Innovation and ICTs in ESL: Exploring the Role of the Podcast as a Learning Enhancing Tool in Innovation Projects

Manuel Macías Borrego
Associate Professor, Department of Modern Languages and Didactics, Faculty of Education, Autonomous University of Madrid, SPAIN.

Corresponding Author: manuel.macias@uam.es

ABSTRACT

What we know as Information and Communication Technologies, or ICTs, encompasses all electronic devices and network systems that enable society to interact digitally. There is, however, a key difference between ICT and the Information Technology (IT), as can be seen from common definitions of ICTs, which often, if not always, include terms such as interacting, transmitting, or sending, hence: communication is key. This paper aims at presenting a classroom project proposal based on the application of ICTs (a podcast), which allows the objectives set out in the English as a Second or Foreign Language curriculum to be effectively incorporated during the teaching-learning period for students. This paper also aims to serve as a guide for other teachers of the English language who seek to effectively integrate the use of innovative methodologies into their lessons, based on the effective use of ICT in the classroom. Among the methodologies that can be implemented in the classroom with ICTs and innovative methodologies such as the flipped classroom, project-based learning, or game-based learning, which will be discussed in detail.

Keywords- Education Technologies, EFL, ESL, ICTs, Teaching Innovation.

I. INTRODUCTION

The term Information and Communication Technologies, or ICTs, encompasses all electronic devices and network systems that enable society to interact digitally. UNESCO, for example, defines ICTs in its glossary as "the diverse set of tools and resources used to transmit, store, create, share or exchange information". There is a key difference between ICT and so-called Information Technology (IT), as can be seen from typical definitions of ICT, which often include terms such as interacting, transmitting, or sending, and that is the main purpose of ICT: communication. As Bosamia (2013) states, ICT is mostly focused on technologies that facilitate communication, such as the Internet, wireless networks and devices that connect to such systems.

It is difficult to deny the influence that ICTs have on our daily lives. All sectors of society are driven by the transformation that ICTs have progressively brought about during this century. Education, as one of the essential pillars of citizenship, has not escaped its influence. Consequently, educational institutions in all corners of the world have set out to effectively integrate ICT into their national curricula. To achieve this, eventually, an expected performance guideline has been included in the form of digital competencies to be implemented along with the content of all subjects at all levels.

However, the rapid development of ICT, which has flooded schools with computers and improved technological infrastructure, seems insufficient to translate into effective ICT integration in the classroom. According to Van Braak et al. (2004), there is a division of ICT into two levels: the first refers to a superficial use of ICT, which is associated with lesson preparation. The second level refers to the effective integration of ICT in learning activities. Along these lines, studies such as the one conducted in Spanish high schools by Gil-Flores et al. (2016) have found that there is still a lot of work to be

done regarding the efficient implementation of ICT in the classroom.

Taking these factors into account, the use of ICT in the classroom to develop the implementation of new methodologies within the classroom is not only useful but also necessary. The educational environment requires the correct implementation of ICT in the classroom to generate meaningful learning of the contents which, as highlighted by Ausubel (1983) "occurs when new information "connects" with a relevant pre-existing concept in the cognitive structure", that is, when the new knowledge that is being acquired can be related to previous knowledge that the individual already possesses.

This paper aims to present a proposal for good practice based on the application of ICT, which allows the objectives set out in the curriculum to be effectively incorporated during the teaching-learning period for students. This work also aims to serve as a guide for all those teachers of the English language who seek to effectively integrate the use of innovative methodologies into their lessons, based on the effective use of ICT in the classroom. Among the methodologies that can be implemented in the classroom with ICTs and innovative methodologies such as the flipped classroom, project-based learning or game-based learning, which will be discussed in detail in the following parts of this paper.

Hence, we also aim at exploring the reasons behind the ineffectiveness of most teachers in successfully integrating ICT in the classroom stands out as the main motivation behind this proposal. Thus, it is intended to serve as an example for all teachers who wish to make motivating and effective use of new technologies in their English classes. This will require a brief theoretical introduction to ICT and the active methodologies proposed for use in the classroom.

Therefore, the objectives of this paper are the following:
- To explain the importance and usefulness that ICT can have in the educational field when used appropriately.
- To describe a series of active learning methodologies, explaining their strengths and weaknesses and how they can be applied in the classroom.
- Relate these methodologies to the use of ICT, proposing examples of their effective use.

II. LITERATURE REVIEW

The evolution of language teaching throughout history consists of many influences and psychological trends that have contributed to its development. Thus, it is possible to distinguish different ways of approaching the process of learning a new language. Behaviourism, for example, postulated, as Instituto Cervantes (2022) states, "that the process of learning a language, like any other human learning process, is the result of a sum of

habits". This school of thought gave the subject a passive role in his or her learning since it proposed that the subject only created responses because of the conditions of the environment and did not engage in active learning by discovery as in other schools of thought. The main methods for teaching foreign languages within the behaviourist current (Oral Approach or Situational Language Teaching and the Audiolingual Method), as stated by Batista and Salazar (2003), included the following stages: "recognition, discrimination, imitation, repetition and memorisation".

Subsequently, it was cognitivist theories that replaced the lack of behaviourism in placing the subject as an active part of the learning process. These theories are based on Chomsky's innatist theory which "is based on the idea that human beings are born biologically programmed for language, that is, we are genetically endowed with a device through which we gain access to the knowledge and use of language" (Instituto Cervantes, 2022). Cognitivism rejects learning by repetition. In this case, language is conceived as "a system governed by rules, and language acquisition is the internalisation of these rules", which will take place using this innate mechanism that all people have. Thus, one of the principles of these theories was that of the universality of language. An individual speaker of one language (L1) could infer through this innate mechanism the rules by which to learn a second language (L2). Some constructivist methods for second language teaching are the Total Physical Response Method (TPR), the suggestopedia method, and the natural approach or immersion method, whose premise was to base language acquisition not so much on learning grammatical rules but on "linguistic immersion in the target language" (Macías, 2022).

Very prominent is the theory of David Ausubel and his "meaningful learning" which, as Palmero and Palmero (2008) indicate, is that in which "new information is related in a substantive (not arbitrary or literal) way to the knowledge that the student already has, producing a transformation both in the content that is assimilated and in what the student already knew". The difference between meaningful learning and classical behaviourist rote learning is that "potentially meaningful learning tasks are, by definition, relatable and anchorable to relevant ideas established in the cognitive structure" (Ausubel et.al, 1976). In seeking to enhance this type of learning, the Council of Europe proposes the communicative approach theory as the most conducive to generating it in learners.

However, despite this plethora of influences, foreign language teaching in the classroom is often a demotivating activity for many learners. The mechanics of behaviourism based on repetition and memorisation still seem to have a place in the language teaching process. In this way, as Merina (2009) states, "the learner is seen as a blank page, an empty glass or a piggy

bank to be filled", and his or her role during the learning process is passive.

On the other hand, the application of constructivist methods in the classroom, such as total immersion, although it gives students an active role in their learning process, has been shown not to achieve the expected results in terms of language acquisition.

For all the above reasons, it is considered that the way of conceiving the language teaching process must evolve and adapt to a society that has nothing to do with that of centuries ago. The development of new technologies has changed how people conceived the processes of communication and interaction and, of course, has generated, especially in the new generations, a different way of understanding education.

The society of the 21st century is called by some the knowledge society, while others limit themselves to calling it the information society. Authors such as Balderas (2009) state that "The difference between information and knowledge is that knowing and thinking is not simply storing, ordering, and transferring data, in a word, knowledge is not the same as "information vomit". In this sense, it is understood that having access to information is not always synonymous with using it beneficially. Other authors claim that we live in a disinformation society, in which the more information we have, the more uninformed we are. In this sense, Carr (2014) reiterates the lack of effectiveness when it comes to generating knowledge using technology.

In Spain, for example, the 2.0 Programme was launched in 2009, which provided all schools in the country with new technological materials. Among the resources provided to the centres were computers, digital whiteboards, projectors, audio, and video equipment, etc. However, to date, the integration and proper use of these materials in the classroom are ineffective. The teaching model used still gives too much importance to the use of the textbook and teachers are not qualified to carry out an adequate integration of ICT. In fact, according to a study by Pérez and Pons (2015), "teachers identified the lack of technical and pedagogical support as the most important obstacle" to this.

For all the above reasons, contributing to the correct implementation of ICT in the classroom is a necessary activity. ICTs prove to have a great number of benefits for students in their learning process when they are used appropriately and raise the quality of education. Among these benefits, the following stand out:

- They make it possible to break down space-time barriers: as Estévez Carmona (2012) asserts, "they facilitate synchronous and asynchronous communication between students and with educators without involving physical presence". In this sense, the teaching-learning process is not limited by its development in a specific space at a specific time, but the educational act can take place outside the classroom and during school hours.

- They increase student motivation: almost all students attending schools can be considered "digital natives", a term used by Prensky to define those people who were born and grew up in the digital era and who, as García et al. (2007) state, "use ICTs to satisfy their needs for entertainment, fun, communication, information and, perhaps, also education".

- They allow versatility in learning: thanks to ICT, the ways of presenting content are varied and break the monotony. From PowerPoint presentations to the use of interactive exercises, there are different formats and structures in which the same subject can be dealt with. Thanks to this fact, it is also possible to offer each student personalised content if necessary, considering factors such as different paces.

- They make it possible to obtain information quickly: although immediacy and veracity are not always linked; it is true that the use of new technologies in the classroom makes it possible to access millions of contents on the web with just one click. It is necessary, however, to train students to be able to discern between truthful and accurate information and erroneous information.

- They put students at the centre of their learning: the use of ICT in the classroom has proven to make students take an active role in the educational process. The use of new technologies enables learners to access information and generate knowledge on their own, allowing them to decide whether they need further study to understand a given piece of information (Bransford et al., 1999).

- Metacognitive learning: understanding how to use ICT, as Monteith (2002) states, not only supports the teaching process but also helps students to learn, one of the core competencies in the official curriculum. This is related to the role that ICT brings to the learner, placing them at the centre of their learning, as its use leads students to reflect and evaluate what works best for them in learning new information.

Furthermore, considering the many benefits that students can obtain if ICT is properly implemented in the classroom, ICT can serve as a tool for the teacher to apply a series of active learning methodologies in class. Through the implementation of these methodologies, the aim is to achieve meaningful learning of the content for students. Among the methodologies whose application would be favoured using ICT in the classroom, the following can be highlighted:

- Project-based learning: in the words of Galeana (2006) "is a learning model in which students plan, implement and evaluate projects that have real-world applications beyond the classroom". This methodology will permeate the development of the good practice proposed in this work. Through its application, a series of virtues are generated in the student that is necessary to develop in social contexts, such as a sense of cooperation, conscious autonomy (that is, knowing that you are autonomous and that the success of the group

depends on your responsibilities), or autonomous learning (distributing the time and deadlines agreed upon at your convenience).

- Inverted classroom or flipped classroom: as Berenguer-Albaladejo (2016) explains, "it consists of the student studying the theoretical concepts by themselves through various tools that the teacher puts at their disposal, and the class time is used to resolve doubts related to the material provided". The use of ICT will allow the teacher to provide materials in various formats for use at home. Thanks to this, students acquire autonomy and develop their problem-solving skills and abilities. Subsequently, those doubts that persist will be brought back to the classroom and resolved, generating in the student a significant learning of the content they have previously reviewed.

- Learning by explaining, i.e, the students will be in charge of carrying out the development of the session. In this way, the roles are reversed, and the teacher sits as another student while listening to the class that the students have prepared to explain the content to their classmates. This methodology is a good way to encourage self-learning and develop oral skills for public speaking.

- Game-based learning: as its name suggests, this methodology involves the inclusion of games of different types in a teaching-learning context (Plass et al., 2015). As stated by Cornellá et al. (2020) "there is a multitude of studies that show that play is a key element in development and learning". Taking advantage of the ease of ICT to use virtual games (such as Kahoot!) to learn by playing, the use of this methodology seems propitious.

III. CLASSROOM PROPOSAL: DESIGN, TEACHING METHODS, METHODOLOGIES AND ASSESSMENT

3.1 Proposal Design: Innovation.

This classroom proposal based on the use of ICT consists of the development of a podcast in English by the students on the subject of "social networks". A podcast, as mentioned by García and Cara (2011), is "an audio file to which one subscribes using an aggregator programme that downloads it onto the computer and can then be transferred to the portable player of one's choice to listen to it at the time and place that best suits one's needs". Podcasts are usually made up of different episodes, just as a television series is divided into different chapters. This proposal will be developed in 10 sessions, which will coincide with the number of weeks of the second term, with each of the sessions taking place on the last day of the week when there is an English class. The sessions have been detailed in tables organised into the timing of the session, total duration of the session, key competencies, contents, objectives, methodological strategies, and activities of the session.

Although during the development of the proposal, students will have to work individually at certain times, encouraging their sense of autonomy and critical spirit, this classroom proposal is based on cooperative learning, so working groups will be created for its development. For the formation of these groups, it will be the teacher who will decide to group the students according to his/her criteria, considering different factors such as the diversity of rhythms, academic performance, or the students' personalities. Each week, sessions will be developed where the level of intervention of the students will be very high, trying to get them involved in the project from the first session. In addition, different activities will be carried out to develop the students' English language skills to the maximum.

The development of a podcast in English is presented as a relevant proposal to work equitably on all the skills that a student must be able to master to communicate effectively in a foreign language for the following reasons:

- The creation of a script before the development of each episode of the podcast allows the student to work on the production of written texts (writing).
- The search for information in English necessary for the development of the podcast allows the student to work on the comprehension of written texts (reading).
- The reading aloud of the script during the recording of the podcast episodes enables the learner to work on the production of oral texts (speaking).
- The interaction during the recording of the episodes between the members of each group also allows the students to work on listening comprehension.

Table 1: Timing & Session distribution.

Session	1	2	2	4	5, 6 7 & 8	9 & 10
Activities	Introduction & Pre-test	Topic selection & Individual Script writing	Materials, tools, and Technologies available to record a podcast.	Learning to use the technologies and tools necessary to record a podcast.	Podcast script writing And proofreading sessions.	Podcast recording & Podcast listening.

Source: Original.

3.2 Teaching aspects: teaching methodology and teaching methods.

The development of this proposal pursues a fundamental objective which has been emphasised on several occasions during the development of this work: to give students an active role in their learning process. To achieve this, there are several methodological and organisational aspects that must be considered.

Firstly, during the development of the sessions, different active learning methodologies will be used, the aim of which is to help students to generate significant learning of the contents. The development of good practice will be permeated using project-based learning (PBL) methodology which, as Galeana (2006) points out, helps students to "acquire basic knowledge and skills, learn to solve complicated problems and carry out difficult tasks using this knowledge and skills". In addition, during session 7, the flipped classroom methodology will be implemented, which will allow, firstly, to optimise the time available to carry out the project and, secondly, to foster the students' sense of autonomy through the development of content outside the school. Another of the methodologies that will be used will be game-based learning, while session 6. In this case, students will learn about podcasts while playing a game of Kahoot! that has been previously configured by the teacher. Subsequently, they will learn how to create a Kahoot! game for inclusion in episode 4 of the podcast. Finally, once the podcast episodes have been recorded, which will be entirely directed by the students, the methodology of "learning by explaining" will be used. The students, after having received the guidelines for carrying out the project, are now the ones who generate knowledge through the podcast episodes for all the listeners who follow it. In this case, by exposing all the information they have previously gathered, they will be learning as well as explaining.

Apart from the large number of active learning methodologies that can be included by the teacher for the development of the sessions, other important aspects are highlighted to optimise the results of this good practice proposal, for example, the organisation of the students and the classroom.

Concerning the organisation of pupils, a maximum of 4 groups should be formed, dividing the number of pupils in the class as evenly as possible. This organisation of the groups will be carried out by the teacher, who will consider aspects such as the diversity of the students' pace, their personality and leadership capacity, their academic performance, and their ability to meet outside the classroom if required. It is the sole and exclusive task of the teacher to ensure that the groups he or she forms are equitable and will perform similarly so that no group is too far ahead, and no group is too far behind. On the other hand, concerning the organisation of the classroom, before the development of sessions 4 and 5, the chairs and tables will be arranged in 4 small spaces where the students belonging to each group will be placed. This factor is very important as the aim is to facilitate communication between students in the same group within the classroom. In addition, before the recording of the podcast episodes (sessions 7 and 8), the students will have to set up the recording space with sound equipment, laptops, lighting, recording cameras and all the material necessary for the development of the podcast. In this way, the aim is to professionalise the activity, creating a suitable space for the podcast.

On the other hand, it is important to highlight the different competencies that we intend to work on through this project. In the first place, as it could not be otherwise since we are dealing with the development of a podcast, we will try to work on the pupils' digital competence. To this end, not only will digital media be used during the development of the sessions (Information and Communication Technologies), but these media will also try to generate a certain amount of knowledge in the students (Learning and Knowledge Technologies). Subsequently, it will be they who, through what they have learned, will be able, in this case through the development of the podcast, to generate content that will be consumed by the virtual community (Empowerment and Participation Technologies).

Moreover, the competence of "learning to learn" will also be fostered, since the organisation of the whole process of making the podcast will be carried out together with the students. They will be helped to plan their tasks, i.e., to regulate their learning.

On the other hand, through a collective activity such as this one, social and civic competencies will be promoted. Thus, through the formation of groups, pupils will have to engage in dialogue, seek common ground, understand their classmates, and assert their own opinions while respecting those of others. As specified in the BOE (2015), social and civic competencies involve the ability to "make decisions and resolve conflicts, as well as to interact with other people and groups according to rules based on mutual respect and democratic convictions". In addition, this project is also intended to promote the competence of a "sense of initiative and entrepreneurship", as the aim is for them to be proactive and, despite being in a group with other classmates, to develop their creativity and imagination and demonstrate leadership skills. Finally, during the development of the project, the competence that will be given the most importance, bearing in mind that it is a project for the subject of English, will be "linguistic communication". Thus, the aim of the project is for students to learn to communicate in English from an oral, written and listening point of view, developing each of the skills (writing, speaking, reading, and listening). For this reason, the content will be worked on using different formats and media.

3.3 Assessment.

Firstly, an evaluation of the students and their participation throughout the project will be carried out. Considering the type of project involved, in this case, the

development of a podcast in English, a formative evaluation will be carried out during the 8 sessions of the project. The main objective of a formative evaluation is "to relate the information on the evolution of the learning process with the characteristics of the didactic action" (Isabel I University, 2021). This type of evaluation makes it possible to monitor the evolution of

the student from the beginning of the project until its completion. Given the conditions of the project, it would be illogical to evaluate the student through a final test at the end of the 9 sessions. The activities and tasks to be assessed, as well as the assessment tools to be used and their relation to the curricular elements, are listed in the following table:

Table 2: Proposed assessment.

Assessed activity.	Assessed skill / Skill in practice.	Assessment Tools and Instruments.	Percentage (%) of the final assessment.
Role play.	Speaking & Writing (script preparation and rehearsal)	Rubric.	10%
Active participation in the project.	Reading, Writing, Listening & Speaking (preparation, documentation, script pruning, collaboration with others & script rehearsal).	Individual and Group Journal	30%
Individual work (personalised work).	Writing & Speaking (script writing & script rehearsal)	Rubric.	30%
Podcast recording.	Podcast recording – individual participation in the recording sessions.	Rubric.	30%

Source: original.

On the other hand, an evaluation of teaching practice will be carried out to improve the quality and effectiveness of the teacher's actions. In this case, certain achievement indicators will be used to analyse and detect whether the teacher's action in the classroom is

appropriate to the group and the needs of the students. Therefore, to test the quality and effectiveness of this classroom proposal, we will use a questionnaire which will have to be completed by the students (see below).

Table 3: Students' questionnaire.

Q. 1	I feel nervous if I have problems understanding what the teacher says / is saying (1 – 2 – 3 – 4 – 5).
Q.2	Making mistakes and or errors makes me feel nervous (1 – 2 – 3 – 4 – 5).
Q.3	English has never been my favourite subject. (1 – 2 – 3 – 4 – 5)
Q.4	I do not feel nervous when I have to speak in English in front of people (1 – 2 – 3 – 4 – 5)
Q.5	I need preparation for public speaking (1 – 2 – 3 – 4 – 5)
Q.6	I like practising oral tasks in the English class (1 – 2 – 3 – 4 – 5)
Q.7	I practice English outside of the class (1 – 2 – 3 – 4 – 5)
Q. 8	I like when my teacher corrects me in class (1 – 2 – 3 – 4 – 5)

Source: Original.

IV. DISCUSSION

The first of the general objectives of the work was to explain the importance and usefulness that ICT can have in the educational sphere. This objective is covered and broken down during the development of section 3 of this work. It is in this section where, after going through the main psychological trends that have

governed the teaching and learning processes since the 18th century, an introduction is given to the use of ICT in education today, explaining the main benefits that their use can generate.

The second objective was to describe several active learning methodologies and to explain how they could be introduced in the classroom. Both objectives are covered throughout the paper as, in section 3, again,

an explanation of each of the methodologies is given and, subsequently, during the explanation of each of the sessions (section 3.2.) and the description of the methodological aspects of the proposal (section 3.3), how they would be applied in an English language classroom is discussed. In addition, their use in the classroom is at all times related to the use of ICT, thus covering another of the aims of the work, which was to relate the use of new technologies to the application of new methodologies.

All of this has made it possible, therefore, to cover a series of learning objectives set out, in the same way, in the second section of this document. The proposal aimed to develop students' oral fluency in informal conversations. To meet this objective, the project presented works on oral production from the first session to the last, which is necessary both for communication in class and for conducting the podcast episodes in English. In addition, another of the objectives was to identify the most relevant information in oral and written texts, something that is carried out with the activities proposed for the creation of the script. These activities require an exhaustive bibliographic search to select the relevant information to talk about in the podcast. Precisely, after the search for information for the script, the aim is to fulfil another objective set at the beginning of the work, which was to produce written texts with coherence and cohesion. This objective is to be met through the writing of the script by the students and its correction together with the teacher in class. Developing students' written text production skills is a necessary task when they are in the process of learning a new language. In addition, the aim was for the students to learn how to use different didactic virtual applications.

During the development of the project, students are taught how to create an interactive Kahoot! game, they work with Google Docs to create the script and use social networks to publicise the project. All these applications are didactic in nature and the students are taught how to use them so that, eventually, they will be able to generate knowledge in other individuals, which was another of the proposed objectives.

Therefore, the development of a podcast in English stands as a project capable of teaching students a language while developing the four basic skills of the English language: writing, reading, listening, and speaking. All of this is permeated by the development of certain competencies as elicited through this paper.

V.   CONCLUSION

The development of teaching and learning processes throughout history up to the educational model we find today in our country's classrooms, in general, has always given the student a passive role in the learning process. With the arrival of new technologies and media that are characterised by the constant interaction between their users, it was hoped to break

away from this type of education and place, for the first time in history, the students at the centre of their learning. However, the proper implementation of these technologies in the classroom has so far proved ineffective.

This lack of consistency in effectively integrating ICT in the classroom was the reason behind the creation and development of this proposal. Apart from this fact, one of the fundamental objectives pursued by this proposal was the implementation of active learning methodologies in the classroom, which would allow students to play an active role in the teaching process. Thus, the development of this proposal has shown that the correct use of new technologies in the classroom makes it possible to implement this type of methodologies and obtains great benefits for students' learning.

The proposal described above provides a solution to the general problem of students' lack of motivation concerning the subject of English. This work manages to increase the involvement of a group of pupils in their learning process, making effective use of ICT in the classroom, something unheard of until now. Each one of the proposed activities is permeated by the use of ICT, to a greater or lesser extent, in favour of digital education, in keeping with the current times. This fact allows the teacher to present the contents in different formats, making it easy to embrace diversity and give each student the educational quality they require. This is another of the strengths of this proposal: the large number of resources that teachers have at their disposal to address the same content.

On the other hand, this proposal makes it possible to work in unison on the four basic skills that any foreign language learner needs: oral comprehension and production, and written comprehension and production. This is another basic objective pursued. There would be no point in presenting such a proposal if, in the end, students do not learn English and the use of technology tarnishes the goal of the educational act: learning. The way of working on these skills is also varied and is based on the constructivist principles of the natural or immersion approach, as the student is constantly exposed to the "target language" throughout the development of the project (Macías, 2022). Among the variety of activities presented, the following stand out: bibliographic search for information for the development of the podcast (reading), creation of a script entirely in English (writing), interview activity with a celebrity and interaction in the classroom (speaking and listening), all permeated by the development of the student's digital competence, as well as the rest of the competencies previously mentioned in other sections of the work.

On the other hand, it should be noted that this proposal allows for future lines of exploration as it is a podcast. This type of format, which, as previously explained, is nothing more than a series of episodes

recorded in audio format and transmitted online, allows episodes to continue to be added indefinitely, and can even be ordered by season.

However, it is also necessary to mention the weaknesses of the proposal. As it is a classroom proposal based on ICT, it could happen that the necessary means for its development are not available. At present, and despite the implementation of the 2.0 programme in Spain in 2009, it is true that many schools still lack adequate infrastructure to be able to carry out this project. Although all the centres in the country have electronic devices provided by the State, many of these devices are obsolete, and their use could hinder the correct implementation of the project. For example, the simple fact of not having a projector or digital whiteboard would prove to be a major problem when presenting the contents. Likewise, the use of old computers would hinder the dynamism of the sessions, as the speed at which these devices work is not comparable to that of current ones. On the other hand, specific materials such as microphones or recorders could be difficult to find, although it would always be possible to use those belonging to a student or the teacher himself.

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