

# Teachers' Beliefs and the Integration of Technology in the EFL Class

## Las creencias de los profesores de inglés sobre la integración de la tecnología en la clase

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Over the past few decades, information and communication technologies have been integrated into the language teaching and learning scenario with relatively great success. Accordingly, teachers' role in this process is fundamental in order to make this integration really relevant for students' learning. This paper reports the results obtained in a study that was addressed to examine what teachers believe about the effectiveness of using technology in an English program at university level and how these beliefs affect the use of these types of tools in their classes. The research conducted was a qualitative study and the analysis of data revealed that the use of technology-based activities in the English classroom is twofold: reinforcing already studied topics in class and promoting motivation.

**Key words:** Collaborative learning, information and communications technology, teachers' beliefs, teacher development

En las últimas décadas, las tecnologías de la información y las comunicaciones se han integrado al proceso de enseñanza y el aprendizaje de un idioma con relativo éxito. En consecuencia, el papel de los docentes es fundamental en el proceso de integrar la tecnología en el aula para hacer este proceso realmente relevante para el aprendizaje de los estudiantes. Este artículo reporta los resultados obtenidos en un estudio que apunta a examinar hasta qué punto las creencias de los profesores sobre la efectividad de usar actividades que integran tecnología en un programa de inglés a nivel universitario afecta el uso de este tipo de actividades en la clase de inglés. La investigación desarrollada tiene un enfoque cualitativo y el análisis de datos reveló que la implementación de la tecnología en las clases de inglés como lengua extranjera tiene dos objetivos: refuerzo y motivación.

**Palabras clave:** aprendizaje colaborativo, creencias de los profesores, desarrollo profesoral, tecnologías de la información y la comunicación

## Introduction

Higher education has gone through a transformation process due to the integration of information and communications technology (ICT) into daily academic activities. This fact has impacted different educational areas, one of which is teacher development, since educators have to develop new skills to integrate these tools into their teaching and learning processes effectively. These days the use of these technologies in the classroom is of utmost importance to prepare students for their personal and professional lives.

This study was carried out at a language institute in a private institution. The purpose was to establish to what extent teachers' beliefs affect the implementation of technology based activities in the English as a foreign language (EFL) class and how these technologies were really used in their classrooms. Results from this study are expected to help the decision making process about how to integrate technologies into the class and which professional development programs will be implemented.

This paper includes a theoretical framework of the concepts discussed for the research, questions, and objectives of the project, the analysis of the results, and some conclusions.

## Rationale

The integration of ICT in the foreign language teaching and learning process is still an issue that has not been fully studied. There is a need to identify and evaluate the pedagogical benefits that result from its systematic use in the class. This need implies looking at ICT, not just as a regular and trendy tool to use, but to explore its potential in enhancing language learning. Furthermore, it is important to establish a relationship between what teachers think about the implementation of technology based activities and how they really use them in their classes so teacher education plans can be enriched. For these reasons, a starting point is to describe those beliefs teachers have about ICT use in class and contrast them to what they really do in their daily practice.

After observing English teachers in the context of study, the majority of them use technology to provide students with low level tasks such as extra practice for the topics studied in class. This is normally done by providing students with web pages where they can practice the structures and skills studied in the course or also by assigning some exercises in the already existing software and computer programs the language labs offer. These types of activities do not require great preparation on the part of the teacher and besides, they favor students' performances in grammar oriented situations over communicative ones. Contradictorily, a self-study carried out at the institution in 2009 (see Appendix 1) showed that students got lower scores on tests that evaluate grammar,

vocabulary, and reading. It is important to note that over the last two years, the frequency of use of the computer labs at the institution has increased. Each term, more and more English language teachers reserve the labs to teach their lessons there.

Moreover, when historically comparing students' grades from 1998 to 2009, there are no major differences. As stated before, students score low on tests that evaluate grammar, vocabulary, and reading skills. The big difference is that in the 1990's, materials used were mainly the textbook, audiocassettes, videos, and extra material while in the 2000's, teachers started to use computer labs and the internet to support their classes. This analysis led the institution to explore how teachers felt when faced with the need of integrating the use of ICT in their classes. Questions then started to arise about what type of activities were used, what technologies were selected, how lessons were planned, and why there were no evident changes of students' language improvement.

The integration of technology is one of these situations in which teachers, although familiarized with the tools, are newcomers to the scene and have different perspectives from those of their students about their use. Teachers know they have to use technology; however, their beliefs affect their use in the classroom. "The way teachers use and feel about using computers in their classrooms is influenced by both their beliefs about computers and the role of computers as well as their general educational beliefs" (Parr, 1995, p. 15).

The above quote presents a challenge to teachers as they have to rethink the way they integrate technology in their classes. Technology is real and here to stay. There is no purpose in excluding it from the class. As Zhao and Frank (2003) point out, there is concern about teachers integrating technology and these concerns are not new. They also say that the "literature suggests that teachers' attitudes towards, and expertise with, technology often are key factors associated with their uses of technology... Unless a teacher holds a positive attitude toward technology, it is not likely that he or she will use it in teaching" (p. 808).

Technology can have a great potential in language teaching and learning and while this potential is not acknowledged, technological resources may be undervalued and underused and even unused, mainly because the people who decide how to use it, teachers, have beliefs that affect their implementation in class. The institution has made an important economic effort in providing all the conditions necessary for the successful implementation of this type of activities in the language classes by equipping computer labs for its language institute as these are "expected" to energize the process of learning a language and to obtain better results in students' learning. However, it is more important to raise awareness in teachers of these possibilities so they can see the opportunities they have.

## Research Questions and Objectives

This research focuses on the beliefs language teachers have about technology, especially in the context of a language institute in a private university in Barranquilla, Colombia. The aim of this paper is to uncover how these perceptions affect the implementation of technology-based activities in class.

Based on this assumption, the research question is: To what extent do teachers' beliefs about technology based activities affect their implementation in the EFL class?

## Theoretical Background

For the purposes of this study, a review of the central topics related to the project was completed. The topics were: Second Language Learning and Technology and Teachers' Beliefs.

### *Second Language Learning and Technology*

It is clear that the use of technological resources in the language learning processes provides a good source of “authentic” (Grant as cited in Richards & Renandya, 2002, p. 85) situations to use the language and enhances collaborative learning. Moreover, according to studies by Butler-Pascoe and Wiburg (as cited in Lin, 2009), there are twelve attributes of how technology enriches the second language learning environment. In the following list the most important seven are highlighted.

- (a) It provides interaction, communicative activities, and real audiences.
- (b) It supplies comprehensible input.
- (c) It uses task-based and problem-solving activities.
- (d) It facilitates focused development of English language skills.
- (e) It uses multiple modalities to support various learning styles and strategies.
- (f) It meets affective needs of students.
- (g) It fosters understanding and appreciation of the target and native cultures.

There are many ways in which technology increases second language learning. In studies conducted by Dunkel (as cited in Liu, Moore, Graham, & Lee, 2002), these tools increased students' self-esteem, vocational preparedness, language proficiency, learning autonomy and, specially, provided immediate feedback. Consequently, technology-based activities can offer a wide variety of opportunities to enhance second language learning.

Technology, then, provides opportunities to motivate students and authentic linguistic input as well as chances to use the language with a real communicative purpose. By introducing well organized and structured tasks into the second language class, teachers have started to redefine the kind of activities they prepare for their lessons and have “enhanced their students’ motivation successfully” (Lin, 2009, p. 2).

Technology also assists the social aspect of using language with real speakers, which normally does not happen in the class, offering more exposure to learners and giving them the responsibility of shaping their own language learning process. For all this, technology fully supports language acquisition and learning and, if used appropriately, contributes to make classes more engaging and attractive to students.

There is a long tradition of implementing technology based projects in the institution where this study took place. These have evidenced a significant impact of technology in learning a language. Rey and Rosado (2000) conducted a project that analyzed the effect of using email-based activities as a way to develop writing and reading skills in English. This study showed that this type of activities not only helped learners develop those specific language skills but also enhanced the use of metacognitive strategies such as learning responsibility and autonomy. In 2007, a virtual exchange project was implemented. It was designed to help the development of both language and intercultural competences. The results showed that the experience contributed to the development of receptive and productive skills as the virtual exchange required students to use not only the email, but also Skype and other synchronous tools. It also showed that students’ local and national identities were reinforced as they had the opportunity to interact with learners from another country.

However, after these initial projects, a decline in the implementation of technology based projects was evident. This situation generated some interest regarding whether or not the institution has fully equipped computer labs and programs as well as if the institution provides development opportunities so teachers can integrate technology in their classes. What was missing? Is it that teachers do not believe in using technology?

The implementation of this study was then addressed to establish the relationship between teachers’ beliefs towards technology and the implementation of these activities in their classes.

### *Teachers’ Beliefs*

There is strong evidence that all the actions a teacher performs in class are influenced by their beliefs and that these play an important role in understanding teachers’ behaviors. Williams and Burden (1997) state that literature on teachers’ beliefs concluded that these have a great influence on the way they prepare their classes, the kinds of decisions they make and their general classroom practice more than their knowledge about it. They also claim that

beliefs are very difficult to define and evaluate but what is for sure is that they do influence what is done in class. Moreover, “they tend to be culturally bound, to be formed early in life and to be resistant to change” (Williams & Burden, 1997, p. 56).

According to Weinstein (as cited in Williams & Burden, 1997, p. 56), beliefs about teaching seem to appear by the time a student goes to college. These are much related to what they think they know “but provide an affective filter which screens, redefines, distorts, or reshapes subsequent thinking and information processing.” These beliefs will be also related to teachers’ values and attitudes about the world. In this sense, it is more valuable to infer teachers’ beliefs by looking at what they do rather than looking at what they say. Following this idea, we focused our study on asking teachers what they think about using technology in their classes and contrasting it to what they do in class. According to Williams and Burden (1997), teachers’ beliefs about learning will affect everything they do in the classroom. So what teachers believe about how a language is learnt is stronger than a particular methodology to be adopted. We consider that studying teachers’ beliefs will help us understand what thoughts lay beneath the decisions they make about implementing ICT activities in their classes.

**Beliefs and technology.** This study recognizes the importance of describing teachers’ beliefs in the use of technology based activities in language classes and how these affect the implementation of this type of activities in the daily practice. Trying to establish a relation of these beliefs with the actual technology based activities they implement in their classes will show the underlying reasons why some technologies are used and why others are not, why some activities work and others do not, and what learning objectives are defined and how effective they consider these to be.

As Ertmer (2005) points out, “although the conditions for successful technology integration finally appear to be in place, including ready access to technology, increased training for teachers, and a favorable policy environment, high-level technology use is still surprisingly low” (p. 2). This implies that it will be important to identify what other “unknown” factors underlie teachers’ decisions when integrating technology (or not integrating it) in their classes. One of these factors may be the confrontation between teachers’ fundamental viewpoints about “seeing and doing things” (Ertmer, 2005, p. 4) and the possibility of changing these beliefs. Teachers tend to rely on their previous experiences (familiar images) with the use of technology in class (Kagan, 1992). There is no need to say that for this generation of teachers, their previous experiences with technology, both as learners or teachers, are very insignificant or nonexistent. We can also add that even the embracing of this type of activities will be filtered by their beliefs and adapted to their needs.

Another factor can be related to Niederhauser and Stoddart’s (2001) suggestion “that teachers use technology in ways that are consistent with their personal beliefs about

curriculum and instructional practice” (p. 22). This can be interpreted that if technology gives students more chances to become autonomous and independent learners and to be less controlled by the tutor, teachers with teacher-centered conceptions of education are less likely to use the tool or they will use it in ways that allow them to perpetuate their traditional practices. Zhao, Pugh, Sheldon, and Byers (2002) state that “the further a new practice is from existing practice, the less likely it will be implemented successfully” (p. 488). We consider for the purpose of this study that teachers’ beliefs shape the value of using technologies in the EFL class. Therefore, exploring these beliefs will shed light on what kind of development needs they have and target our professional seminars towards a better understanding of the potential these tools bring to the EFL arena.

**How beliefs are changed.** One key question in this research is related to what we can do to help teachers adapt their own beliefs and reflect on the use of technology in their EFL classes. Block and Hazelip (as cited in Ertmer, 2005) say that “beliefs vary in strength and kind; the ease with which a teacher can change his/her beliefs is related to the strength of the particular beliefs under scrutiny” (p. 15). Kagan (1992) adds that beliefs about teaching are influenced by the way new information is processed. Therefore, a possible modification of teachers’ beliefs about the value of new technologies can occur when they witness successful and explicit experiences from their peers. Griffin and Ohlsson (2001) argue that belief revision is subjected to motivational influences. This position suggests that teachers have to be provided with opportunities to work with peers who are more “tech-oriented” and explore new pedagogies so that the process will get started.

Beliefs are an important aspect to be taken into account when one is trying to implement innovation in the education field. Kagan (1992) stated that if transformation of teachers’ beliefs is needed, “it must require them to make their preexisting personal beliefs explicit; it must challenge the adequacy of those beliefs; and it must give novices extended opportunities to examine, elaborate, and integrate new information into their existing belief systems” (p. 77). This reflection led us to consider what actions could be implemented in our institution in order to help teachers accept the challenge of revising what they do with ICT in their classes. One of these actions was carrying out this study.

## Method

For the purpose of this research a qualitative approach was used since the main objective here was to describe teachers’ beliefs about technology and how its implementation is affected in an EFL class. The term qualitative is defined by Denzin and Lincoln (2000, p. 8) as the “emphasis of the qualities of entities and on processes and meanings that are not experimentally examined or measured in terms of quantity, amount, intensity, or frequency.” Qualitative research, according to the authors, is more addressed in the light of the relations,

in reality, of the researcher and the field of study along with all constraints that surround the research. The nature of this study needed this perspective as the intention was to see what happened in the daily setting where the classes took place.

### ***Data Collection Techniques***

Three instruments were used: class observation, teacher surveys (see Appendix 2) and teacher interviews (see Appendix 3). A posterior triangulation of the data collected was made and then categorized in an attempt to understand teachers' perceptions about technology and the way these beliefs affect the integration and implementation of ICT in EFL classes.

The first instrument used was a survey based on the Likert Scaling, in which the perceptions of teachers about the use of technology in teaching were collected. The survey instrument was applied to members of the target population: teachers, whose ages ranged from 25 to 45. A total of twenty-nine forms out of forty-five were collected from the target population.

Eleven teachers were invited to participate in the interviews but only nine were finally interviewed. They also completed the survey. Teachers were selected paying special attention to two aspects: frequency of the use of technology based activities (those teachers who reserved the computer lab on more occasions) and the level of difficulty of the technology used in the class (after the observations, it was possible to see that some teachers used more complex technologies or tools).

Regarding classroom observation, the goal was to observe the classes in which technology was used, especially when using the computer labs, so behaviors seen and beliefs collected from the survey and the interview were contrasted. From the nine teachers interviewed, five of them were also observed in their classes at the labs. All five observations were videotaped.

Data collected were analyzed, triangulated, and categorized. Results and conclusions are presented in the following excerpts of this article.

### **Results**

The analysis of data revealed a significant number of beliefs that concern the use of technology-mediated class for the language teachers taking part in the study. This analysis also helped in establishing the relationship between the beliefs English teachers have about the use of technology and the implementation of technology-based activities in their classes as stated in our general objective.

Based on the results obtained from the data collected, we present the analysis taking into account the objectives proposed for the study.



In relation to our first specific objective, which was addressed to describe teachers' perceptions and beliefs about the use of technology to enhance language teaching and learning, we can conclude that teachers believe ICT is fundamental in the teaching-learning arena. They consider that using technology is an important skill in order to succeed both professionally and personally. That technology comprises part of this generation and, besides, young learners are born with it. For instance, T1 said: "Technologies cannot be banned from the class. They have to become part of our classes."

Interestingly, they consider that technology is more geared toward social matters in people's lives rather than toward academia. This may be the result of the way people interact today and the increasing participation of students in social networks.

Teachers also considered that ICT is a source of natural input and as such, students should benefit from interacting and using the language through these media in a meaningful way. Moreover, they consider that using ICT in their classes will improve their students' opportunities to use the language for real purposes.

Most of the participant teachers believe they are using technology effectively to reinforce the structures studied and taking students to the lab is already scheduled in the course plan. T2 said that "what I normally do is to go to the Focus on Grammar software, look for the grammar topics we are studying in class and assign some exercises for students to practice. It gives students extra practice opportunities."

When asked, teachers seem confused by the concept of interaction when using ICT in class. They understood it as the opportunity to use the computer rather than exchanging information with others by using a different tool. Most activities were completed in an individual way and were addressed to have students "practicing" the four skills at their own pace. This was basically done with computer programs the computer labs have or with some webpages teachers use. T7 said: "Of course they interact. They work with the computer."

Results also show that teachers consider that technology based activities can help students in achieving the expected learning outcomes of the course. They noted that technology based activities are seen not only as a source to motivate students but they convince one of their potential for education. T3 claimed that "technology is such an amazing tool as students get involved in the activities we give them; they have the chance to be exposed to real language."

Resistance to use technology can be perceived when most of the target population recognizes the difficulties in grading/ revising technology activities, specially written ones. T5 said that "the only problem with technology based activities is that we cannot grade them or at least check students' performance. That is why I take them to the lab just for practice." Also, they find some of the activities with technology very challenging to contribute to the development of some of the skills. T8 explained that "Once I tried to use a webquest but I

had to design it and then explain it to students and then it was difficult for students to complete it. They did not have enough language to do it. That is why I decided not to do it again.”

From the instruments applied, we can see that teachers do plan the technology-based activities but in relation to when they are going to do it and what material they are going to use according to what they are studying at the moment. They tend to plan the same kind of activities and use the same tools every time, basically drilling language items. T7: “I always look for supplementary material for what we are doing in the class.”

This also evidences teachers’ perception they have about the language learning process, as they believe it is more oriented toward learning the structures of the language rather than toward the development of some competences needed for communication.

T5 argues that “What my students really need is to know how to use the structures that is why they need to practice in the software.”

T3 says that “my students really benefit of doing the grammar activities in the lab. This gives the chance to master the grammar as we don’t have enough time to do it in the class.”

The data collected also evidence that the target population is very aware of the fact that technology is a field in which to learn, to explore, and to gain skills. They also say that they need to come closer to students’ reality which is totally permeated by technology. Consciously, they know they have very basic technology oriented skills to be integrated effectively in their lessons. Some of the teachers’ opinions are:

T2: I am quite a newcomer to this. It had been difficult for me to learn how to use the computer let alone use technology in the class. But I know I have to do it.

T7: I like technology. I need to learn more and learn how to use it in class. My students know more than me.

They are then aware of the need to gain skills in technology because of the importance of technology itself and not because of institutional requirements. When asked about the number of workshops they have attended in order to acquire skills related to using technology, the majority said that they had only attended the sessions in which they were shown how to use the Blackboard that is the platform the university uses. This shows that although they are aware of the importance of learning about this topic, they do not look for new opportunities to participate as the institution offers different programs for teachers.

Contradictorily, some of the teachers think they can survive with the basic skills meaning that they feel fine with what they do and that they do not want to make the effort to learn how to use these new tools. They rather use the same strategies that have worked well for them in their professional lives.

Teachers also perceive that the fact that students work individually by themselves means that they are developing as autonomous learners. Most teachers believe students can work alone without their continuous guidance. The concept of autonomy here is circumscribed to an individual process rather than a social one (Railton & Watson, 2005).

T6: They work individually, I'm just there to help when they need me. These are college students.

T4: I normally assign the activity and sit back in one computer and start correcting other assignments. Students have all the resources in the net: dictionaries, Google translator. They basically don't need me as much as they need me in the class.

Along the same lines, teachers all agree that technology fosters collaborative learning as students can collaborate as peers in different activities. Teachers were not able to provide clear evidence as to how they should develop this aspect.

T7: Yes, technology helps promoting autonomy. Students are there with one computer per student.

Also, teachers believe that a technology mediated class is a good tool to enhance students' motivation. They base this belief on the fact that students get involved in the lab activities and do not get distracted. Students focus on the exercises. They do not chat with others during classes in the computer labs.

T3: If you see students in the lab class, they are engaged in the activities. Nobody talks. They are concentrated on their activities.

T4: It is so different that when we are in the classroom. I don't waste time in asking them to focus in class and be silent.

So for teachers, the classes in the lab basically help them control discipline and attention issues. Teachers, in general, think technology is very useful and students like it, and that eventually it helps to increase language learning.

T2: Definitely technology helps them a lot in the language learning process.

T9: The internet is all language based. This is the ideal resource where students can be exposed to the language. Of course, it helps students learn.

In relation to the second objective that is addressed to identify the type of technology, activities and strategies teachers implement in the EFL class when integrating ICT, these are the data collected.

Teachers said that they use technology to give students the opportunity to use language in real contexts and to promote interaction when in reality students work alone and on grammar and vocabulary exercises.

T9 said "when I take students to the lab, I always have them go and use the internet in order to communicate with others."

However, a reduced variety of tasks and technology was identified. Generally the activities implemented were oriented toward drilling exercises of grammar and vocabulary and listening and reading tasks. From the classes observed, only 10% of the teachers used different tools as forums or chats. Only one teacher implemented an ePals project with a school in the United States.

Another finding is that interaction among students is not promoted. After giving instructions, teachers sit in the back of the lab while students complete their work. No monitoring of students' work was observed. Besides, they use the same tool and material every time. Using only one technological tool does not necessarily mean it is effectively integrated. This information comes from the observation phase in which 85% of the teachers observed assigned students with activities in the software Focus on Grammar. The remaining percentage used webpages such as isabelperez.com where they have the chance to practice more language and the webpage from the textbook used in the program.

In reality, teachers do not plan elaborated tasks for the classrooms. As said before, the scope of activities was very limited to complete grammar oriented drilling exercises. This implies that for teachers, a plan for helping them create more challenging, interactive activities where several language skills are used is needed.

From the observations, it can also be said that teachers favor the development of the receptive skills as they mostly implement classes devoted to reading, listening, and grammar, but not for writing and speaking skills. It is important to note that teachers consider that designing listening and reading tasks is considered less difficult than creating speaking or writing ones. From the observed class, it was learned that 90% of the skill-oriented tasks were related to listening and reading comprehension activities.

T6: I always give them podcasts for them to get used to different accents and improve their comprehension.

T8: One of the activities I do is that I select a reading topic and prepare a set of questions, they have to go to different webpages and find information on the topic to answer those questions.

T9: Generally what I do is to choose listening exercises in the software and have students complete the exercises. It is easy to do and easy to check as students can self-correct themselves.

T1: My dream is to give students the opportunity to talk to others or to communicate through email or forums, however this takes more time and effort from both the student and me.

Last, the data collected were used to compare perceptions and beliefs with technology, activities and strategies used in the participant classes. After contrasting the information from the different instruments, the following can be said:

1. Teachers focused their attention on structures or vocabulary. This is related to their perception that using ICT is basically an opportunity to practice and

complete drilling exercises. This is clearly related to their conception of language and language learning.

2. Interaction is not promoted when implementing ICT activities as students tend to work on their own. This also depends on the type of task and most of the tasks implemented gave no room for collaboration. Tasks are very repetitive and the technology used is very basic.
3. The role of the teacher is not an active one. There are no monitoring moments and the teacher only waits for students to complete the assigned work.
4. When classes took place in the lab, the number of students who attended these lessons was surprisingly low. This contradicts teachers' perception that ICT promotes motivation. One question to be asked is if this fact can be considered as an indicator that students may not be interested in the activities developed during those lessons.
5. Teachers consider that integrating technology in their classes is important but they do not look for opportunities to learn how to integrate it successfully. They make no effort in developing those skills.

## Conclusions

There is still a complex relationship between what teachers think and what they do in class in relation to technology mediated tasks. It cannot be denied that entering the world of technology is a personal decision. Finding out what teachers believe was basically a matter of having them ask some questions honestly and completing a survey to validate the answers obtained. Their ideas and opinions were contrasted with what they do in the class as a way of establishing coherence between what they say and what they do. Therefore several conclusions can be drawn from this study.

In relation to what teachers believe, they are definitely certain about the great impact technology is having today in the process of teaching and learning a language. This awareness comes from the experiences they have had as basic users of technology rather than from the conscious learning of teaching strategies, concepts, and development opportunities to integrate technology in a proper way.

Teachers believe technology mediated tasks contribute to the development of the four skills. Although teachers recognize all of the above, the majority uses technology only to reinforce grammar structures and receptive skills. This implies teachers have to shift these reinforcement activities to more interactive and productive ones. These activities can be planned to promote production and collaboration among students instead of the passive roles they adopt in classes observed at the laboratory.

Lessons that integrate technology-mediated tasks can be very rich in terms of variety. It could be identified that most teachers are big users of ready-made web pages, especially grammar practice, and that is very evident in the lessons observed. They are material consumers not producers. Software to practice grammar, listening, and writing are also part of the use of technology in class. This indicates they have the need to incorporate technology as a tool to foster interaction and collaborative learning, among other useful uses. Therefore, institutions need to include teacher opportunities to plan lessons together and pilot their activities as a way to learn from other experiences.

When comparing what they say about the use of technology in class and what they actually do, we can say there are not many common points. Most activities observed and discussed with teachers are reduced to drilling and extra practice of studied topics. Activities are not contextualized, and basically students work individually with the computer, wasting opportunities for implementing strategies and more communicative and interactive tasks. Although technology offers a great potential to be explored, activities implemented in class are very far from putting into action these beliefs and perceptions.

Teachers believe technology can be used to achieve language learning outcomes more effectively. However, the main focus of technology observed in this research was to reinforce the grammar aspect. Therefore, the implementation of technology is carried out more in terms of reinforcement and consolidation of structures worked in class rather than in enhancing the process of learning and teaching a language in a more meaningful way. Although beliefs are very positive, the implementation in class seems not to be very meaningful. Consequently, it can be assumed that beliefs and perceptions do not necessarily match the teaching practice. This implies these types of activities have to be re-addressed to enhance collaborative and productive learning environments. This indicates that teachers are in need of awareness sessions that will have them reflect on what teaching a language implies and in need of trying to establish effective ways to integrate technology. This integration has to be grounded not only on theories but also on teachers' learning and, if possible, on their own change of perception. All this does not happen overnight: it requires time and investment.

The opportunities for using technology have to be oriented toward how to plan activities and integrate strategies that will contribute to the development of collaborative, interactive opportunities for students to use the language in a meaningful way. Institutions should work on establishing guidelines about how, when, and what to do when integrating technology based activities. So, an important issue here is that technology or computers per se are not enough to keep students engaged. The type of activities, the interaction pattern, the use of language for a communicative purpose, and the authenticity of the tasks are important aspects when implementing technology oriented classes.

One aspect that we as a society cannot neglect is that students are immersed in a world where technology can be either a distractor for success or a key to achieving it. Technology is a tool that students use in their personal lives. The relationship between the introduction of technology and the role of teachers as facilitators to adapt these tools to promote learning is becoming more complex and challenging.

Also there is the need to take into account students' learning styles, pace, and type of intelligences when implementing technology based activities as visual learners benefit more from technology-mediated class. This implies that the teacher needs to find ways to integrate the other learning styles and be aware that taking into account the factors that affect learning is important.

One thing teachers are aware of is that technology means more than being equipped with the latest gadgets. Its integration in the process of teaching and learning a language has to be assumed more in terms of how skills can be developed more effectively, interactively, and collaboratively for the students. Here is where teachers need to work more as this reflection was not identified in any of the data collection techniques.

Teachers have to reflect on the fact that the tendency to use technology in teaching and learning a language depends on how to use technology and not on how the computers work. Lack of teacher familiarity (teachers' knowledge) on how to use and design (structural knowledge) more collaborative tasks using computers may prevent teachers from designing activities that are more meaningful and have students use the language for real communicative purposes. Teachers need to update their practices in such a way that they can take advantage of these tools to achieve what all teachers want: students learning in a meaningful way. Therefore, technology based activities require teachers' good planning and require their focusing on their role during the lesson and the type of activities they want students to complete. Autonomy should be developed with proper guidance and a clear process. Technology based activities should not be considered as just a way to motivate students and let them work on their own.

In sum, teachers know they have to use technologies in their classes and they are making an effort to do so. However, this integration is not achieving the expected outcomes as it requires more teacher education, a change in their beliefs, not only about technology itself but also about how to implement it in language teaching and in learning in a more meaningful way.

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## Appendix 1: 2009 Self-Study Students' Assessment at the Institute

Semester 1					
Levels	UATs	Oral	Portfolio	Final	Toefl
Level one average	61	72	76	68	
Level two average	59	74	68	58	
Level three average	73	80	81	57	
Level four average	67	76	76	63	
Level five average	73	86	79	75	
Level six average	65	78	77	73	
Level seven average	70	80	76	64	
Level eight average	70	81	79	79	61
<b>Total Average: 200910 (Over 2490 students)</b>	<b>67</b>	<b>78</b>	<b>77</b>	<b>67</b>	<b>61</b>
Semester 2					
Levels	UATs	Oral	Portfolio	Final	Toefl
Level one average	51	58	57	45	
Level two average	64	71	75	61	
Level three average	69	80	81	68	
Level four average	66	78	83	60	
Level five average	72	84	73	70	
Level six average	66	77	76	68	
Level seven average	69	82	84	64	
Level eight average	73	85	80	64	79
<b>Total Average: 200930 (Over 1952 students)</b>	<b>66</b>	<b>77</b>	<b>76</b>	<b>63</b>	<b>79</b>

*Note.* UATs = Unit Achievement Tests. The original self-study tables are in Spanish.

## Appendix 2: Survey Applied to Teachers

1. Use of ICT (Information Communications Technology) in People's Lives					
Aspects	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
1.1 I consider ICT abilities can help students succeed in their future jobs.					
1.2. In my opinion ICT has not been given the importance as a skill to succeed in professional fields.					
1.3. I feel ICT is being used more in business than in any other field.					
1.4. I feel people rely too much on technology to get information.					
1.5. I see people use ICT for their personal use, especially social matters.					
1.6. I see ICT has redefined traditional concepts of social interaction, means of communication and participation, and development of ideas.					
2. The use of ICT in Education Today					
Aspects	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
2.1. I think it is essential to integrate ICT into teaching.					
2.2. I think ICT requires educators to start teaching in a different way.					
2.3. When using ICT I feel creativity is an important part in order to integrate it in class.					
2.4. I feel ICT does not promote learning in class as much as it should do.					
2.5. I see teachers only relate ICT to search engines and commercial websites.					

2.6. I see teachers integrate ICT very superficially into teaching and learning.					
<b>3. My Skills for Using ICT in Education</b>					
Aspects	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
3.1. I consider the institution has offered me a lot of training in ICT to integrate it into my classes.					
3.2. I think I have developed a lot of skills in order to adapt the new tools in ICT to my learning and teaching needs.					
3.3. I think I prefer personal training than group training.					
3.4. I feel I am a high-level user of ICT in class.					
3.5. I feel I have gained skills more in trainings than by myself.					
3.6. I use ICT because it helps students to learn.					
3.7. I use technology integrated activities just because they are established in my course guidelines.					
3.8. I feel I am a good designer of materials and activities with ICT.					
<b>4. The Use of ICT and My Learning and Teaching Goals in Class</b>					
Aspects	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
4.1. In my opinion ICT can be used to achieve language learning outcomes more effectively.					
4.2. I think ICT in teaching is just a way to motivate students in the classes rather than for teaching and learning processes.					

4.3. I consider that ICT activities do not meet my class needs to develop the language skills.					
4.4. I think technology can help students to better develop and comprehend the language topics I develop in class.					
4.5. I feel that using technology based activities in class is very challenging for developing some of the skills.					
4.6. It's hard to grade technology activities because it is time consuming, specially the written activities.					
4.7. I feel technology is useful to develop the four skills more easily.					
4.8. I am a very careful designer when writing instructions to develop a technology integrated activity in class.					
4.9. In my case, preparation of technology activities in language teaching and learning requires a lot more time than just regular class and instruction.					
4.10. I am not interested in developing ICT activities in my language classes.					
4.11. My use of ICT is to foster collaborative learning in class as well as learning the language.					
4.12. My use of technology is to reinforce any or all of the four skills.					

### **Appendix 3: Interview Questions**

1. Do you use technology in your classes? If so, why do you use it? What is the benefit of using it? If not, why not?
2. What tools do you generally use for your classes? Why do you use those (X) tools to develop your class? Do you handle them well? Do you ever take your students to the lab? In order to do what?
3. About this particular technology based activity that you developed today in class, would it be possible for you to do it without the technology? Would it be possible for you to obtain the same language, motivation results?
4. Do you think you need to be very skillful in technology use in order to implement technology based activities?
5. What is the impact/benefit of using technology in language classes?
6. What do you think a language teacher needs (kind of tools); and needs to know in order to integrate technology into his or her language teaching?
7. What perception regarding language learning do you have of your students when you use technology based activities?
8. What has influenced you to use technology in your classes?