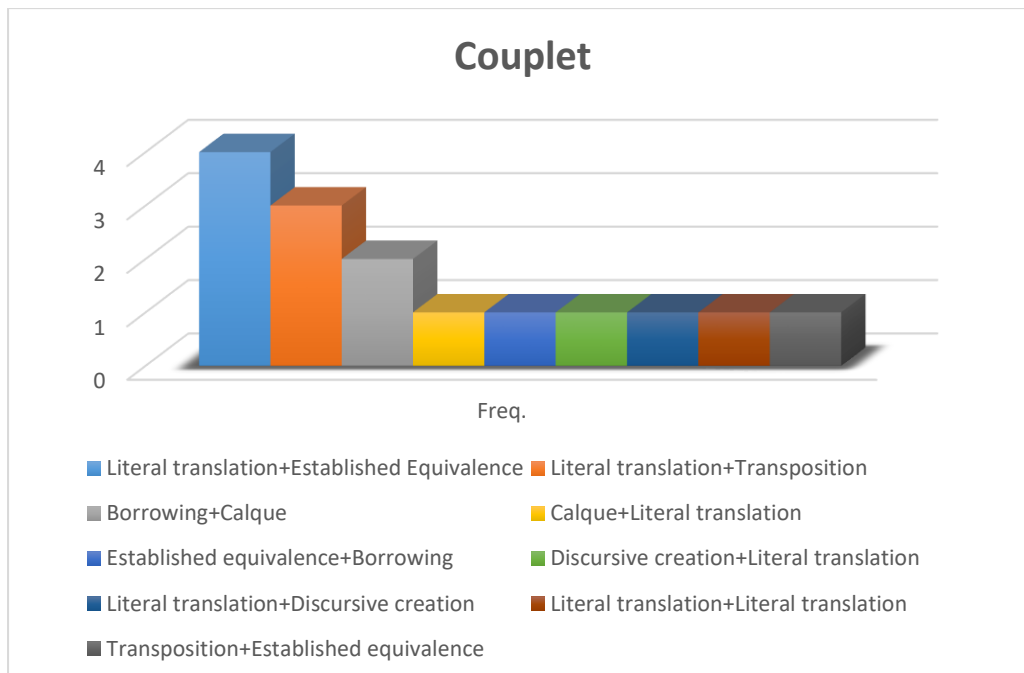

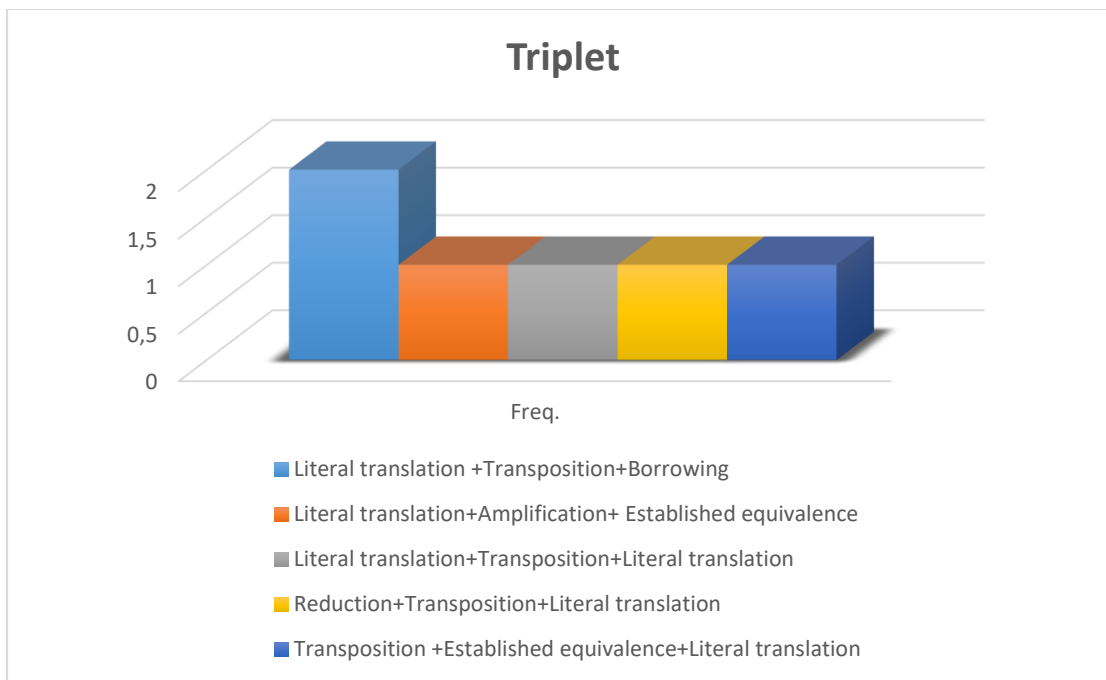**Figure 3 Double Pattern Usage of Translation Techniques**

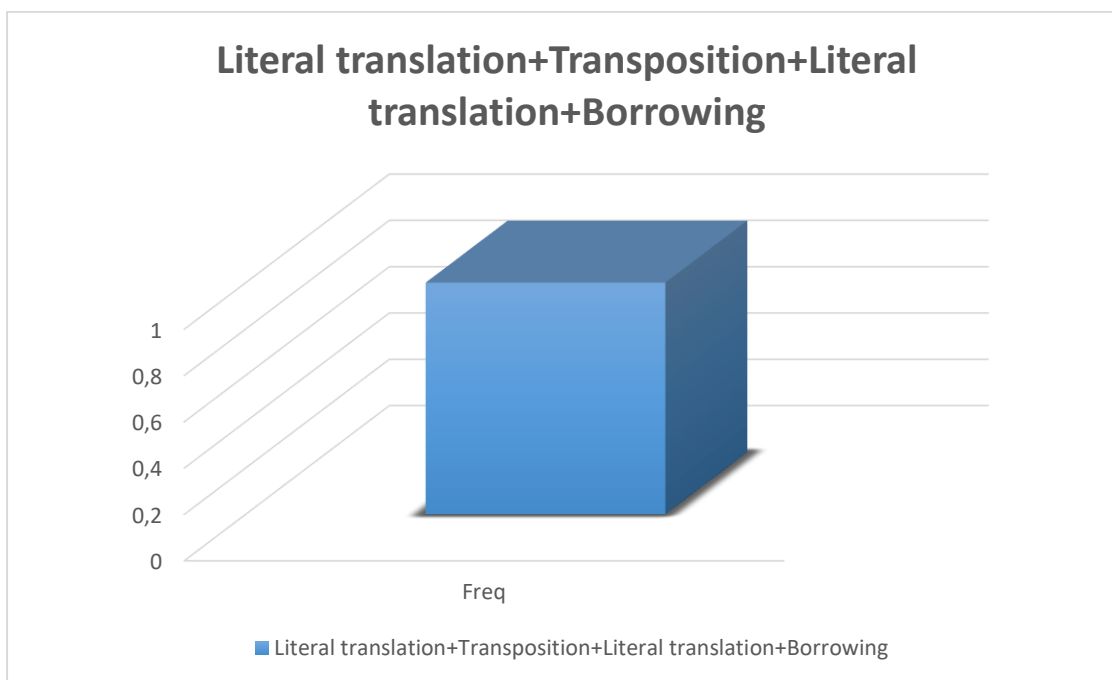**Figure 4 Triple Pattern Usage of Translation Techniques**

Figure 5 Quintuple Pattern Usage of Translation Techniques

Lastly, from Figures 3, 4 and 5, the researchers are able to identify that sequentially, couplet translation technique uses a combination of two translation techniques, triplet combination utilizes three techniques, and quintuplet combination employs four techniques. From the findings in Figures 3, 4, and 5 above, the researchers can see that the use of literal translation remains dominant. This further reinforces the fact that blind translators rely too much on what they hear from their screen readers and often the translations do not fit the context of the sentence.

4. DISCUSSION

The fact that visually impaired translators mostly use single translation techniques to overcome translation problems has two implications: first, visually impaired translators are effective in solving translation problems; second, visually impaired translators do not try their best to solve translation problems, where translation problems can be solved by using more than one translation technique. Which reflects the profile of the blind translator better? The answer can be reflected in several samples of their analysis of their translation techniques.

The translation technique used by AT to translate the word "freak" is a discursive creation technique. The following is the table of the use of these translation techniques.

Table 1. Implementing discursive creation technique

ST	*Freak*
TT	Yang meyeramkan
	Discursive creation

The researchers classify the "*yang menyeramkan*" translation into a discursive creation technique because the meaning of the translation deviated from the SL meaning, which should mean "*orang atau manusia aneh*".

Furthermore, the literal translation technique is also used by EPT to translate the word "devices" into "*alat*". In the context of the sentence, "devices" refers to "*cara*" not just "*alat*". The word "*cara*" in Bahasa Indonesia, for example, involves the use of photography that displays photos of strange or abnormal people.

Table 2. Implementing literal translation technique

ST	*Devices*
TT	Alat
	Literal

Thus, the researchers argue that the meaning of "devices" is "something that is done to achieve a particular effect". EPT is not aware of this, so this has several implications, such as:

1. The translator knows the difficulties she faces but does not care about the difficulties.
2. The translator knows the difficulties she faces but is confident in his choice of translation.
3. The translator does not find it difficult to translate.

These three implications can be destructive for the reader because the reader reads the meaning of the word "devices" which is less precise. Furthermore, since the translation of "*alat*" is not commensurate with the context of the sentence, the translation technique used is

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the literal translation technique. This technique is used when EPT translates "devices" according to one dictionary meaning but ignores other meanings that are more appropriate to the context of the sentence.

Next, the phrase "the disabled person" is translated using a couplet technique consisting of discursive creation and established equivalence. The technique of discursive creation occurs because "person" is translated into "*kaum*". The researchers considered that there has been a distortion of meaning in this translation. The word "*kaum*" has a plural nuance, while "person" has a singular meaning. The translation technique used to translate the word "disabled" into "*penyandang disabilitas*" is an established equivalence. The established equivalence technique is commonly used by AT because he has the intention and sensitivity to translate the word "disability" correctly. Meanwhile, in this context, the word "disability" should be translated as "*abnormal*" in the target language.

Table 3. Implementing discursive creation technique

ST	Person
TT	Kaum
	Discursive Creation

Table 4. Implementing established equivalent technique

ST	Penyandang/ Disabilitas
TT	The disabled
	Established equivalence

In addition, there is other couplet translation technique, which consists of literal translation and discursive creation.

Table 5. Implementing literal translation technique

ST	Common
TT	Secara umum pun
	Literal

Table 6. Implementing discursive creation technique

ST	Practice
TT	Masyarakat biasanya
	Discursive Creation

From the table, the researchers are able to identify that EPT is fixated on the word "common" so that she ended up translating it with "*secara umum pun*". With the influence of the word "common" being translated into "*umum*", the translation technique used is the literal translation. The justification is that the translation of "common" into "*umum*" is correct in the

dictionary sense, but not quite in the context. Meanwhile, the translation of other words uses a discursive creation translation technique, because the other translations have very different meanings and contexts, and the researchers consider that there is a distortion of meaning in the TL translation.

Next case, the translation technique used is the triplet technique which consists of established equivalence, discursive creation, and transposition.

Table 7. Implementing established equivalent technique

ST	Example
TT	Contoh
	Established Equivalence

Table 8. Implementing discursive creation/transposition technique

ST	Early
TT	Nyata/ Yang jelas
	Discursive Creation/Transposition

From the illustration on the table, the researchers are able to identify that AT translated the word "example" correctly and the translation does not distort the meaning. The translation technique is then identified as established equivalence. However, the researchers argue that the translation of "early" into "nyata (*yang jelas)*" is distorted in meaning and the translation strays away from the context. Therefore, the translation technique used is discursive creation. Furthermore, the use of transposition technique can be seen from the shift in the form of words into clauses ("early" to "*nyata yang jelas*").

Lastly, the use of quintuplet technique is identified when EPT translates "methodological and radical behaviorism". The technique consists of literal translation, transposition, literal translation, and borrowing.

Table 9. Implementing literal translation technique

ST	Methodological
TT	Metodologi
	Literal

Table 9. Implementing discursive literal translation technique

ST	Behaviorism
TT	Perilaku
	Literal

Table 10. Implementing borrowing translation technique

ST	Radical
TT	Radikal

Borrowing

From the table, the researchers are able to identify that EPT uses literal translation and transposition techniques to translate "methodological". Literal translation technique is identified from the phonological closeness between "methodological" and "methodology" and the translation of "*metodologi*" ("methodology") where its root is taken from "methodological". While the transposition technique is used by her because there is a shift from adjective to noun. Furthermore, EPT also uses literal translation technique to translate the word "behaviorism" due to the phonological closeness between "behaviorism" and "behavior". The translation of the word "behaviorism" is "*perilaku*" where its root is taken from "behaviorism". EPT's inaccuracy gives rise to doubts about her difficulty in identifying word forms through JAWS. Lastly, the last translation technique used by her is a naturalized borrowing technique. In this technique, the researchers identify the naturalization of the phonological form "-c-" to "-k-" in "radi-c-al" to "radi-k-al".

From the findings of translation techniques used, literal translation and discursive creation techniques rank first and second on the list of translation techniques that are most often used by visually impaired translators. From the phenomenon of discursive creation technique, the researchers can identify that, in addition to using literal translation technique, visually impaired translators have a tendency to massively change the meaning of TL when they experience various translation difficulties or when faced with complex SL linguistic units. The researchers considered that the massive change of meaning in the translations created by visually impaired translators violated the main principles of translation. Furthermore, based on the findings of literal translation techniques, the researchers are able to identify those blind translators have a limited scope of translation at the word or lexical level only. This becomes a dilemma for visually impaired translators because JAWS screen reader only focuses on word for word procedure, and this is the reason why literal translation technique becomes the highest translation technique used by visually impaired translators.

5. CONCLUSION

From the translation techniques applied by the visually impaired translators, the researchers can conclude that the literal translation technique is the most frequently applied translation technique by the blind translators with 40 findings (37%), followed by discursive creations with 27 findings (24%), transposition 16 findings (15%), reduction with 8 findings (7%), borrowing 8 findings (7%), established equivalence 7 findings (6%), calque 3 findings (3%), and amplification with 1 finding (1%). All these calculations are obtained from the

total sum of each translation technique for each translation combination pattern (single, couplet, triplet, and quintuplet).

From these findings, the researchers are able to identify that visually impaired translators mostly use literal translation and discursive creation techniques. The use of literal translation technique will make the translation stiff and inflexible, while the use of discursive creation technique will make a shift in meaning between the SL and TL. Translators should minimize or avoid the use of both techniques in translation. To improve the translation quality of visually impaired translators, the researchers recommend that the translators apply a more complete range of translation processes. The blind translators must read the SL text completely and revise the translation many times, so in the future, the use of literal translation technique and discursive creation can be minimized. The application of this series of analyzing-translating-restructuring translation processes can be achieved if the translators have better time management of translating.

6. ACKNOWLEDGMENT

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