

Cognitive Skills in Translating: Creating a web-based learning activity¹

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Pedagogical Background

Regardless of the approach on which their instruction has been based, once learners reach a certain level of proficiency in a foreign language, they become increasingly aware of the value of translation as a skill, a tool, and an art. They also understand that it is one of many ways for themselves and others to gauge their ability to move across linguistic and cultural frontiers and appreciate that it is a powerful catalyst for reflection on the nature of language systems. So, despite the virtually total eclipse of grammar-translation as the foundation of foreign language learning, translation has justifiably remained an integral part of many intermediate and advanced level courses. It is also the substance of courses aimed specifically at training bilingual speakers to become professional translators and interpreters. The conduct of a translation class, however, provides both teacher and learner with numerous challenges.

Students need to be given adequate opportunity to produce translations which will be evaluated by experts. The practice is an inescapable part of the process of becoming a proficient translator. Frequent encounters with points at which the two language systems diverge allow students to recognise them quickly and to develop reflex strategies for dealing with them. They also hone the complex and at times laborious skills associated with bilingual and monolingual dictionary use.

Learners also need feedback. Typically, at university, a translation assignment is handed out to students one week, submitted the next, and returned in the third week. The delay between the time at which students are engaging in the act of translation and when they receive feedback on the success or otherwise of their efforts is problematic. A week or two after the event, students are not always inclined or able to spend time re-analysing the different pathways through a linguistic maze, delving into the complex interrelation of words and ideas within and across sentences, or focusing again on the subtle nuances that distinguish between the many solutions that present themselves for a given problem. If the translation passage is part of an assessment program, the single most important piece of feedback is usually the mark. Students have done the work, the mark is the reward, and all the reflection in the world is not going to alter that. They just want to get on with the next assessable task.

For the teacher, there are other dilemmas. Firstly, no two student translations are the same. Each represents a unique combination of skills, strategies, and inadequacies. Each script, therefore, requires a different set of feedback, and it would be possible to spend a great deal of time in fruitful discussion with every student, one-to-one. This is a task which very few teachers have either the opportunity or inclination to perform, and luxury which very few institutions could afford. To convert the content of such discussion to written explanations would require considerably more time again. The problem increases in proportion to the number of translations students are given to help them

master the art, and is exacerbated by the fact that even if written comments were tailored to each student's work, a great many of them would remain unread or undigested. And a lesson in which the teacher attempts to address the needs of every student may meet those of none.

There is also a need for objectivity in weighing up alternatives in translation. To discuss a passage that students have not made a serious attempt to translate can be a very worthwhile task, but there is no guarantee that they will be able to apply the fruits of the collective intellectual labour in performing subsequent translation tasks. However, to discuss a passage that students have made a serious attempt to translate generates a completely different set of problems, mainly of an affective nature. If a corrected translation is handed back to students along with a fair copy, they generally have little difficulty in accepting a situation in which their version, while different, has been deemed equivalent and acceptable by 'higher authority' in the form of the teacher. It is a different matter, however, in cases where the student translation is signalled as deficient in some respect, particularly when the problem flagged is one of idiom, style, or register, rather than grammar, syntax, or spelling. Any teacher who has taught a translation class will probably be familiar with the ease with which what begins as a reasoned discussion can, unchecked, flare up into a heated and irrational bun fight once students begin to defend their efforts concerning the model of a fair copy, and especially about the efforts of their fellow students. Positions tend to be defended even more strongly when the direction of the translation is into the student's mother tongue. Any hint of correction can easily be taken as a slur on first- language proficiency, and the degree of offence taken tends to be proportional to the sense of ownership, which in turn is usually a function of the effort invested in the task. It is very difficult, in the time frame typically associated with translation exercises, to establish the personal and temporal distance necessary for objective analysis. The principle of affective blindness can apply equally to teachers and students.

This paper presents and analyses a web-based activity, 'Translator Choice', whose development represents an attempt to use information technology as a means of fostering the cognitive skills required by foreign-language students in their mastery of translation. It will look in turn at the 'surface structure' of the activity as encountered by the student, the teacher rationale, the database on which an activity is constructed, and the returns for the effort and expertise invested by the teacher.

Surface Structure

There are two activities, 'Select the Most Accurate Translation' (or 'Select One') (see Fig. 1 for basic work screen), and 'Rank the Translations' (see Fig. 2 for basic work screen). Each activity can be done in practice or test mode. The alternative translations are displayed in random order each time the screen is presented. On completion of each activity, students are awarded a score based on the degree to which their choice or ranking of translations corresponded with the teacher-preferred classification.



Fig. 1 Basic work screen for 'Select One' activity

The mechanics of the student's interaction with the material is summarised in the instructions for the activity.

'Select One' Instructions:

In this activity, you are presented with a segment of the passage followed by a set of suggested translations.

The translations vary in their accuracy.

Click on the translation you consider to be the most accurate. To change your selection, click on a different translation.

Once you are satisfied with your choice, click 'Lock In My Answer' to register your answer.

Once you have locked in your answer, you may wish to use the 'Show Feedback' button to explore the merits of the various translations.

Click 'Next Segment' to move to the next segment of the translation.

The 'View your translation so far' link allows you to see the current segment in the context of the whole passage at any stage of the activity. It also displays the text of the translation constructed through your choices to that point.

By way of example, the following is the feedback available to a student considering the merits of the fourth-ranked translation:

According to some witnesses, the murderer, a young man, healthy, fair-haired, and built like a surfer, for the segment:

Selon des témoins, le tueur, un jeune homme blond portant la tenue d'un surfeur, in the passage 'Tuerie en Tasmanie'.

Table 1.
Feedback

some witnesses:	'selon des témoins' means 'according to witnesses'. Although it is possible for the French indefinite article 'des' to mean 'some' in English, to use 'some' here is overtranslation. It may be misleading, suggesting that other witnesses' opinions differed. If the French had intended to emphasise 'some' in this context (i.e. to indicate a quantity), the word 'quelques' or 'certains' would have been used: 'selon quelques témoins', 'selon certains témoins'.
murderer:	'killer' is a more appropriate term in this context. Killings tend to be random, but murder tends to pre-suppose a specific victim.
healthy:	This is added information. The original doesn't indicate whether he is healthy or not. The probable source of this error is careless dictionary use. 'portant' here is used as the present participle of the verb 'porter' (to wear) – i.e. he was wearing surfer clothes. There is, however, a dictionary entry under 'portant' which includes the information: être bien/mal portant – to be healthy or in good health/in poor health.
built like a surfer:	The meaning of 'la tenue' here is 'clothing', and 'portant la tenue d'un surfeur' means 'wearing surfer's clothes' or 'dressed like a surfer'.



Fig. 2 Basic work screen for 'Rank the Translations' activity

Rank the Translations Instructions:

In the 'Rank the Translations: Practice' activity you are presented with a segment of the passage followed by a set of suggested translations.

The translations vary in their accuracy.

Each of the translations is accompanied by a set of buttons.

Click on the buttons to grade the translations (1 = most accurate; highest number = least accurate)

All suggested translations must be given a ranking.

No two translations can be assigned the same ranking.

You may change your preferences at any time by clicking on another button in the same row.

Once you are satisfied with your choices, you may click "Lock In My Answer" to register your answers and either compare them with the Recommended Ranking or move directly to the Next Segment.

The 'View Full Passage' button allows you to see the current segment in the context of the whole passage at any stage of the activity.

Teacher rationale

The 'Translator Choice' activity is not intended as a substitute for traditional translation exercises, but as a complement to them. It provides a new dimension by enabling learners to encounter and evaluate a range of translations of the same original text. In doing so it takes them beyond the frequently restricted and restrictive world of the apprentice translator, which is typically bounded by the keyboard (or pen and paper), reference material (grammars; dictionaries; comparable documents in the source and target language, web-based or printed), and the student's intellectual resources. One of the criteria in selecting the variants displayed on the screen is that at some stage they have been produced by a genuine translator or would-be translator. And since the variants will seldom if ever have been generated by the students doing the activity, they are in a position to consider the various alternatives dispassionately, with no vested interest or personal pride to protect. In the case of practice activities, they have the choice of working either individually or in small groups, where the final choice can be the result of discussion and negotiation with fellow students.

The results of a preliminary on-paper trial of the exercise in the class were of particular interest. The students, who had been given the passage as a translation exercise (part of a larger assignment) the previous year, were a subset of the group from whose written translations the 5 variants had been compiled. When their assignments had been handed back the previous year, accompanied by a fair copy, their reactions had been entirely consistent with that of other generations of students. The assertive or confident or desperate among them had used the corrections indicated on the returned assignments as a platform for launching a public justification of their choices, either in the hope of forcing some concession from the teacher that would result in an upward adjustment of their grade, or as a means sending some signal to their fellow students about the injustice of objective assessment (i.e. exact percentage scores, and any judgement of 'right and wrong') being applied to what they were, at least for the sake of that particular debate, choosing to represent as an art. (In that atmosphere the teacher sensed that the students would not have been entirely receptive to the observation that some findings claim that machine translation systems achieve, on average, about 65% as well as expert human translators (ANDERSON, D. 1995:68)) And the less assertive, regardless of the strength of their convictions or the amount of effort they had put into the task, had accepted the rulings of the authority figure, or at least chosen not to voice any disagreement with them.

For the class activity, students were divided into groups of 3 and given several consecutive segments of the passage, each accompanied by 5 alternative translations in random order. Students were asked to discuss the alternatives and rank them by accuracy. Virtually without exception, their agreed rankings corresponded with those of the teacher. And the fact that none of the students identified personally with any of the variants they were evaluating meant that all justification of choices and deference or concession to the opinions of fellow students was based on linguistic rather than affective premises.

By removing the pencil, paper, and reference book components, the web-based activity allows the student to focus exclusively on meaning and expression. And it is infinitely less awkward to administer than its on-paper predecessor. To reach a decision requires students to weigh each variant up against the original text and each of the alternatives, and to look at both the detail of the individual semantic units and the structure and style of the segment as a whole. Students are encouraged to consult dictionaries and other reference materials in the process. At the cognitive level, it is in many respects a more demanding task than the production of a single translation, since implied in the process is the need for students to have formed their clear idea of the meaning of the original. They must then proceed to weigh it up against the set of alternatives, some of which will be more accurate and complete expressions of that meaning than their version, some less. And given that students are aware that they have only to recognise, rather than produce, an exemplary translation, they sense that their chances of scoring well are higher. The relationship between the activity and the conventional translation is similar to that between listening comprehension and speaking, or reading comprehension and writing.

In the 'Select One' practice activity students have access to a comprehensive bank of feedback for each translation variant. Workload constraints have previously prevented the author from ever even considering this luxury for his students in 30 years of teaching.

In addition to providing students with a different angle from which to view translation, the computer-managed activities allow the teacher to be confident that students are devoting a certain amount of time to the task without the need for personal supervision or presence in a single classroom. This, in turn, allows the teacher to focus on other matters during formal class hours.

Data Input

The creation of activity is essentially an extension of a conventional class translation exercise.

In addition to selecting a passage appropriate to the academic level and professional orientation of the students, and grading their performances in that assignment, the teacher has to take the following steps:

- Divide the passage into a set of discrete sense units (segments). Segment boundaries tend to fall naturally at sentence boundaries, as sentences normally represent the expression of an independent unit of thought. In the case of complex sentences, there are usually natural cleavage points at which it is possible to split the discourse, thus preventing students from having to reflect on and compare unwieldy chunks of text on the screen.
- Using the full range of student translations generated from the class exercise, compile a set of 5 translations of each segment of varying degrees of accuracy and as fully representative as possible of the range problems and solutions associated with conveying the meaning of the original text in the target language.
- For each alternative translation, compile feedback to explain each point at which it fails to accurately represent the meaning of the original.

A sample compilation of feedback for a single segment is provided in [Appendix 1](#). In this sample, the segment is coded G (it is the 6th segment of the passage), the 5 alternative translations, in order of accuracy, are coded G1-5, and feedback for each translation is coded using lower-case letters (e.g. G4a-d). Once prepared in this form, the data can easily be pasted into the template, and further modified if required (e.g. as a result of input from site users).

Investments and Returns

As data entry fields have been designed to accept and display both standard keyboard input and paste-in graphics, activities can be created for languages from the full spectrum of writing systems. And because the exercises generated are of a receptive and cognitive nature, there is no requirement for students to type in any data. This facet of the design eliminated any need for programmers to create open-ended, unpredictable, and costly routines for checking infinitely variable data input by students.

Concerning delivery (i.e. the electronic equivalent of preparing the worksheets handed out to students in the preliminary on-paper version), the computer does all the work, including randomising the display of choices and grading responses. As with any activity, IT-based or not, this exercise can only have the full desired influence on students' learning if it is thoroughly and formally integrated into a course structure and assessment procedures.

Generation of the material is unquestionably painstaking, and the investment of effort and expertise on the part of the teacher in constructing the range of alternative translations and in preparing the feedback would simply not be justifiable for a single class. However, once it exists in electronic form, the activity becomes part of a bank of exercises that can be used by groups of students in other institutions nationally or internationally. Any exercise can be designated as either practice or test and can be given an 'active' or 'archived' classification. By giving a teaching resource the capacity to transcend geographical and temporal boundaries, the web platform brings into play an economy of scale factor previously precluded from the individual teacher's equation for materials preparation. One exercise, if carefully constructed, can serve many classes in many institutions over many years. The web base also changes the balance of factors in the teacher-student equation, as it allows the intellectual resources and the time and energy spent in preparation by many teachers to be made available to small groups of students or even to individual learners. The potential scope and longevity of any activity, however, creates a commensurate responsibility on the part of those who manage it to ensure a high level of quality control.

Concluding Remarks

The 'Translator Choice' site is not a panacea. It is, like the Transit-TIGER advanced technical translation materials developed by D. Thompson at the University of Hull, aid in the training of students in translation that enlists the support of computers to manage processes and present information in ways not possible with traditional media in

traditional classrooms. It can be used to enrich instruction, free up class time, and administer assessable work in a specified time frame.

The activities it generates allow students to achieve objectivity in their appraisal of translation alternatives, and to receive as much or as little feedback on the nature and sources of inaccuracy in those alternatives as they want or require. It is a tool for assembling and preserving resources and expertise in virtually any language, and for disseminating them to a scattered public and over many years. The reservoir of resources requires some management but little in the way of maintenance or ongoing commitment of funds. But like any such resource, it is only as rich as the academic content around which it is built.

Note

1. Paper Presented at Horwood Language Centre, University of Melbourne, 3 December 2002 Intended Audience: K-12 teachers interested in using computers, language teachers

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Appendix

Appendix 1: Sample of segment data organised for entry into Web authoring template.

- | | |
|-----|--|
| G | Nous tapions dessus à coups de bâtons, nous la poursuivions avec des pierres. |
| G1 | We would beat it with sticks and pelt it with stones. |
| G2 | We'd hit it with sticks and went after it with rocks. |
| G2a | we'd: This contracted form of 'we would' is too informal and conversational in the context (author narrating, not character speaking). Moreover, followed as it is in this translation by 'and went after it', 'we'd' could be considered ambiguous, as the same contraction can be used for 'we had'. |
| G2b | went after it: The French uses the imperfect for both verbs ('tapions', 'poursuivions'), and this indicates that both actions were routinely performed by the children. In this translation two different forms are used, the first 'we'd hit' represents the action as a past repeated one, the second 'we went' suggests that the second action may have been a one-off event. Suggested translation: 'and (we would) go after it' |
| G3 | We would beat her with sticks and we'd chase her with stones. |
| G3a | her: There is nothing to suggest that the animal was female. French grammar conventions require the form 'la' to be used in 'nous la poursuivions' because the word 'bête' is grammatically feminine. This does not necessarily imply that the word refers to a female: 'un lion', 'un tigre', and 'un chien' would all be described as 'une bête', so would 'une chèvre' and 'une vache'. Suggested translation: 'beat it with sticks' |
| G3b | we'd chase: This contracted form of 'we would' is too informal and conversational in the context (author narrating, not character speaking). Repetition of the auxiliary verb 'would' here places unnecessary emphasis on the repeated nature of the action. Even if this emphasis were justified stylistically, it would be very unusual to use two different forms ('we would' and 'we'd'). Suggested translation: 'We would beat... and chase...' |

- G4 We would strike it with blows from sticks, and aim for it with stones.
- G4a strike: This synonym for ‘hit’ or ‘beat’ has a slightly literary or technical connotation in the context, whereas the word ‘taper’ is relatively informal.
- G4b strike it with blows: This translation introduces a tautology (= ‘needless repetition of an idea, especially in other words in the immediate context’) for which there is no basis in the original.
- G4c sticks,: The comma is used after ‘bâtons’ in the original to separate the two ideas ‘nous tapions’ and ‘nous poursuivions’, thus presenting them as a list. This stylistic technique does not work well in English in this context, and this has been recognised by the use of ‘and’ to separate the ideas in the translation. However, as the word ‘and’ replaces the comma of the original, the comma in the translation after ‘sticks’ is redundant.
- G4d aim for it: Mistranslation. The word ‘poursuivre’ means ‘to pursue’, ‘to chase (after)’. The normal French equivalent of ‘aim (for)’ is ‘viser’.
- G5 We were beating it with sticks, we continued with rocks.
- G5a were beating: The imperfect tense (‘nous tapions’) can convey two basic meanings in English: a past continuous action (=‘we were (in the process of) beating’), or a past repeated action (=‘we used to beat, we would beat’). In this context it clearly refer to a repeated action, i.e. something the children did regularly. Suggested translation: ‘we would beat’
- G5b sticks,: The comma is used after ‘bâtons’ in the original to separate the two ideas ‘nous tapions’ and ‘nous poursuivions’, thus presenting them as a list. This stylistic technique does not work well in English in this context. It is standard practice to use the word ‘and’ instead of a comma.
- G5c we continued: (i) Mistranslation. The word ‘poursuivre’ can mean ‘to continue’ (e.g. poursuivre ses études = to continue one's studies). The principal meaning of the word, however, is ‘to pursue, to chase, to hunt down’, and this is clearly the meaning in this context. The children are hunting an animal. (ii) The ‘la’ of ‘nous la poursuivions’ has been omitted from the translation. (iii) The French uses the imperfect for both verbs (‘tapions’, ‘poursuivions’), and this indicates that both actions were routinely performed by the children. The form ‘we continued’ suggests that the second action may have been a one-off event. Suggested translation: ‘and we would go after it’