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Motivation and task performance in a task-based web-based tandem project

CHRISTINE APPEL
SALIS, Dublin City University, Dublin, Ireland
(*email: christine.appel@dcu.ie*)

ROGER GILABERT
Blanquerna Communication Studies Department, Universitat Ramon Llull, Spain
(*email: rogergg@blanquerna.url.es*)

Abstract

The objective of this paper is to describe a task-based project in tandem via e-mail, and to discuss the effects of motivation on task performance. In this project, a group of Irish students and a group of Spanish students are asked to carry out a series of tasks in collaboration with their tandem partners via e-mail by means of a web page especially designed for the project. Half the message is meant to be written in the student's native language and half in the target language, and students are also encouraged to correct one another. The goal behind our research is to discuss the effects of motivation on task performance. We argue that resource directing (such as reasoning demands) and resource depleting factors (such as prior knowledge) which belong to task complexity in Robinson's model (Robinson, 2001) are closely connected to affective variables which, as is the case with motivation, belong to task difficulty. Motivational factors like interest in the meanings to be exchanged, involvement in the decision-making process, students' expertise in the topic, media and materials used, and the diffusion of outcomes among others have strong effects on task performance, and should therefore be considered together with complexity variables.

1 E-mail tandem language learning

This paper describes a pilot task-based project in tandem via e-mail and discusses the effects of motivation on task performance. We discuss relevant models concerning Task-Based Learning (TBL) in a foreign language teaching framework, the application of such an approach within a Computer-Assisted Language Learning (CALL) context, and we apply the concept to the specific situation of e-mail tandem language learning. The first two sections of this paper discuss the key concepts that are used: e-mail tandem language learning and task-based learning.

First of all, what do we mean by e-mail tandem language learning? We have two groups who are set the same tasks and are asked to work together to carry out these

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tasks. Each individual student in one group is assigned one student in the other group to correspond with. Communication is asynchronous and written. We used a web site, which provides an environment specifically tailored to the needs of such a project. This environment, the Electronic Tandem Resources (ETR)[1] is a web-based e-mail system that only allows e-mail communication related to the tandem exchange and has a number of additional tools that assist language learning and facilitate the logistics of setting up and monitoring a tandem exchange by teachers or coordinators (for a more detailed description of this environment see Appel & Mullen, 2000). Students participating in tandem exchanges write half the messages in their first language (L1) and half the messages in the language they are learning (L2): in this way they both have a chance to write as well as read in their L2. Students are also asked to provide corrections on their tandem partners' L2 text. The corrections are meant to introduce a focus on form into an exchange of mail which is otherwise very much focused on meaning. Little & Brammerts (1996) discuss the importance of this design to maintain what they call the two principles underlying e-mail tandem language learning: the principle of reciprocity (related to the importance that both learners contribute equally to the exchange) and the principle of autonomy (related to the need for the student in such a context to take initiative and control over their own language learning).

The benefits of tandem language learning have been described in a number of studies (e.g. Austin & Mendlick, 1993; St John & Cash, 1995; Woodin, 1997; Appel, 1999; Little *et al.*, 1999; Leahy, 2001). All these studies suggest that it is an activity that is motivating for students and can be of value for language learning in the development of areas such as language awareness or learner autonomy among others. However, many of these studies also point out the difficulties in sustaining an exchange throughout time which has led to the recommendation that a pedagogical framework for e-mail tandem language learning is necessary (Ushioda, 2000). This recommendation is our starting point; we integrated tandem language learning into our classroom practice. E-mail tandem was one more tool that was given to our students for carrying out a series of tasks, a crucial tool since it allowed for the communication between students helping each other in the accomplishment of a task, but based in different geographical locations (Barcelona and Dublin). The fact that tasks were carried out with the help of a tandem partner shaped the nature of the work done, and has an impact in the design of the tasks since we need to take into account the needs and goals of both groups. However, the focus of our approach was the design and evaluation of the tasks.

2 Task-based learning and motivational constructs

As we said before, our project took place in the context of e-mail tandem learning and had a task-based approach. Our approach was task-based both in terms of task design and methodological choices. From the point of view of design, each of our four pedagogic tasks consisted of a differentiated process, divided into steps, with a specific goal and an outcome, and around four different topics (see Section 3.2 for a description of each task). As far as methodology is concerned, the four tasks were organized in the following way: in the pre-task phase the goal and steps to follow were presented and discussed. In some cases (e.g. stereotypes task) reading materials were provided to help learners to prepare for the task. During the task-cycle, students worked in groups and

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engaged in e-mail communication with their partners in order to carry out their task. They were then given some time to plan their report and, finally, orally reported their work to the rest of the class. Finally, focus on language was also carried out at the end of each task. It should be pointed out that focus-on-form took place not only at the end of each task but also during the other phases. Apart from students correcting each others' L2 by means of the interface, each instructor monitored their progress and provided language feedback throughout the whole process. So, as we have already pointed out, tandem language learning was integrated into our classroom practice.

Although our experience did not have an established model for motivation in language learning (such as the ones advanced by Dörnyei (2000), Crookes & Schmidt (1991), Gardner (1985)) as the starting point, there were two constructs which were central to our research: the first one is the concept of 'willingness to communicate' (MacIntyre *et al*., 1998). In this context, and with this approach, we wanted to consider motivation in the following sense: what is it that makes students like and be willing to participate in a task? Which factors can be realistically applied to the task so that it meets its final purpose: language learning? We wanted to test a series of tasks organized by topics, look at the data obtained from each task and retrieve the most relevant factors affecting motivation in such context and with such approach. Secondly, especially relevant to our intentions was the construct of 'authenticity', which in Chapelle's (2001) words means: "The degree of correspondence between the CALL activity and target language activities of interest to learners out of the classroom", which she then reinterprets as willingness to participate and in which the key term is 'interest'.

Before we move on to discuss some criteria we believe affect motivation and task performance, we should say that since our approach was task-based we needed to contrast our motivational factors against factors involved in task design. That is why we considered Robinson's (2001) model for task sequencing which states the main factors involved in task design and which affect language production and performance.

Robinson's model distinguishes between task complexity (cognitive factors), task conditions (interactive factors), and task difficulty (difficulty factors). Task complexity has to do with how cognitively demanding the task is. Specifically, complexity is determined by the number of elements involved in the task, the closeness or distance from the here-and-now, and the reasoning demands of the task. Other factors of task complexity are the amount of planning devoted to the task, whether it is a single or multiple task, and the prior knowledge about the kind of task. Task conditions have to do with participation and participant variables. Participation variables are whether the task is one or two way (whether one of the partners has all the information or whether they have to share it) and whether it is open or closed (only one solution is correct or there are different possible solutions). Participant variables refer to familiarity of participants, power, and solidarity. Finally, difficulty factors include both affective and ability variables. Within the affective variables we find motivation, anxiety, and confidence. Within ability variables we find aptitude, proficiency, and intelligence.

Relevant to our concern in this paper is the fact that tandem learning imposes a series of conditions that directly relate to interactive and difficulty factors in Robinson's model. According to Ushioda (2000), some of the intrinsic features of tandem learning are that it encourages solidarity (shared responsibility and linguistic support), and we believe it also encourages familiarity, reduces anxiety and, over time, increases confi-

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dence. All these conditions should contribute to improving task performance. However we have found that in a task-based tandem project these may not be enough. We believe that cognitive factors and interactive factors related to participation must also be considered. In Section 4 we will discuss how the factors we suggest that affect motivation and task performance relate to the variables advanced by Robinson.

3 Description of study

3.1 Subject description

There were two groups of students, one attending an EFL class at the Communication Studies department in Blanquerna, Universitat Ramon Llull, Barcelona, and the other attending a class of Spanish as a foreign language in the School of Applied Languages and Intercultural studies in Dublin City University. There were 20 students in the same class in Barcelona, whereas the students in Dublin were in two different class groups due to time-tabling constrains. However, both class groups had to take the same final year exams, follow the same syllabus and had the same lecturer.

The tandem exchange lasted for a full academic year for the students in Dublin. In Barcelona only 9 students continued with the EFL class after the Christmas break but 11 new students joined the class, and the tandem exchange. As a result we have nine tandem pairs whose members were the same throughout the academic year and 11 students in Dublin who had a different tandem partner for the first two tasks and the last two tasks.

The level of proficiency for both groups was intermediate with a few exceptions who were at a more advanced level. The Dublin students were first year students in college whereas the EFL class in Barcelona had a combination of first and second year students. Ages of students ranged between 17 and 22. The Dublin students were taking Spanish as a supplementary subject to the degrees of either applied languages or business. The students in Barcelona were studying towards degrees in advertising and public relations, journalism, or audiovisual communication. Students in Dublin were not familiar with the use of Internet browsers but they all had previous experience in using word processors, (with the exception of one). Students in Barcelona were all familiar with the use of Internet browsers and word processors.

3.2 Task description

There were four tasks: *Film review, A night out in Barcelona/Dublin, News that matters* and *Stereotypes in TV advertising*. Students were given four weeks to work on each task. For each task, negotiation with students on how to proceed took place, suggested reading was provided and language structures were discussed. At the end of the four-week cycle students gave oral group presentations. In addition, the Dublin students also handed in a written report. Only the target language was used during class contact hours.

A more detailed description of each individual task is provided below:

1. **Film review**
   The objective of this task was to make a review of a film in the target language.

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Students were asked to select in groups a number of films from their own country which they found interesting and which they thought would also be of interest for their tandem partners. After a group discussion on the films, one was chosen to be viewed by the students in the tandem class. The Barcelona students chose *Airbag* and the Dublin students decided on *Michael Collins*. Students then discussed with their tandem partners the criteria to be used in the film review and proceeded to watch the film. Students were encouraged to ask their tandem partners if there were any aspects of the film they did not understand.

2. **A night out in Barcelona/Dublin**
   The goal of this task was to draw a route and a budget for a night out in Barcelona (for the Irish students) and in Dublin (for the Spanish students). First of all students discussed possible places where young people go out in their own towns and e-mailed their tandem partners with a range of options and a description of their usual routine on a weekend night. The next step was to decide on what places they would like to go to if they had the opportunity to spend a weekend away in Barcelona/Dublin, and draw a budget for the night. The oral presentation consisted on a description of the different restaurants, pubs and clubs they had chosen to include in their route, how to get from place to place, and opening/closing times for each type of venue. Students exchanged entrance tickets, and leaflets from different venues by scanning them and putting them up on a web page.

3. **News that matters**
   Students were asked again to work in groups and choose a current topic of interest to them. They prepared a presentation in PowerPoint treating this topic from the perspective of current affairs in Spain and Ireland, and then on a more individual basis, giving their opinion of and the way in which this topic affected their tandem e-mail partners. For example, one of the groups chose the topic of modern music, compared the top 40 charts in Spain and Ireland, but also commented on the personal preferences of their tandem partners. Very different topics were chosen which were of different levels of depth and complexity, e.g. terrorism and tourism.

4. **Stereotypes in TV advertising**
   Students were given some reading on the analysis of TV advertising and use of stereotypes. They were then asked to tape from their local TV channels a number of advertisements that exemplified the use of stereotypes in their countries. These tapes were then sent to their tandem partners. Once the tape with adverts in the TL was received, students chose certain stereotypes and made an analysis of their use in TV advertising in Spain and Ireland.

3.3 Data collection

Three types of data were collected:

- We have a complete record of each exchange, with timestamped messages. These messages were automatically recorded with the ETR tool used for writing the

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messages and students granted us consent for using these messages for research purposes. Since the authors of this paper were the two teachers involved, students were told that these messages would not be read until the academic year had ended and students had been awarded their grades. The ETR tool recorded automatically the number of words, messages and approximate percentages of words written in each language.

- Before the beginning of the exchange we collected general information such as computer literacy and previous experience with the TL.
- The Dublin students included feedback on each task in their written reports.
- All students gave us written feedback after they had completed all four tasks.
- The outcome of the tasks they carried out (eg. Power Point presentations).

We found that the collection of data in a variety of manners helped us ensure that we used reliable data. This is particularly difficult when conducting research in e-mail tandem exchanges. In a study using personal e-mail accounts and relying on students sending copies of the messages it is often difficult to obtain a complete record of interaction. However, sole reliance on student questionnaires can yield unreliable data for reasons such as the desire of the student to please the researcher or to hide lack of participation from the teacher. For this reason we decided to collect all messages but promised not to read the messages until the academic year was over in the hope of counterbalancing to a certain extent the impact that our intrusion might have in the writing of their messages.

We were able to contrast student feedback with student participation and discard the feedback given by students who did not fully participate in the exchange. For example feedback such as the following was ignored after finding that this student had only sent a total of 84 words to her tandem partner:

> "From my point of view the TANDEM PROJECT had being very interesting and funny. I have learned very much because the Irish student corrected me the mistakes. Sometimes Mark didn't write me but the last week he wrote a lot. … I think that in general the TANDEM PROJECT had being a good and a fantastic experience, for this reason I haven't suggestions for change."

All the data we have used related to learners has been checked upon the subject's levels of performance. A number of problems such as student drop-out rates or illness rendered some of the exchanges unsuitable for our study. The data examined in the following sections belongs to the 18 subjects who wrote to the same person for the four tasks.

4 Results

4.1 Student feedback

When asked to rank tasks from most to least popular the second task, *A night out in Barcelona/Dublin* proved to be the most popular. The least popular was the *Film review* task. *Stereotypes in TV advertising* was very popular in Dublin and the third task, *News that matters*, yielded very mixed responses: it was either seen as very good or very bad, but all answers were consistent within members of the same groups. A brief summary of

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students' responses follows here. These responses are provided in more detail in Section 5.

- **Film review**
  This was the first task and students report that they were unsure about what was expected from them. We should take into account that these were first year students, so this was the first task they did in a new educational context and the approach was very different from what they had experienced in secondary school. The choice of film definitely had an impact. *Airbag* contains scenes that would have been censored in Ireland and treated as controversial topics. It took some time for the Irish students to overcome the 'shock' and understand the film. None of them liked it, so even if they were interested in cinema, this particular film was not popular. The feedback from students at the end of this task focused on the tandem exchange and the experience of writing to a student in Barcelona, and there were very few comments on the task itself other than the fact that they found the film weird and hard to understand.

- **A night out in Barcelona/Dublin**
  This task was very popular, not only because of the night life, but also because we worked with maps of Barcelona and it appealed to them getting to know the city, its different areas, how to get from one to the other, etc. They were also very interested in finding out details of everyday life, eg dinner time in Spain. The popularity of the project is reflected in the following statement by a student:

  > "Without this project, I wouldn't have been writing anything near the amount of Spanish I have been writing over the past few weeks".

- **News that matters**
  This task was experienced very differently from group to group. Students who succeeded in choosing a topic they were really interested in enjoyed it, for example, students who chose the topics of Tourism or Music enjoyed it but some students realised that they were actually not that interested once they had started and some reported they found they had too much freedom to do what they wanted! They would have preferred to have been given a topic and more guidelines. They found the job of structuring and narrowing down a topic overwhelmingly difficult. This again may be due to the fact that these students were first year students and still not very used to giving formal presentations or working on assignments of a large size. However, they all seemed happy to have developed their presentation skills, very positive about having learnt to use Power Point (they could see the immediate benefits for their work in other subjects), and responded very positively at the part of the project where they had to present and analyse their tandem partner's presentation.

- **Stereotypes in TV advertising**
  This task was very positively received, and this was perhaps reflected more in the high class attendance and class participation, than in the number of messages exchanged through e-mail. One of the reasons may be that the project was more

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popular in Dublin than in Barcelona. The possible reasons for this are discussed in Section 5. It was the most academic task and was also probably the most intellectually challenging. Students were pushed to argumentation and analysis and seemed to be ready for this at this later stage of the course.

In relation to the writing of messages to a tandem partner all students reported that they enjoyed the opportunity of writing to a person of their age who was a member of their TL community. They were also all very aware of the commitment involved, in the words of one of the students: "it requires responsibility, commitment and dedication". This commitment was, however, not always seen in a positive light since unequal levels of commitment led to frustration on some occasions. These comments made us, the teachers, even more aware of the importance of coordination between us. It is, for example, crucial that deadlines for both groups are the same and that the requirements on both sides are equivalent.

4.2 Levels of participation

As can be seen in Figure 1, the task that produced most words in the e-mail exchange was also the task that was most popular, *A night out in Barcelona/Dublin*. The difference between the number of words produced by the other tasks is not very noticeable. We can observe a slight decrease in the number of words that takes place in task 4, where participation decreased on the Barcelona side. The reasons for this are not clear, one of the possibilities is discussed under the factor 'expertise in the topic', since the degree of expertise on this topic for the Barcelona students and the Dublin students was quite different. However, there is also the possibility that students in Barcelona suffered more from high demands in other subjects coming closer to the exams.

Figure 2 shows the number of messages that were sent by all nine constant pairs for each task. Here the difference between the second task and the other three is smaller. This may suggest that an increase in participation for a more popular task occurs by means of longer messages and perhaps higher engagement with what they write, rather than in more frequent communication between tandem partners. This is of course a very tentative interpretation. For a more conclusive interpretation we would need more data collected within an experimental framework that allowed for manipulation with the dif-

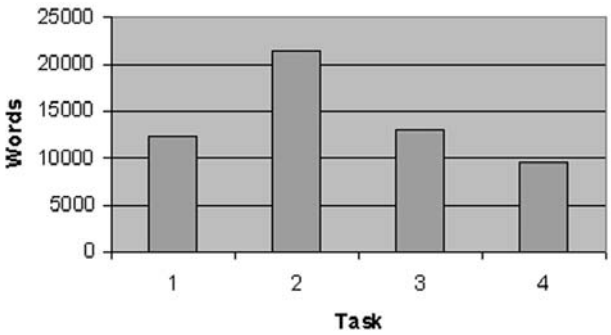


Fig. 1. Average number of words per task (constant pairs).

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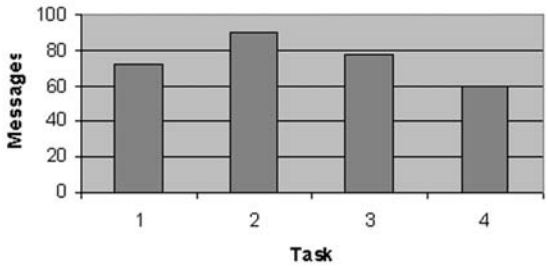


Fig. 2. Average number of messages (constant pairs).

ferent variables. We discuss our plans in this respect in Section 6.

Finally, it is important to point out that the levels of participation in Figures 1 and 2 are related to interaction with e-mail tandem partners. Students also participated in class, producing written reports, oral presentations, gathering materials to be exchanged (tapes, flyers, etc) and interacting with other members of the groups they were working in.

5 Factors affecting motivation and task performance

The following is a non-exhaustive list of factors that were drawn as a result of our pilot experience. They are related to the variables in Robinson's model and the constructs advanced in Section 2, and linked to the performance data we obtained as well as to the subjective feedback we obtained from students, the idea being to advance a series of hypotheses or questions which would require careful experimental testing.

1. *Interest in the meaning to be exchanged*
   This factor has to do with strictly the task content or topic. In our experience, the four topics were originally suggested by the instructor and discussed with students. Three of the four topics were, we believe, of general interest for all students and only the fourth one (*Stereotypes in TV advertising*) had more of an academic charge. In the discussion at the beginning of each task it was made sure that students had things to say about each topic, and the specifics were 'negotiated'. We did not set about negotiating the actual task. We believe that it would be possible to do so if we were to carry on for a second year with students who are already familiar with a task-based approach. In this case, however, students' previous experience with language learning came from very traditional methods where they had not been given the chance to make many decisions on their language learning. Their unfamiliarity with the task-based approach in addition to the introduction of new technologies led us to the decision to allow little freedom in choosing the task, but to allow for choosing topics within some tasks.

   The third task, *News that matters*, was the task in which students had most power of decision in choosing topics of their own interest. However, some students found it difficult to know what to do with this freedom, and to evaluate the degree of their interest. These difficulties were experienced in particular by a group who chose the topic of national festivities, which they thought was interest-

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ing in general but which they later realised was only of superficial interest. This is not to say that students never know what their interests are, but that we cannot expect all students new to this approach to be able to take initiative from day one.

Although this factor cannot be specifically related to any of the variables advanced by Robinson, we believe if falls into the category of affective variables which constitute the difficulty dimension. We need to test the effect that having the students choose the topic from the onset may have on motivation and performance. Does the fact that they take responsibility for the task topic and goal have any influence on their motivation and participation?

2. *Personal dimension*

We understand personal dimension in terms of Chapelle's construct of 'authenticity' and as a factor that would fit in the affective variables in the difficulty dimension. It is the extent to which the student can make the link between the task and a real situation of interest to them that appeals to the personal dimension. However, in this context one can say that no matter how likely a student is to encounter a situation in the real world where they have to use the TL in the same way they are required to do within the task framework, e-mail communication with the tandem partner remains a reality. All tasks were authentic in the sense that they had to communicate with a real partner. However, each of the four tasks was perceived differently as to what it could provide them at a personal level. The personal dimension of the task, we believe, constitutes an affective variable which has an effect on motivation and hence on their willingness to participate. This could be hypothesized by saying that the more they get from the task at a personal level, the higher the motivation and the better their performance.

Our figures show that the second task, *A night out in Barcelona/Dublin*, triggered the highest number of exchanges as well as the highest number of words per message. Several comments in students' feedback clearly show that the information they retrieved from the task could be used by students themselves. In the following comments, the Irish student is clearly making (and taking delight in!) the link between the task and a possible future situation in which she will be able to use what she learnt in the task.

"Cuando tuve un problema, por ejemplo cuando necesité más información sobre un lugar, escribí a María y me mandó la información muy rápido. Ahora estoy segura que si voy a Barcelona, tendré muchas cosas a hacer por la noche y yo sabré donde están situada".

(When I had a problem, for example when I needed more information about a venue I wrote to María and she sent me the information right away. I am now sure that if I go to Barcelona, I'll have plenty of things to do in the evenings and I will know where to go.)

In this same task, many of the Irish students where gripped by everyday life routine such as the late dinner times and very late closing times for pubs and

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clubs. All these students spend their third year in college in a Spanish university, and clearly all this information was pertinent to their stay abroad.

3. *Involvement in the decision-making process*
As we said before, the topics of the tasks were originally suggested by instructors but then discussed with students. More specifically, at the beginning of each task during the pre-task phase the goal, the content and the steps to follow were negotiated with students so that they would have a clear idea of what to do. We believed that the more involved in the decision-making process the more responsible they would feel for it and the more successful the task would be. However, this may have been the flaw in task 1 where decisions were made in the wrong direction. Students in Ireland decided what film Spanish students should see and they were not thrilled about it. Students in Barcelona decided on a film which students in Dublin definitely did not like. If we were to repeat this task, we would reverse the decision-making so that Spanish students delivered the information on several Spanish films and Irish students made the decision based on this information. Then whether they liked the film or not after watching it, it would still be the film they chose.

Another aspect to take into account when carrying out tasks in tandem is that students in the groups can have different levels of experience/maturity which demand different levels of decision power. Students in Dublin only started showing signs of willingness to make decisions in the last task. However, several of the students in Barcelona who were one year ahead in their studies asked for more participation in the decision-making process.

"también sería interesante que si queréis que tengamos un trabajo que realizar con ellos, que nos lo dejarais elegir"

(It would also be interesting that if you want us to do a project with them, that you allowed us to choose which one to do.)

This factor, which we believe is closely related to our first factor of 'interest in the meanings to be exchanged' would also constitute an affective variable within Robinson's model. We believe that negotiation had a positive effect on motivation and consequently on task performance and should be considered when testing tasks in an experimental fashion.

4. *Expertise in the topic*
This factor can be directly linked to the variable of prior knowledge in Robinson's model, and our position about this is that the more they know about the issue the more confident to talk about it they are. However, what remains to be tested is whether a considerable difference of 'expertise' within each pair may have demotivating effects on the non-expert. In our case students in Barcelona theoretically knew more about stereotypes since it was a media-related topic. However, questionnaires show that Irish students were highly motivated about this issue in which they were not experts. On the other side, however, participa-

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tion by the Barcelona students decreased during this exchange. The question remains whether these students felt demotivated because they were asked to work together with 'non-experts' or simply because it was the last task of the year and demands on other academic subjects seemed to be higher for the Barcelona students.

One could argue that the second task, a night out, made all students experts in the topic, which would have contributed to the high motivation and participation in this task. However, the first task, a film review was also a topic where the Barcelona students held some expertise. In this case it may be the choice of film that made the task less popular.

5. *Intellectual challenge*

This relates to the complexity or cognitive factors advanced by Robinson. The hypothesis here would be the more intellectually challenging the more motivating. The only evidence we have is the fact that the people who chose the most complex issue in the third project, *News that matters*, did the best job in terms of quality of presentations, and enjoyed the task more than others who had chosen more shallow or easy topics. The advertising project was also very popular in Dublin, and it was probably the most intellectually challenging. If we consider the factor of 'expertise' here we may say that the fact that they are not experts in a topic does not necessarily mean that they will be demotivated. It has to be seen in terms of whether the fact that one's partner is more of an expert in a topic may have negative effects on the interaction and, consequently, on motivation and participation. Students in Ireland worked with a passage from a Spanish book which was quite formal and academic, and we pushed students to make an analysis which was quite complex in relation to what they had done before. For the Irish case, then, intellectual challenge had a motivational effect. This is clear from some of the student feedback:

"Tenia discusiones interesantes entre mis amigos y la professora"
(I had interesting discussions with my friends and the teacher.)

"Para este proyecto es importante pensar para si mismo"
(For this project it is important to think for yourself.)

"this project has taught me that I need to be able to talk in Spanish about particular subjects at a higher level than everyday language"

6. *The media and materials used*

The medium (e-mail) was motivating in itself. For all the students in both countries, who had very little experience with using e-mail in general, carrying out a language task via e-mail was definitely a motivating experience. By 'media', however, we also mean the different computer and video resources used during the different tasks. For example, in the *night out in Barcelona/Dublin* task students exchanged not only messages but also image files with city maps or bar flyers. When the teacher suggested that overhead transparencies were used for

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the first presentations students showed surprise, since they seemed to think that such material should only be used in more academic or subjects they perceived as more 'serious'. Unfortunately this is a problem you often have to deal with in the language classroom and which is in our opinion detrimental to the students' motivation to participate. The fact that the outcome of their tasks was taken seriously, and that they were expected to deliver in a formal setting raised motivation. We believe that the use of different media, which in some cases were new to students, may have added to the reasoning demands imposed on the task. The issue to be tested would then be whether increasing complexity by encouraging the use of a variety of media may have an effect on motivation and performance.

In the second presentation, Power Point was used. In our view, these visual aids contributed to making presentations more visually appealing. Finally, we also realized that using media that are used in the real world contributes to making tasks authentic for students. Students were enthusiastic to learn a skill in the language class which they could transfer to other academic subjects.

7. *Visibility/diffusion of outcomes*

Apart form the media used in their presentations, we also saw that making the outcome of their tasks visible had a positive effect on motivation, which in Robinson's model corresponds to difficulty factors. This is the case with presentations of *News that matters*, in which their willingness to be accurate was increased by the fact that the presentation was video taped and sent to their partners in the other country. Also, in their third project, students were told that their work would be shown on a web site designed for the project, which we believe had a positive motivational effect. The visibility and diffusion of outcomes, however, does not just contribute to their willingness to be accurate but also to the improved quality of their materials. We believe outcome visibility pushes students to do more research since their material on a web page no longer looks like a college assignment, but is a real reflection of the author's opinions on a certain topic.

However, our questionnaire did not elicit any response on this factor. The only evidence of its impact we have is the amount of work invested in the presentation which was put up on the web, and the higher level of accuracy than for the presentation slides, which were only used in class. We need a more careful experimental design to incorporate the evaluation of this factor.

8. *Competition/collaboration*

This has to do with participation variables in Robinson's model. All of our tasks were one way (i.e. one student had the information which he/she provided to his/her partner) and all of our tasks were open (i.e. there was more than one possible solution). In addition to that, they were all collaborative. In our four projects each student prepared a presentation with a couple of other students in the class. In order to carry out the project, they needed the information provided by their partner in Ireland, who was in charge of a different project. This meant that e-mail partners only provided information, but did not have to negotiate anything else. Another possibility would be to ask each pair to do the same presentation,

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and therefore negotiate the content, the steps, the structure, and the appearance of their work.

The experience with the third task showed that a common project would have been desirable. Some of the students' feedback suggested that they should have had the same topic as their tandem partner. Another interesting aspect of this task is that interest kicked in and the number of e-mails went up at the point when they had to present their tandem partners' projects. Before that, little exchange took place. This factor, which has to do with how information flows between tandem partners, whether the task has only one possible solution or several, and the roles of participants in each task, should be at the center of our future research. The manipulation of participation variables, in their correlation with motivation, we believe will provide us with the most useful information about what goes on in task-based e-mail tandem learning.

9. *Evaluation*
   This is a factor that we have no evidence for in this study since all tasks were evaluated and given a mark which was a proportional part of the final mark for that course. However, previous experience in using tasks in non-compulsory courses by one of the authors, and our student response, shows that it is very difficult to carry out a task if students' effort is directed towards passing an exam that is not task-based. This is an ongoing issue in task-based language teaching approaches.

6 Conclusion and future work

We have carried out a pilot study on e-mail tandem task-based language learning. We are satisfied with the experience and we have very positive overall results. However, the results also show that there is plenty of room for improvements and that more research is necessary in the area.

As we have shown in this paper, e-mail tandem language learning was integrated into a wider pedagogical framework where other elements, apart from just e-mail itself, contributed to motivation and wide performance. Like Ushioda (2000), we believe that if students had not been given tasks to do the e-mail tandem learning experience would have been completely different and we do not believe motivation and participation would have been as high as they were. In order to compare goal-oriented e-mail tandem communication with personal/conversational e-mail tandem communication, we are currently having two groups of students, one in Barcelona and one in Dublin, use the ETR interface for communication but without specific tasks to carry out. We hope to be able to compare the results of the interaction with the results of a more controlled, task-based experience in the spring term 2002. We would like to include in our analysis, in addition to a quantification of number of words and frequency of communication, a qualitative study of the interaction between tandem partners who are carrying out tasks with different patterns of collaboration.

In the pilot project described here, we have established the factors that affect motivation and performance in our specific context: an e-mail tandem and task-based approach. We plan to use Robinson's model in our future work, and we have now identified the fac-

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tors that we would like to focus on within this model as well as the factors that we would like to add (media and materials used, visibility of outcome and involvement in the decision making process). We believe that the variables in Robinson's model, which are meant to help the syllabus designer to sequence tasks from simple to complex in a syllabus, can be tested and manipulated to achieve higher levels of motivation and higher levels of participation in the performance of an e-mail language learning task.

In this sense, our future research should consider the following ideas:

- It should distinguish between the three dimensions advanced by Robinson, which have been defined in this paper. The cognitive dimension, which would include only those aspects directly related to the complexity of the task (and where our factor of intellectual challenge and expertise in the topic would be included), the interactive dimension (where the factor of cooperation/competition would be found), and the difficulty dimension, where motivation would be at the center (our factors in this dimension would be their 'interest in the meanings to be exchanged', 'involvement in the decision-making process', 'personal dimension', 'media and materials used', 'visibility/diffusion of outcomes' and 'evaluation', all of which, in our view, constitute affective variables).
- It should also explore the different levels of interaction between the three dimensions of the model in a more strict experimental setting. It should therefore correlate motivation and affective variables with the variables of the cognitive and interactive dimensions.
- Our future research should establish a priority of factors to analyze. At this point we believe that by manipulating interactive factors we should be able to obtain information about what motivates students the most and what makes them write the most. This is why our most immediate plans are the manipulation of the cooperation/competition factor.

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