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The Evaluation of Machine Translation and Human Translation on YouTube: A Comparative Study

THE EVALUATION OF MACHINE TRANSLATION AND HUMAN TRANSLATION ON YOUTUBE: A COMPARATIVE STUDY

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Abstract

This study compared machine translation and human translation quality, particularly in the context of selected "Sukses Daily" videos on YouTube. In achieving these goals, this research used mixed-method approaches. It was analyzed based on the Translation Quality Assessment (TQA) model by Nababan et. al. (2012): accuracy, acceptability, and readability. Meanwhile, the data was collected through questionnaires distributed and opinions were sought through interviews with the raters. The analysis showed that human translation generally outperformed machine translation in accuracy, acceptability, and readability. Machine translation scored an average of 1.48 out of 3 for accuracy, 1.81 out of 3 for acceptability, and 1.99 out of 3 for accuracy, 2.52 out of 3 for acceptability, and 2.72 out of 3 for readability, indicating good quality. The findings could contribute to the advancement of translation knowledge and encourage further research in the field.

Keywords: Translation Quality Assessment, Machine Translation, Human Translation.

Abstrak

Studi ini membandingkan kualitas terjemahan mesin dan terjemahan manusia, khususnya dalam konteks video "Sukses Daily" yang dipilih di YouTube. Untuk mencapai tujuan ini, penelitianini menggunakan pendekatan metode campuran. Dianalisis berdasarkan model Penilaian Kualitas Terjemahan (TQA) oleh Nababan: akurasi, penerimaan, dan keberbacaan. Sementara data dikumpulkan melalui kuesioner yang didistribusikan, dan pendapat dicari melalui wawancara dengan para penilai. Analisis menunjukkan bahwa secara umum, terjemahan manusia lebih unggul dibandingkan terjemahan mesin dalam hal akurasi, penerimaan, dan keberbacaan. Terjemahan mesin mendapatkan rata-rata 1.48 dari 3 untuk akurasi, 1.81 dari 3 untuk penerimaan, dan 1.99 dari 3 untuk keberbacaan, menunjukkan kualitas yang kurang baik. Di sisi lain, terjemahan manusia mendapatkan rata-rata 2.65 dari 3 untuk akurasi, 2.52 dari 3 untuk penerimaan, dan 2.72 dari 3 untuk keberbacaan, menunjukkan kualitas yang baik. Temuan ini dapat berkontribusi pada kemajuan pengetahuan terjemahan dan mendorong penelitian lebih lanjut di bidang ini.

Kata kunci: Penilaian Kualitas Terjemahan, Terjemahan Mesin, Terjemahan Manusia.

A. INTRODUCTION

Translation is essential in various aspects of life, as it helps people understand and engage in activities by providing the meaning of words from various languages. Translation is basically a change of forms the Source Language (SL) into the Target Language (TL) that refers to the actual words, phrases, clauses, sentence and paragraph etc, which is spoken or written (Larson, 1984). The purpose of translation is transmitting of the ideas and events through time and space to make something understood, to

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accomplish, to prove (Köksal & Yürük, 2020). The relationship between receptor and message should be substantially the same as that which existed between the original receptors and the message (Nida, 1964). Nord said that translation needs to ensure the appropriateness of a translated text to fulfill а communicative purpose (Mateo, 2014). According to Thriven, translation is not simply a matter of seeking other words with similar meaning but of finding appropriate ways of saying things in another language (Halimah, 2018). Therefore, The process of translation requires indepth knowledge of the grammar, semantics, syntax, idioms, etc., of the source language, as well as the culture of its speakers (Okpor, 2014).

Nowaday, a variety of translatorbased technologies are developing that can help people translate the content. For example, on YouTube, which use machine translation. YouTube provides an auto-translate feature powered by Google Translate, a popular machine translation system providing real-time translation of video captions by simply clicking on the CC button and selecting the language of the user's choice from a list (Harrenstien, 2009). YouTube is the largest free video sharing site in the world. It is available in 91 countries in 80 different languages at present (Suh & Cho, 2019). While machine translation has advanced in recent years, questions remain about whether its quality can match or surpass human translation.

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Melby with T. Warner are perhaps most strongly expressed that machine translator will never reach the quality of a professional human translator. The limitations are not just temporary, but inherent in the task (Ahrenberg, 2017). Machine translation is not as accurate with regard to comprehending and interpreting phrases and sentences, which likely relates to a machines inability to recognize subtleties in and cultural differences meaning, between linguistic groups (Brazill et al., 2016). Human translators have a range of skills, many of which are currently with no signs of any imminent breakthroughs on the horizon impossible to replicate by automatic means (Lumeras & Way, 2017).

This is particularly important considering the widespread use of YouTube in everyday life. YouTube is the second most popular website (Hutchinson, 2023). The objective of this research is to increase awareness among YouTube viewers about the limitations of machine translation. It emphasizes the errors. Stresses the importance of not relying solely on it. Additionally it aims to contribute to the advancement of translation knowledge and inspire research, in this field. In this researcher study the examined translation quality using Translation Quality Assessment (TQA) which involves evaluating translation quality as described by Sofyan (2016). The employed Nababan's researcher approach to determine whether machine



or human translations are more qualified (Nababan et al., 2012). The analysis specifically focused on assessing translation quality between machines and humans in selected "Sukses Daily" videos, on YouTube.

B. LITERATURE REVIEW

Previous studies investigating the comparison of machine and human translation quality have been conducted to date. First, comparison of human translation with google translation of imperative sentences in procedures text was conducted by Halimah (2018). The examined research English an procedural text for a "VIXAL Lebih Wangi" cleanliness product that was translated into Indonesian by Nia Kurniawati. representing human translation. On the other hand, Google translation was used to represent machine translation. The study focused on comparing the phrases and overall meanings sentence in the two translations. The findings indicate a low level of similarity, specifically 29%, between human and machine translation when it comes to translating procedural text. This implies that machine translation still relies on human input to generate higher-quality translations.

Next, research on the comparison of the quality of machine and human translation conducted by Ayob and Hasnah Mohamad (2015).

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This study aimed to investigate the similarities between human translation and machine translation in translating technical texts. The findings indicate that there is only a minimal resemblance of 36.1 percent between human and machine translation in translating technical texts. This suggests that machine translation produces distinct translations compared to human translation. Therefore, human expertise remains crucial for producing superior translated texts.

Alongside that, a study on comparison of the quality of machine and human translation was also carried out by Arvianti (2018). This paper aims to compare human translation and machine translation, focusing on formal and non-formal language. Captions from Instagram, covering news and entertainment, were translated bv university students and a machine provided by Instagram. The quality assessment by Nababan et. al. reveals differences between human and machine translation (Nababan et al., 2012). Machine translation performs well with formal language, while human translation excels in both formal non-formal language, and demonstrating its superiority based on various translation factors.

More recently, Indriawati et al. (2023) analyzed the translation accuracy of translation shift and the methodology employed in translating the subtitles of the Ted Talk video titled

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"How to Stop Screwing Yourself Over, by Mel Robbins" from English into Indonesian. The researchers use mixedmethod methodologies to ascertain the objective the investigation. of Additionally, a study of the quality translation was carried out by Syah et al. (2023), this research's objective is to assess the level of idiom translation quality and recognize the techniques employed by the translator when rendering English idiomatic expressions into Indonesian within the context of the book "Harry Potter and the Cursed Child" authored by Jack Thorne, J.K. Rowling, and John Tiffany. The assessment is conducted through the framework of the Translation Quality Assessment (TQA) model. Overall, the English idiom translation in the Harry Potter and the Cursed Child books is of good quality, with most of it being accurate, acceptable, and easily understood by readers. This study is mentioned to provide advancements in the use of translation quality assessment methods on different subjects, in order to offer extended coverage for further research in the field of translation.

C. RESEARCH METHOD

The current study utilized a case study approach, which combines quantitative and qualitative research. Quantitative research methods are chosen for clear research problems, large sample sizes, testing specific treatments, examining hypotheses, & Muh. Syukri obtaining accurate data based on measurable phenomena, and testing knowledge or theories. Qualitative research methods are preferred for

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knowledge or theories. Oualitative research methods are preferred for unclear problems, understanding underlying meanings, studying social exploring interactions, feelings. developing theories, ensuring data accuracy, and conducting historical research (Mustaqim, 2016). These considerations guide researchers in selecting the appropriate approach and to provide an overview of the quality of machine and human translation in "Sukses daily" videos on YouTube. In the various methods mentioned by Creswell (2013) it is deemed more appropriate to employ the Sequential Explanatory Design method for this research. The researcher initiates the study with the quantitative approach and subsequently proceeds with the qualitative approach in a sequential.

Source of data

To begin with, the researcher outlines the purpose of this study by formulating research objectives that are relevant to the phenomena being investigated. Subsequently, the researcher devises initial research questions. This study examines the accuracy, acceptability, and readability of machine and human translations by (Nababan et al., 2012) in selected "Sukses Daily" YouTube videos. By analyzing these aspects, the study sheds light on the performance of machine and human translations in the context of "Sukses Daily" videos entitled

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"Kebiasaan No.1 Yang Dilakukan Orang Sukses - Mel Robbins Subtitile Indonesia - Motivasi & Inspirasi".

After identifying a specific area to be observed, the researcher determines the appropriate method to gain access to that particular area and collect the required data. The data were collected in the form of phrases and sentences, focusing on target language (Indonesian) translations that deviated from the source language. Additionally, discrepancies were observed in the translation subtitles between machine translation and human translation. A total of 34 data points in the form of sentences and phrases were identified in the "Sukses Daily" video. Furthermore, researchers used a technique to reduce the total population data, which is similar to determining samples within a population. If a translated text is very long and consists of several subsections, the first part of each of these sub-sections is considered adequate and representative for assessment purposes (Nababan et al., 2012). The raters are responsible for assessing the quality of the translation outcome in terms of accuracy, acceptability, and readability. The assessment of the translation quality is suggested to be an odd number and a minimum of 3 raters for each aspect of the assessed quality (Nababan et al., 2012). According to the criteria raters in the translation quality evaluation model put forward by Nababan et al. (2012), the criteria of the

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case

will

he

identified. As following Table 1:						
Table 1. Criteria of Raters/Informants						
		Criteria				
	Accuracy	Acceptability	Readability			
	Mastering Both	Mastering The	Understanding The			
1	Mastering Both English &	Mastering The Use of Standard	Understanding The Use of Standard			
1						

this

in

	Indonesian	Indonesian	Translation
	Language	Grammar	
	Have a Good	Understanding	Willing to Participate
	Translation	The Field of	in The Research
2	Competence	Translation	
	(Proved by		
	Certificate)		
	Willing to	Willing to	
3	Participate in	Participate in The	-
	The Research.	Research	

Instrument of research

informants

In this case, the researcher has used a questionnaire as a research tool gather information from to informants/raters about the translation quality. The research has employed a closed-ended questionnaire. A closed categorical question can often be used only if its answer choices are comprehensive (Krosnick, 2018). Which has prompted respondents to select from the provided answer choices presented in the questionnaire. In other hand, the researcher used humans as instruments, serving as or tools mediums for conducting the research. Lincoln and Guba were among the first to introduce the term human instrument (Peredaryenko & Krauss, 2013). They also established the qualities in their influential study, said that uniquely qualify the human being as the instrument of choice for naturalistic inquiry. Several experts, including Creswell (2013) his in book Inquiry "Qualitative & Research Design" have affirmed that the researcher has the potential to function

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as a research instrument. The researcher assumes the role of a research instrument, responsible for collecting and analyzing data to address the research questions. Therefore, interviews are also necessary to complement the clarity of data obtained from the questionnaire that has been given to the raters. Semi-structured interviews allow for the collection of qualitative and quantitative information efficiently and cost effectively, in an unobtrusive and open manner (O'Keeffe et al., 2016). Qualitative parameters of each translation category. The three instruments are presented below

1. Translation Accuracy

The qualitative parameters for evaluating the accuracy aspect of translation are as follows: "Accurate" means that the messages in the source language text are correctly and precisely conveyed into the target language without any distortion of meaning. "Less accurate" means that the messages and the meaning of the source language text have mostly been conveyed to the target language properly and accurately. However, there are still distortions or missing meanings present, which disrupt the message. "Not accurate" means that the messages in the source language text are conveyed to the target language inaccurately or even omitted (Nababan et al., 2012).

2. Translation Acceptability

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The qualitative parameters for evaluating the acceptability aspect of translation are as follows: "Acceptable" means the translation seems to be natural; the terms used are common to the readers and also in accordance with the rules and grammar of the Indonesian language. "Less Acceptable" means the translation mostly seems natural: however, problems with the use of the terms still exist, and there are slight usage. in grammar "Not errors Acceptable" means translation does not natural or seem like a translation work; the terms used are uncommon to the reader, and not in accordance with the rule and grammar of the Indonesian language (Nababan et al., 2012).

3. Translation Readability

The qualitative parameters for evaluating the readability aspect of translation are as follows: "High readability" means the translation can be easily understood by readers. "Medium readability" means the translation must be read more than once before it can be understood. And, "Low readability" means the translation is difficult for readers to understand (Nababan et al., 2012).

Data analysis technique

The assessment of translation quality is divided into three aspects: accuracy, acceptability, and readability. Each aspect is assigned a score or number on a scale of 1 to 3. The higher the score given by the rater for a particular aspect, the higher the quality

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of the translation aspect produced (Nababan 2012). et al., The categorization of translation quality is as follows: "good" falls within the number range of 2.5 to 3, "fair" is between 1.8 and 2.4, and "poor" is between 1 and 1.7. As for, the range of score or interval is 0,67. In pre-final scoring, The assessed quality aspects prioritize accuracy with the highest score of 3 (three), followed by acceptability with a score of 2 (two), and readability with the lowest score of (one) (Nababan et al., 2012). 1 Moreover, the formula shown below can be used to calculate the final results of translation quality:

Table 2. Total Scoring Technique

(Average Score of Accuracy)	x (3)	=A
(Average Score of Acceptability)	x (2)	=B
(Average Score of Readability)	x (1)	=C
<u>(A)+(B)+(C)</u> 6	=	The Average Score of the Translation Ouality

D. FINDINGS AND DISCUSSION

Findings

In this section, the researcher has presented the research findings on the translation quality between Machine and Human in three aspects: Accuracy, Acceptability, and Readability.

1. Translation Accuracy

The comparison results can be observed in the following Table 3:

Table 3. Translation Quality of Accuracy Aspect

Translation	Machine Translation		Human Translation	
Category	Total Data	Percentage	Total Data	Percentage
Accurate	0	0%	30	69.77%
Less Accurate	17	39.53%	12	27.91%
Not Accurate	26	60.47%	1	2.33%

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Total 43 100% 43 100%

2. Translation Acceptability

The comparison results can be observed in the following Table 4:

Table 4. Translation Quality of

Acceptab	ility As	pect
----------	----------	------

Translation	Machine Translation		Human Translation	
Category	Total Data	Percentage	Total Data	Percentage
Acceptable	5	11.63%	24	55.81%
Less Acceptable	13	30.23%	16	37.21%
Not Acceptable	25	58.14%	3	6.98%
Total	43	100%	43	100%

3. Translation Readability

The comparison results can be observed in the following Table 5, providing a comprehensive overview of the data collected and facilitating a visual representation of the findings.

Table 5. Translation Quality of

Readability Aspect

Translation	Machine Translation		Human Translation	
Category	Total Data	Percentage	Total Data	Percentage
High readability	9	20.93%	36	83.7%
Medium readability	15	34.88%	7	16.3%
Low readability	19	44.19%	0	0%
Total	43	100%	43	100%

Table 6. The Total Average Quality of Machine Translations.

1.48 (Average Score of Accuracy)	x(3) = 4.44			
1.81 (Average Score of Acceptability)	x(2) = 3.62			
1.99 (Average Score of Readability)	x(1) = 1.99			
$\frac{(4.44) + (3.62) + (1.99)}{6}$	= 1.675			

Table 7. The Total Average Quality of Human Translations.

Tullian Translations.				
2.65 (Average Score of Accuracy)	x (3)	= 7.95		
2.52 (Average Score of Acceptability)	x (2)	= 5.04		
2.72 (Average Score of Readability)	x (1)	= 2.72		
$\frac{(7.95) + (5.04) + (2.72)}{6}$	=	2.61		



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This finding is consistent with the conclusions of other researchers' studies in the field of translation quality concluded that comparison. It is machine translation still cannot be categorized as superior in quality translation, compared to human including translation subtitles on YouTube. This is further supported by the opinion of Harrenstien (2009), it is not perfect, does not pretend to be perfect, and may never be perfect, but it's a stake in the cliff we're continuing climb (Greenemeier. 2011). to However, using the research method of Nababan et al. (2012), it can be concluded that in terms of readability. machine translation can still be considered to have satisfactory quality. This is evidenced by the total of readability calculation aspects indicating that machine translation on YouTube falls under the "fair" category.

Discussion

Based on the analysis, it was found that the average final total quality (accuracy, acceptability, and readability) machine score for translation is 1.67 indicates that this translation is included in the category of poor quality. On the other hand, human translation had an average final total quality score of 2.61. Based on the translation quality categories, this score illustrates that human translation in selected "Sukses Daily" videos on YouTube has good quality.

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Accurate

Based on data analysis results, no Machine Translation is classified as However. Human accurate. in Translation, thirty data (69.77%) are considered accurate. An example of an accurately translated text by a human is data number 4 [00:35-00:37]. The source text "Don't worry this is Mel Robbins" was translated into Bahasa as "jangan khawatir, disini Mel Robbins!" with an average score of 3, indicating accuracy. This translation is commonly used in Bahasa to convey a similar message, making it a natural and appropriate translation. Informants also gave it a perfect score, confirming its accuracy.

Less Accurate

The data analyzed; seventeen (39.53%) data are considered less accurate in Machine Translation. An example of a less accurate machinetranslated text is data number 27 [05:20-05:24]. The source text "I'm going to be so grateful that I made this change!" was translated into Bahasa as "Saya akan sangat berterima kasih bahwa saya membuat perubahan ini." with an average score of 2.3, indicating less accuracy. According to the raters the translation of "*bersyukur*" (grateful) is more accurate in this context. aligning better with the intended meaning. The translation should be "Saya akan sangat bersyukur bahwa saya membuat perubahan ini."

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Furthermore. in Human Translation, twelve data (27.91%) are considered less accurate. An example of a less accurate human-translated text is data number 5 [00:42-00:48]. The source text "So, visualization is an extraordinarily powerful skill" was translated into Bahasa Indonesia as "jadi visualisasi adalah keterampilan yang luar biasa kuat" with an average score of 2. This indicates less accuracy. The translation of "*luar biasa kuat*" as "extraordinarily strong" or "extremely powerful" doesn't fully capture the intended meaning, which emphasizes effectiveness and impact of the visualization. more accurate Α could be "sangat translation berpengaruh" (highly influential). Therefore, according to the rater a more precise translation of the sentence could "Jadi. visualisasi be adalah keterampilan yang sangat berpengaruh" to better convey the intended meaning of the original sentence in English.

Not Accurate

Based on data analysis results, twenty-six data (60.47%) are considered not accurate in Machine Translation. An example of a not accurate machine-translated text is data number 4 [00:35-00:37]. The source text "Don't worry this is Mel Robbins" was translated into Bahasa as "Jangan khawatir ini adalah Gunung Robbins." with an average score of 1, indicating inaccuracy. According to the raters the translation used the wrong word for "Mel" in the original sentence, as "Mel" refers to a person's name, not a mountain. The correct translation of "Mel Robbins" in Bahasa Indonesia would be "*Ini Mel Robbins*" to indicate "this is Mel Robbins." Additionally, the use of "*Gunung Robbins*" (which means "Robbins Mountain") instead of "Mel Robbins" changes the meaning of the sentence entirely.

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Furthermore, only one data (2.33%) is considered not accurate in Human Translation. An example of a not accurate human-translated text is data number 33 [06:58-07:03]. The "The source text greater vour confidence is going to be, the greater security you're gonna have about it" was translated into Bahasa Indonesia as "Akan semakin besar nya kepercayaan diri mu, jaminan yang lebih besar yang akan kamu miliki tentang itu" with an average score of 1.7, indicating inaccuracy. There are issues with the translation. Firstly, "jaminan" for "security" is inaccurate. "Jaminan" implies a concrete guarantee, while "security" has a broader meaning. A more accurate translation would be "ketenangan" "keamanan." or Secondly, the use of "akan" (will) is redundant with "is going to be." Thus, omitting "akan" would sound more natural. Finally, "tentang itu" (about it) is unnecessary as the context clarifies the referent. An accurate translation would be "Semakin besar kepercayaan dirimu, semakin besar rasa aman yang

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kamu miliki" to convey the intended meaning using appropriate vocabulary and avoiding awkwardness.

Acceptable

Based on the data analysis results. five (11.63%)data are considered acceptable in Machine Translation. The example of Machine translated text that is considered acceptable as follows: On data number 5 [00:42-00:48], the text translated by machine got a perfect score from all raters, indicating that the translation is acceptable. The machine translation *"jadi* visualisasi text adalah keterampilan yang luar biasa kuat" according to the raters is considered common and often used in the target language. Besides that, this data is also accurate in terms of translation and grammatically and semantically acceptable in Indonesian, and it conveys a clear and coherent meaning in English.

Besides that, based on the data analysis twenty-four (55.81%) data results. human translation are considered acceptable. The example of Human translated text that is considered acceptable: on data number 6 [01:11-01:14], the text "Ini adalah jaringan neuron, semua ada di sini," translated by human got average score of 3 which is perfect score from all raters indicates that the translation is acceptable because it is a grammatically correct sentence that conveys a clear and coherent meaning in the language. And

also, it is considered common and often used in the target language the use of proper grammar and vocabulary.

Less acceptable

The data analysis results indicate thirteen (30.23%) that data are considered less acceptable in Machine Translation. The example of Machine translated text that is considered less acceptable: on data number 21 [04:29-04:33], the text "benar-benar Saya tahu kedengarannya bodoh tetapi saya ingin Anda menutup mata" translated by machine and got an average score of 2, according to the raters classified as less acceptable because it contains grammatical errors, informal language and improper word choices that do not conform to the standard structure and rules of the language that make the sentence difficult to understand and less natural in the language. A more appropriate and grammatically correct sentence would be "Saya tahu ini mungkin terdengar bodoh, tetapi saya ingin Anda menutup mata".

Hereafter, based on the data analysis results, sixteen (37.21%) data are considered less acceptable in Human Translation. The example of Human translated text that is considered less acceptable: on data number 17 [03:47-03:52], the text "*jadi, ketika kamu sudah menentukan tujuan mu, kamu sudah menuliskan semua tujuan ini, oke*?" translated by human and got an average score of 2, classified as less acceptable. It contains a mix of formal

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and informal language, which can be considered inappropriate in certain settings. The sentence structure should be clear and unambiguous. The phrase "tujuan mu" should be written as "tujuanmu" without a space, as "mu" is a possessive pronoun that should be attached to the noun "tujuan" without separation. "-ku", "-mu", and "-nya" are written together with the preceding words. (Sugiyono, 2016:34). The use of "menuliskan" doesn't fit with the rest of the sentence. While it's common to write down goals, it's unclear how it relates to the previous clause about determining goals. The word "ini" in "semua tujuan ini" is redundant as it's evident from the context that the writer is referring to the previously mentioned goals. Therefore, the sentence can be revised as "Jadi, setelah menentukan apakah kamu tujuanmu. sudah menuliskan semua tujuan, oke?". This improves clarity and uses appropriate pronouns.

Not acceptable

The data analysis results indicate that twenty-five (58,14%) data are considered not acceptable in Machine Translation. The example of Machine translated text that is considered not acceptable: on data number 24 [04:58-05:02], the text "Anda akan melihat milikmu elf menjaga diri sendiri" translated by machine and got an average score 1,3. Indicates that the machine translation is not acceptable because it contains grammatical errors and does not make sense in the language. The text: "*milikmu elf*" - This phrase is not grammatically correct in Bahasa Indonesia. The sentence lacks a verb, making it incomplete and not grammatically correct, and also lacks context, making it unclear what the translation machine wants to say. It is impossible to determine the subject, the object, or the purpose of the sentence. Overall meaning - The sentence as a whole does not make sense in Bahasa Indonesia.

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Moreover, based on the data analysis results, three (6.98%) data are considered not acceptable in Human translation. The example of Human translated text that is considered not acceptable: on data number 5 [00:42-00:48], the text "jadi visualisasi adalah keahlian yang luar biasa powerful!" got an average score of 1.7, indicates that the human translation is not acceptable because is an unnatural translation because the word "powerful" can actually be translated into Indonesian as "kuat", but it is not commonly used to describe specific skills or expertise. Secondly, the use of the phrase "luar biasa" can be used to indicate the strength or superiority of something, but in the context of the sentence, it sounds inappropriate because it does not specifically explain what makes visualization skills extraordinarily strong. As an alternative, a sentence like "Keterampilan visualisasi sangatlah penting dan memiliki kekuatan yang



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luar biasa" would be more natural and appropriate in Indonesian.

High readability

Based on the results of data analysis, it was found that nine (20.93%) data are considered high readability in Machine Translation. The example of Machine translated text that is considered high readability as follows: on data number 38 [07:34-07:39], the text "seolah-olah Anda benar-benar melakukannya dan ada berdasarkan penelitian" bukti translated by machine got average score of 3, it is categorized as high readability and the raters generally can understand sentence because firstly, the the a clear and easily sentence has understandable structure. Then, the sentence is continued with two phrases assumption. that explain the Additionally, the sentence does not use difficult or uncommon words.

Hereafter, Based on the results of data analysis, it was found that thirty-six (83.7%) data are considered high readability in Human translation. The example of Human translated text that is considered high readability: on data number 15 [03:36-03:40], the text "otak mu mulai menemukan bukti bahwa segala sesuatunya berjalan dengan baik" translated by human got average score of 3, it is categorized as high readability. The sentence has a clear sentence structure and the use of appropriate words, making it easily understandable and readable by readers.

Medium readability

The data analysis results indicate that fifteen (34.88%) are considered readability medium in Machine translation. The example of Machine translated text that is considered medium readability as follows: on data number 9 [01:27-01:30], the text "Dan memblokir keluar informasi lain" translated by machine got average score of 2.3, according to the raters it is categorized as medium readability because the phrase consists of two verbs separated by a noun, it is unclear and there is no clear object of the action "keluar". Furthermore, the word "keluar" can create ambiguity in meaning because it can be interpreted as a verb or an adverb. Therefore, the data is a medium readability, in a text can make it difficult for readers to understand the intended meaning.

Moreover, in human translation showed on the data analysis, seven (16.3%)considered medium are readability. The example of Human translated text that is considered medium readability: on data number 23 [04:53-04:55], the text "Kamu akan diri mendefinisikan melihat ти Batasan" translated by human got average score of 2, it is categorized as medium readability because the word order in the sentence is not appropriate. The word "mendefinisikan" is not used commonly in evervdav conversation, making it challenging for readers to understand. Similarly, the word *"batasan"* phrase in the



"menentukan batasan" may cause confusion and necessitate rereading the sentence for clarity. The text requires extra effort for readers to understand its meaning.

Low readability

Based on the results of data of the forty-three data, analysis, (44.19%) of them nineteen are considered low readability in machine translation. The example of Machine translated text that is considered low readability as follows: on data number 15 [03:36-03:40], the text "otak Anda mulai melihat bukti bahwa ada sesuatu berolahraga" translated by machine got average score of 1, it is categorized as low readability. According to the raters the sentence lacks clarity, coherence, appropriate word choice, balance, and has an ambiguous meaning, making it difficult for readers to understand and causing disinterest.

At last, based on the results of data analysis, that there is no human translation that is classified as low readability. This means that human translation doesn't have difficult to understand sentences and only rereading the sentences to understand the meaning in human translation.

Hence, Machine translation is low quality in terms of accuracy, acceptability, and readability is due to the complexity of human language and the importance of contextual understanding. Machines translate word by word without considering the The Evaluation of Machine Translation and Human Translation on YouTube: A Comparative Study

broader context, while human language aspects involves complex like idioms. grammar. and vocabulary, regional variations. Auto-captioning systems, like YouTube's auto-generated subtitles. can further decrease translation accuracy. Machine translation is influenced by training algorithms. artificial data. and intelligence, but struggles to match human translation in terms of linguistic contextual knowledge. While and machine translation may work for general or simple texts. human translation remains necessary for accuracy and clarity, especially in complex or technical contexts.

E. CONCLUSION

This concluding chapter analyzed the quality of translation in selected "sukses daily" videos on YouTube, comparing machine and human translations. The accuracy of machine and human translation. Based on the data found in the research object, it is determined that machine translation has low accuracy compared to human translation. This is evidenced by the average accuracy score of 1.48 out of 3, which means that machine translation is considered poor accurate. In contrast, human translation has an average accuracy score of 2.65 out of 3, which means that it is considered good accurate. Therefore, in this research, human translation is superior in terms of accuracy.

The acceptability of machine and human translation. Based on the data



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found in the research object, it is determined that machine translation has low acceptability compared to human translation. This is evidenced by the average acceptability score of 1.81 out of 3, which means that machine translation is considered poor acceptability. In contrast, human translation has an average acceptability score of 2.52 out of 3, which means that it is considered good acceptability. Therefore, in this research, human translation is superior in terms of acceptability.

The readability of machine and human translation. Based on the data found in the research object. It has been determined that human translations are still superior in terms of readability aspect compared machine to translations. This is evidenced by the final average score in the readability aspect of machine translations, which is 1.99 out of 3. This means that machine translations, in general, in this research are included in the medium readability category, which means that machine translations can already be understood by readers even though there are parts that need to be read more than once to understand the translation. Meanwhile, human translations have a final average score in the readability aspect of 2.72 out of 3, which means that human translations are included in the good readability category, means that in general, in this research, the data in human translations can be understood without having to reread to understand the translation. Therefore, in this

research, human translation is superior in terms of readability compered to machine translation. This research also challenges the notion that machine translation is consistently inferior to human translation in all aspects of quality evaluation by using Nababan's mathod. The data reveals instances where machine translation outperforms humans. However, further development is needed to address errors in machine translation on YouTube. Suggestions include exploring the limits of machine incorporating translation. human feedback, and improving translators' language proficiency and cultural understanding. Students should also be aware of translation quality and utilize advanced tools due to advancements in AI technology.

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