

# Improving Technology and EFL : The Double-Edged Sword of Translation Software

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## ABSTRACT

This study's objective was to examine the way that translation software is used by Japanese university students in an EFL setting. Results indicate that students make frequent use of translation software, and even though a majority of those surveyed feel it is cheating to do so, they often use it to write large portions of their English essays. A large percentage of those surveyed also felt that learning to use translation software correctly was more important than learning English themselves. The paper concludes with a call for more quantitative research into the use of translation software, and its effect second language acquisition.

## INTRODUCTION

In the last 50 years, there have been tremendous advances in technology that language teachers have been quick to adopt. From the phonograph to compact discs, and from movies to video, teachers have always found ways to incorporate the technology as it became available. Then, in the mid-1980's, came the development of the personal computer. Naturally, it wasn't long before educators began to recognize the special place it could take in the classroom. Teachers and students of English as a foreign language (EFL) have particularly benefited as increased access to computers and the World Wide Web have allowed for an opportunity to ignore the four walls of the traditional classroom, and open up real-time windows into the world.

Almost twenty years later, computer aided language learning (CALL) programs have become an integral part of many university foreign language curricula. With a computer, a wide range of material and activities can be seamlessly combined with linguistic practice (Dlaska, 2002). The benefits that computer technology have

provided are unquestionable.

There are times, however, where advances in technology can have a negative impact on learning. One such example of this is the recent proliferation translation software (TS), which is capable of making an instantaneous mechanical translation (MT) of a block of text. In other words, the ability to take text from one language, and reproduce it in an understandable form in another, a skill that had required years of study, can now be simply accomplished by anyone with access to a computer and the internet. This is a technological advance that has not gone unnoticed by computer savvy students, who were quick to adapt. A walk through any computer-equipped EFL classroom will most assuredly find one or two, if not more computers displaying translation software windows.

While there are hundreds of commercial software packages offering mechanical translation, there also sites that provide this service for free on the internet. A popular search engine in Japan, Excite, has a link to its translation services as one of its main search options :



(See Appendix I for examples)

These translations are usually far from perfect, but they are often good enough to allow the reader to understand the original content. Amikai, the company whose software performs the translations for Excite, states on their website that their translations are intended to allow for immediate comprehension, and are not of publishable quality. Unfortunately, it is this comprehensibility without perfection which can allow students to use TS to produce L2 text that can then be handed in as "original" work, and then graded as such by their teachers. EFL instructors recognize the difficulties students face when writing in a foreign language, and thus expect student essays to contain a variety of errors. Pennycook (1996) noted that, as far as teachers are concerned, a text that seems too perfect might seem suspicious, while one showing a variety of grammatical errors is often considered to be a sample of good writing. This creates a paradox in which "the worse an essay is linguistically, the

better mark it is perceived to merit" (Hutton, 1990). In looking at a specific example of MT text that contained inaccuracies while remaining coherent, Cribb (2000) expressed the belief that an EFL student most likely would have received praise for producing such a text.

While TS software can serve a useful function, most would agree that it should not be used by students to fulfill the requirements of their foreign language class. Yet students seem to be doing just that. Over the last two years, this EFL instructor has noticed a growing tendency among Japanese university students to use TS by default, preferring to depend on it even for even basic writing tasks. Not surprisingly, the ease of use coupled with the non-native feel of mechanically translated text has allowed students to let the technology work for them without fear of repercussions from their instructors. This paper examines how TS is being used by these students and their attitudes about its use.

## METHOD

### **Purpose**

The purpose of this study was to examine the role mechanical translation plays in students' writings: to see how they use it, how they treat the mechanically translated text, and to find out if they think about ethical issues when using TS.

### **Participants**

Participants were second, third, and fourth year university students enrolled in an elective course called Computers and English Education. They were all English majors with abilities ranging from high beginning to advanced.

### **Instrument**

At the conclusion of a fifteen-week semester, students were given a fifteen item survey asking them their attitudes and habits regarding the use of translation software (Appendix 2).

### **Analysis**

Student responses are represented in the following tables. Data was tabulated and

evaluated using the JMP statistical software for Macintosh computers.

## RESULTS AND DISCUSSION

Out of 85 students surveyed, 82, or slightly more than 96%, claimed to have some experience with translation software (Table 1). Access to free mechanical translation websites can be easily accomplished, even to relatively inexperienced internet users. Taking into account the simplicity with which TS sites can be accessed, it is not surprising that so many of the responders to this survey have experience with it. More than half of the responses put their usage in the upper half of the usage spectrum while 38.82% of the students said they had just a little experience using translation software. A scant 3.53% said they had no experience with it.

Considering the ease with which students can now translate texts from both English to Japanese and Japanese to English, not to mention into and out of a host of other languages, it is gratifying to see that a clear majority of students recognize that the easy way isn't always the best way, with 58.33% of them saying that a main reason for not using translation software was that they felt they would not be able to improve their English (Table 2). A lack of knowledge about the software was the reason 20.83% of the students said they didn't use it. Small percentages of those

Table 1 Which of the following describes your experience with translation software?

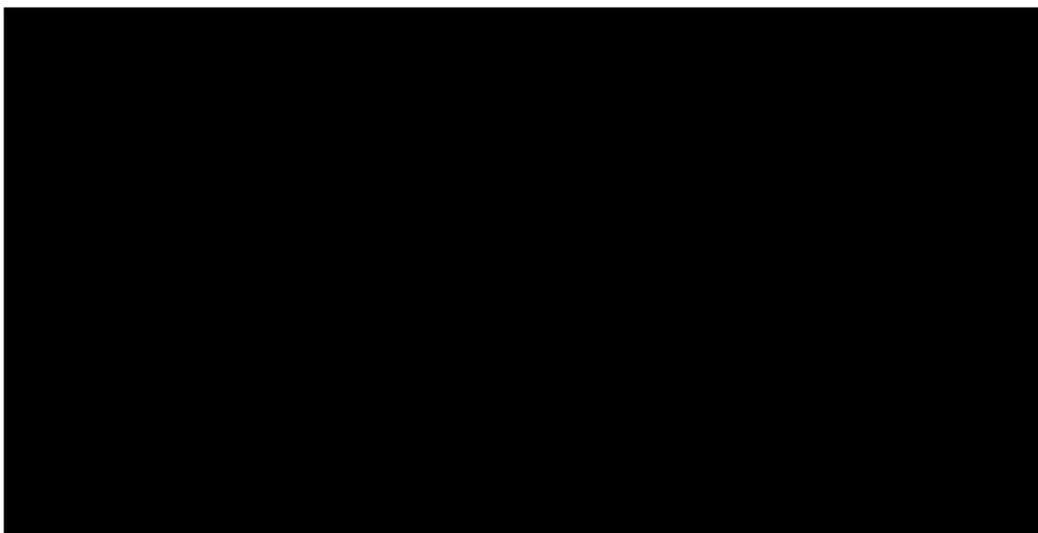
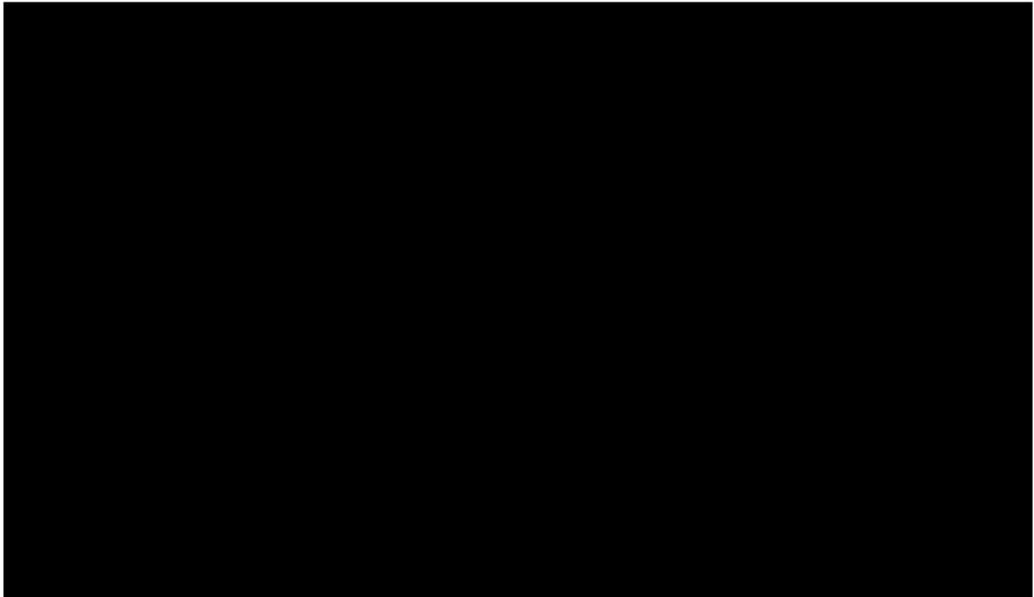


Table 2 If you did not use translation software, what is the main reason for not using it?



surveyed felt it was cheating (8.33%) or were told not to use it by their teachers (12.50%).

English is by far the most published language on the internet, so even when using a non-English search engine, unless the user sets a preference not to do so, many searches, no matter the topic, have the potential to return English pages. In an EFL environment, it can be expected that students are being purposely directed to English websites. Therefore, it is not surprising that when asked how they use TS the most, 54.22% reported that they make most frequent use of translation software when reading English web pages (Table 3). No matter the reason they have visited the site, a mechanical translation, while often not perfect, can still provide them with the gist of the page in their native language in much less time than it would take most students to acquire the same information when trying to read it in English for themselves. Perhaps the reason such a small percentage of students (7.23%) use TS to primarily translate Japanese web pages into English is because students are rarely directed to Japanese web pages during their EFL classes.

More than a third of the students (36.14%) said that their most common usage of translation software was to translate their own Japanese sentences and paragraphs into English (Table 3). While this number can be slightly discouraging to the

Table 3 If you have used translation software, how have you used it the most?

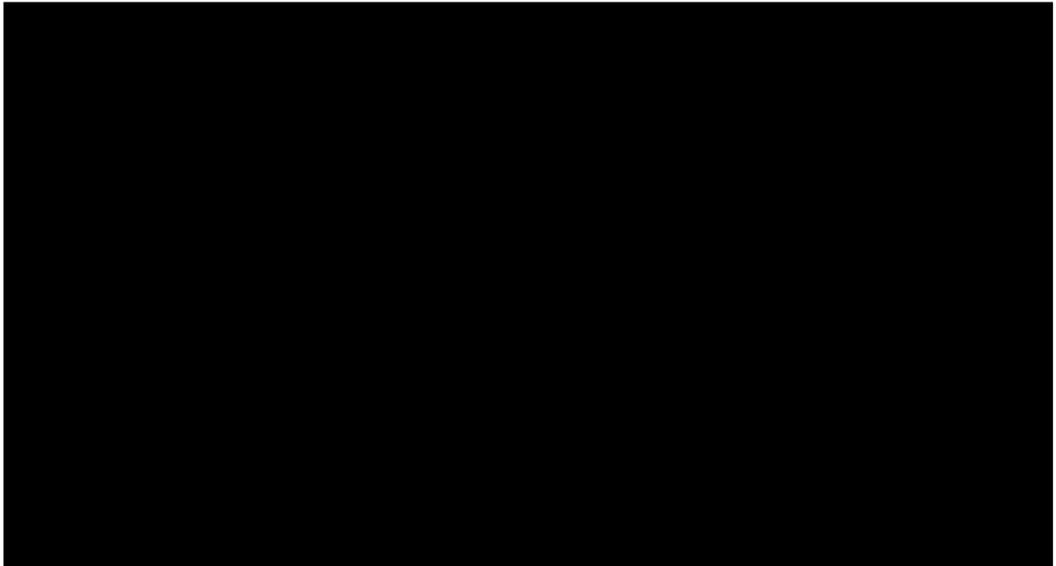
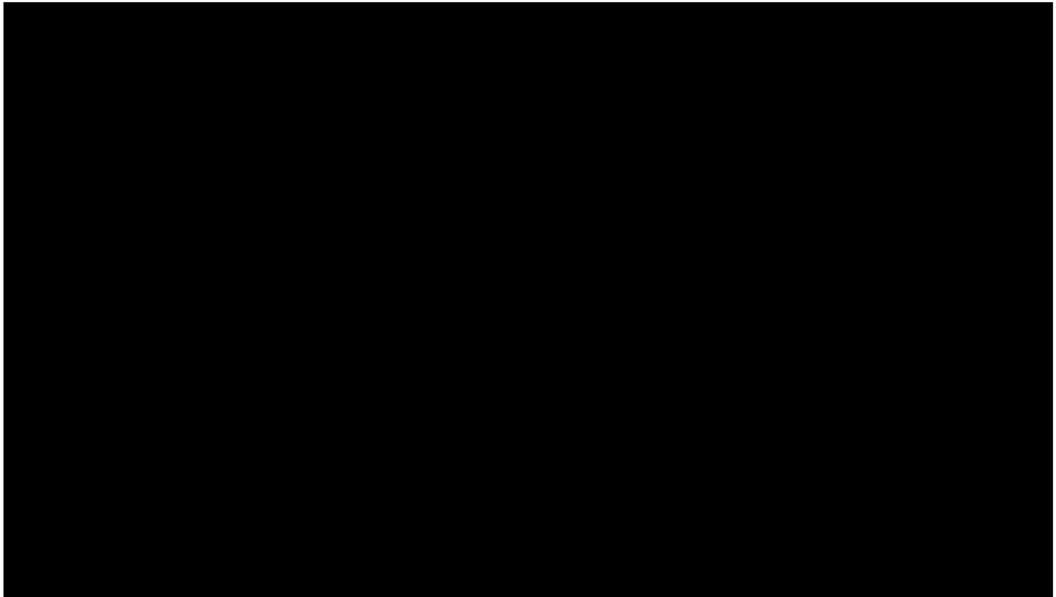


Table 4 If you have used translation software to write a paper, how much of the paper did you translate with the software?

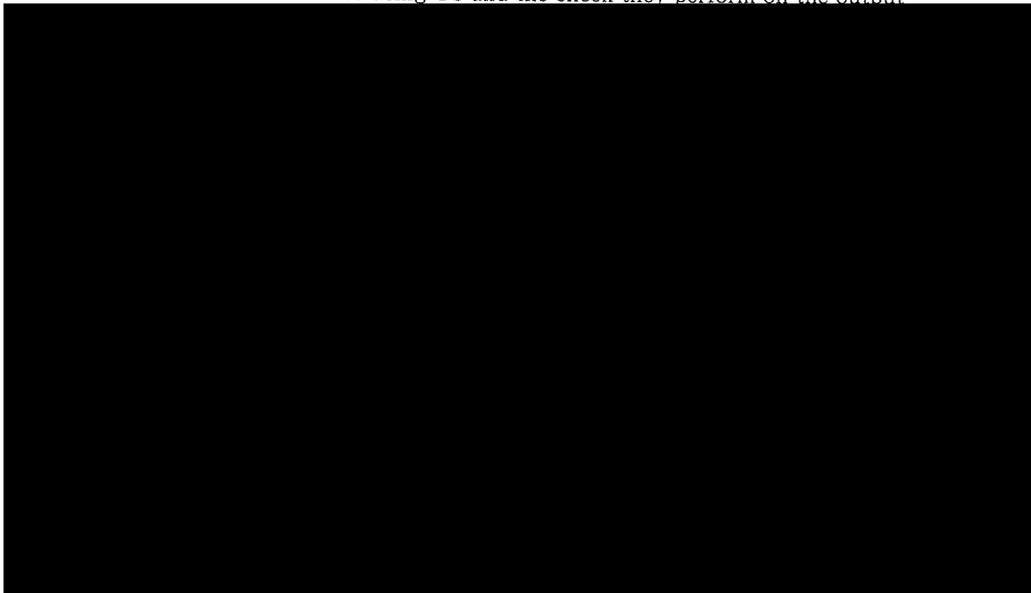


English writing instructor, when compared to answer option C, one can take heart that, for the most part, it appears that the students are translating their own words instead of just copying and pasting mechanically translated material from Japanese web pages or other electronic sources.

Looking at the responses to the question about how much they use TS when writing a paper (Table 4), it is apparent that translation software has become a common tool used by these university students. Slightly more than 80% of the students claim to have used the software to help them write significant portions of their papers. While the largest proportion of students (50.59%) say they have used the software to write somewhere between a quarter to half of the paper, 30.59% say they have used the software to translate more than half of a paper.

Why are the students using translation software? When it comes to using translation software to write a large part of an essay, the main reasons were time and quality (Table 5). The highest percentage of students, 33.33%, cited busyness and the time they would save as the main reason for using translation software. In other words, for these students, the translation software seemed to provide a useful shortcut to completing an assignment. A similar percentage of students, 32.14%, felt that the mechanical translation would produce a better English product than they could do themselves. For these students, the focus seemed to be on the product, and they wanted to turn in as good an essay as possible. Roughly 16% of the students just felt it was easier to use the translation software than to do it themselves. It must be remembered that all of the students surveyed are English majors, yet 82.14% opted to

Table 5 Reasons for using TS and the check they perform on the output

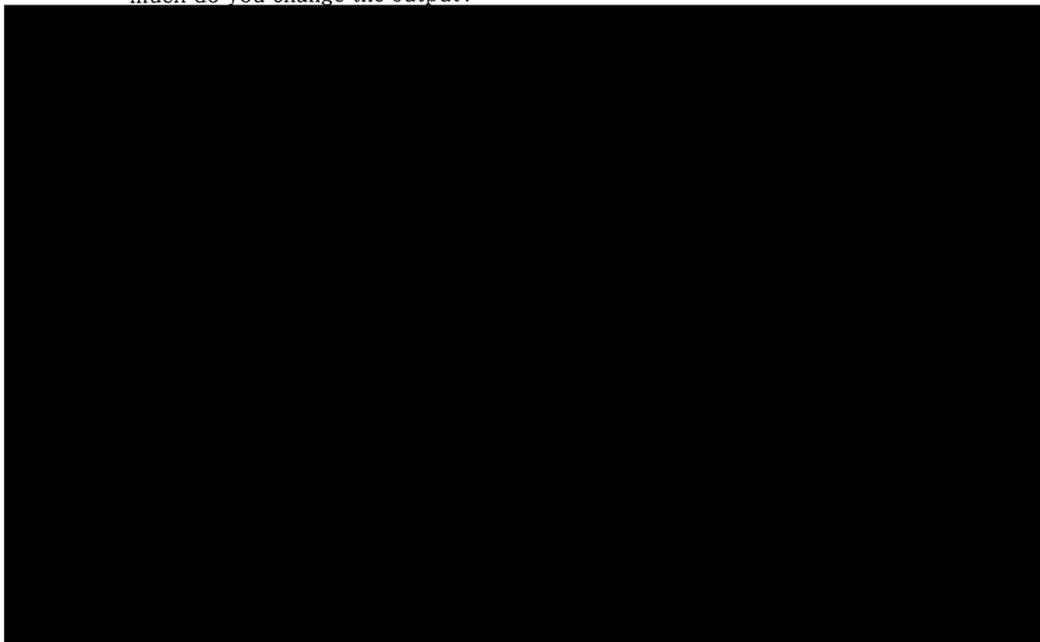


use TS for a large portion of their papers.

Saving time was a main reason for using translation software, and that would account for the fact that 71.43% of the students who chose that option also said they only perform a minor check the output (Table 5). Of the students who said that their main reason for using translation software was that they thought that the translated version would be better than whatever they would be able to write on their own, 88.89% seem to do very little checking of the mechanically translated output. This is not a surprising result because, if the students are already predisposed to think that anything the computer comes up with is, by default, of higher quality than the students' own ability would allow, then it's no wonder that they would not want to spend so much time in checking over the output.

When looking at the 23 students who say that they do check the output very carefully, we find that only 3 felt that the computer could do a better job than they could (Table 5). As the rest, who appear confident that they could produce something better than the mechanical translation, are still using the software, one must wonder if perhaps they are checking very carefully because they recognize its limitations.

Table 6 When using mechanical translation to translate something into English/Japanese, how much do you change the output?



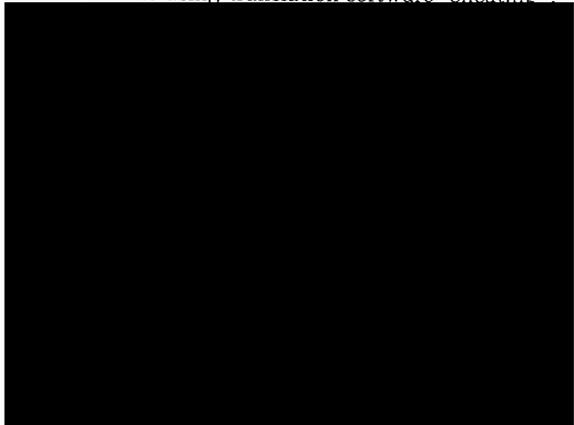
When it comes to dealing with mechanically translated text, it seems these students are fairly consistent with making changes (Table 6), be it an English translation or a Japanese one, 49.39% make few to no changes in the text when it has been translated into English versus 50.60% who make few to no changes in the text when it has been translated into Japanese. Eleven students, or 13.25%, say they make more changes in an English text than they do in a Japanese text while only 10 students, or 12.05%, say they make more changes in a Japanese text than they do in an English one.

When it comes to the use of translation software, the issue of whether or not it is a form of cheating must be addressed (Table 7). Students are expected to make use of available tools such as dictionaries and spell checks as they try to make their essays and papers as good as possible. Of course from a teacher's point of view, using a dictionary, either traditional or online, to translate a single word, is expected and even encouraged, while the use of a mechanical translation service to translate entire sentences or even longer blocks of text which are then, in turn, handed in to the teacher for evaluation and feedback is something else entirely. But do the students recognize that there might be something unethical about using such a tool in a class where an improvement in English ability is the main goal of instruction? In an effort to ascertain their level of awareness about this issue, they were asked the following questions:

- 1) If translation software is used to write parts of a paper, is that "cheating"?
- 2) If translation software is used to write an entire paper, is that "cheating"?

As Table 7 illustrates, there seems to be a gray area in what some students actually consider "cheating" in regards to using mechanical translation. Fifty people, or 58.14% of all the students surveyed thought that using translation software to write an entire

Table 7 Is using translation software "cheating"?



paper was cheating, yet among them, 27, or 54% felt that it was not cheating to use translation software to write parts of a paper. Of course, the term “parts of a paper” is subjective, and lends itself to a potentially different interpretation from student to student. There is quite a difference between using mechanical translation to translate a word or phrase, and using it to write a quarter or more of a paper. Yet, referring back to Table 4, it should be remembered that more than 80% of the students claimed to have used translation software to write 26% or more of their papers. Are they comfortable that the amount of text translated is only a small part of the whole, and thus not cheating, or do they themselves feel as though they are doing something that is academically dishonest? Of course, teachers must also ask themselves just how much use of mechanical translation is acceptable.

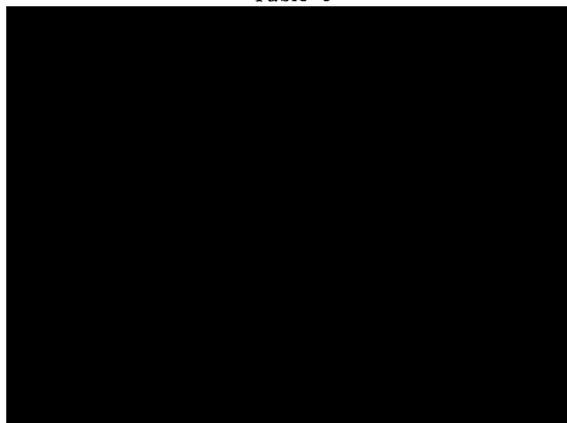
When answering a question about how they used mechanical translation the most, 36.14% of the students said it was to translate their Japanese sentences and paragraphs to English when writing their papers (see Table 3). But how many of the students are actually writing in Japanese? Table 8 compares the responses to two questions:

- 1) When you write an essay, do you write it first in Japanese?
- 2) If you use translation software to translate a Japanese essay that you wrote into English, do you feel that is the same as writing the essay in English yourself?

In most EFL writing classrooms today, writing is viewed as a process that begins with the generation of ideas, which are then organized and developed into longer pieces of writing. As rhetorical patterns and organizational techniques differ from language to language, students are not encouraged to initially write out an essay in their L1, in this case Japanese, and then simply translate it into the L2, yet that seems to be precisely what a significant percentage (59.52%) of these students do.

Overall, the majority of students (63.10%) felt that a mechanically translated Japanese essay is

Table 8



not the same as an essay that they themselves write in English, but more than a third (36.90%) disagreed. It should be noted, however, that among the students who disagreed, the vast proportion was of students who write their first drafts in Japanese as compared to those who don't (74.19% vs. 25.81%).

When assigned to write an essay in a foreign language, it is understandable for the student to think that it is the final product which is important. After all, it is the final version which the teacher tends to evaluate, not all of the steps that lead to the development of it. Often the students fail to realize that while the final product is important, the teacher is hoping that the students will grow as language learners through the process of developing the final product.

As all of the students surveyed are English majors, it was expected that so many of them would feel that English will be very important in their futures (Table 9). They were required to study English during junior high and high school, and once they reached university, they made a commitment to major in English throughout their four-year university career. Not only should they be motivated to learn, but they should have realized that mastering English, or any foreign language, is a long and arduous process. So, when viewed with the results in Table 5, it seems surprising that so many students would opt for shortcuts, which in the end, only limit their own opportunities for learning.

Table 9 In your opinion, how important do you think English will be in your future?

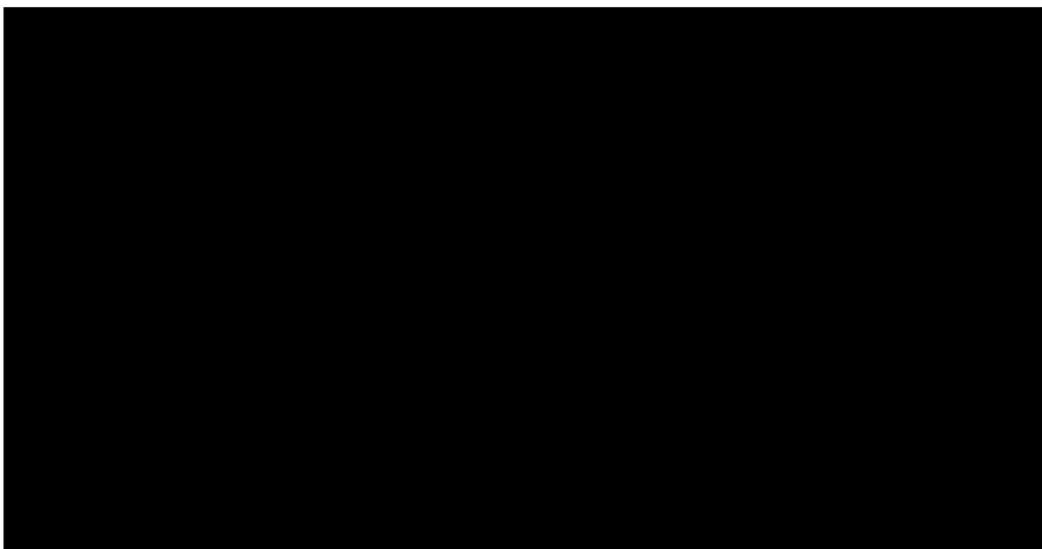
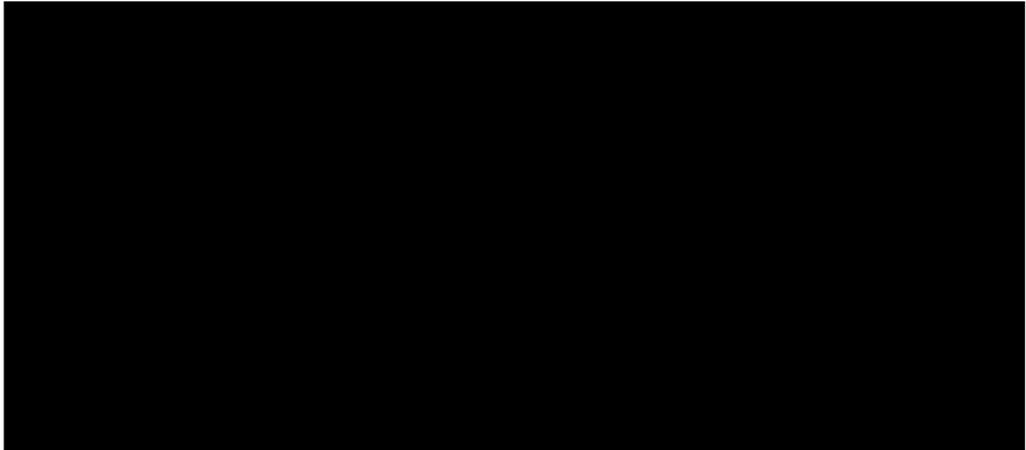


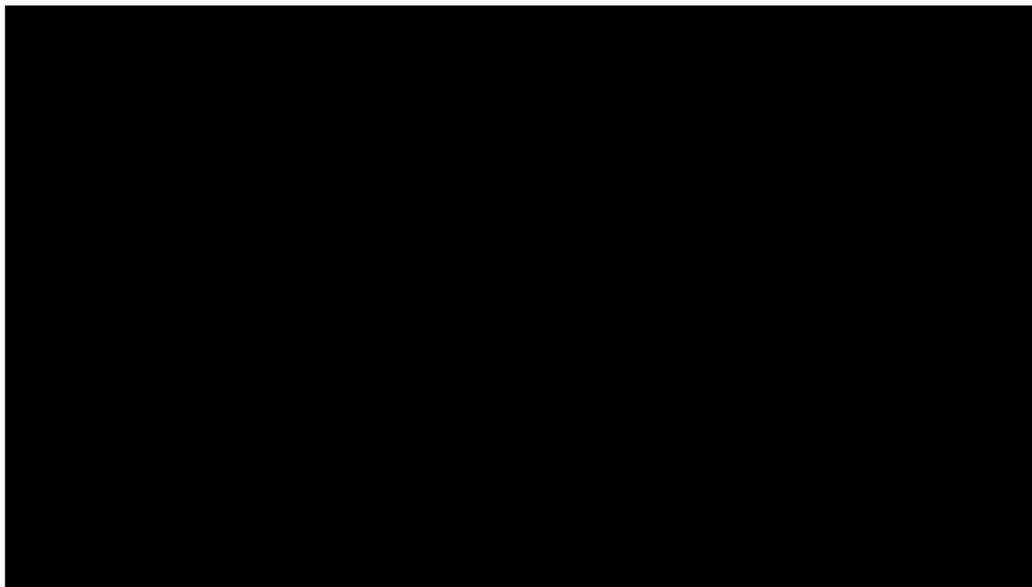
Table 10 How much do you think computer technology can help your study of English?



More than 95% of the students surveyed felt that computer technology can help in their study of English, with 58.82% feeling that it helps a lot (Table 10). When looking at these numbers though, it should be kept in mind that all of the students in this survey were taking at least one class that involved computer aided instruction, so they all had experience with various computer-based language learning activities. Throughout the semester, they had been exposed to a variety of lessons involving a computer that utilized both sound and video, as well as interactive web-based activities that could provide students with instant feedback on their progress. Students were also given the freedom and encouragement to use the World Wide Web to search out their own websites which they felt would be useful to their studies of English.

As the technology of mechanical translation continues to improve, it becomes easy to envision a time when there would no longer be a practical necessity to learning a foreign language. Anyone, no matter their linguistic background would be able to translate something from one language to another, and be fairly confident in the result. For the students surveyed here, when asked if they agreed with the statement that learning to use translation software correctly was more important than learning English for themselves, their responses, as indicated in Table 11, seem to indicate a fairly even difference of opinion. Only 4.82% of the students thought both options were equally important. Surprisingly, 48.19% of them agreed with the statement compared to 46.99% who disagreed. Obviously, mechanical translation is a powerful

Table 11 I think it is more important for me to learn how to use translation software correctly than it is for me to learn English for myself



tool, yet, as with all tools, in addition to learning how, one must realize the proper time and place for its use. It's unfortunate that so many of these English majors see mechanical translation as something magical, that can supersede their need and/or desire to learn English as a foreign language.

## CONCLUSIONS

### Summary and Discussion of Research Findings

The findings of this research seem to indicate that students are very aware of TS (Table 1), and use it primarily for reading English web pages and translating Japanese to English when given a writing task (Table 3). While a majority of the students surveyed here did feel the use of TS constituted cheating (Table 7), that did not seem to prevent them from taking advantage of it (Table 4).

To the EFL instructor, the results presented here might be viewed with concern. Translation software is here to stay, and as time passes, it will only get better. While students motivated to learn will recognize the detriment a reliance on TS will be to their learning the foreign language, others will see TS as the reason they no longer have to study the foreign language.

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In the current climate, with so many students handing in papers that have been, in large part, written through the use of mechanical translation (Table 4), it seems apparent that some limitations should be set. Enforcing those limitations could prove difficult to accomplish though, as identifying instances of its use might not be as easy as it seems. In an unpublished research project presented at the 2002 Kyoto JALT Annual Conference, this researcher, along with J. Goddard, found that native English speaking instructors, when given four different translations of the same descriptive paragraph, were least likely to identify the one which had been translated mechanically, choosing instead, translations that had been done by students as having been produced mechanically. However, native Japanese speakers, both students and teachers, had little trouble in identifying the mechanically translated text.

Teachers will have to decide for themselves how they want to address this new advance in technology that appears to be a very sharp double-edged sword. Should use of translation software be taught, its limitations explored, or should its use be forbidden, an option that might prove difficult to implement? Going one step further, should university academic integrity guidelines be expanded to include rules about the use of TS? Either way, EFL professionals should take a close look at TS because they can be almost sure that their students have.

### **Limitations of Study**

Some tables seem to show conflicting data. This could be due to the structure and language of the survey instrument, or to the way the students read the questions, thinking about their overall usage of the software at times, and possible specific instances of use or non-use at others.

### **Implications for Further Study**

This study relied on predominately on broad qualitative distinctions and involved only a limited number of subjects. In addition to surveying a wider range of students, more quantitative research needs to be done into the ways TS is being used by EFL students as well as the effects of such use. Does the use of TS actually hinder acquisition, as can be assumed, or is it possible that it helps?

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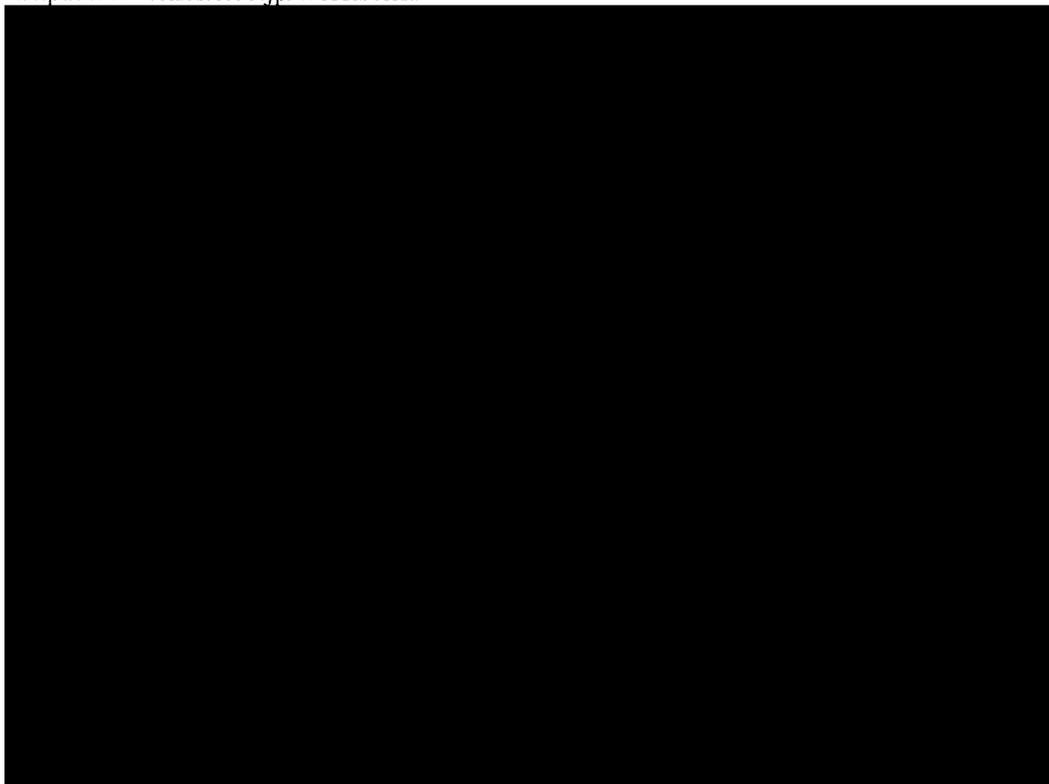
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APPENDIX 1

Screen shots of two of Excite's TS services

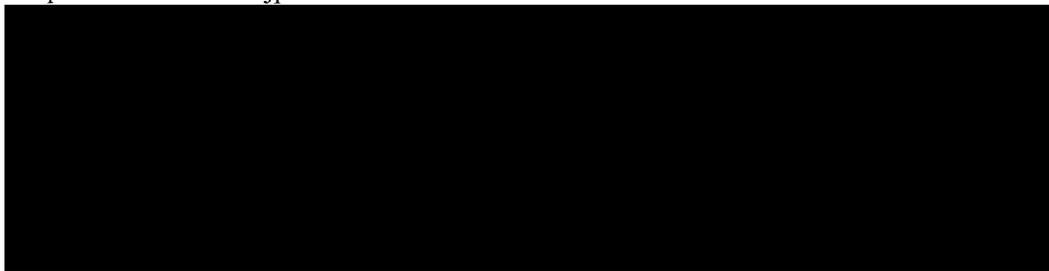
Text Translation

<http://www.excite.co.jp/world/text/>



Web Page Translation

<http://www.excite.co.jp/world/url/>



APPENDIX 2

The Survey Instrument

1. Which of the following describes your experience with translation software?
  - a) no experience at all
  - b) a little experience
  - c) some experience
  - d) a lot of experience
2. If you do not use translation software, what is the main reason for not using it?
  - a) I think it is cheating
  - b) I can't improve my English if I use the software
  - c) I don't know about it
  - d) I don't know how to use it.
  - e) My teacher told me not to use it.
3. If you have used translation software, how have you used it the most?
  - a) translating English words to Japanese when reading English web pages
  - b) translating my Japanese sentences and paragraphs to English when writing my papers
  - c) translating Japanese web pages to English when writing my papers.
  - d) translating e-mail messages
4. If you have used translation software to write a paper, how much of the paper did you translate with the software? (If you wrote the entire paper in Japanese, then used software to translate it, that would be 100%)
  - a) 0 % to 25%
  - b) 26% to 50%
  - c) 51% to 75%
  - d) 76% to 100%
5. If you have used translation software to write a paper in English, how much do you usually check the English before handing the paper in?
  - a) No check at all
  - b) Check a little
  - c) Check very carefully
6. If translation software is used to write an entire paper, is that "cheating?"
  - a) yes
  - b) no
7. If translation software is used to translate parts of a paper, is that "cheating?"
  - a) yes
  - b) no
8. When you write an essay, do you write it first in Japanese?
  - a) yes
  - b) no

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9. If you use translation software to translate a Japanese essay that you wrote into English, do you feel that is the same as writing the essay in English yourself?
  - a) yes
  - b) no
10. If you have used translation software to write a large part of a paper, what was your main reason?
  - a) I thought the translated version would be better than mine.
  - b) I was very busy and did not have the time to write it in English myself.
  - c) I was not so busy, but it was easier than writing it myself.
  - d) I did not use the software.
11. In your opinion, how important do you think English will be in your future?
  - a) Not important at all
  - b) A little important
  - c) Very important
12. How much do you think computer technology can help your study of English?
  - a) doesn't help
  - b) helps a little
  - c) helps a lot
13. I think it is more important to learn how to use translation software correctly than it is for me to learn English for myself.
  - a) strongly disagree
  - b) slightly disagree
  - c) slightly agree
  - d) strongly agree
  - e) they are equally important
14. When using translation software to translate something into English, how much do you change the output?
  - a) no change at all
  - b) a few changes
  - c) some changes
  - d) many changes
15. When using translation software to translate something into Japanese, how much do you change the output?
  - a) no change at all
  - b) a few changes
  - c) some changes
  - d) many changes