

# Teleworking and collaborative work environments in translation training

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## 1. Introduction

Translators' working methods have been modified thanks to the development of new communication tools. The ideal translation process should be divided into different stages (as already occurs in major translation agencies), each task being assigned to a different team member with a different role: terminologist, documentalist, translator, reviser, and project manager. The division of the translation process into different stages is just a form of teamwork, often completed in an assembly-line style, which may be facilitated by teleworking — that is, long-distance work on computers — thanks to the implementation of new technologies.

Given that professional translation work is highly influenced by new communication opportunities, teleworking must occupy its rightful place in translator training at tertiary level. This article presents the results of an experiment performed at the Faculty of Translation and Interpreting of the University of Granada. Translation and Interpreting students formed teams and managed several translation projects by using a collaborative work platform. The objective was to determine the effects of the collaborative work platform on the following aspects of translation projects: tele- and teamworking, computing and translation skills, and other demographic variables such as student disposition before the experiment and satisfaction with the new work method.

## 2. Background

The information and communication revolution has greatly influenced the professional field of translation. It is therefore necessary to introduce new technologies

in the classroom (Archer 2002; Askehave 2000; Hong 2002; Masiello *et al.* 2005). Translators, in addition to a proficient command of languages, must also develop other highly important skills such as documentation, terminology and desktop publishing, all of which are supported by the use of computers and telecommunications.

The Internet has changed the process of researching information necessary to produce a high-quality translation. Although the Internet has made this process easier, today's translators face the new challenges of developing research strategies and evaluating the quality of information, tasks previously carried out with the help of other professionals such as librarians or documentalists, or subject matter experts.

During the terminology stage, translators previously faced problems gaining access to obscure specialized terms. Today, digital resources (online and on CD-ROM) offer translators access to a wide range of regularly updated lexicons. These resources guarantee a degree of precision that is often superior to that expected of the specialists themselves. In addition, PCs enable any user to construct a text of publication quality with nothing but a word processor, thereby simplifying the processes of typesetting and layout.

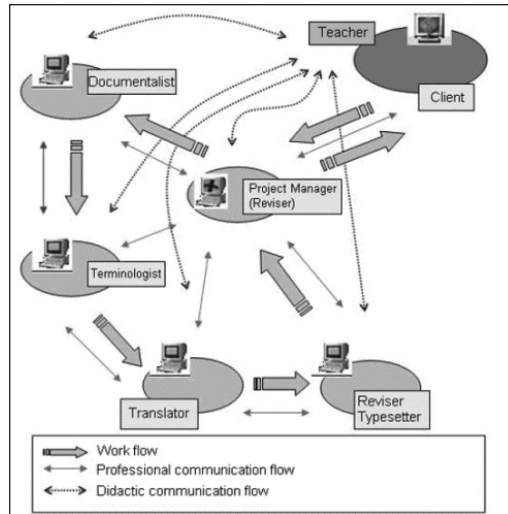
As a consequence, today's translators have become true multilingual communicators who base their expertise on their command of this assortment of tools. This does not mean that language competence has diminished in importance; on the contrary, however it is now only one facet of the range of skills that translators need to acquire.

### 2.1. Professional Approach to Translator Training (PATT)

The above-mentioned context, described in more detail by *Aula.int* (2005), is the basis of our didactic model, which we call the "Professional Approach to Translator Training" (Olvera-Lobo *et al.* 2007). The PATT model combines elements of roleplay, team-based task learning, simulation and case study in an innovative e-learning environment that functions via a collaborative platform (BSCW).

As previously stated, the translation process involves different tasks, organised in different stages and developed by team members with complementary roles. In spite of the multi-stage nature of translation, in Spain, the current tertiary education system offers little coordination between classes on the different aspects of the process. Thus, students gain the skills necessary to complete different tasks, but they rarely gain insight into the organization of the process as a whole. This lack of connection hinders training in tele- and teamwork, essential tasks for modern-day translators.

Currently, PATT is being implemented on several courses. Students are divided into translation teams, each in charge of managing a translation brief. Each group comprises five members, each of whom selects a different role (documentalist,



**Figure 1.** A professional approach to translator training application using basic support for cooperative work

terminologist, translator, reviser and typesetter, or project manager). For every new translation assignment, team members adopt a different role, so that eventually each student carries out all of the different tasks. Teachers must carefully supervise student progress during the translation assignments. This method, implemented through the Basic Support for Cooperative Work (BSCW) software, allows the students to gain an insight into the role of each task within the translation process as a whole, before entering the job market.

## 2.2. Importance of tele- and teamworking

Teleworking is crucial for translators' work (Alcina 2002). The PATT enables students to publish their results and share their tasks on the web, strengthening their teleworking skills.

In most translation courses, students have tutorial support for their translation assignments. The PATT ensures more effective overall translator training by adding a virtual dimension. In the professional world, freelance translators do not usually rely on other professionals to revise and monitor their work step by step. When freelancers need revision, they most often contact the client in order to solve specific problems or merely send the final product with notes indicating the problems encountered. The use of collaborative work tools allows students to share problems or questions that may arise in the course of a translation assignment both with their peers and teachers (Alcina 2002). Group members

remain in contact during this process and can elicit additional information and feedback if necessary.

Through enabling constant contact between team members, PATT also strengthens an additional important skill for professional translators: active participation in a team. Mayoral (2000) emphasises the necessity of working together not only with fellow translators and professionals in related fields, but also with experts in the subject matter of a given translation.

### 2.3. Studying student satisfaction

Several studies have recently been published regarding user satisfaction with virtual learning environments (Coppola 1999; Kollias and Kikis 2004; Hong *et al.* 2003a; Masiello *et al.* 2005).

Questionnaires are normally given after the conclusion of the experiment (Coppola 1999; Thomas 1999; Kollias and Kikis 2004; Hong 2002; Hong *et al.* 2003a). In general, students show satisfaction with virtual environments (Collins 2002; Fredericksen *et al.* 2000; Kollias and Kikis 2004; Motiwalla and Tello 2000; Oliver and Omari 2001; Swan *et al.* 2000; Yeo *et al.* 2002). Hong *et al.* (2003a) affirm that members of a virtual classroom value the flexibility and teamwork it offers and tend to improve their computer knowledge. Carswell (2000) notes this same idea in a study of distance learning, as does Collins (2000) in an experiment with biology students. Finally, Kollias and Kikis (2004) point out that students do not limit themselves to the collaborative work platform but go on to make use of other online tools.

In some studies, questionnaires were given prior to putting students in contact with the didactic model. In these cases, the information sought was mostly related to the students' attitude towards information technologies and their level of prior knowledge of computer tools and virtual environments (Masiello *et al.* 2005; Hong *et al.* 2003b). Yeo *et al.* (2002) point out that users' determination to choose a system is influenced by its effectiveness and easiness. Other explanations of user satisfaction are related to their general attitudes toward technology, quality of information, previous experience and system organization (DeLone and McLean 1999; Lederer *et al.* 2000; Venkatesh and Davies 2000).

Questionnaires facilitate the collection of both quantitative and qualitative information (Kollias and Kikis 2004) and are a frequently used method of research in the social sciences. In any context, when attempting to introduce change on a significant scale it is essential to draw on the experience of all stakeholders with a view to ensuring maximum efficacy and minimum resistance. Instruments such as those we have developed, refined and administered are essential to the evaluation of our approach to translator training.

Few existing studies measure the level of user satisfaction both before and after using a didactic model, as was the objective of the present study. Recent research carried out by Masiello *et al.* (2005) in the field of macrobiology is a noteworthy example of the “before and after” questionnaire method.

#### 2.4. Relationships between variables

Among the existing studies showing the relationship between the variables of a questionnaire, the research study carried out by Hong (2002) stands out as a noteworthy example. The study contrasts demographic variables (previous computer knowledge, gender, age, and academic skills, among others) and teamwork variables with subjects’ perceived satisfaction and improvement of skills through the use of a virtual environment. Hong demonstrates that the demographic variables are not generally related to perceived satisfaction and knowledge, but there is one remarkable exception: in general, students with more prior computer knowledge indicated a higher level of satisfaction with the experiment. In addition, the variables related to teamwork demonstrated that students whose previous attitude towards interaction with other students and with the teacher was more positive (those with a higher disposition towards teamwork) recorded more satisfaction with most aspects of the experiment.

Before Hong (2002), researchers such as Sturgill *et al.*, (1999) contrasted demographic variables with student satisfaction after using didactic models. These researchers discovered that students whose previous computer skills were poor reported a lower level of satisfaction with web-based collaborative work. However, other research studies by Fredericksen *et al.*, (2000), Jiang and Ting (1998), and Swan *et al.* (2000) reveal the opposite effect. The issue of student age was studied by Fredericksen *et al.* (2000) and Swan *et al.* (2000) who discovered that the youngest students perceived a lower level of knowledge, and consequently their level of satisfaction with virtual environments was also lower.

As shown by Hong (2002), subjects’ opinions about teamwork are related to their satisfaction with a new learning method. This conclusion is supported by further research by Fredericksen *et al.* (2000) and Swan *et al.* (2000), who demonstrated the importance of teachers in collaborative learning environments. According to these studies, the weaker the relationship between student and instructor, the lower the student’s perceived level of knowledge. Jiang and Ting (1998) found that active participation by the teacher was fundamental since it encouraged student participation. To conclude, Fredericksen *et al.* (2000), Swan *et al.*, (2000) and Jiang and Tiang (1998) all stress the importance of interaction among students as a determining factor in perceived improvement after the experiment.

### 3. Methods

#### 3.1. Data sources and data management

Teachers from each course introduced our didactic model —“Professional Approach to Translator Training” (PATT)— and the collaborative work platform, and summarized their main features. Then, the teacher arranged different work teams composed of students who each played a given role: documentalist, terminologist, translator, reviser or project manager. At times, students were required to complete more than one translation, so that roles changed frequently, broadening students’ understanding of the process. The teacher’s task consisted of introducing the virtual classroom and assigning translation briefs periodically. Students had to observe the deadline proposed by the teacher and assume their roles in the translation process with a responsible, serious, team-oriented attitude.

Questions from the survey were specially conceived to obtain information needed about the relationships between computer knowledge, teleworking, and teamwork. Data were qualitative and quantitative. The present study focuses on analysing the quantitative data, though qualitative data were very useful to illustrate the statistical results.

The sample group for this survey consists of 128 fourth-year students (70%), 28 third-year students (15.5%) and 26 second-year students (14.5%). The students were registered in some of the following courses: *Spanish–English Translation level 9* (45.3%), *Spanish–English Translation level 3* (24.3%), *Italian–Spanish Translation level 4* (13.3%), *Russian–Spanish Translation level 1* (7%), *Portuguese level 3* (6.3%), and *Russian–Spanish Translation level 4* (3.9%). The majority of the students (73.6%) were under 23 years old. The majority were women (82.5%). Because of the variety of courses and subjects, there was no fixed number of assignments to complete, but the majority of the students (67.3%) completed fewer than four.

#### 3.2. Design of questionnaires

Data was collected through two kinds of questionnaire, comprising around fifty questions each. They were filled out anonymously, one before and one after student participation in our didactic model (PATT), in order to most effectively measure the students’ perception of the changes in their level of satisfaction and knowledge improvement. Administration of questionnaires both before and after the experiment is a novelty among existing research studies dealing with student use of virtual platforms (Hong *et al.* 2003a; Hong 2002).

The majority of the questions were closed and included ordinal answers with scales ranging from 0 (minimum) to 4 (maximum). The questionnaire was struc-

tured around seven main topics. **Part 1** gathered demographic information (age, gender, year, course; post-questionnaires asked about deadlines and the number of translation briefs completed). **Part 2** collected information through a series of general questions: in the pre-course questionnaires, students were asked about their disposition towards the use of the collaborative work platform, and in the post-course questionnaires, they were asked about their satisfaction with the project (which we have called *Aula.int*):

#### PRE-COURSE QUESTIONNAIRE

**Pre1.** Do you know what *Aula.int* is about?

**Pre2.** Do you believe that *Aula.int* will contribute something different by comparison with traditional didactic models?

**Pre3.** Are you familiar with any collaborative work platforms?

**Pre4.** Have you ever used a collaborative work platform?

**Pre5.** In what way do you believe that teleworking facilitates the completion of translations briefs within *Aula.int*?

#### POST-COURSE QUESTIONNAIRE

**Post1.** Has *Aula.int* fulfilled your expectations?

**Post2.** How has *Aula.int* facilitated your work in comparison with the traditional didactic models?

**Post3.** How would you rate the overall results of the translation briefs that you have worked on?

**Post4.** In what ways did you use the platform to complete your project?

**Post5.** In your opinion, how useful is PATT for the completion of translation briefs?

**Post6.** Would you recommend participating in *Aula.int* to other students?

**Parts 3, 4, 5 and 6** collected information about computer knowledge, translation, tele- and teamworking, respectively. An additional variable has been included in every part to measure the students' disposition prior to the experiment (pre-course questionnaires) and satisfaction (post-course questionnaires) regarding their general knowledge of each aspect. **Part 7** includes the following open-ended questions which require more detailed answers:

#### PRE-COURSE QUESTIONNAIRE

**Pre6.** What do you think *Aula.int* could give you in comparison to traditional models?

**Pre7.** Which collaborative work platforms do you know how to use?

**Pre8.** Why do you think *Aula.int* will be a useful collaborative work platform for the briefs managed in *Aula.int*?

#### POST-COURSE QUESTIONNAIRE

**Post7.** What has *Aula.int* given to you by comparison with traditional models?

**Post8.** List the advantages of *Aula.int*.

**Post9.** List the disadvantages of *Aula.int*.

**Post10.** Why would you recommend *Aula.int*?

### 3.3. Data analysis

A reliability analysis (Cronbach's alpha) was applied after processing all data in two different matrices of SPSS 12.0 (one for pre-course and the other for post-course questionnaires) to verify the validity of the questionnaire. Cronbach's alpha is the most widely used indicator for this type of analysis. The alpha coefficient determines the internal consistency of a scale analyzing the mean correlation of a given variable with all other variables on the same scale. It produces values between 0 and +1, although negative values can occur indicating that within the scale there are items which measure the opposite of the others. The closer the coefficient is to +1, the greater the degree of internal consistency of the indicators in the scale studied. However, general agreement on the lower limit required to consider a scale reliable or not, does not exist. In our study, the value of Cronbach's alpha in the pre-course questionnaire is  $>0.9$  (.902) which can be considered excellent. Moreover, the value for the post-course questionnaire is 0.802, which can also be considered good. These figures clearly confirm the reliability of our questionnaires as research instruments. The results are discussed below.

## 4. Results and discussion

### 4.1. Perceived knowledge

In the pre-course questionnaires, the students had to evaluate their computer knowledge (Cronbach's  $\alpha = .801$ ) by assigning one value for each item: 0 (*bad*), 1 (*poor*), 2 (*adequate*), 3 (*good*) or 4 (*very good*). Figure 2 shows the results for students' perception of their computer knowledge before their participation in the project.<sup>1</sup> When comparing measures, it was noted that the three first variables (*Word Processors*, *Web Browsers* and *Finding Information on the Internet*) have similar average values (2.69; 2.70; and 2.55 respectively) and the same median value (indicated by the black center line). However, *Designing Web Pages* and *Editing and Desktop Publishing Texts* have lower average values (0.60 and 0.50 respectively), the median value is 0 and the central box indicates that 50% of the distribution is either 1 or 0.

However, Figure 3 shows that the students' average self-evaluation after the experiment (Cronbach's  $\alpha = .830$ ) is slightly higher for *Designing Web Pages* (2.11)

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1. A boxplot is a way of summarizing a set of data measured on an interval scale. It is often used in exploratory data analysis. It is a type of graph which is used to show the shape of the distribution, its central value, and variability. The picture produced consists of the most extreme values in the data set (maximum and minimum values), the lower and upper quartiles, and the median.



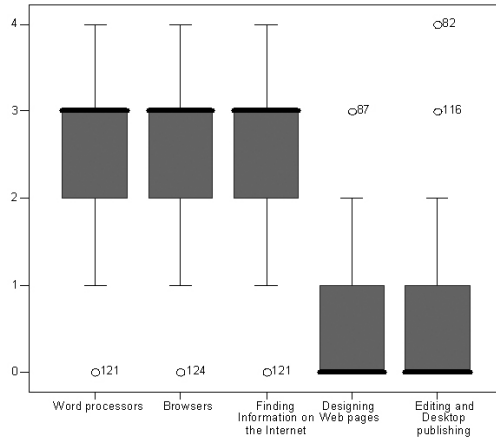


Figure 2. Previous computer knowledge

and *Editing and Desktop Publishing Texts* (2.13). Almost all students give 2 points (on a 0 to 4 scale) to these variables. The other three first types of knowledge maintain similar average levels: *Word Processors* (2.57), *Internet Web Browsers* (2.59) and *Finding Information on the Internet* (2.64).

The scarcity of subjects who had experienced teleworking before participating in the virtual classroom (Cronbach's  $\alpha = .827$ ), an average of 0.35, was remarkable. Very few students really knew what teleworking was for (the average self-evaluation is 1.65 on a scale of 0 to 4). On the other hand, most of them were quite sure that teleworking would make the translation process easier (2.38).

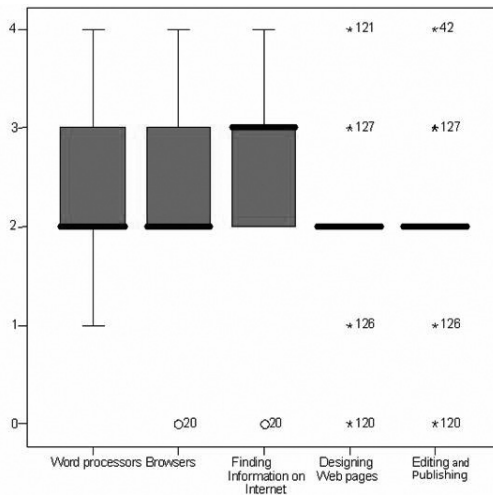


Figure 3. Post-course computer knowledge

In the post-course questionnaires, mean scores for familiarization with teleworking (Cronbach's  $\alpha = .853$ ) thanks to *Aula.int* and the facilitation of the fulfillment of the translation briefs show that final practice in teleworking has met our expectations. If variables on teleworking are calculated jointly, the interest and good impressions noted by students are much better appreciated. Before the experiment, 87.1% of students acknowledged having *Minimum* or *Poor* knowledge of teleworking. After the experiment, students believed that they had become familiar *Enough* with teleworking. Moreover, they valued the relationship between *Aula.int* and teleworking positively.

The results of the questionnaires confirm that the experience of *Aula.int* is very beneficial for students, not only in completing the different translation tasks, but also in improving teleworking knowledge.

Questions about teamworking generally receive positive responses (*Good* or *Very Good*). In the pre-course questionnaires (Cronbach's  $\alpha = .795$ ), 74.8% of students consider teamworking *Important* or *Very Important* for the translation process. After the experiment (Cronbach's  $\alpha = .803$ ), these items maintain a highly positive evaluation (frequency of *Good* or *Very Good* answers): *level of communication with team members* (79.4%), *level of communication with the teacher* (81.4%), *ability to solve technical or translation problems that other members of the team may have* (79.3%), and *availability of the other members of the team to solve technical or translation problems* (79.4%). Therefore, variables gathered about teamworking suggest that the virtual classroom has served to improve the initial disposition of students towards teamworking and to confirm that they are satisfied with this aspect.

Student perception of the different skills involved in translation is shown by the following variables: *Documentation* (D), *Terminology* (T), *Translation* (TR), *Revision* (R) and *Project Management* (PM). The frequency of subjects who felt *Better* or *Much Better* at the different skills range from 34% for *identification and extraction of specialized terms* to 21.4% for *revision of texts with specific software*. Students felt less competent with revision than with the other steps in the translation process. However, students have a high level of satisfaction overall, as shown by the predominance of averages close to level 3 (on a scale of 0 to 4).

These figures suggest that students feel that their knowledge about different tasks has deepened. This is not surprising, since students may have acquired knowledge from other classes in the interval between the administration of the surveys. In any case, it would be equally possible to conclude that participating in the virtual environment has boosted students' confidence so that they feel capable of carrying out any task in the translation process.

Results obtained after the experiment show that there is a statistically significant correlation between the number of translation briefs realized and the stu-

dents' perceived computer knowledge. Moreover, variables regarding students' age and perceived computer knowledge present an opposite relation.

In response to pre-course questions, individuals related computer knowledge to teleworking (Spearman's rho correlation coefficient<sup>2</sup> = 0.228; correlation significant at  $p = .05$ ). Therefore, to the question *What could Aula.int give you in comparison to other traditional models?* students responded: "more familiarization with computer resources" or "learning to familiarize myself with the computer tools available to us". The answers after the experiment repeat this correlation, with a similar average (Spearman's rho = 0.210,  $p = .05$ ). This suggests that working in the virtual classroom does not serve to dissociate teleworking from computer knowledge, which is logical since they are directly associated.

After the experiment, one student reported that she had gained "knowledge of the new computer tools for cooperative work in a computer-based environment". Another student said that he had achieved a "better and faster command of Internet tools."

The correlation between computer knowledge and teamworking indicates that students associated these two aspects (Spearman's rho = 0.285;  $p = .01$ ). But in answers to the post-course questionnaire, this correlation is much smaller, which suggests that students have begun to differentiate them (Spearman's rho = 0.103;  $p = .05$ ). One possible explanation is that through the *Aula.int* experiment, students have realized that computers support not only telecommunications but also the individual work corresponding to each task (finding information, creating terminology files, translation, etc) which the students must complete separately.

At the beginning, students perceived tele- and teamworking as being integrated, perhaps because they thought that teleworking necessarily implied a connection with other people. For this reason these two variables show a correlation, although moderate (Spearman's rho = 0.221;  $p = .05$ ). This idea could be based on the fact that new technologies make communications easier. For instance, one student answered the question *What has Aula.int given to you in comparison to the traditional models?* as follows: "experience working with other professionals". However, post-course questionnaires show that individuals have reached a greater understanding of the separation between these variables (Spearman's rho = 0.168;  $p = .05$ ) and this correlation coefficient is smaller. Results suggest that, after the

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2. Spearman's rho correlation is a measure of the linear relationship between two variables. The correlation coefficient is a number between +1 and -1. This number tells us about the magnitude and direction of the association between two variables. The magnitude is the strength of the correlation. The direction of the correlation tells us how the two variables are related. If the correlation is positive, the two variables have a positive relationship (as one increases, the other also increases). If the correlation is negative, the two variables have a negative relationship (as one increases, the other decreases).

experiment, students consider teleworking as another resource available for both team and individual translation briefs where virtual communication or mailing are necessary. One student said that working in *Aula.int* had enabled him “to work self-sufficiently”. This type of response suggests that students have learned to perceive teleworking in a different way. In any case, our figures are not decisive and other variables may have influenced student perceptions.

Finally, the consistency found among the three groups of variables (computer knowledge, tele- and teamworking) in the pre-course questionnaires is remarkable. This consistency may be due to the lack of clarity regarding the distinctions between the groups of concepts involved in these processes. As stated previously, two out of the three correlations among student responses disappeared after the experiment. This could be explained by the fact that students were introduced to other new methods and didactic tools over the course of this study.

#### 4.2. Overall results

An analysis of the frequencies of answers shows that 53.7% of students did not have an extensive knowledge of the project before the experiment. Methodological proposals were also new for them (**Pre1**). Some 67.5% of students thought that *Aula.int* could give them something *Quite* or *Totally different* by comparison with traditional didactic models (**Pre2**); 93.5% recognized that they were not familiar with any collaborative work platform (**Pre3**). Consequently, 93.5% also stated that they had never worked with a collaborative work platform (**Pre4**). In addition, before the experiment, students thought that PATT could be *A Bit* or *Quite* useful for the management of translation briefs.

After participating in the project, most students expressed their satisfaction with it: 64.9% stated that *Aula.int* *Quite* or *Totally* fulfilled their expectations (**Subs1**). Similarly, 61.7% thought that *Aula.int* had given them something different from traditional didactic models (**Subs2**). Students' reported satisfaction is even higher with respect to the overall results of translation briefs (**Subs3**), which they found *Good* (62.8%) or *Very Good* (30.6%).

In response to the questions about collaborative work, students reported that they have *Often* (45.3%) or *Sometimes* (28.1%) used BSCW for translation projects (**Subs4**) and that they found the platform useful. This is evidenced by the fact that 72.7% of students found the platform *Quite* or *Totally Useful* for the development of this type of translation brief (**Subs5**).

Keeping these figures in mind, it is not surprising that 97.6% of students reported that they would recommend participation in the *Aula.int* work model to other students (**Subs6**).

## 5. Conclusions

This article presents a research study carried out at the Faculty of Translation and Interpreting of the University of Granada (Spain). The objective was to analyze the satisfaction of students registered on several courses in the Translation and Interpreting program with an innovative teaching method. The aims of this project are to build a dynamic, virtual model of translation briefs and to familiarize students with real-life work environments and tasks.

The research study created a collaborative work environment similar to that of the real professional translation process. Data from the post-course surveys administered indicate the suitability of this method for teaching students about teleworking from a practical standpoint.

Translation students are expected to learn how to work in teams; teamwork variables included in our study reveal that after the experiment in PATT, students feel satisfied and have improved their opinion about this aspect of the process.

It is evident that the completion of translation briefs requires some computer knowledge. This was measured by surveys administered before and after the study. The results of both surveys show a slight increase in students' confidence with respect to computers. This increase may be due to their continuous practice with computer tools during the project.

This study also focuses on students' perception of their translation skills. Although this is not the main topic of the study, it is notable that students who participated in PATT seem to report increased confidence in their abilities to complete different tasks in the translation process.

Relationships among different groups of variables show a significant (though weak) correlation between the number of translation briefs managed and general satisfaction with teamworking. Moreover, before participating in the project, younger students showed a higher disposition towards teamworking. By contrast, students in their later years of study had a deeper knowledge of computer and teleworking tools. After the experiment, students were better able to distinguish between teamworking, computer knowledge and teleworking. Perhaps their perception had improved with the experiment, since they had learned to dissociate the general work method from the tools.

Responses to the post-course questionnaire indicated a high level of satisfaction among students, both with the project and with the collaborative work platform. It is therefore not surprising that students are willing to recommend this didactic model to other students. Finally, the oldest students (and those enrolled in the final years of study) registered a higher level of experience using the platform, while students from lower courses reported a more positive opinion of the project.

The data obtained from this study suggest that using a collaborative work platform in translation courses is beneficial, enabling students to gain confidence and feel satisfied with their work. It would be interesting to compare the results presented here with those obtained by other studies measuring increases in students' satisfaction and competence after completing translation briefs using traditional methods, without the virtual communication made possible by a collaborative work platform. To conclude, the tools and the evaluation method used in this project may be effectively applied in other fields of higher education.

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## Abstract

The professional translator’s work is substantially influenced by new communication opportunities, which is why teleworking must occupy its rightful place in translator training at tertiary level. In addition, the ideal translation process should be divided into different stages (as already occurs in major translation agencies), each task being assigned to a different team member with a different role. This paper presents the results of a research study on translation students’ attitude towards and level of satisfaction with the use of a collaborative work environment. We propose a “Professional Approach to Translator Training”, our didactic model that combines elements of roleplay, team-based task learning, simulation and case study in an innovative e-learning environment that functions via a collaborative platform (BSCW).

Questionnaires were designed and used as evaluation tools before and after the experience of working in a collaborative environment. The aim of these evaluation tools was to measure students’ knowledge of the following skills: computing, tele- and teamwork, and translation tasks. The internal global consistency was adequate (Cronbach’s alpha in the pre-course questionnaire is 0.902 and the value for the post-course questionnaire is 0.802).

Results show that collaborative work environments make the learning process easier, maintain students’ pre-existing positive attitude towards teamwork, and improve students’ self-confidence with regard to computers and translation tasks. The data obtained from this study suggest that using a collaborative work platform on translation courses is beneficial, enabling students to gain confidence and feel satisfied with their work.

## Résumé

Le travail professionnel de traduction est fortement influencé par les nouvelles possibilités de communication. C'est pourquoi le télétravail doit occuper la place qui lui revient dans la formation du traducteur dans l'enseignement supérieur. En outre, le processus de traduction idéal devrait être subdivisé en plusieurs étapes (cela se fait déjà dans les grandes agences de traduction), les diverses tâches étant attribuées à différents membres de l'équipe ayant chacun un rôle spécifique. Cet article présente les résultats d'une étude sur l'inclination des étudiants en traduction à utiliser un environnement de travail combiné et sur la satisfaction qu'ils en retirent. Nous proposons une « approche professionnelle de la formation du traducteur ». Notre modèle didactique combine des éléments du jeu de rôles, de l'apprentissage des tâches en équipe, de la simulation et de l'étude de cas, dans un environnement innovant d'apprentissage en ligne, fonctionnant sur une plateforme combinée.

Des questionnaires ont été conçus et utilisés comme outils d'évaluation avant et après l'expérience du travail dans un environnement combiné. Leur objectif était de mesurer les connaissances des étudiants dans les domaines suivants : informatique, télétravail, travail en équipe et tâches de traduction. La cohérence globale interne était suffisante (l'alpha de Cronbach dans le questionnaire antérieur au cours est de 0,902 et la valeur dans le questionnaire postérieur au cours de 0,802).

Les résultats montrent que les environnements de travail combiné facilitent le processus d'apprentissage, maintiennent l'inclination au travail en équipe qui préexistait chez les étudiants et améliore leur confiance en eux en ce qui concerne l'informatique et les tâches de traduction. Les données tirées de cette étude suggèrent qu'utiliser une plateforme de travail combiné pendant un cours de traduction est bénéfique et permet aux étudiants de prendre de l'assurance et de retirer de la satisfaction de leur travail.

## About the authors

The authors of this article are researchers with an extensive academic and professional background. They are the members of an interdisciplinary research group at the Faculty of Translation and Interpreting of the University of Granada, Spain. Their interests include the development of an innovative e-learning model in the teaching of undergraduate students of translation. The work group includes documentation, languages, terminology, edition and translation teaching specialists (covering Spanish, English, Russian, Portuguese and Italian). They have published several research papers in international journals like *Perspectives: Studies in Translatology*, *Meta*, *Journal des traducteurs*, and *Encyclopedia of Networked and Virtual Organizations*, and meeting communications in international Conferences like "Conferència IADIS Ibero-Americana WWW/Internet 2006" among others.

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