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A Virtual Peer Tutoring Project to Improve Communication Skills

This article exposes an educational proposal of virtual reciprocal peer tutoring that has been devised to improve communication skills between primary school students from Catalonia and Scotland by each developing the role of tutor in their language, and that of tutee in the foreign language based on a virtual exchange. The results of this experience show that offering communication tools and strategies to students during initial training in their role as a tutor can be beneficial to satisfactorily fulfil their role, as well as anticipate future synchronous interaction in the foreign language. For later implementations, it is determined that the degree of participation and involvement of the student tutors in the preparation of the materials for their respective tutoring could increase the learning opportunities of both sides. This experience is easily applicable to different languages and countries.

Keywords: peer tutoring, peer learning, educational innovation, language learning, virtual learning environment.

Introduction

According to Piaget's developmental psychology studies, learning occurs through interactions with others. However, Vygotsky added that learning is generated when these interactions take place in an asymmetric relationship between the components. Based on these theories, peer tutoring was born throughout the 20th century, taking peer interaction as a learning mechanism. As cooperative learning method, peer tutoring consists of creating pairs of students in which one develops the role of tutor -and learns by offering pedagogical aids- and the other, as tutee, learns thanks to the personalised aids offered by the tutor (Topping et al., 2015).

One of the intrinsic concepts in peer tutoring is that of learning by teaching (Duran & Topping, 2017). It is important to pay special attention to the learning of students when taking on the role of the tutor to ensure their learning. Research shows that, under certain conditions, the activity of teaching involves learning opportunities for those who develop it, as it promotes people making their ideas explicit and being grounded in a context to construct different knowledge from what they would use simply as learners. In this regard, the most recent research on peer tutoring highlights the value of the children's initial training the tasks derived from their role in the pairs and the evidence indicates that the key to the success of this cooperation process is the mediating function of the tutor (Duran et al., 2019; Topping et al., 2017).

Peer tutoring has generally been developed in face-to-face environments in schools, but recently there are practices and research in which pairs interact virtually, thanks to the use

of digital resources (Thurston et al., 2009). The educational proposal presented in this article was designed and implemented based on the results of these recent practices and research. It is a reciprocal peer tutoring proposal between students in the upper stages of primary education from a Catalan school and a Scottish one. Its goal was to improve their communication skills in English and Spanish, using digital resources as a means of communication between the students from both schools. In the case of Catalonia, the project was named *"Hablemos con… Scotland!"*, and in the case of Scotland, it was named *"Talking to… Catalunya!"* [1].

The project presented below has been built on the theoretical bases of peer tutoring as well as on two other pillars, which are teaching and learning through technological devices and language skills.

On the one hand, the recent technological development, and the incorporation of technologies in schools has brought great benefits as technology is understood and used as an instrument to implement the transformations that formal education needs to respond to the new social demands. In fact, the progressive inclusion of virtual environments opens the possibility of breaking through the spatial and temporal boundaries that delimit a classroom, as well as establishing communication spaces between students from different countries, enhancing the presence of collaborative contexts where authentic communication in a foreign language (L2) and learning from peer interaction can occur.

Previous research on reciprocal and virtual peer tutoring (Thurston et al., 2009) suggested that real-time interaction between students could facilitate more accurate and fine-tuned tutor-to-tutee feedback (Topping et al., 2013). So, in this project, technology plays an important role, because it can make it easier for the student tutor to adjust the aids immediately according to the needs of the tutee; in addition to being the means by which these exchange opportunities can be realised, synchronously. In the same line, Vinagre (2010) already points out that a possible good practice could be the application of a tutorial between students to teach and learn a foreign language, trying to have the students rotate, prepare a topic, and present it to their partners online.

On the other hand, about language learning, Camps et al. (2006) stated that the cognitive processes specific to language acquisition are operations situated in verbal interaction and, furthermore, added that interaction and cognition are inextricably linked through socially situated verbal activity. Therefore, interaction – the main pillar of peer tutoring – can bring considerable benefits to language learning.

One of the linguistic issues that has been addressed in the designed educational proposal has been correcting errors, as during the peer tutoring sessions of this project the students had to give feedback to their partner while performing the tutor role. The correction of oral production entails a greater degree of complexity than the written one, due to the immediacy of decision-making and the impossibility of being able to plan beforehand. In addition, unlike in writing, oral speech allows the recipient of a speech – the tutor student – to detect the self-corrections made by the sender – the tutee student –, since in the written language they are suppressed (Vilà et al., 2002). In this case, the synchronous oral interaction could produce a dichotomy: on one hand, it could encourage the tutors to adjust their corrections to the needs of their partner, but, on the other hand, the fact that the tutors had a limited time to reflect on the detection of errors and the help they offer - contrary to what they would in a written context - made it even more complex and, therefore, required the initial training of the tutor role that has been referred to in previous paragraphs.

Therefore, peer tutoring has the potential of becoming a great pedagogical approach in foreign language teaching, as demonstrated in the *Reading in pairs* program (Duran et al.,

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1   To know more, visit https://grupsderecerca.uab.cat/grai/en/node/14531.

2019). This is a peer tutoring program, with family participation, to improve reading comprehension and speaking in English as an L2. The results of the implementation of this program indicate that peer tutoring applied to the teaching and learning of foreign languages encourages students to interact and communicate in that language, also the nature of the interaction makes them feel more secure and confident to do so in a smaller environment than an open class.

Furthermore, apart from specific language skills, peer tutoring can also encourage the development of cross-cutting skills, such as socio-affective, organisational, interaction management, cognitive and reflective skills (McLuckie & Topping, 2004).

In this way, the purpose of the project was that during four virtual exchange sessions, the participating students would improve both in the foreign language, based on the help provided by their peer tutor, and in their own language, offering pedagogical help to the respective tutee. Thus, the proposal sought to address two aspects: firstly, taking advantage of the diversity among students to work on linguistic competence and, secondly, using technology and access to the Internet as instruments to establish spaces for communication between students of different countries, creating collaborative contexts of authentic communication and learning.

Design of the didactic proposal

Justification

The creation of the educational proposal that is exposed in this article is based on the results, already developed in several articles, of another reciprocal and virtual peer tutoring project to improve language skills in Spanish and English (Duran et al., 2010). In that case, learning was done by writing and reviewing written texts. The project was a variant of email dialogue journaling and its results determined that the degree of help provided by the tutor has an impact on the learning opportunities of the tutee. Specifically, it was stated that help by clues promote learning, but at the same time the reflection on how this adjusted help is offered also promotes the tutor's learning (Duran et al., 2010; Blanch et al., 2014). The research articles referring to this innovation concluded that the interaction in real time, in a synchronous way, could be more effective to guarantee accurate and adjusted feedback from tutor to tutee (Topping et al., 2013).

Aims

The project "*Hablemos con... Scotland!*" or "*Talking to... Catalonia!*" targets fifth grade primary school students from Catalonia and Scotland (10-11 years old) and aims to approach and improve their communication skills in English and Spanish, from a communicative and pragmatic approach to the language, based on authentic practices that involve real acts of communication and expression. In this case, the progressive incorporation of virtual environments opens the possibility of breaking with the spatial and temporal limits that define a classroom, as well as establishing spaces for communication between students from different countries.

Bearing in mind that the proposal was to be applied in two schools of different educational systems, both the Catalan and Scottish curricula were considered, and the main elements were delimited to develop a common project. Thus, both curricula agree that the

goal for oral communication within the foreign language subject is for students to be able to make a short presentation about themselves and participate in simple conversations by the end of primary school.

In this way, the general learning intentions that were established in this proposal were: to learn about the basic social and cultural elements of another country; to develop language skills to meet and converse with a foreign language speaker; to interact with people from other social, cultural and linguistic contexts; to reflect on their own learning and that of others that arise from an act of reciprocal teaching and learning; and to develop a positive attitude when interacting and collaborating with the peer group.

Methodological sequence

The development of this educational experience has three phases, exposed in Figure 1: the initial training of the students, the preparation and virtual exchange, and the final evaluation of the experience.
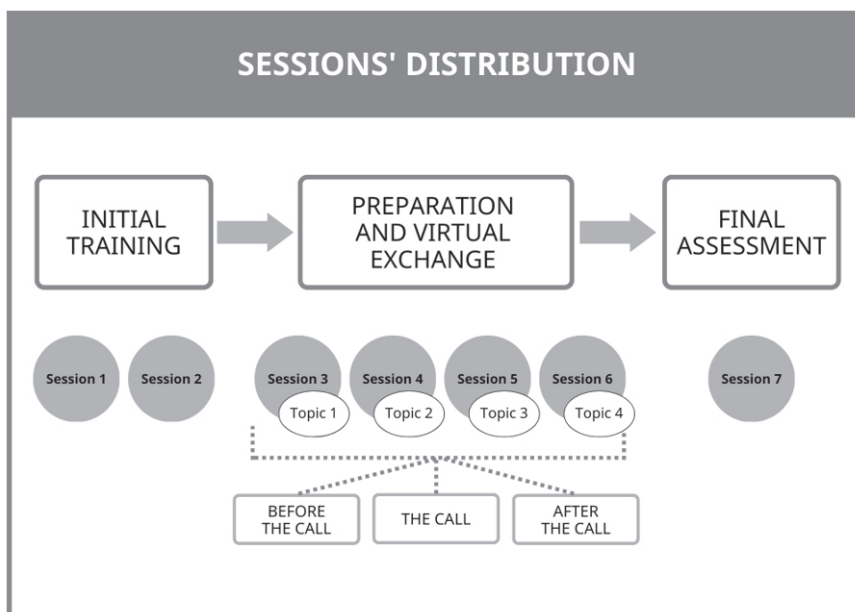

Figure 1. Sessions' distribution of the project (own editing).

In the first phase (initial training of the students), two sessions were dedicated to training the students in the peer tutoring method and the roles that they had to develop in the pair (tutor and tutee). This initial training, as literature underline, is crucial to ensure the proper functioning of the roles in the tutoring, since experienced or trained student tutors develop a metacognitive awareness that allows them to help the tutees in an adjusted way. In addition, it allows to train tutors in strategies to generate challenges in the tutee, instead of only giving explanations or even direct resolution to the error. Evidence indicates that the key to the success of this cooperation process is the mediating role of the tutor (Duran et al. 2010; Blanch et al., 2014; Duran et al., 2016).

In the second phase (preparation and virtual exchange), four sessions were designed to focus on preparing the linguistic content regarding a specific communicative situation, and

conducting a subsequent virtual exchange with their partner from the other country. Each meeting corresponds to a communicative situation or scenario, all of them related to meeting another person (introducing oneself, describing a place, etc.). These sessions were the central part of the proposal since it is where the virtual peer tutoring had to happen.

In the third and last phase of the project (final assessment), a session was devoted to assessing the experience by all the agents that participated in it, (students and teachers).

Assessment Tools

As in any educational experience, the evaluation had to be a key element to be able to assess the entirety of this didactic proposal and to develop an ongoing oversight of the teaching-learning process. In this way, two types of evaluation tools were established: some specific and others continuous, as can be seen in Figure 2.

ASSESSMENT TOOLS	
SPECIFIC	CONTINUING
initial assessment questionnaire final assessment questionnaire	learning diary observation support material review

Figure 2. Assessment tools classification (own editing).

On the one hand, the specific assessment tools were the initial evaluation questionnaire and the final evaluation questionnaire. The former was aimed at identifying the students' previous learning in relation to the contents that would be worked on throughout the project. And the latter intended to find out how the participants –students and teachers– have lived the experience individually and collectively, as well as the possible improvements that could be derived. Both questionnaires had to allow the students, at the end of the experience, to compare their starting and ending points and, therefore, determine what their learning process had been.

On the other hand, the continuous evaluation tools were the learning diary, the review of the support material and the observation. The diary allowed students to record their own learning and what they believed they had produced in their pair. Both the review of the material and the observation had to be measures that would allow the teacher to identify how the learners' process was during the implementation of the didactic sequence and to be able to differentiate, if it was considered that any student required additional support.

Resources

This practice required the collaboration of the class teachers with the foreign language teacher and, if available, the support teachers, who facilitate a set of teaching and learning activities between teachers and students, between students of the same classroom and students from different schools. In this way, the didactic work begins in the classroom and goes beyond its limits using technological devices.

The development of the activity required the use of self-made materials, such as a project dossier and support materials (conversation guides, vocabulary documents and audiovisual pieces) to prepare the linguistic content corresponding to the theme of each call.

In the case of a didactic proposal that focuses on the synchronous virtual exchange between students from different schools through video calls, it is required to have a computer or tablet with access to the network and a set of headphones for each student, in addition to access to a virtual learning environment created for the project.

Development and results of the experience

This experience was carried out in a group of twenty-five students from Escola La Maquinista (Barcelona) and another group of twenty-six students from St. Joseph's R.C. Primary School (Aberdeen). It took place between the months of February, March, and April 2022. Throughout its application, a series of evidence were collected, which are set out below, respecting the phases of the project, and are already mentioned and referenced in Figure 1.

Initial training of students

The first contact with the project included two sessions in which the students were introduced to it. They received training in the roles of reciprocal peer tutoring (tutor and tutee) and the students became familiar with the materials support. Of all the activities carried out, the most relevant are highlighted below:

- *Exploration of the students' previous knowledge*: in the initial evaluation questionnaire the students had to assess from 1 to 5 the level of knowledge they believed they had regarding the foreign language and peer tutoring. In the case of the students in Catalonia, in general they indicated varied responses, without a very marked trend. In contrast, most of the students in Scotland tended to be more optimistic about their responses and rated all items between 3 and 5. The teacher of this group stressed that these answers could be conditioned by the excess of self-confidence widespread in the group. These results, together with the knowledge that the teachers had of their respective students, were used to create the pairs, composed by students with similar levels of linguistic knowledge.
- *Debate on the qualities that a tutor and a tutee should have*: through a group dynamic, the students had to establish what qualities a good tutor and a good tutee should have. The most mentioned qualities in reference to the tutor were "patience", "understanding", "knowledge", "to be able to predict'', "respect", "kindness", and "empathy". On the other hand, among the most mentioned around the tutee, were "patience", "active listening", "resilience" and "acceptance of errors". As the teachers pointed out, the sharing and feedback between the students allowed them to jointly construct what the roles should be during the calls and, in this way, feel more confident and secure when carrying out the tasks during the experience.

- *Practice of some strategies to make a good correction*: building on from the visualisation of audio-visual pieces in which conversation models were shown and a correction orientation was presented, the students put into practice different strategies of how to make a good correction. The audio-visual pieces were used as references and helped them to know how to structure the conversation that they would establish with their pair.

Preparation and virtual exchange

Once the training phase was over and the pairs had been created, the main sessions of the proposal were implemented, in which the virtual exchanges between the students of Catalonia and Scotland were prepared and carried out. Each week a call was held, which was framed by a central scenario or theme. In total, four calls were held. Each of the sessions in this phase was divided into three subparts: before, during and after the call. The development of each of them is detailed below.

Before the call

This part of the process included two parts: a first one focused on working on the linguistic content in a foreign language of one of the scenarios; and a second to prepare the oral discourse that they would present to their pair from the other school during the call.

First, the students at each school were divided into small groups, according to their level of knowledge in the foreign language, and they began to prepare the linguistic content of the week's communicative situation and the conversation itself, based on a video sample, a conversation guide, and a vocabulary document. The use of these resources and the cooperative work between the peer group should allow the students to be more autonomous during the call preparation.

The call

Once the oral presentation was prepared, the video call was made to their partner from the other school. The virtual exchange consisted of three steps. First, a student exposed their part in a foreign language and the other gave the feedback. Then they did the same process but reversed the roles – the student who had given the feedback went on to present their part in a foreign language and the other gave feedback. Finally, some time was offered for the two students to make comments or have an informal conversation.

During the calls, the interactions between the students were carefully observed. In this sense, special attention was paid to analysing two aspects: the structure of the calls and the feedback offered by the tutor. Regarding the first, it was detected that the students followed the structure of the calls. This could be thanks to the conversation guides, which facilitated this organisation of the speech from its preparation. However, in some cases the students relied on this guide excessively and tended to read it directly. This dependence on the guide meant that, in these cases, the speech was less fluid. Regarding the feedback of the tutor, even though it was generally satisfactory, some tutors offered help to unlock some barrier, especially pronunciation, that did not allow the tutee to continue advancing. Some tutors encouraged interaction with their partner by asking questions, which promoted establishing a more spontaneous conversation and less attention to the guide. Even so, despite having prepared on the roles during the initial training, it was detected that

some tutors directly gave the answer, instead of suggesting comments that would lead the tutee to reflect on how to correct the mistake.

An unforeseen situation during this part of the process was that some students from the same physical classroom offered pedagogical help to each other during the calls. This occurred mostly when the adult was busy and could not meet a student's demand. In these cases, the tutor responded to their tutee, providing help based on peer interaction within the same classroom.

After the call

After the call, the students had to reflect on what they thought they had learned, both themselves and their partner, through a learning journal. In general, it was observed that the students tended to describe what they had done, rather than reflect on what they had learned. In most cases, they described very specific aspects of the language that they had learned, especially regarding pronunciation. Therefore, in this regard, the students' attitude was not very reflective and profound regarding the learning of oneself and of others.

Final assessment

The last session of this proposal was intended to complete a final assessment of the experience. First, each student made an individual evaluation of the experience through an online questionnaire and then the initial evaluation questionnaire was recovered to contrast their initial ideas with the subsequent ideas. And, finally, the project was concluded, leaving a space for the students to share as a group what they gained from this experience.

Generally, the students from Catalonia scored higher and more positively than the students from Scotland almost on all the questions on the form. As can be seen in figure 3, most of them valued that they have had both opportunities to learn by teaching, and to learn from a partner. In the case of learning by teaching, that is, when they developed the role of tutor, they indicated that they have had the opportunity to learn because by correcting they have learned new words and have learned how to correct. And in the case of learning from a partner, that is, when they developed the role of tutee, the students indicated that they have learned because the partner has corrected their mistakes and they have provided each other with tools to resolve doubts.
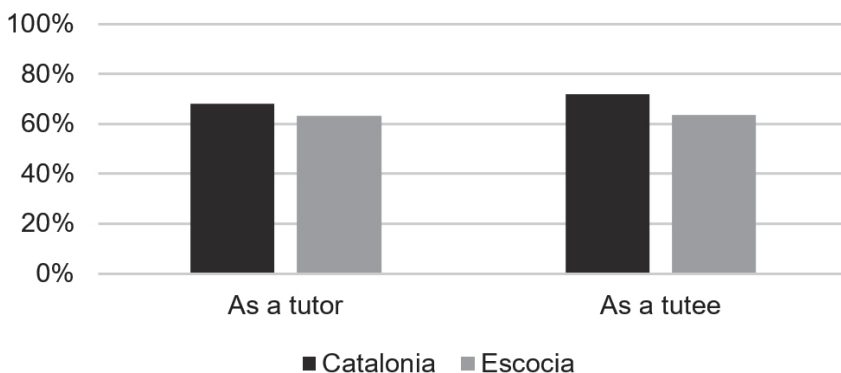

Figure 3. Learning opportunities, according to the students (own editing).

Guidelines for the application of the experience in other countries

Throughout the implementation of the project, evidence was collected that has made it possible to draw up a series of proposals to improve the project and to be able to make it available to teachers and schools. Below are the general considerations, including challenges for the future, which are summarised in four related topics: the feedback of the tutor, the synchronous format, the support materials, and the learning diary.

Firstly, oral communication is dependent between issuer-receiver and intangible. This fact added complexity in the tasks to be carried out by the tutor, one of them being the feedback. Although the initial training was able to provide students with strategies and resources to make a correction that would encourage metalinguistic reflection in the tutorship, some students still directly cleared the error. The preparation of the role of tutor was only contemplated in the initial training and the rest of the sessions, especially those destined to prepare the virtual exchange, were exclusively focused on working on the role of tutee. To improve this aspect, on the one hand, it is proposed that the training of the tutor role be extended to the virtual exchange preparation sessions, before each call; and, on the other hand, that the students, in the position of tutor, can prepare part of the support materials that their respective tutees will use. This could be a way of anticipating and involving the students even more in their role as tutors.

Secondly, the synchronous format was an added difficulty that conditioned the interaction between the students. In a previous experience of this work, it was prescribed that the interaction in real time could be more effective to guarantee a precise and adjusted feedback (Topping et al., 2013). Even so, in the case of this proposal, it has been detected that the lack of skill with the language could lead to the peer interaction not being very fluid. To prevent this possible barrier, a solution could be to record the presentation so that the student tutor can see them and have time to prepare the feedback; in addition to contemplating the use of consultation tools during the call, such as an online dictionary, for example.

Thirdly, the learning diary is a tool that did not quite offer the desired results, because the reflections of the students were too shallow. This may have happened because the students were unaccustomed to this type of dynamic. Hence, to improve the results, one proposal is to structure the learning journal in such a way that it includes a more detailed and sequenced follow-up for each part of the call session. Thus, the journal would have to be filled in after the call preparation (pre-call) is complete and after the call is made (post-call). Also, another proposal for improvement has to do with the active role that teachers should have in this dynamic. For this, it would be convenient to create a guideline that would detail what instructions should be given to the students to suggest the purpose of this resource and encourage them to make a more careful reflection.

Finally, one of the most common situations during the calls, already mentioned, was the students' high dependency towards the support materials, especially the conversation guides, which caused a certain rigidity in the interaction. This fact could be due to the little time they had, in general, to rehearse the speech or to the methodology used during the sessions prior to the call. A first proposal for improvement is to contemplate more sessions to prepare the linguistic content of each conversation. A second proposal is the creation of materials more focused on vocabulary and dynamics that involve more oral interaction; and, in this way, move away from dependence on supporting materials on paper. Thereby, the diversification of materials could facilitate meeting the different learning styles in the classroom.

From all these challenges that arose, the experience that has been described can be sufficiently enriched so that it can be applied in other schools, finding adjustments to maximise the learning opportunities, thanks to the creation of spaces for authentic communica-

tion between students from different countries. As it has been possible to verify, the inter-action of the students is crucial to turn the classrooms into learning spaces where they not only learn from the teacher, but also from the help that is offered from each other, using diversity as a learning mechanism.

Conclusions

In this little experience, peer tutoring can become an instrument with high potential for dealing with diversity since it can turn differences into learning opportunities and, thus, encourage offering more differentiation tailored to the students. Indeed, it has been found that this methodology can benefit students in vulnerable situations, especially those with emotional and behavioural disorders, since it leads to improvements due to the additional support that students receive from their peers.

The dialogue between tutor and tutee is undoubtedly one of the fundamental aspects of peer tutoring, since it promotes metacognitive activity, increases knowledge about when and how to use learning and problem-solving strategies, and self-regulates learning. In this case, dialogue and collaborative learning have been essential tools for building knowledge, based on mutual reinforcement.

In this proposal, teaching offers learning opportunities for those who develop it since it encourages people to explain their ideas and establish themselves in a context to build knowledge that is different from what they would use by solely learning. Regarding this, the initial training of students in the tasks arising from their role in pairs is essential to ensure the success of peer tutoring, as the key to the success of this cooperation process is the tutor's mediating role.

In this way, thanks to the development of new technologies, as well as their adjusted use to the needs that each project entails, it can facilitate the creation of spaces of collabora-tive learning, where diversity, not only between students within a class or year, but be-tween schools and countries, can become a good source of learning.

To sum up, the versatility of this project can allow it to be transferable to other lan-guages, to offer students opportunities to learn a foreign language in authentic contexts and strengthen ties of collaboration between countries.

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