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Strategies and resources in the teaching of IT applied to translation

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Abstract
The teaching of IAT (IT applied to translation) entails specific difficulties related to technical and infrastructural aspects, to students' varying levels of prior knowledge and to the eminently practical nature of the subject. The means of addressing these problems include certain strategies and resources used over the course of recent academic years, and other strategies that are currently being established in order to facilitate the meaningful learning of content, the distributed teaching of skills and the stimulation of positive attitudes towards the use of new technologies.

1. Introduction

The aim of the subject IT applied to translation is for students to familiarise themselves with information technologies, to use computers and their resources as means of support in the various tasks undertaken in the translation process, and to assess their potential and suitability in each situation.

In the teaching of IAT, we therefore recognise objectives of the cognitive variety, which are related to the development of intellectual capabilities geared to stimulating not only memory capacity but also the ability to interpret new content and relate it to its antecedents and to cope with different situations or new problems. Additionally, we recognise procedural objectives, which focus on students developing skills that, on the basis of imitation, make it possible for them to attain stages of control and automation of the processes that the use of a computer and IT resources and programs entails. Lastly, we should not overlook the stimulation of positive attitudes towards new technologies, encompassing both acknowledgement of their important role in the work of professional translators and the development of attitudes of observation, perseverance and patience (Figure 1).

2. Strategies for teaching IAT

Students' characteristics, the time assigned to the subject and factors related to the institutional context and infrastructure must be taken into account when formulating strategies geared to fulfilling learning objectives.

Not all students begin with the same level of prior knowledge, for which reason some are at a disadvantage as regards their capabilities for assimilating new knowledge taught in attendance-based classes. Attitudes as regards technology also vary considerably from one student to the next. A negative attitude towards technology may become even more so when teaching is

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concentrated in a few hours of classes that progress at a fast pace or where the knowledge provided is highly detailed, to a degree for which students are not prepared due to a lack of sufficient prior experience. It is necessary to create opportunities, to allow students to work at their own pace and for them to become "hooked" little by little, on the basis of their needs. In this respect, it is interesting to recall the adopter typology established by Rogers (Rogers, 1995), which identifies five groups, based on chronology in terms of the adoption of technological innovations: innovators, early adopters, the early majority, the late majority and laggards. Each of these groups presents a different profile as regards attitudes towards new technologies. It is my belief that these profiles can also be applied to students and are well worth bearing in mind when formulating strategies and designing resources for teaching IT applied to translation.

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                        │   objectives    │
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│   Cognitive   │      │   Procedural  │        │   Attitude-related │
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        ▼                      ▼                          ▼
  Intellectual              Skills                    Attitudes
   capacities

   ♦ Memory             ♦ Imitation            ♦ Contact with
   ♦ Interpretation     ♦ Control                the
   ♦ Problem            ♦ Automation             professional
                                                 situation
                                              ♦ Observation.
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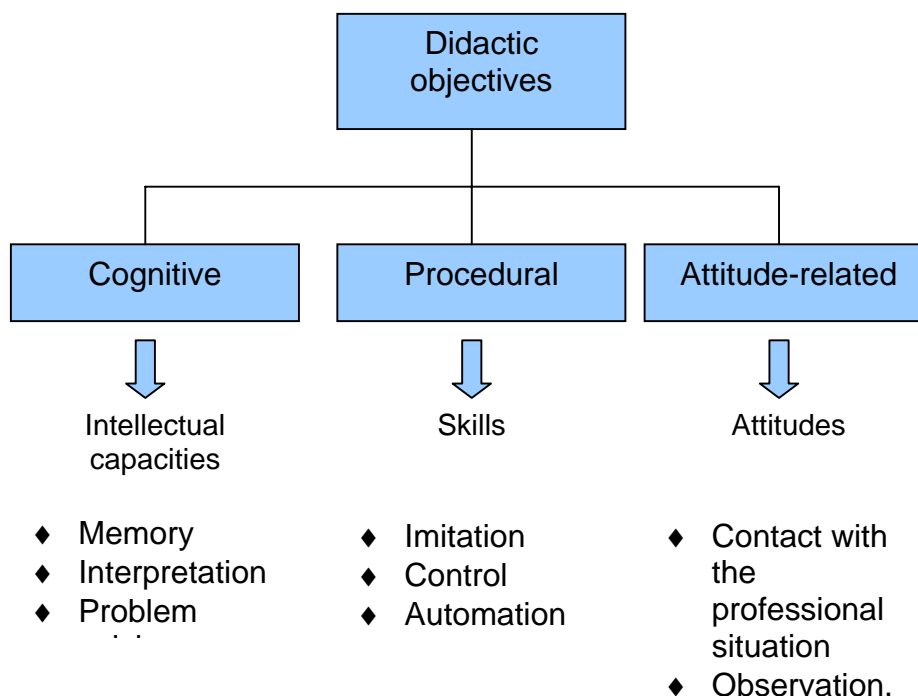
Figure 1. The objectives of IAT

The subject's eminently practical nature makes it necessary to spend many hours working with computers in order to develop skills. Classroom and translation-laboratory sessions provide an opportunity for explaining how the IT programs that help translators to perform their work properly function, as well as for practising using them. However, due to the time restrictions to which they are subject, such sessions are insufficient to reach the stages of control and automation.[1] Furthermore, students can easily forget the skills and knowledge learned while studying the subject if they do not continue using them once they have successfully completed the course. Considering the huge amount of practice involved in performing practical exercises in attendance-based classroom sessions, which are restricted to the time designated for a subject within a study plan, it is necessary to develop complementary distributed-practice strategies, i.e. strategies that extend interaction and the use of technology beyond scheduled classes or the time for which students are registered on a course.[2]

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[1] See Guilbert (1994) and De Juan Herrero (1996) for information on the acquisition of skills.
[2] The importance of distributed practice has been shown by functionalist and cognitive psychologists (Good and Brophy, 1996:132).

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The use of technological resources is sometimes limited by the infrastructure and opportunities that an institution is able to offer its lecturers and students (availability of laboratories, qualified staff to support the lecturer and maintain resources, IT programs), as well as by the infrastructure available to students in their homes or wherever they may be. In theory, the greater the degree of infrastructure available (existence of laboratories, extensive hours of availability thereof, support staff therein, etc.), the more likely it is that students will access it. In practice, however, an unequal level of use of infrastructure and resources has been noted. The existence of infrastructure is a necessary condition, but is not sufficient to promote the use of technology. For example, some students have no hesitation in going to a laboratory and using the internet for the purpose of documentation, while others only use the resources available in a library. The level of use of email also varies significantly from one student to the next, as the motivation for using it depends on whether or not those with whom they wish to communicate also use this medium. It is therefore necessary to establish incentives to use the resources available, to create new resources that students would be unlikely to access on their own initiative, and to demonstrate the advantages of the application of the resources in question to the profession of translation.

These specific prior determinants of the teaching of IAT lead us to the need to implement strategies that are, likewise, specific and which increase the likelihood of students fulfilling the objectives of the subject. The frequency with which new technologies are used has a positive effect on the results obtained from them. However, if students do not feel sufficiently motivated to use new technologies, or if they hold negative attitudes towards them, they will not use them continuously, and, consequently, will not achieve good results. This can increase the negativity of their attitudes (we have all heard one student or another say "I don't like computers", "I can never understand computers" and "I'm not cut out for IT"). Students despair to an even greater degree when they compare themselves to classmates who are more adept in this respect, and this contributes to reinforcing their belief that they do not have the intelligence required to master a computer. This situation can be represented in the form of a vicious circle (Figure 2).
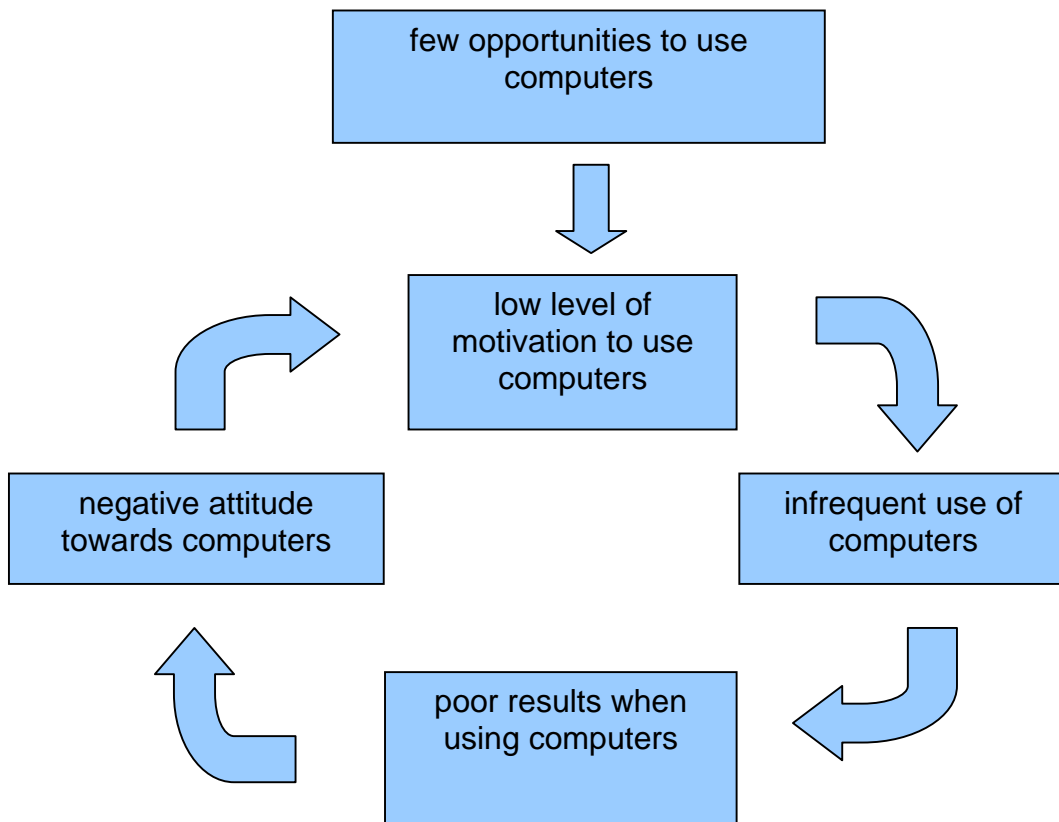
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Figure 2. Negative vicious circle

Students have to be made to understand that the difference between themselves and their peers lies in the amount of time that each of them has spent using computers, and they should be provided with resources that motivate them to spend a greater amount of time working with technology. It will thus be possible for students who find themselves trapped in the aforementioned negative vicious circle to break free from it (Figure 3).

For all the above reasons, one of the areas of my work as a lecturer of IAT at the Universitat Jaume I has consisted of increasing the number of strategies geared to more frequent use of technology among students. For this purpose, new resources have been implemented and made available to students, taking into account the way in which these resources can offer added value so that students feel motivated to use them, while not making it compulsory for them to do so in any case.

3.   Resource creation and design

Implementing new resources and making them available to students gives the latter a reason to begin to use computers and their tools more actively and continuously, outside of scheduled classes. The role of the lecturer consists of designing and preparing resources and placing them at students' disposal, monitoring the way in which such resources work and promoting their use.

Firstly, these resources must, necessarily, be flexible; in other words, it has to be possible to use them at any time and from any computer, whether at a university, at home, or anywhere with access to the internet. As the use of such resources is not compulsory for students, they must offer added value in order to motivate students to use them. Additionally, when selecting resources, consideration should be given to whether they will provide one or several of the

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following benefits:

- Students should be able to control the rate of acquisition of knowledge and skills for themselves, in such a way that fosters meaningful learning of content rather than obliging students to simply memorise content due to insufficient prior knowledge to assimilate new concepts.
- Resources should contribute to interaction among students and between the lecturer and students, thus stimulating social learning.
- Resources should promote distributed practice in short, well-spaced sessions, which are not restricted to the timetable established for attendance-based classes and tutorials, but extend further in order to encourage overlearning and automation.
- Resources should emphasise the positive results of using technology, both in students' immediate context and in their professional future, thus instilling positive attitudes towards technology.

At present, there are many technological resources that can be used for educational purposes, such as web pages, email, mailing lists, notice boards, virtual environments, chat facilities and videoconferencing. Each of these resources can be used in different ways, depending on their characteristics (synchronous vs. asynchronous, direction of information flow, encoding of information in text, audio, image and video formats).

In the absence of a university's own infrastructure, many of these resources can be implemented by accessing online services that offer them free of charge. How institutions encourage lecturers to use technological resources in their work represents a greater problem. In general, the implementation of these resources involves a significant investment in terms of time, for which no recompense is usually offered.
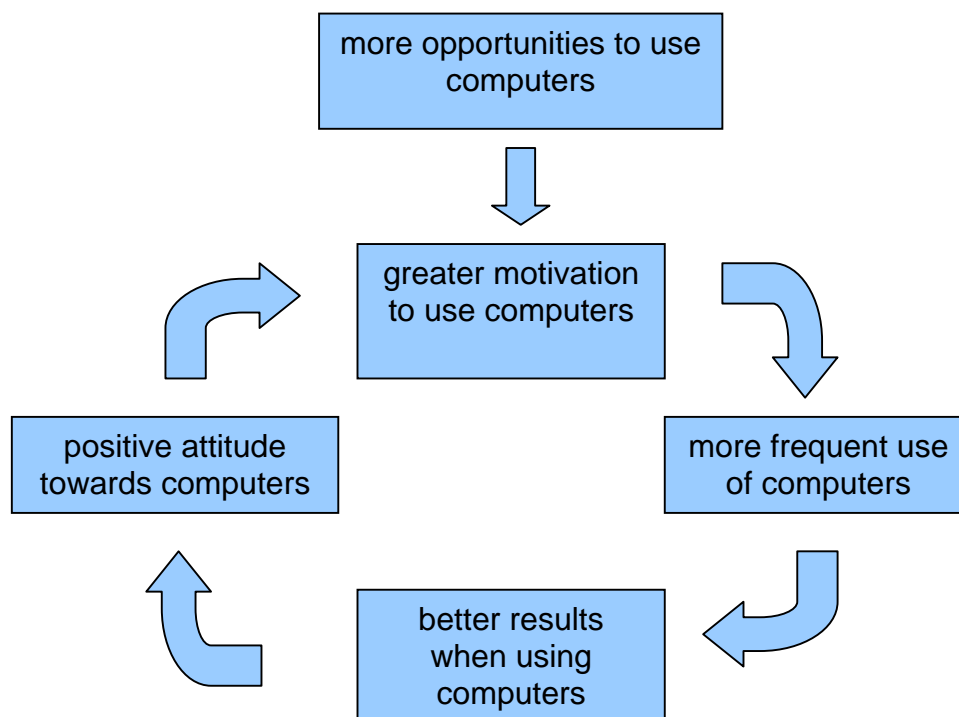

Figure 3. Positive vicious circle

4. Three experiences of promoting distributed practice in IAT

Along with regularly using email to communicate with students in order to query different aspects of the subject and maintaining a personal web page that offers information for students, we have established three new resources during the last two academic years: the INFOTRAD

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list, a virtual environment for cooperative work and a chat facility, all of which are described below. These resources are intended to encourage students to work independently to develop their knowledge and skills in the field of IAT, as well as to increase the frequency with which they use technology and, consequently, to foster the development of skills and positive attitudes.

4.1. The INFOTRAD mailing list

The INFOTRAD mailing list was created with the objective of promoting the use of email and familiarity with mailing lists among students of translation and interpreting (Alcina-Caudet, in press). Mailing lists constitute an excellent resource for practising using email. Students cease to be dependent upon whether or not their friends have email addresses and whether or not they send them messages. Subscribing to one or various lists means that there will be new messages in students' inboxes every day.

There are many mailing lists related to languages and translation on the internet. However, over the course of several years of explaining the main features and functions of mailing lists to students, and encouraging their participation therein, it became apparent that existing lists lacked incentive for students due to a high degree of subject-specific specialisation, or that it was difficult for them to follow the subscription procedures.

In light of the above, the best option was thought to be the creation of a list with a specific appeal for students of Translation and Interpreting at the Universitat Jaume I. This was the origin of the idea to create INFOTRAD. In order to encourage students to subscribe to a list, it had to reflect their particular interests. Given that one of students' greatest concerns consists of finding work after completing their degrees, the idea arose that creating a mailing list that contained job offers for translation and interpreting graduates would be well received by students.

The list was created thanks to the support of the IT service of the Universitat Jaume I, which creates and provides technical maintenance for mailing lists. However, such lists can also be implemented through suppliers such as Rediris (http://www.rediris.es/list/poli.es.html) or eListas (http://eListas.net).

The sources of messages forwarded to the INFOTRAD list consist of other mailing lists, the press and job offers made by the university itself. These messages are submitted by the lecturer of IAT, grant holders who work for the department and certain other lecturers. In its first year of operation, the academic year 2000-01, 104 current and former students subscribed to the list. The list received and distributed an average of 33 messages per month, varying between a minimum of 28 in March and 52 in May. All the messages were appropriate to the subject matter of the list. I know of some students who obtained grants and jobs as a result of the offers submitted.

In a survey carried out at the end of the last academic year to gauge the level of satisfaction with this initiative and find out to what degree the intended objectives were fulfilled, it was shown that all students considered the experience to be satisfactory and that there was a significant increase in the frequency with which email was used. Additionally, the number of students who had subscribed to other lists trebled.

In conclusion, the desired objectives were satisfactorily fulfilled, in terms of promoting the use of email and mailing lists both in and outside scheduled classes. This initiative has also succeeded in offering students an insight into the job offers available within the profession.

More information on the list can be obtained from http://www3.uji.es/~alcina/infotrad.htm. This page also provides students with information on other mailing lists geared to translation and languages, to which they can subscribe.

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4.2. Virtual environment for cooperative work

The virtual environment is a space within a server computer managed by a cooperative-work program, which provides invited members with restricted access to this environment via the internet, in order for them to share the various resources available. In our experience, we used the BSCW program, which had already been successfully employed in educational experiences in the field of translation (Bolaños Medina, 2001, Bolaños Medina and Máñez, 2001).

The BSCW program has the advantage of being available without charge to universities, as their aims are regarded as being educational rather than commercial. The program can be acquired online at http://bscw.gmd.de. A server is required, and ours was provided by CENT, the Centre for Education and New Technologies of the Universitat Jaume I. Lastly, the operation of the server and the program need to be periodically monitored by an IT technician.

Particularly noteworthy among the services offered by the virtual environment are the following:
- An exchange of documents in any electronic format (texts, images, video, etc.). Every member of the environment is able to upload documents to which the others can obtain access. Students upload databases, translation memories and drafts of their work, while the lecturer uploads course material (outlines for work, plans, slides, etc.). Whenever a new event occurs within the environment, it is indicated by an icon, thus enabling the environment's members to recognise new information immediately.
- Debates. Any member of the environment can submit comments, questions, news items, etc. which others can respond to and expand upon. This function is used by students to request information and to query aspects of the subject or their own work. The lecturer responds to students' questions or makes observations once the documents that constitute their work have been examined.
- Insertion of links to web pages. All members can enter links to interesting web pages. This means that students are no longer merely passive recipients of information, but are able to tell their peers about interesting information that they have found on the internet.

Using the environment adds flexibility to group work and allows students to be independent. It has been used predominantly as a tool to complement the tutoring applied to students' work. It functions in an asynchronous manner, which allows students to upload documents and submit comments at any time, and the lecturer to revise them by periodically entering the environment and checking for new material.

The creation of a virtual environment involves thorough reflection on the intended objectives thereof and how to go about fulfilling them, in order for the structure design to be transparent and convenient for the lecturer and students (Alcina Caudet, 2002).

The experience has proved to be positive, in that it gives students a sense of satisfaction to be able to obtain course materials without having to photocopy them (some are involved in stays abroad) and that their work is checked without them having to participate in attendance-based tutorials. In the first semester of the academic year 2001-2002, forty-three students in the third year of their degree course voluntarily sought to register in the IAT virtual environment. Of those students, thirteen used the environment to upload their class work and formulate queries. The remainder only used it for the purpose of obtaining documents. In the second semester, the lecturer automatically registered the hundred students in the third year of their degree course who had signed up for Terminology in this subject's virtual environment. Most of the students who study Terminology also study IAT, as the subjects are taught during the same year of the degree course, and some of them were therefore already familiar with the virtual environment or had heard about it from their peers. At this time of asking, forty-three students actively used the environment to formulate queries and upload documents related to their work.

4.3. Chat facility

The chat facility is a web-based messenger service that permits synchronous (i.e. real-time) communication, for which purpose the conversing parties must be connected to the service simultaneously. The conversation can be written or, if a microphone and speakers or headphones are available, oral. During this academic year, this service has been tested on an experimental basis, as a response to the complexities entailed by a proposed debate in specific cases, and incompatibility in terms of students' timetables where presence at attendance-based tutorials was concerned.

In this case, the university was unable to provide the means required and Yahoo's instant messaging service was used instead. For this purpose, it is necessary to open a Yahoo account and download the messenger program. Those who want to use the service to hold conversations have to enter each other's usernames in the system in order to register in each other's address books and establish contact.

Following initial technical problems, the experience was satisfactory, as it was possible to perform synchronous virtual tutorials. However, this experience has shown that the amount of time required is excessive for the benefit obtained. In this case, tutorials were carried out between the lecturer and a student. This system would probably offer more if several students were to be involved in a session, so that various people could benefit from the same questions and answers, and better results could be achieved. However, we have not carried out an experience of this type and we do not know if it would give rise to problems of a different nature.

5.   Conclusions

In the experiences described, it has been possible to note that the implementation of flexible technical resources with a view to promoting distributed practice has a positive influence on students as regards the development of skills and positive attitudes towards technology.

A great deal of time has to be devoted to the creation and maintenance of such resources, and institutional recognition and support should therefore accompany their large-scale use; if this were not the case, the excessive workload could lead to lecturers losing their motivation. Additionally, it would also be a good idea to try out strategies geared to optimising results, either through a larger number of students reaping the benefits of the resources or through the lecturer not being the only person responsible for their maintenance.

Lastly, it should be pointed out that a host of services are available without charge on the internet, and the creation of resources is not limited to those that universities themselves place at the disposal of their lecturers and students.

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