Experimental training in the application of translation strategies: an empirical study

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Overview
This study (funded by Universitat Rovira i Virgili, Tarragona, Spain) was carried out to observe, measure and analyze the effects of a specifically designed prototype training programme in the application of translation strategies to solve translation problems. First, existing literature on translation strategies was studied, three types of translation problems were chosen and a theoretically optimal methodology was designed in order to teach strategies to solve those problems. Then, a pilot study was conducted with two groups (experimental and control) of undergraduate translation students. The subjects in the experimental group were trained in the selected strategies, whereas the control group did not receive this specific training. Finally, data analysis and interpretation were carried out, and conclusions were drawn in order to optimize preparation of a second study and decide on our future approach to this particular area of research.

1. Aims
To observe, measure and analyze the effects of the experimental pre-service training in the application of translation strategies («action research»).

2. Hypotheses
H1: Explicit (and substantial) training in the application of translation strategies can actually be carried out to the satisfaction of all participants involved.
H2: Said training significantly enhances the frequency and/or effectiveness of application of target strategies.
H3: This enhanced application of strategies leads to a significant increase in the quality of a translation, as regards:
— functional and discoursal adequacy of the TT,
— and/or adaptation in TT to TL and cultural norms,
— and/or ST-TT correspondence in style and register,
— and/or ST-TT content correspondence.

3. Design

Subjects
Two naturally occurring (i.e. not created or modified in any way for the purposes of this study) groups of 12 students simultaneously taking the compulsory (3rd year) course «Specialized Translation» (60 contact hours) in the faculty of Human Sciences, Translation and Documention at the Universitat de Vic (Spain).

Corpus
— Anthology of texts to be translated as coursework (identical for both groups).
— Pre- and post-test, translation of the same text (by both groups): the ST was selected due to offering several (14) problematic segments for which the target strategies could potentially produce optimal solutions (see «Stages» below).

Experimental and control group
(See «Subjects» above) One group followed the experimental training and the other teacher was asked to follow her normal practice for the course.

Stages
1. Preparatory theoretical research:
— State of the art in strategies and strategy training in related fields.
— Study of existing definitions of the concept «translation strategy».
— Specification of our own operational definition of said concept: «the steps, selected from a consciously known range of potential procedures, taken to solve a translation problem which has been consciously detected and resulting in a consciously applied solution.» This does not exclude the possibility that the application of such strategies may become automatic with practice, but it does exclude from the category: (a) solutions found without considering a range of potential solutions, and (b) solutions found without any conscious reasoning at all, i.e. «intuitively».
— Study of existing taxonomies of translation strategies.
— Selection of 3 types of target strategy:
— for overcoming a lack of direct lexical correspondence at word level,
— for overcoming a lack of direct lexical correspondence above word level,
— for overcoming problems in coherence or cohesion.
— Specification of a theoretically optimal methodology for training in the application of translation strategies.
— Design of the experimental course (processes and materials).

2. Teaching the experimental course.

Data-gathering
For Hypothesis 1:
— Oral and written course evaluation from the students in the experimental group.
— Teacher’s class diaries: *a priori* aims of each session and observation of the resulting session in practice.

For Hypothesis 2:
— Written protocols where students recorded, for each translation done throughout the experimental period:
   — problematic ST segments encountered,
   — strategy applied in each case,
   — resulting TT segment.
— Tally of effective solutions to problematic segments in the translation pre- and post-test (done by both groups before and after the experimental period) (see «Corpus» above).

For Hypothesis 3:
— Pre- and post-tests to control the variables: «reading competence in the source language» and «writing competence in the target language».
— Assessment, by external markers (using previously validated scales), of the aspects listed under «Hypothesis 3» (above) in the translation pre- and post-test (for each student in both groups).

Data-processing
Hypothesis 1:
— Extraction, after the experimental period, of significant data from teacher’s class diary.
— Quantification of positive and negative comments found in course evaluation from students in the experimental group.

Hypothesis 2:
— T-test to measure the degree of significance in the difference between the number of translation problems solved effectively (in both groups) in the translation pre- and post-test.

Hypothesis 3:
— Pearson test to measure correlation between external markers (minimum 0.8 required).
— T-test to measure the degree of significance in the difference in scores between translation pre- and post-test.
Experimental tasks
Learning tasks corresponding to the experimental training (see «Resulting publications» below).

Experimental environment
Natural within the (previously existing) context (see «Subjects» above).

4. Results
— Clear validation of Hypothesis 1 according to both sets of data.
  Data from the diary show an initial phase of uncertainty until what turned out to be the main difficulty for the learners was overcome, i.e. distinguishing clearly between problem, strategy and solution: clearing up this particular confusion required a month of training and the positive change in the students’ attitude began when this was achieved. The most conclusive data are: on the one hand, at the end of the experimental training, 83% declared themselves completely in favour of specific training in the application of strategies and solutions, 17% were partially against it but none of them totally against. Comments taken from students’ course evaluation, listed in order of frequency: «useful to discuss translation with client», «gives self-confidence when making changes in a text», «positive for professional future», «helps one to reflect on the translation process», «too theoretical», «difficult to grasp at the beginning». Concerning the teacher, the best proof as to her view on the new teaching methodology is that, after ending the study, she still spontaneously integrates this type of training in her subsequent habitual teaching.

— Clear validation of Hypothesis 2, particularly for type 1 strategies (see «Stages» above), and clearly superior to the control group (see below).
  On the one hand, the increase in the frequency of effective solution of problematic segments in the pre- and post- test is very significant (T-test = 0.005). On the other hand, if we also consider what happened during the training according to the written protocols, the percentage of effectively applied strategies and solutions starts at 60%, fluctuates at the beginning of the training period, but it then rises steadily to 80% at the end. Also at the end, data from the class diaries show that some students were applying strategies and solutions without any explicit elicitation, which shows that they were already being «acquired» (Kiraly, 1995). An interesting by-product is that during the experimental training the teacher discovered that certain strategies and solutions can be applied more often and better in given types of text. This can explain, at least partially, the fact that the most significant increase in the effective application of strategies and solutions was in those of Type 1. This poses a question for future research: is it possible to associate certain strategies to certain types of text?

— Clear validation of Hypothesis 3 in the experimental group.
  The increase in the overall quality of translation was clearly significant (T-test = 0.01). This increase can only have resulted from the experimental training, since
there was no significant increase in reading competence in the SL or in writing skills in the TL. The improvement is also significant in specific aspects of overall translation quality, such as the clarity of expression in the TT and the intertextual correspondence in style and register. The specific aspect in which there was least improvement is that of content correspondence: this particular feature depends almost exclusively on reading competence in the SL, which did not increase significantly, as has just been mentioned. These data thus suggest that a greater and/or more effective application of strategies contributes to an increase in the students’ translation competence, and particularly to the properties of the TT.

Data were gathered from the control group to be contrasted with experimental group data regarding the second and third hypotheses. Concerning the second hypothesis, the increase in the effective solution of problematic segments in the translation pre- and post-test was also significant in the control group, though much less so than in the experimental group (T-test = 0.04). This increase may have been caused by both or either of two factors: (a) the non-experimental teaching in fact included some elements of implicit or explicit training in the application of strategies as a part of the teacher’s habitual practice, or (b) the significant increase in writing skills in the TL that was observed in this group produces some similar effects to those of a more effective application of strategies. The latter possibility is especially interesting. As far as the third hypothesis is concerned, the results are not conclusive: it can neither be stated that there was a significant increase in overall quality of translation, nor that such an increase did not take place.

Particularly interesting possible directions which have emerged for future research are: a) qualitative aspects of the application of strategies and resulting solutions, b) a taxonomy of problems, strategies and solutions, c) studies to explore whether certain translation strategies are acquired before others, or d) to discern to what extent learning or teaching styles, or even translating style, influence the acquisition of translation strategies. Directly related to this pilot study, a study of a larger population with a greater control of variables should throw more light on the results shown here.

**Resulting publications**


Forthcoming: «Teaching translation strategies to undergraduate scientific translation students», focusing exclusively on explaining and analyzing the teaching prototype designed for the experiment (unlike the former publication, whose main aim was to report on the experiment and its results).