An Investigation into Google Translate of English Modal Verbs

ABSTRACT

Google Translate is a useful tool for people to search knowledge and translation of languages. It is increasingly used by many people in different jobs and research fields around the world. This can be evidently found in many previous different scientific findings. However, in order to give more quality remarks to the tool, this study aims at exploring how the machine translation system translates English modal verbs into Vietnamese. The source of language to be translated was extracted from a grammar course book used to train EFL teachers in the Master's program in TESOL. The source was considered carefully for social functions of English modals and their Vietnamese versions. The study employed 11 experienced Vietnamese-speaking teachers and 21 Vietnamese-speaking graduates of English for the study. They were to give their remarks of agreement or disagreement to the translation provided by Google Translate. The results unveiled that Google Translate was able to keep the purposes of many social functions of the source language when transferring these to Vietnamese. Furthermore, approximately three third of teachers' agreement was given to the translation and the graduates' agreement given to the translation just close to the percentage awarded by the teachers. Most of the disagreement of the translation between the two groups fell into the inability of Google Translate in translating the past form of the English modal verbs. Based on the findings, some concerns were also brought into consideration for the improvement of Google Translate in translating English modals to Vietnamese.

Keywords: Google Translate; machine translation system; English modal verbs; social functions; Vietnamese

INTRODUCTION

Translation is in heavy need when the world is increasingly integrating. First, many people may think that they need an international language to learn more about the world, but let us think that many international languages can be accepted to be the world languages such as English, Russian, French, Spanish, and Chinese, and even in recent years Japanese and Korean are required in many organizations in Asia. Then, it is difficult for language learners to choose for themselves one international language to learn and it is impossible to learn several of them simultaneously. Secondly, many countries, especially in developing and under-developing countries are still restricted to world knowledge in various fields in life. The reasons can be diverse. For education, if they are worrying about food to eat, roof to cover, how can they think about learning foreign languages. For better-off people, they can take advantage of their knowledge of foreign languages to discover new things about the world, so they at least have an opportunity to experience learning a foreign language. Third, it can be difficult to make a decision to choose which language for storing the world knowledge. As mentioned, many of them can be used, but it is impossible to have all languages translated in a single language or in some international languages. What Aiken & Balan (2011) had mentioned is that Google Translate can help translate languages, but it seems to be better at European languages than Asian ones in regard to comprehension sufficiency. It is obvious that Google cannot do all things for us. Therefore, we should side with one another to bring quality translation to machine translation systems. This study does not aim to investigate this machine translate system's capability in terms of language diversity. Instead, it sees support of Google Translate as a valuable tool in storing the world

knowledge in many different languages and world linguistics themselves. This study purposes to investigate the latter, in particular between English and Vietnamese translation. This tool has been long seen to produce quite many acceptable translated texts and made it easier and available for people to use. However, in order to help Google Translate users and the machine-system developers have a better look at translated texts from this machine system regarding its translation between English and Vietnamese, the researchers would like to propose the following research questions delimiting themselves to translation of English modal verbs into Vietnamese provided by Google Translate and English teachers and graduates' remarks on such translation. As to have a qualified translation work, it requires plenty of skills. This study only aims at exploring the ability of Google Translate in interpreting the social functions of English modal verbs only, excluding the role of participants, so when English statements were translated into Vietnamese, the subject "Bạn" or "Tôi" were used in these contexts.

    1. Can Google Translate interpret social functions of English modal verbs?

    2. Are teachers' and graduates' remarks on translation provided by Google Translate different?

LITERATURE REVIEW
THEORETICAL BACKGROUND

Modal verbs can be tricky to learn, so this study aims to explore if the machine translation system can understand them. The theory of this study lend a support from Celce-Murcia and Larsen-Freeman (1999), who clearly provided EFL teachers with many modal verbs to learn and teach. They gave examples and interesting explanations for differences among English modals in different social functions. Among these functions are making requests using (will, would, can, could), requesting for permission (may, might, can, could), giving advice (must, shall, should, ought to, could, might, had better, had best, have to, need to, not be supposed to), recognizing ability (can), potentiality (can), expressing desire (would like), giving offer (Would you like…?, shall) and expressing preference (would rather, would prefer), and formal commands (shall).

What is translation? According to Nida (1964) translation is like a subject for scientific description. It helps to transmit one text from one language to that in another language. Moreover, what Newmark (2009) said about translation is that "it is rendering the meaning of a text into another language in the way that the author intended the text" (p.5). Ren, (2013) took a point of view that translation is the method of rewriting under certain constraints and for a purpose, so to achieve that purpose, rewriting is needed during the process of translation. Sinhal and Gupta (2014) considered machine translation as a sub field of computational linguistics. It looks into the transference from one language to another assisted with certain software. These definitions have advised the researchers on all necessary philosophy for a qualified translated text.

Why has machine translation been increasingly preferred, especially in the age of the fourth Industrial Revolution? Wang, et. al. (2021) made comments on machine translation systems like this:

    Current MT systems usually provide rich functions, including translation,

    high-quality dictionaries, sentence pair examples, and so forth. Users can thus

    conveniently determine the meaning of a word or phrase and learn how to use it.

Student users often input a whole paragraph for comprehension reading and use the sentence pair examples to help in their writing. In addition to text   translation, image translation and speech translation have been widely used in real applications based on recent advances in artificial intelligence techniques.

In an attempt to find shortcomings that Google Translate may bring, Sheppard (2011) argued that Google Translate cannot find suitable meaning equivalent contexts when translating one language to another. It is in addition, inclined to provide a way of translation called "word-for-word". When language structures are more sophisticated, it starts to lose grammatical meaning in the context. What is more, it still struggles with idiomatic expressions and confidential issues.

Komeili, Hendavalan and Rahimi (2011) made an attempt to test the translation quality of three soft-wares namely Pars, Padideh, and Google. They evaluated 100 English sentences with simple, compound, complex sentences and idioms which were translated into Persian. They found all the soft-wares had problems with lexical choice (Google: E.g. paper, pencil and pen are the essential ingredients of chips), word conjugation and ambiguity (Google: E.g. fruit flies such as peach), syntactic choice (Google: E.g. Does your money isn't on gold) and level of production and transmission (Google: E.g. she warned she refuse the proposal). However, the correct sentences are like these: "Paper, pencil and pen are the essential ingredients of stationery"; "Fruit flies like peach"; "Don't waste your money on gold"; and "She has been reading the novel before we arrived". Overall, the three soft-wares were only able to produce 49, 92% quality translation and Google alone constituted 44, 5%.

To test the capacity of Google Translate, Groves & Mundt (2015) had a group of pre-university students in a UK university based in Malaysia to write their essays freely without consulting any EAP courses and email their work for Google Translation. A totality of five scripts were translated with 1,523 words in Malay and 744 words in Chinese and some Google did not translate some certain words which were then modified by professionals to give it a second attempt, but then three instances were still not translated sue to possibly limited resource in the system. Two researchers were employed to encode the translated scripts and they had up to 92 percent of agreement of error detection. They found that errors in Malay at sentence level were more than those in Chinese. Most errors were detected in sentence structures and word choice and not yet ready for Google Translate to be a professional translator and users need careful consideration.

Oke, Forsythe and Richards (2016) attempted to identify the quality of online machine translations used to translate clinical passages. The method employed 13 sentences from genuine previous linguistic validation projects which were translated into a selection of languages by online translation machine. Then, these translated projects were back-translated into English by native speakers of the target language whose quality was evaluated by the linguists. It unveiled that 66% of online translation was unacceptable, incomprehensible or not acquiring the intended meaning and 26% of that had grammatical mistakes.

Another idea triggered by Napitupulu (2017) is to lend a help of Google Translate to translate undergraduates' abstracts to see if any errors would occur. The results showed five types of errors of translation: lexicosemantic (29%), Tense (14%), Preposition (12.5%), Word Order (21%), Distribution and Use of Verb Group (12.5%) and active and Passive Voice (11%).

To have data for the study, Stapleton and Kin (2019) collected compositions of Primary 6 students: scripts translated using Google Translate (GT) and their non-GT English compositions and teacher raters' attitudes towards the scripts and use of GT as a pedagogical tool. They found learners' essays assisted with GT to be more formal and sophisticated than what Primary 6 students were expected to use in reality. However when comparing the grammar aspect, teacher raters rated GT scripts with higher scores than non-GT scripts. Vocabulary and comprehension aspects showed no much statistical difference in both scripts. Regarding teacher raters' attitudes toward the use of GT, most of them posited that GT has too many inaccuracies to let learners along judge their own learning. Especially when GT

produced ungrammatical sentences, this contributed to making learners go astray their own thinking.

Due to limited English proficiency, medical staff had difficulty in dealing with emergency department patients, which inspired Kreger, Aintablian and Diamond (2019) to investigate the use of Google Translate to help with translation. They attempted to test the accuracy of Google Translate for the written translation of commonly used emergency department discharge instructions in the most commonly spoken languages in patient population using non-medical volunteers. Google Translate translated 20 commonly used ED discharge instruction phrases which then were evaluated by a 14 native speakers of seven commonly spoken languages (Spanish, Chinese, Vietnamese, Tagalog, Korean, Armenian, and Farsi in this context. They measure fluency, adequacy, meaning, and severity and whether the statement conveyed the overall meaning. The overall accuracy of the translated statements was 78.5% but varied greatly between languages.

In order to see if the online translation systems are capable to boost L2 English cognitive processing, Resende and Way (2021) conducted a syntactic priming experiment with 32 Brazilian Portuguese speakers whose English levels were at Intermediate and advanced. It revealed that exposure to an English syntactic alternative on Google Translate can make them apply the same syntactic alternative spontaneously in later speech even if it is not the speaker's preferred syntactic alternative in English. Through observation, these influence of syntactic alternative on Google Translate remained quite long in time.

To judge the machine translation quality in second language writing, Chon, Shin and Kim (2021) compared compositions of 66 Korean English as EFL university students in three modes: Direct Writing, Self-Translated Writing, and Machine-Translated Writing. The learners' writing products were first graded by independent raters and then submitted for computerized text analyses to assess linguistic complexity and types of errors. They found that machine translation helped shorten the gap between less English proficiency and better English proficiency learners' ability to write, assisted students to use less infrequent vocabulary and conditioned students to produce more complex sentences. However, machine translation still needs enhancing its quality in contextual translations to prevent misunderstanding of translated texts with original sources.

Cancino and Panes (2021) explored if Google Translate (GT) assisted Chilean EFL high school learners in L2 writing. Learners using GT and receiving GT training and learners using only GT without receiving GT training outperformed those without using GT or receiving GT training. Learners with both GT and GT training obtained more evidence of lexical resource than those with only GT/no GT training in essay writing regarding word count in their writing task. When looking at words they looked up on GT, learners with GT/GT training had more looked-up words than their counterparts with GT/no GT training. In regard to syntactic complexity, the learners without GT or GT training were rated as the lowest compared with groups receiving GT/GT training and GT/no GT training.

In short, the machine translation system has its pros and cons although much work needs improving for the system to run better for the sake of users' interest and its available quality sources of translation of languages around the world.

METHOD
PARTICIPANTS AND INSTRUMENTS

At first, 12 experienced Vietnamese teachers of English were recruited for the survey, but then one teacher could not join the study. These teachers have taught English for over 5 years. They are ten female teachers and one male teacher. They are teaching English to English majors at Tra Vinh University. They took part in this study voluntarily. They completed their Master's degree in English Education, three in Ireland, one in Australia, one

in Singapore and the rest in Vietnam. They did teach much grammar in their own class and have experience in using Google Translate. Therefore, they fit for this study. Another group of the participants were 21 Vietnamese graduates of English who had just graduated prior to this study. They are English majors in a four-year English program in Tra Vinh University. 90% of these students participated in defending their oral thesis for part of graduation, so they are considered excellent students.

The study employed two instruments which used research resource extracted from the Grammar Book-An ESL/EFL Teacher's Course (2nd) by Celce-Murcia and Larsen Freeman (1999) for the use of social functions of modal verbs and Google Translate for translating these social functions into Vietnamese which was approved by 11 experienced English teachers and 21 English graduates. The English source focuses on making requests, giving advice, potential realization, desire, offer/invitation and preference.

PROCEDURE AND DATA PROCESSING

The researchers put all the subsection of these social functions in order and provided sources for each subsection. Each section consisted of certain modal verbs depending on the social function. Then, sentence by sentence was put in the Google Translate for their Vietnamese versions. The researchers next copied the Vietnamese translated version of each sentence into the draft for further analysis with consultation with the original English source in the Grammar book and the meaning of each social context was evaluated by the researchers. Next, the translated versions provided by Google alongside their English versions were delivered to the participants for remarks. Due to the spread of Corona Virus, the researchers could not in person gave the translated sentences alongside the English versions to the English teachers and English graduates for feedback, so all the translated texts were sent via email and the social networking Zalo. After just three days, the researchers could receive the feedback from both groups. After that, the data were analyzed for percentages of agreement and disagreement of each social function.

All the data gathered from eleven English teachers and twenty-one English graduates were put into SPSS version 22 for analysis. As labeled in the survey, Letter A is for agreement (when they agree with the translated texts by Google Translate), Letter D is for disagreement (when they disagree with the translated texts by Google Translate). At first, the researchers also run the descriptive statistics for the mean score of the teacher group from the minimum 1 (agreement) to the maximum 2 (disagreement), so the mean score of this group obtained 1.34, but it was hard to interpret. Therefore, the researchers made a decision to have the data demonstrated in percentages (%) to be fair with the two groups. It looked for the percentage of agreement and disagreement of each item of social function. Then the data were exported into word and designed for convenient reference.

RESULTS AND DISCUSSION

RESULTS
RESEARCH QUESTION 1
TABLE 1.Translation of English modals provided by Google Translate

SOCIAL FUNCTIONS	ENGLISH VERSIONS	VIETNAMESE VERSIONS
Making requests (less polite-	Will you help me with this math problem?	Bạn sẽ giúp tôi với vấn đề toán học này?

general requests)	Can you help me with this math problem?	Bạn có thể giúp tôi với vấn đề toán học này?
Making requests (more polite-general requests)	A: Would you help me with this math problem? B: Could you help me with this math problem?	A: Bạn có thể giúp tôi với vấn đề toán học này? B: Bạn có thể giúp tôi với vấn đề toán học này?
Specific requests for permission - more polite	A: May I leave the room now? B: Could I leave the room now?	A: Tôi có thể rời khỏi phòng ngay bây giờ không? B: Tôi có thể rời khỏi phòng bây giờ ?
Specific requests for permission-less polite	A: Might I leave the room now? B: Can I leave the room now?	A: Tôi có thể rời khỏi phòng ngay bây giờ? B: Tôi có thể rời khỏi phòng ngay bây giờ?
Giving advice in positive statements	A: You must see a doctor. B: You should see a doctor. C: You ought to see a doctor. D: You might see a doctor. E: You could see a doctor.	A: Bạn phải gặp bác sĩ. B: Bạn nên gặp bác sĩ. C: Bạn nên gặp bác sĩ. D: Bạn có thể gặp bác sĩ. E: Bạn có thể gặp bác sĩ.
Giving advice in negative statements	A: You had better not say things like that. B: You had best not say things like that. C: You shouldn't say things like that. D: You're not supposed to say things like that. E: You don't have to say things like that. F: You don't need to say things like that.	A: Tốt hơn hết bạn không nên nói những điều như thế. B: Tốt nhất bạn không nên nói những điều như thế. C: Bạn không nên nói những điều như thế. D: Bạn không nên nói những điều như thế. E: Bạn không cần phải nói những điều như thế. F: Bạn không cần phải nói những điều như vậy.
Potential realization	A: I can speak Indonesian. B: The car can go faster with this fuel.	A: Tôi có thể nói tiếng Indonesia. Chiếc xe có thể đi nhanh hơn với nhiên liệu này.
Desire	Sarah would like to travel around the world.	Sarah muốn đi du lịch vòng quanh thế giới.
Offer/ Invitation	A: Would you like something to drink? B: Shall we dance?	A: Bạn có muốn uống gì không? B: Chúng ta sẽ nhảy chứ?
Preference	A: Brad would rather study languages than mathematics. B: Joe would prefer to go to school instead of working.	A: Brad thích học ngôn ngữ hơn toán học. B: Joe muốn đi học thay vì đi làm.
Formal commands	A: You shall report promptly at 05.00 hours. B: You shall not wear sandals in the mess hall.	A: Bạn sẽ báo cáo nhanh chóng vào lúc 05.00 giờ. B: Bạn không được đi dép trong hành lang.

From the finding in Table 1, Google Translate could translate many of the social functions as mentioned in the Grammar book for the EFL teacher's course. As mentioned in the introduction, the subjects "You" and "I" were automatically translated into "Bạn" and "Tôi", respectively due to lack of conversation participants.

However, in regard to general and specific requests, (both less polite and more polite), offering invitation and giving formal commands, Google seems to have difficulty in transferring these to Vietnamese. "Will you help me with this math problem?" was rendered

as "Bạn sẽ giúp tôi với vấn đề toán học này? 'Will' was rendered as a future time period, not as a request. "Would you help me with this math problem?", "Can you help me with this math problem?", and "Could you help me with this math problem?" received the same Vietnamese version "Bạn có thể giúp tôi với vấn đề toán học này?" No difference was observed in level of formality and the translation is not a request. Similarly, "Tôi có thể rời khỏi phòng bây giờ?" was the translation received from the three permission requests: "Could I leave the room now?", "Can I leave the room now?" and "Might I leave the room now?" No difference in degree of formality was seen and the translation appears to be a literal question not permission.

When it comes to the invitation function with 'shall' in "Shall we dance?" the Vietnamese translation "Chúng ta sẽ nhảy chứ?" is also a literal question for confirmation to dance rather than an invitation to dance. Furthermore, Google also has a problem in translating 'shall' in a formal command as "You shall report promptly at 05.00 hours". It rendered this command as "Bạn sẽ báo cáo nhanh chóng vào lúc 05.00 giờ." In this case 'shall' is treated as a future time.

RESEARCH QUESTION 2

As the statistic information of the two groups are large, the data will be illustrated according to percentages only regarding remarks of "agree" or "disagree" instead of giving full details like minimum, maximum, etc. for analysis. The tables of both groups' data were analyzed using the SPSS soft-ware (version 22) for frequency and the main details were pasted in these tables.

TABLE 2. Eleven teachers' remarks on 28 items about social functions of English modals

SOCIAL FUNCTIONS		%	SOCIAL FUNCTIONS		%
Making requests (less polite-general requests)-will	Agree	36.4	Making requests (less polite-general requests)-can	Agree	72.7
	Disagree	63.6		Disagree	27.3
Making requests (more polite-general requests)-would	Agree	36.4	Making requests (more polite-general requests)-could	Agree	63.6
	Disagree	63.6		Disagree	36.4
Specific requests for permission -more polite-may	Agree	72.7	Specific requests for permission -more polite-could	Agree	63.6
	Disagree	27.3		Disagree	36.4
Specific requests for permission - less polite-might	Agree	63.6	Specific requests for permission - less polite-can	Agree	72.7
	Disagree	36.4		Disagree	27.3
Giving advice in positive statements-must	Agree	63.6	Giving advice in positive statements-should	Agree	90.9
	Disagree	36.4		Disagree	9.1
Giving advice in positive statements-ought to	Agree	63.6	Giving advice in positive statements-might	Agree	63.6
	Disagree	36.4		Disagree	36.4
Giving advice in positive statements-could	Agree	63.6	Giving advice in negative statements-had better	Agree	81.8
	Disagree	36.4		Disagree	18.2
Giving advice in negative statements-had best	Agree	54.5	Giving advice in negative statements-had better	Agree	81.8
	Disagree	45.5		Disagree	18.2
Giving advice in negative statements-be supposed to	Agree	81.8	Giving advice in negative statements-have to	Agree	81.8
	Disagree	18.2		Disagree	18.2
Giving advice in negative statements-need to	Agree	72.7	Potential realization-animate subject with can	Agree	90.9
	Disagree	27.3		Disagree	9.1
Potential realization-inanimate subject with can	Agree	63.6	Desire-would like	Agree	100
	Disagree	36.4		Disagree	
Offer/invitation-would you like	Agree	90.9	Offer/invitation-shall	Agree	81.8
	Disagree	9.1		Disagree	18.2
Preference-would rather	Agree	100	Preference-would prefer	Agree	72.7
	Disagree			Disagree	27.3
Formal commands-shall	Agree	36.4	Formal commands-shall not	Agree	63.6

	Disagree	63.6		Disagree	36.4

Overall: Agree: 72.8%; Disagree: 27.2%

Note. These 38 items received remarks by 11 experienced English teachers at a university.

As seen in Table 2, approximately three fourth of the translation with Google received the teachers' positive feedback, 72.8% of agreement and 27.2% of disagreement, respectively. Preference (would rather) and desire (would like) obtained the absolute agreement. Standing close to these are giving advice in positive statements with 'should' (90.9% of agreement, potential realization with an animate subject 'can' (90.9% of agreement) and offer/invitation with 'would you like' (90.9% of agreement). In contrast to this, three items underwent a negative remark: Making requests (less polite-general requests) with 'will', making requests (more polite-general requests) with 'would' and formal commands with 'shall' accounted for only 36.4%, 36.4% and 36.4% of agreement orderly. Remarkably, the many items were given 63.6% of agreement.

TABLE 3. Twenty one graduates' remarks on 28 items about social functions of English modals

SOCIAL FUNCTIONS		%	SOCIAL FUNCTIONS		%
Making requests (less polite-general requests)-will	Agree	28.6	Making requests (less polite-general requests)-can	Agree	90.5
	Disagree	71.4		Disagree	9.5
Making requests (more polite-general requests)-would	Agree	14.3	Making requests (more polite-general requests)-could	Agree	76.2
	Disagree	85.7		Disagree	23.8
Specific requests for permission -more polite-may	Agree	57.1	Specific requests for permission -more polite-could	Agree	52.4
	Disagree	42.9		Disagree	47.6
Specific requests for permission - less polite-might	Agree	61.9	Specific requests for permission - less polite-can	Agree	71.4
	Disagree	38.1		Disagree	28.6
Giving advice in positive statements-must	Agree	52.4	Giving advice in positive statements-should	Agree	90.5
	Disagree	47.6		Disagree	9.5
Giving advice in positive statements-ought to	Agree	57.1	Giving advice in positive statements-might	Agree	33.3
	Disagree	42.9		Disagree	66.7
Giving advice in positive statements-could	Agree	61.9	Giving advice in negative statements-had better	Agree	85.7
	Disagree	38.1		Disagree	14.3
Giving advice in negative statements-had best	Agree	76.2	Giving advice in negative statements-should not	Agree	85.7
	Disagree	23.8		Disagree	14.3
Giving advice in negative statements-be supposed to	Agree	52.4	Giving advice in negative statements-have to	Agree	81.0
	Disagree	47.6		Disagree	19.0
Giving advice in negative statements-need to	Agree	71.4	Potential realization-animate subject with can	Agree	95.2
	Disagree	28.6		Disagree	4.8
Potential realization-inanimate subject with can	Agree	42.9	Desire-would like	Agree	95.2
	Disagree	57.1		Disagree	4.8
Offer/invitation-would you like	Agree	90.5	Offer/invitation-shall	Agree	76.2
	Disagree	9.5		Disagree	23.8
Preference-would rather	Agree	90.5	Preference-would prefer	Agree	61.9
	Disagree	9.5		Disagree	38.1
Formal commands-shall	Agree	47.6	Formal commands-shall not	Agree	52.4
	Disagree	52.4		Disagree	47.6

Overall: Agree: 71,7%; Disagree: 28,3%

Note. These 38 items were given remarks by 21 English graduates at a university.

Table 3 demonstrates the percentages of agreement and disagreement given by 21 English graduates who provided remarks on translation with Google. The percentage of agreement reached 71.7% and disagreement, 28.3%, almost close to those given by the teachers in Table 2. Five items received below a percentage average of agreement: Making requests (less polite-general requests) with 'will' (28.6%), making requests (more polite-general requests) with 'would' (14.3%), giving advice in positive statements with 'might' (33.3%), potential realization-inanimate subject with 'can' (42.9%) and formal commands with 'shall' (47.6%). Six items obtained over 90% of agreement: Making requests (less polite-general requests)-can (90.5%), giving advice in positive statements with 'should' (90.5%), potential realization-animate subject with 'can' (95.2%), desire with 'would like' (95.2%), offer/invitation with 'would you like' (90/5%) and preference with 'would rather' (90.5%). Noticeably, the average percentages for agreement items in the range from 52% to 57.1% were quite many.

DISCUSSION

From this result analysis of the first research question, some points should be brought into discussion. First, Google Translate does not seem to store much knowledge of 'will' and 'would' for expressing a request. It appears to suggest literal questions instead of other social functions for requests. In addition, the Vietnamese versions are so limited for requests with different level of formality. The same translation was used for both less polite and more polite cases. Third, the modal verb 'shall' in "Shall we dance?" is a formula, which is fixed to form the meaning of invitation, but the Vietnamese version is just a literal question for confirmation. Then, when 'shall' is used as making a command, Google cannot pick its right meaning, but a literal question implying a future time.

It can be clearly seen that when a modal verb appears in different contexts, it has a different meaning. Then English people tend to use the past form of a modal to express degree of formality and this makes Google unable to deal with. This problem is also discussed in the studies conducted by Sheppard (2011); Komeili, Hendavalan, Rahimi (2011); Napitupulu (2017); Stapleton & Kin (2019), who found Google's inability to keep originally grammatical meaning when transferring one language to another.

A noteworthy overall remark of the second question can be seen after receiving the data of the two groups of the participants. The results of both experienced English teachers (Agree: 72.8%; Disagree: 27.2%) and English graduates (Agree: 71.7%; Disagree: 28.3%) are quite aligned, which adds strong support of the given remarks on translation texts provided by Google Translate. When delving in depth, many similarities can be observed. Both groups posited Google Translate did not give a satisfactory translation dealing with making requests (less polite-general requests) with 'will', with agreement of 36.4% given by teachers and 28.6% of agreement awarded by graduates. Making requests (less polite-general requests) with 'would' made up 36.4% (teachers) and only 14.3% (graduates). Here is the translation with Google. For the request with "will", it was translated as "Bạn sẽ giúp tôi với vấn đề toán học này?" with "would" as "Bạn có thể giúp tôi với vấn đề toán học này?" Such translation does not convey any meaning of requests. Similarly, a formal command with 'shall' in "You shall report promptly at 05.00 hours" was rendered as "Bạn sẽ báo cáo nhanh chóng vào lúc 05.00 giờ." which made up 36.4% (teachers agreement) and 47.6% (graduates' agreement). Such translation does not have the meaning of giving a formal command. Better results come from both teachers' and graduates' remarks on translation with giving advice in positive statements (should), potential realization-animate subject with (can), desire (would like), offer/invitation (would you like), and preference (would rather). In these social functions, both groups reached extremely quite uniform consent ranging from 90.5% to 100%. In such situations, only one difference was observed. While a less polite request "Can

you help me with this math problem?" rendered as "Bạn có thể giúp tôi với vấn đề toán học này?" received 90% of graduates' agreement, it only obtained 72.7% of teachers' agreement.

Moreover, a big gap can be seen when both groups remarked translation of giving advice in positive statements with 'might' (Bạn có thể gặp bác sĩ). Although the teachers showed 63.6% of agreement, most of the graduates gave this only 33.3%. It can be best explained that "might" is rarely taught in school and seen as an infrequent modal verb and in this context Google cannot pick up the right meaning, so this context received low results. For other social contexts, translation of modal verbs just received very much unsatisfactory results as can be seen in Table 2 and Table 3 - Many fell in the range from 52.4% to 63.6%.

As can be shown, when a modal verb is used as its usual meaning, Google can easily pick up its meaning. For example, the modal verb "will" was translated literally by Google "Bạn sẽ giúp tôi với vấn đề toán học này?" instead of making a request like this "Bạn sẽ giúp tôi giải bài toán này chứ?" What to explain to this problem is to think about Aiken & Balan (2011), who considered that Google can vary its translation depending on languages. For instance, European language is better translated by Google. Groves & Mundt (2015) found Google had more errors in translating Malay than in Chinese. Kreger, Aintablian & Diamond (2019) also found that Google Translate does not fully satisfy a translation script. In their findings, they found 78.5% of accuracy not far-reaching from these current findings with the overall percentage of agreement given by teachers (72.8%) and by graduates (71.7%).

CONCLUSION

The study aims to explore the Google's ability to translate English modal verbs. As can be observed, modal verbs are complex as they also have their present and past forms. Their meaning is fixed in some certain context. For instance, "Shall we dance?" is a frozen formula which means an invitation. If "Shall" is replaced by "Should", it will change its meaning, so Google should be updated with such subtlety. As evidently seen, two groups of the participants (experienced Vietnamese-speaking teachers of English and Vietnamese-speaking graduates of English) showed their agreement of the translation of modal verbs provided by Google just below three third of the whole, meaning Google needs to improve their contextual translation from Vietnamese to English and vice versa in this case with English-Vietnamese translation. Google can continue to update on storing more language of English modal verbs for Vietnamese translation in the three social functions: making requests, requesting for permission and offering an invitation in both formally and informally.

Although so, Google did produce acceptable translation of many modal verbs in different contexts. For instance, giving advice in positive statements, desire (would like) and preference (would rather/would prefer) received high agreement above 90.5%. These rosy results match with other findings from Resende, Way (2021); Chon, Shin, Kim (2021); Cancino & Panes (2021), whose participants did benefit from the use of Google Translate and training of using Google Translate to level off their English proficiency and English essay writing.

This study owes some limitations due to time restriction. At first, we tended to have the Vietnamese translated versions provided by Google translated back into English to see if Google could pick up a right modal verb for each Vietnamese statement intentionally containing a modal verb. This could be an interesting part of the study. This kind of reverse translation can be difficult as modal verbs have their present and past and their meanings change when they are put in different social situations.

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REFERENCES

Aiken, M. & Balan, S. (2011). An Analysis of Google Translate Accuracy. *Translation Journal. 16*(2). Retrieved July 16, 2021 from https://translationjournal.net/journal/56google.htm

Cancino, M. & Panes, J. (2021). The Impact of Google Translate on L2 Writing Quality Measures: Evidence from Chilean EFL High School Learners. *System, 98*, 11-11.Celce-Murcia, M. and Larsen-Freeman, D. (1999). *The Grammar Book: An ESL/EFL Teacher's Course (2nded.)*. Massachusetts: Heinle and Heinle.

Chon, T. V., Shin, D. & Kim, G. E. (2021). Comparing L2 Learners' Writing Against Parallel Machine Translated Texts: Raters' Assessment, Linguistic Complexity and Errors. *System. 96*, 1-12. https://doi.org/10.1016/j.system.2020.102408.

Groves, M. & Mundt, K. (2015). Friend or foe? Google Translate in language for academic Purposes. *English for Specific Purposes. 37,*112–121. http://dx.doi.org/10.1016/j.esp.2014.09.001.

Komeili, Z., Hendavalan, J. A. F. & Rahimi, A. (2011). An investigation of the translation problems incurred by English to-Persian machine translations: "Padideh, Pars, and Google Softwares. *Procedia - Social and Behavioral Sciences. 28,*1079 – 1082. https://doi:10.1016/j.sbspro.2011.11.195.

Kreger V., Aintablian H. & Diamond L. (2019). Google Translate as a Tool for Emergency Department Discharge Instructions? Not so Fast!. *Research Forum Abstracts. 74*(4s), 1-2.

Napitupulu, S. (2017). Analyzing Indonesian- English Abstracts Translation in View of Translation Errors by Google Translate. *International Journal of English Language and Linguistics Research. 5*(2),15-23.

Newmark, P. (2009). *A Textbook of Translation.* Shanghai Foreign Language Education Press.

Nida, E. A. (1964). *In Toward a Science of Translating with Special Reference to Principles and Procedures Involved in Bible Translating*. Brill Archive.

Oke L, Forsythe C. & Richards A. (2016). "Why Can't I Just Use Google Translate?" A Study on the Effectiveness of Online Translation Tools in Translation of Coas. *Value In Health. 19,* A347 – A766.

Ren, S. (2013). Translation as Rewriting. *International Journal of Humanities and Social Science. 3*(18), 55-59.

Resende, N. & Way, A. (2021). Can Google Translate Rewire Your L2 English Processing. *Digital. 1*, 66–85. https://doi.org/10.3390/ digital1010006.

Sheppard, F. (2011). Medical Writing in English: The Problem with Google Translate. *Presse Med. 40*, 565–566. https://doi: 10.1016/j.lpm.2011.02.024

Sinhal, R. A., & Gupta, K. O. (2014). Machine Translation Approaches and Design Aspects. *IOSR Journal of Computer Engineering. 16*(1), 22–25. https://doi.org/10.9790/0661-16122225.

Stapleton, P. & Kin, B. L. K. (2019). Assessing the Accuracy and Teachers' Impressions of Google Translate: A Study of Primary L2 Writers in Hong Kong. *English for Specific Purposes. 56*, 18–34.

Wang, H., Wu, H., He, Z. Huang, L. & Church, K. W. (2021). Progress in Machine Translation. *Journal Pre-proofs.* 1-20. http://doi.org/10.1016/j.eng.2021.03.023.