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ORAL COMMUNICATION AND M-LEARNING IN THE PRIMARY SCHOOL ENGLISH CLASSROOM: PHOTOGRAPHY AND VIDEO AS A RESOURCE

Comunicación oral y M-Learning en el aula de inglés de primaria: la fotografía y el video como recurso

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ABSTRACT
The process of design, implementation and evaluation of the project 'Films & Photographs: An M-learning Experience in Primary Education' is presented in this article through the action research methodology. The project's main objective was to foster oral communication in the English language (as an additional language) using mobile devices in primary education through photography and video. Two primary school teachers of English, two university lecturers and an in-service teacher advisor from the Teachers' Training and Resource Centre participated in the project. The pupils, between ten and twelve years old, belonged to two different schools in the Principality of Asturias, Spain and the project was developed during the school year 2015-2016. The techniques used to collect data were participant observation, semi structured-interviews and a questionnaire. The activities were focused on the use of mobile devices (smartphones and tablets) to produce and edit videos and photographs. The results show students and teachers' positive perception about m-learning since they consider it has directly influenced the motivation to carry out the proposed tasks. All this has an effect on the improvement of the communicative, technological and artistic competences in the primary education context.

Keywords: Oral communication, m-learning, English language teaching, Primary Education.

RESUMEN
En este artículo se presenta el proceso de diseño, implementación y evaluación del proyecto 'Films & Photographs: An M-learning Experience in Primary Education' que se desarrolló a través la metodología propia de la investigación-acción. El objetivo fundamental del proyecto era fomentar la comunicación oral en lengua inglesa (como lengua extranjera) utilizando los dispositivos móviles en la Educación Primaria a través del uso de la fotografía y el video. En el proyecto participaron dos docentes de lengua inglesa de primaria, otros dos del ámbito universitario y una asesora del Centro de Profesorado y Recursos. El alumnado participante, de entre diez y doce años, pertenecía a dos centros escolares del Principado de Asturias, España y el proyecto fue desarrollado durante el curso 2015-2016. Las técnicas de recogida de información utilizadas fueron la observación participante, la entrevista semi-estructurada y el cuestionario. Las actividades se centraron en utilizar la tecnología móvil (smartphones y tablets) para la producción y edición de videos y fotografías. Los resultados muestran la percepción positiva del profesorado y del alumnado participante sobre el m-learning pues consideran que ha influido directamente en la motivación hacia la realización de las tareas propuestas. Todo ello repercute en la mejora de la competencia comunicativa, tecnológica y artística. Se trata, por tanto, de una propuesta novedosa que conjuga la integración de aprendizajes lingüísticos, tecnológicos y artísticos en el contexto de la Educación Primaria.

Palabras clave: Comunicación oral, m-learning, enseñanza lengua inglesa, escuela primaria.

1. INTRODUCTION

In our brain, the emotional and the cognitive spheres are distinguishable, but not separable. For this reason, from a neuronal perspective, the affective realm is an integral part of the cognitive field (Schumann, 1994). The contemporary context of the teaching-learning of languages is very complex and it is necessary for the teacher to successfully integrate all the necessary elements effectively, including motivation. Therefore, the introduction of new technologies in the classroom together with appropriate materials and a teaching methodology which is adapted to the needs of the students shall contribute to tackling the challenge presented by language teaching in our time (Levy, 2012).

Educating means communicating. Both actions have many features in common, because they involve specific cognitive processes related to the management and transmission of information, and they share methods, techniques and resources (Martínez-Salanova, 2016). Successful communication implies a significant understanding of information, which in turn affects the construction of knowledge, and makes it more complex and elaborate. In the 1970s and 1980s, educommunication emerged as a new field of theoretical and practical study that connects education and communication. This discipline, which was created by Freinet, became a heterogeneous and plural area of research that was expanded with the contributions by Freire, Kaplún or McLaren, among others (Barbas, 2012). It might be said, therefore, that the communicative competence is a key competence for learning that must be taken into account in each and every education proposal which is created (Alsina, Cañabate & de la Creu, 2013).

In order to be competent when communicating it is necessary to develop all the linguistic skills (Hymes, 1972). However, teaching oral skills has been completely pushed into the background in most schools in Spain, and this abandonment, almost omnipresent, has had very negative repercussions on the oral teaching of second languages. It might be said that the teaching of an oral language is not part of our

school tradition, which would in a sense explain the current shortages in that area. In the second half of the 20th century, the oral language was included in the first school years, but the focus quickly moved to the learning of reading and writing skills, assuming that oral skills were already being developed in the family and social spheres (Vilá & Castellá, 2014, 2015).

These authors emphasize the central role of oral interaction to structure the daily life in the classroom and the complexity presented by teaching oral skills, which generally goes unnoticed in the context of the mother tongue or other languages (Goh & Burns, 2012). In this regard, Ballesteros & Palou (2005) believe that most of the teachers find little appeal in teaching oral skills, because they think that they are difficult to approach, manage and assess. Vilá & Castellá (2015) point out that language classes must be based on experience, and they agree with Kaplún (1998), when he claims that «only what is lived, recreated and reinvented is really ever learned, instead of what is merely read and heard» (p.51).

With regard to the teaching of oral communication in second languages or foreign languages, it may seem that the need to master oral skills is widely assumed by all the participants. However, in view of the results of the national and international assessment initiatives that we will discuss below, it is appropriate to question the methodologies that are being applied.

This search for new education approaches to improve the teaching of the oral language is what motivates the inclusion of m-learning into the class of English language in primary school. Fombona & Pascual (2013, p.210) describe learning with mobile devices, mobile learning or m-learning as «the use of small portable devices, namely smartphones and tablets, in education», and they add that «these devices make it possible to digitally manage data and wireless connectivity for virtual interaction in the teaching-learning process». It might be said that m-learning focuses on a collaborative, flexible, spontaneous and informal learning based on problem-solving. These characteristics have promoted its fast inclusion in education practice and «have redesigned the education scene, providing education not only with mobility, but also with connectivity, ubiquity and permanence» (Cantillo, Roura & Sánchez 2012, p.3).

Apart from all these characteristics, what clearly contributes to the success of m-learning is the motivation it generates among the students. It cannot be forgotten that motivation has been one of the main areas of study in language learning for decades, and since then it has been recognized as a differentiating characteristic that can help us understand why some people are more successful than others when learning a language (Dörnyei, 2001, 2002, 2005). As Scovel points out (2000), motivation, affectivity and emotions have a considerable influence in language learning, and for this reason it is essential to pay attention to the emotional environment of the classroom (Ibarrola, 2013).

Nowadays, mobile phones have evolved from a technological object to a cultural device appropriated by the entire society which has transcended the merely communicative field (López & Gómez, 2016). These authors, in line with Gardner & Davis (2014), consider that the appearance of the mobile phone has represented a social shift that is associated to multiple changes in all spheres of life. Fombona & Pascual (2013) believe that «mobile devices are a new medium and they represent a challenge for education approaches from a spatial, temporal and social dimension» (2013, p.211). In the context of education in Spain, the use of mobile phones and tablets is timidly starting to be shown. For example, in some education centers in our country, mostly private[1], tablets are starting to replace textbooks and they are a very complete working tool. However, not all centers allow the use of mobile devices, even for specific use in projects with educational purposes. There are still many restrictions for their use. In

[1] In the research which the authors of this article are currently carrying out, they observe how some private centres in the north of Spain (Compañía de Jesús, Alter Vía), and some others in Madrid (San Patricio, Casvi, Mirabal) or in Barcelona (Montserrat, Garbí-Pere Vergés) use tablets or iPads instead of textbooks.

this regard, Cantillo et al. (2012) claim that schools are distancing themselves, once again, from the reality experienced by students. In any case, there are many advantages to m-learning, as these authors explain: the reduced size of the devices; the immediacy and connectivity to wireless networks; the elimination of spatial or temporal barriers for learning; the adaptability of services, applications and interfaces to the needs of the user; and, finally, the possibility to include peripherals such as keyboards or pencils which create an easier user experience.

The latest education laws (LOE, 2006 and LOMCE, 2013) consider that oral skills are fundamental, and the interest in this topic has increased significantly. However, there is not a coherent evolution of the needs of society, the world of work and real teaching if we take into account the unpromising results obtained by Spanish students both in 'Diagnostic assessment' and in the European reports consulted: 'Estudio Europeo de Competencia Lingüística' [European Survey on Language Competences] (2012) and 'The assessment of pupils' skills in English in eight European countries' (2002). Therefore, innovative teaching proposals that lead to an improvement in learning are still necessary and need to be promoted. It is that interest in searching for new proposals and innovative teaching strategies that motivates this article, which intends to present the process of design, implementation and assessment of a project that integrates a collaborative process of action research between teachers in education centers and the university in order to improve the communicative competence in English of Primary Education students, and to encourage reflection about the inclusion of mobile technologies in education and about their importance in the classroom of foreign languages. Since the positive influence of the use of m-learning in the teaching practice is already known, it was thought that it would be advisable to develop an education project that contributes to methodological innovation on these areas. This was the origin of the project 'Films & Photographs: An M-learning Experience in Primary Education', which aims to contribute to methodological innovation for the teaching of oral communication in English by including the use of mobile devices. The project started in the school year 2015-2016 within the framework of the cooperation agreement between the Education and Science Council of the Government of Asturias and the University of Oviedo in their Program of Innovation and Research Projects for the implementation of education-related activities. The main interest of this project focuses on improving the communicative skills of students in English; developing their digital competence from a critical, responsible and safe perspective; and promoting the artistic skills of students and their creativity.

2. OBJECTIVES

The general objective of this article is to present the process of design, implementation and assessment of the project 'Films & Photographs: An M-learning Experience in Primary Education', using the methodology of action research. It also has the following specific objectives:

- To identify tested proposals of teaching-learning of m-learning and promotion of oral communication in a foreign language.
- To analyze the perception of teachers and students regarding the implementation and development of the project.
- To contrast the relevance of the use of m-learning in the improvement of the motivation of students.

3. METHODOLOGY AND TECHNIQUES USED

Based on the proposed objectives, we present the process of design, implementation and assessment of this innovation project for the inclusion of mobile technologies in the classroom of English language with a methodology based on action research. This methodology is characterized by the active role adopted by the teachers who are part of the research, who start by focusing on the problems they find in their teaching practice, reflect upon them and try to understand and improve them. This methodology was first implemented by Lewin (1946), who was followed by other authors such as Elliot (1990) or Stenhouse (1975), who focused more on the field of education. According to the classification of Reason (1994) cited in Rodríguez, Gil & García (1996, p.53), this action research methodology can be classified as a modality of cooperative inquiry and can be characterized by the decision taken by workers from more than two fields, some of them from the professional area and others from academia, to join forces and solve problems related to their teaching practices together. When planning the study sequence, considerations from the line of action research called 'Lesson Study' were taken into account. This process is characterized by being a collaborative action research initiative adopted by a small group of teachers to design, develop, check, discuss and improve a teaching proposal (lesson), in which the key learning points have been specified, the teachers are analyzed and the students' opinions are heard (Soto & Pérez-Gómez, 2015). In order to establish the stages of the study, the sequence of steps presented in the classic proposal by Lewin (1946) was considered: planning, action, observation and reflection. With these premises and the context of our study, a five-stage sequence was designed (plus a preliminary stage) which is shown in Figure 1:

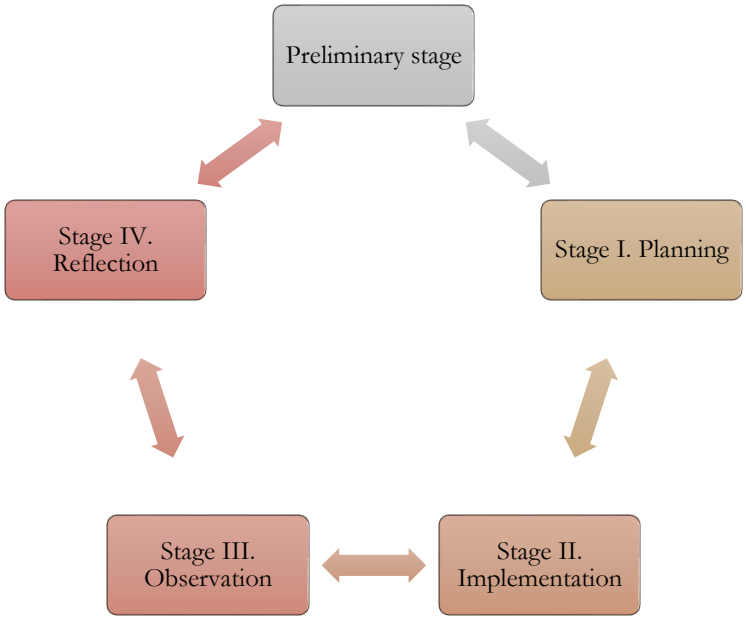


Figure 1. Stages and cycle of action research

In order to collect information from the different stages of the research, we decided to combine different strategies for gathering and analyzing data, both quantitative and qualitative. They were participant observation, interviews and a questionnaire.

3.1. PARTICIPANTS

The group of action research in the project 'Films & Photographs: An M-learning Experience in Primary Education' is made up of two English language teachers who work in Primary Education, two lecturers from the Department of Education Sciences and a teacher advisor from the Teachers' Training and Resource Centre, who has collaborated in different aspects of the research process. The teachers who work in the two Primary Education centers who have participated in the project have a long teaching career with pupils aged 10-12 years; they have already participated in other innovation projects and have medium or medium-high digital competence. The sample of pupils who participated in the study was 101 children in the 5th and 6th years of Primary Education who came from two different schools: a public school and a publicly funded private school, located in the center of the city and from a lower-middle stratum. In both centers, we found a diverse group of pupils, including students with special needs for specific educational support and a high percentage of pupils from different countries.

3.2. TOOLS

In line with the sequence of action research, we decided to collect different types of data through different agents (teachers and pupils) using the following techniques and tools to gather information along the research process:

- Research diary. It was used during the stages of research planning and development, and during the implementation of the innovation process in the classroom. This task was carried out by the teachers who implemented the project. The research diary included information about the planning of the project, the decisions agreed by the research team in the planning meetings and relevant information about the implementation, development and assessment of the sessions.
- Field notes. They were used to collect relevant information and personal assessments during the implementation stage of the project.
- *Ad hoc* questionnaire completed by the pupils. It was used at the end of the project in order to collect information about the opinions and perceptions of the pupils who participated about the experience in the fields of oral communication in English language, technological competence, artistic competence and motivation. The questionnaire was created by the authors and called 'Questionnaire for the assessment of the use of mobile devices in the English language classroom'. It is made up of open-ended, close-ended and multiple-choice questions. The type of variables and type of items included in this tool are shown in Table 1.

Table 1. Type of information collected and type of questions.

Type of information	**Type of questions**
Sociodemographic information	Open-ended and multiple-choice questions.
Opinions about communicative competence, m-learning, artistic competence and technological competence.	Likert scale (12 items) 4 options: 1 (Strongly disagree) to 4 (Strongly agree).
Opinions about aspects that promote motivation.	Open-ended questions.

Source: Compiled by author.

The questionnaires were completed through an online form in the IT classroom of the center. The school management staff, families and students who participated in the project were informed about the confidentiality and anonymity of the collected data and their potential use within the context of the publication of the research.

- *Ad hoc* semi-structured interview for teachers. In order to collect information about the perceptions of the teachers who participate in the project, a semi-structured interview was designed. The purpose of this tool was to collect information about the assessment and evaluation that the teachers made about the project. In order to design the questions in the semi-structured interview, the following categories were established taking the literature reviewed and the goals of the project into account: innovation, digital competence, artistic competence, communicative competence, teaching cooperation, teacher training and motivation. Table 2 includes the main descriptors for each of the categories of the interview.

Table 2. Descriptors of the categories included in the design of the semi-structured interview.

Categories	**Descriptors**
Innovation	Participation in projects. Use of methods that promote thought and action.
Digital competence	Use of mobile devices. Applications and use of the mobile phone.
Artistic competence	Production of artistic activities.
Communicative competence	Production of oral texts.
Teaching cooperation	Teamwork, distribution of tasks, roles and responsibilities. Coordination schedule and locations
Teacher training and motivation	Attendance to training courses Self-training Motivation strategies

Source: Compiled by author.

3.3. PROCEDURE

As it has been explained above, this action research uses the classic sequence proposed by Lewin (1946), in which a preliminary stage has been added. This is the chronogram of the work that has been carried out:

- First trimester of the year: Creation and presentation of the project proposal to the Education Council. Review of the literature to support the project.
- Second trimester: Design and planning of the project.
- Third trimester: Implementation of the project in the classroom, collection and analysis of data, creation of a research report.

Preliminary stage.
This innovation project appears within the framework of the Innovation Projects of the Education Council between education centers and the University. In this first stage, the teachers identify some of the needs that emerge in the classroom of English in primary school, such as the lack of oral communication activities, which consequently leads to a lack of fluency when the pupils need to communicate in English. In many cases, the methodology is unattractive, and it is believed that an improvement of the methodological and motivational strategies of the teachers would contribute to improving the oral competence in English and the motivation to participate in interactive activities.
In line with these premises, the teachers who participate in the project planned the activities and proposed potential ways to improve the teaching methodology; theoretical proposals and experiences about m-learning were studied, and it was decided that a multidisciplinary approach would be applied in order to promote communicative, technological and artistic competences, improve the motivation of the pupils and their responsibility regarding the use of mobile technology.
During this preliminary stage, which took place during the first trimester of the academic year 2015-2016, meetings were held with the research team. The first meeting outlined the characteristics of the problem, the design of the research and the guidelines of the project. The remaining sessions dealt with the review of research, literature and practices.

Stage I. Planning.
Once that the preliminary stage was complete the research team followed the same working system through meetings and the exchange of data through e-mails. In this stage, work focused on the creation and planning of the teaching proposal, and on the design and procedure of data collection through the research.
The teachers identified the objectives and contents of the curriculum that could be worked on; they chose the mobile devices that would be used and the appropriate applications; the project was presented to the pupils in its context, and different structural and methodological aspects were discussed with them (group management, schedule for implementation).

Description of the innovation project 'Films & Photographs: An M-learning Experience in Primary Education'.
This is a project where ICT (Information and Communication Technology) and LKT (Learning and Knowledge Technologies related to m-learning) come together. The devices are used to produce images, photographs or videos, and these resources are integrated in the English language activities to improve the communicative skills of pupils in English by prioritizing oral skills (speaking, maintaining a

conversation and listening). This makes it possible to implement a multidisciplinary approach that contributes to the development of competences in oral communication together with technological and artistic competences.

The project 'Films & Photographs: An M-learning Experience in Primary Education' has the following objectives:

- Promoting oral communication in English through the use of mobile devices.
- Promoting learning through mobile devices (m-learning).
- Improving the motivation of the pupils.
- Contributing to the development of technological and artistic skills of the students from the language field.

The project is characterized by proposing different linguistic activities and activities which require technological tools, namely mobile applications for video and photographs. In this line, two different types of activities are designed: photography activities and video activities. We must mention that both the photography and the video activities focus on specific topics, and images or videos portraying the pupils are not allowed. The topics are very varied, and are based on the contents which are being studied in the English language course at that time. In the case of videos, pupils must create their own characters with any materials or resources they want: dolls, puppets, or others.

Photography activities.

In the case of activities with photographs, the estimated duration is three sessions, based on the numbers of pupils in the classroom. The pupils take the photographs and edit them during the weekend. Then, they submit them to the teacher, and in the classroom there is a session in which they are described and commented with a creative dialogue approach. Photographs are generally taken with the mobile phone of the pupils or of their parents or relatives.

In the photography sessions, the applications Snapseed and PicsArt have been used, and the following activities have been carried out:

- Taking photographs.
- Edition.
- Montage (optional).

The linguistic activities based on the photographs include the following:

- Description: colors, textures, shapes, objects, landscapes, animals, expression of feelings, preferences, etc.
- Interview.
- Invention of a story.
- Creation of an advertisement.
- Debate.
- Dialogue.

Video activities.

The time established for video activities is 4 weeks, approximately 15 sessions in total. This may vary depending on the number of pupils in the classroom. The first week generally focuses on the text or the

script; in the second week, different materials are chosen and made into the characters (puppets, toys, etc.); the third week is used to prepare the sets; and in the fourth week the videos are recorded.
With regard to applications, the following were used in the edition and montage of video in Android mobile devices: VidTrim, We Video and Viva Video; and in Apple devices: Imovie and Vimeo.
The sequence of activities was as follows:
Stages for the creation of a video:

- Development of the idea: Creation of a plot (exposition-climax-denouement). Creation of a short synopsis of the story, interview, advertisement, etc.
- Creation of a technical script which includes information such as the scene, the type of shot, the setting, the time of day or night, voice, sound and effects that will be added.
- Taking photographs (optional).
- Edition (optional).
- Montage.

The linguistic activities that are carried out in parallel with the creation of the videos are:

- Creation of the script.
- Recording presentations, dialogues, descriptions or texts.
- Writing the credits.

During this stage the research team plans the process of collection of information along the process. These aspects are included in the Tools section.

Stage II. Implementation
The management staff of the centers, teachers of English language, pupils and families are informed of the conditions to participate in this project. They are explicitly told that the data collected may be published within the framework of the research, and the anonymity of the participating pupils is guaranteed. After the project has been designed, the two teachers from the schools develop the project in the classroom. This process starts with a cooperative work session between the teachers and the participating pupils. One session focuses on the presentation of the project in its context and the discussion of the different structural and methodological aspects with the pupils (group management, schedule for implementation). Afterwards, the project is developed according to the sequence described in the Planning stage, and more specifically in the Description of the Innovation Project section. The implementation stage lasts 9 weeks. Once that the project in the classroom has been finished the pupils share the final tasks of their work in groups (product), and it is published in a blog.

Stage III. Observation.
In parallel to the Implementation stage, the researchers carry out a systematic collection of information about what happens in the sessions through participant observation with the assistance of the tools created for this purpose (diaries and field notes). Assessment tools are designed to monitor the activities and products developed by the pupils in the classroom, such as the digital portfolio and the rubrics, because they make it easier to assess the work and to take decisions during the process. Both the collection of information and the reflection about the data are taken into account when making decisions to plan and implement adjustments in the teaching-learning process. After the implementation process, all the data are collected and arranged so that they can be analyzed afterwards. All data are organized

according to their nature and their origin, based on the pre-designed categories. Then, all the information is analyzed and the results are organized.

Stage IV. Reflection
Based on the results obtained, the research team meets and shares their thoughts and reflections about the project, as well as about the aspects that must be modified and improved upon. Afterwards, a report is created to include all the weak and strong points, and the aspects that can be improved in later years.

3.4. ANALYSIS OF DATA

For the analysis of results, a separate analysis of quantitative and qualitative data was planned due to the different nature of the results. Quantitative data obtained through questionnaires were processed with the statistical software package SPSS (version 21) for the analysis of the opinions of pupils obtained through a Likert scale, which is specifically used in descriptive statistics.
In the analysis of the qualitative information collected through the research journal, the field work, the open-ended questions of the questionnaire and the semi-structured interview, the contents were analyzed according to the proposal presented by Rodríguez, Gil & García (1996). These authors consider that, in the qualitative analysis of data, the treatment must preserve their textual nature, and categorization tasks must be put into practice. When organizing this information, the following categories were taken as a reference in the case of field notes and the research diary: communicative competence, technological competence, artistic competence, and motivation. These categories are based on the literature review carried out in the planning stage of the project, and they attempt to fulfil its objectives.
In the case of the semi-structured interview, the same categories proposed by the research team during the design of the instrument were used. In order to complete the analysis of qualitative data, significant textual quotes were provided in order to illustrate examples of the opinions expressed during the interviews.

4. RESULTS

The results obtained are shown in three separate sections: results obtained through participant observation (field notes and research diary), results obtained through the questionnaire completed by the pupils, and results from the semi-structured interviews carried out with the teachers who participated in the project.

4.1 PARTICIPANT OBSERVATION

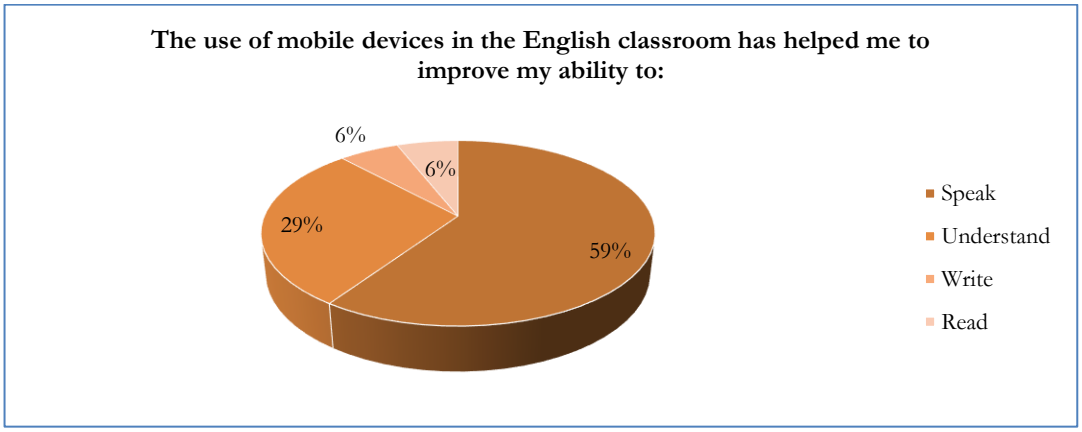
The categories used to analyze the data obtained through the research diary and the field notes were: communicative competence, technological competence, artistic competence and motivation.
With regard to the communicative competence, we can say that pupils, in general, made great efforts to communicate in English. In the activities with photographs, pupils worked hard to explain where, how and when the photographs had been taken, and what applications they had used to edit them. In general terms, they were very proud of what they had produced and actively wanted to talk about them.
In the case of video activities, pupils made an effort to improve their pronunciation and intonation in oral texts, because the activity would be recorded and published in their schools. With regard to the

artistic competence, this initiative revealed the interest of students in improving creative aspects, looking for originality in their products and experimenting with the different applications that were used. The same thing happened with video activities, and the students were particularly interested in improving their creativity by using different materials, designing sets that matched the aesthetic concept of their stories or creating alternative texts such as variations of traditional tales, television commercials, etc. The technological competence of the students clearly developed thanks to the use of new applications, and so did their responsibility with the use of mobile devices, their knowledge about their versatility and their educational use. Finally, special attention was paid to the motivation of the pupils, which improved significantly, not only because of the use of mobile technologies, but also thanks to the liberty they had to create their artistic products, use artistic techniques and alternative materials and particularly because they could abandon the tedious school routine and the toxic use of technologies shown in schools when schoolchildren are merely passive subjects and no creation is contemplated (Acaso, 2013).

4.2 QUESTIONNAIRE

Out of all the students who participated in the project (N=101), the questionnaire was completed by 84% (N=84). The pupils were aged 10 to 12 years. 38.1% were boys and 61.9% were girls 38.1% were in the 6th year and 61.9% were in the 5th of Primary Education. With regard to their communicative competence, the results reveal that most pupils believe that the use of mobile phones has helped them to improve their oral communication skills and their comprehension in English, as can be seen in Figure 2.

Figure 2. Opinion of the pupils about the fields in which their English communication and comprehension have improved.

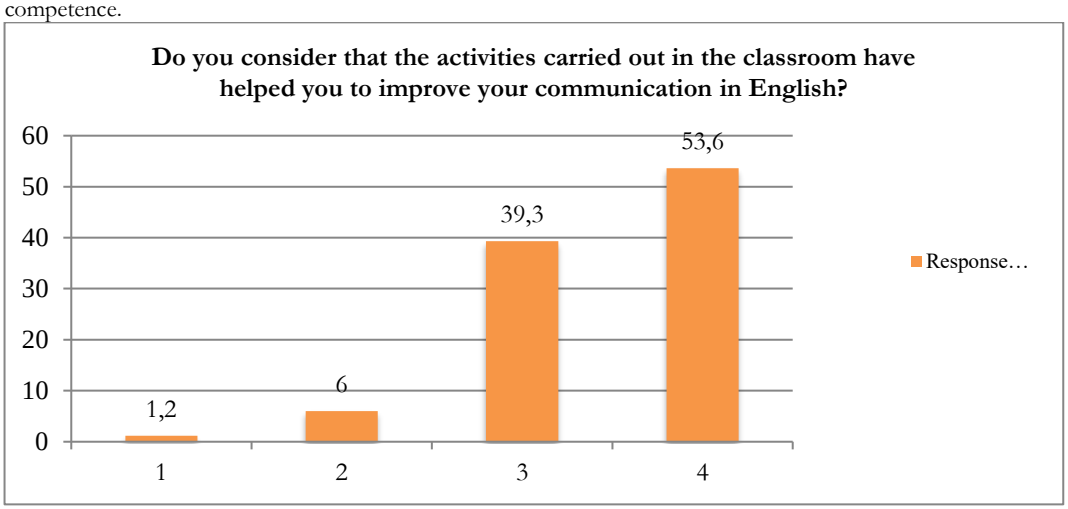


Source: Compiled by author.

If we add the new information obtained in the questionnaire, we can see in Figure 3 that pupils believe that the activities in the project have contributed to improving their communication skills in English. It is worth mentioning that only 6 pupils thought that it had helped them "a little", in contrast with the scores given by most of the pupils, which range between "quite a lot" (39.3%) and "a lot" (53.6%) (See Figure 3). The activity in which pupils had to record and edit video with their tablet or their phone

received the highest scores. This figure shows only the data from the close-ended question with a precise level scale. The highest values refer to how the devices have motivated them and helped them with their comprehension skills.

Figure 3. Degree to which pupils believe that the activities have helped them to improve their communicative competence.

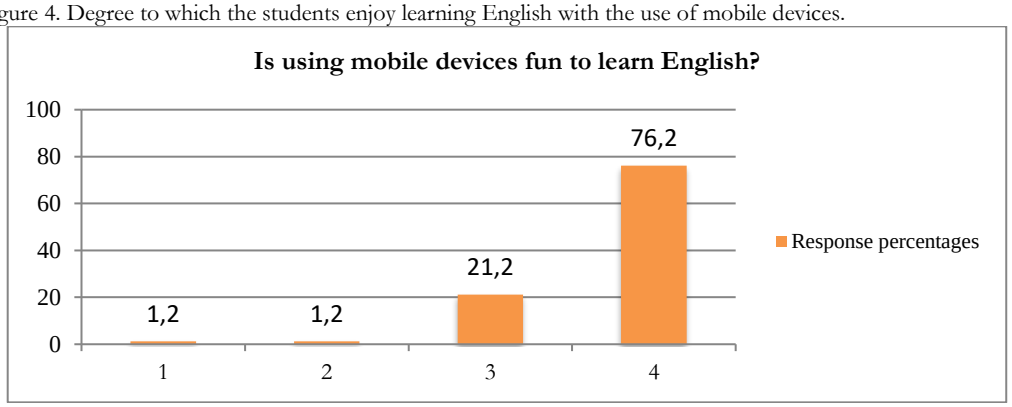


Source: Compiled by author.

With regard to the perception of pupils about their own technological competence, data show that the project has helped pupils to use new applications, since 79.8% of them reveal that they found out about new mobile applications during the project, whereas 20.2% of them claim that they already knew about them. The favorite application for most pupils was Viva Video.

With regard to the motivation, the results obtained reveal that the use of mobile devices makes it fun for them to learn English, and therefore we can infer that it motivates them. A wide majority gave high scores to this question, with 76.2% of pupils answering that it was "a lot of fun" and 21.4% saying that it was "quite fun", compared with 2.4% who thought that it was "a bit of fun" or "not fun at all". This assessment reveals the direct relationship between the use of mobile technology and learning English. Figure 4, shown below, shows the scores of the different answers without an estimation of the assessment that would reveal more significant data from the values given in the Likert scale.

Figure 4. Degree to which the students enjoy learning English with the use of mobile devices.



Source: Compiled by author.

4.3 INTERVIEWS TO TEACHERS

The categories used in the interview allowed us to organize and contrast the obtained information through observation and the questionnaires completed by the pupils, and to propose new ideas for future initiatives. In order to make it easier to visualize the results, they have been arranged according to the categories used in the semi-structured interview. Inferences from the opinions and textual quotes are included. In order to ensure the anonymity of the teachers, coded identification has been used (P1, P2, etc.).

The teachers who participated in this project consider that the activities have promoted an improvement of the communicative competence of the pupils in the languages of the project:

«Recording videos has been a very entertaining activity for the children, who have taken an interest in it and have made an effort to improve their pronunciation» P1.

«They were interested in watching many types of videos in English before deciding what they wanted to do, and this exposure to real language has helped them to improve their oral comprehension and production when they created their videos» P3.

Another teacher believes that the inescapable need to speak in English forces them and motivates them to use this foreign language. Pupils want to surprise everybody around them: the trainee teachers and particularly the language assistants, as well as all their classmates and their parents. «Whenever there is a communicative need, they make an effort» P4.

With regard to their technological competence, P3 thinks that the teachers do not have enough training, and there are many other teachers who believe that the use of mobile phones in the classroom only distracts the students. «We must learn much more about this because it motivates the students and they were already born with this technology».

4.4 GENERAL RESULTS

All the participants agree that there are many advantages to learning with mobile devices, because students are used to them and they know how they work better than teachers do. «They are an accessible resource whose use in the classroom easily motivates the students» P3. «Thanks to these devices, accessing the resources is very fast and it is possible to adapt the different tasks» P2. Also, all the teachers highlight the advantage represented by the possibility to immediately register the interventions of the

students: audio and video recordings, etc. However, some disadvantages are also pointed out, such as technical problems with the compatibility of applications, errors in the apps or problems with the internet connection. Teacher P4 considers that the use of mobile technology in the school can lead to problems when it is used inadequately, for example, when students record and share images within the school that are not part of the activity which is being carried out. In this regard, teacher P1 considers that the first thing that should be done is adequately informing the students about the problems that an improper use of mobile devices can entail, educating them in this topic and signing some kind of agreement with the students in which they promise to follow some rules about the use of mobile devices in the school. In general terms, teachers consider that this experience has represented a learning advance in the field of ICT both for the students and for the teachers.

Teacher P4 considers that these activities help to develop the artistic competence of the students, who make a greater effort when creating and presenting their work, because they want their photographs and videos to be liked by their peers. P1 thinks that this activity develops the creativity of the pupils and that it enhances their artistic competence, because pupils must design the scenes and plots and must decide what applications to use in order to create their products. That is, pupils make an effort to be original and create different stories, characters or sets, and the mobile applications are a great help in these tasks due to the multiple possibilities they offer.

The four teachers agree that cooperation among them has been excellent and that the exchange of experiences and communication has been smooth and effective.

Teacher P3 did not have previous knowledge of m-learning before the project, but she considers that digital competence is essential in her training. Teacher P4 holds the same opinion.

The entire process of design and implementation for this project has been highly motivating for the teachers: «It has allowed me to experiment with a resource that I had not used before in the classroom» P2. In addition, they all agree that the pupils have felt motivated during this project, although some differences were observed. Motivation has been one of the most important aspects, according to what is shown by the interviews. All the teachers believe that during the activities with mobile phones, pupils focus on the project as if there was nothing more important to do.

It may be said that the project 'Films & Photographs: An M-learning Experience in Primary Education' obtained good results, if we consider that all the participants gave a positive assessment to the learning initiatives. This positive assessment was related to linguistic communication and technological competence (use of mobile devices, smartphones and tablets). It also made it possible to integrate new techniques of artistic and technological expression, such as the creation and production of photographs and the edition of videos, using the abovementioned devices. The pupils presented a very significant production, both of photographs and videos, which were shown and watched in the classroom. The photographs, edited with different mobile applications, were used as a resource for the development of oral activities: description, dialogues, narration, expression of tastes and feelings. In order to produce their videos, students had to carry out some previous linguistic activities, such as the design of the dialogues or the descriptive text that would be included in them. In spite of the difficulty to carry out these tasks in English, the students made a remarkable effort and applied themselves to their execution. Another remarkable aspect is the creative liberty with which they could design their visual and audiovisual products. The use of these resources and the characteristics of the project were a very positive influence on the motivation of students and teachers alike, which also had an impact on the execution of the teaching and learning tasks. In the case of the teachers, it was a very enriching experience thanks to the cooperation between teachers from different educational levels (Primary Education and Higher Education). The degree of involvement and cooperation was very high, and this

is why they all consider that the project was completely satisfying and very motivating. In the case of the students, this was also a very interesting activity that helped them to carry out a collaborative work with the activities established within the framework of the project. For their part, the teachers considered that the students, through their practice in the classroom, improved their ability to solve problems, accept the input from their partners, and take decisions after reaching a consensus.

It is worth mentioning that the implementation of the project was not without difficulties. The first one was related to the lack of experience with the use of the applications suggested in the project, which was sometimes a source of worry for students at the beginning of the activity, since they are more used to a more guided teaching paradigm. Even the use of mobile devices by students in the classroom led to some disagreement by the school management staff. Finally, this situation was solved by authorizing video recording only with the teachers' devices, a decision that had clear consequences for the development of the experience.

5. DISCUSSION

The results obtained in this action research bear witness of the positive effect that the use of videos and photographs can have to promote oral communication. Pupils can describe the photographs, narrate the events that surround them, establish a dialogue about them, etc. We must not forget that these creations are associated to an experience, which is very important to provide content to communication and to promote it. After each presentation, other pupils intervene by asking and giving their opinions, and they all create what Fisher (2009) calls "creative dialogue". Fisher presents an interesting proposal to highlight the work in the school around the oral uses of narration, debate, conversation, discussion and dialogue. This author sets out his theory about dialogue as a key to improve the education of children and to generate oral interaction between them and their teachers and tutors. Dialogues are creative when they are open, when they allow different opinions to be heard and include critical perspectives that stimulate new ideas. This aspect is an essential mainstay in the project that we present here and which, as part of its activities, looks for and generates this creative dialogue through the presentation of photographs, for example. In this regard, we cannot forget the work by Burbules (1999), a fundamental researcher in this field who studies the complexity and spontaneity of dialogue as a form of pedagogical communication.

The results of action research that are shown here can be added to those of other authors like Bustillo, Rivera, Guzmán and Ramos Acosta (2017) who believe that the use of mobile applications in the teaching and learning of languages has increased over the last years. Also, there are articles and essays that show the benefits of including the use of wireless technologies, like the work by Ramos and Valderruten (2014), who have applied this technology to the design and implementation of tests in the foreign language classroom. Another author, González (2015), presents a research study in which, through a questionnaire, he proves that the use of mobile technology improves the quality of foreign language classes and promotes motivation for learning. Authors like Gómez and Lazo (2015) consider that the use of applications in an educational context requires a methodological design that includes experimentation, simulation and gamification as elements that promote learning. Bustillo et al. (2017) conclude, like the abovementioned authors, that mobile learning has a positive influence in the process of learning a foreign language with regard to the development of competencies, and specifically to the improvement of oral comprehension. Jung (2015) thinks that the role of mobile technology in the teaching of English language has increased considerably over the last decades because it creates a good combination with learning objectives, and her study, like the one presented here, focuses on the

perspective of the students and their perception of the interaction between students and technology. With regard to the action research presented here, and in agreement with Oja and Pine (1981: 9-10), the basic elements of cooperative research can be summarized as follows: the research problems are defined both by teachers and researchers; the university teachers and the teachers in the school centers cooperate in the search for solutions to the problems detected; the results of the research are used to solve the problems detected; teachers improve their research competences when they carry out field work and the authorship of the research report is shared between them.

6. CONCLUSIONS

Researchers and teachers must cooperate and get involved in the search of methodological strategies and resources targeted at improving the communicative competence of students, because communication is one of the main pillars of learning. The action research about m-learning in the English language classroom that has been presented here is an example of the interest placed on innovating using new resources and methodologies that focus on the students, within the context of Primary Education. This study highlights the importance of the use of new technologies, and particularly of mobile devices, because they are aligned with the interests and hobbies of children and teenagers. Combining both initiatives leads to innovation to support the knowledge imparted and creates a significant learning process.

However, the fact that children and young students manage technology does not necessarily mean that they know how to us it responsibly. Consequently, the training objectives must include knowledge and contents, skills and abilities, and also know-how (related, for example, to the use of technology) and existential competence (knowing how to be, attitudes, motivations, values, etc.). Therefore, teachers must be aware of the strengths and weaknesses of the use of information technologies in educational practice, and they must cooperate with families, promoting effective and affective teaching that takes into account the motivational aspects, which are crucial in the teaching of languages. M-learning promotes an access to a world of information. Consequently, it is useful to include it in the sensible teaching practice of languages that takes advantage of all its positive attributes. The school must adapt to the reality of current society, and to do so it must include Information and Communication Technologies (ICT) and Learning and Knowledge Technologies (LKT), because we cannot forget that mobile technology has become the pen and paper of our current society. These devices, as we all know, include a photographic camera, a video camera, an audio recorder, a calculator, a clock, a calendar and an internet connection, among many other applications which make them very versatile and handy devices with endless teaching possibilities. For this reason, education centers should incorporate their use as soon as possible. The school cannot have 21st-century students, 20th-century teachers and 19th-century resources and methodologies (Acaso, 2013).

In conclusion, we may highlight the importance of educommunication as a concept that integrates communicative competence in the school context, and which is a key aspect in our project. M-learning, in turn, is the other decisive concept in this project, with a very motivating effect among the students, which contributes to training and educating well-informed, critically-aware, responsible and solidary citizens.

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