

Chapter 5: conclusions

Technology is here to stay and there is no way to deny it. People from all ages around the globe have woven it into many aspects of their lives; they breathe, eat, sleep, live and learn with technology. Throughout the past four chapters, I have presented the widespread technology has had; have explored the IS and ICTs; have introduced some of the relevant SLA theories and principles that can aid the selection of Web 2.0 tools and have discussed the ISTE standards for the use of technology in a classroom.

In order to put the theory in practice, a study was carried out with four language teachers. They were given a handout that contained different theories that could be used to choose a Web 2.0 tool as well as the general ISTE standards; also they had a list of Web 2.0 tools, a lesson plan template and a Web 2.0 tool evaluation handout. Their main task was to include a Web 2.0 tool into their language classroom to offer a different to achieve the lesson's set goal. The results of their input were provided in chapter four. In summary, 100% of the teachers reported that their students were excited and involved in the activities; 75% said they reached their instructional goals and 100% said they are most likely to try and include more Web 2.0 tools in their language classes.

5.1 Answers to initial research questions

In the introduction chapter, four research questions were presented; the study that was carried out gave the necessary information to answer them, the responses to each follow.

1. What is the information society (IS) and information and communications technology (ICTS)? Do these (ICTS) aid or hinder foreign language learning?

The foundation of the information society is, as its name suggests, information; it is a society based on the creation, distribution, access and use of information. This information is important for many social, political, economical and cultural purposes. The IS is key in human development and it can transform and develop societies (Hernandez Rojas, 2009). ICTs are vital in the IS because they are the

means to create and divulge information, for example, telecommunication devices, including its hardware, software and networks.

This research showed that ICT's can both aid or hinder foreign language learning. Whether ICT's deliver benefits or not depends on their purpose and the way they are implemented. Teachers and school administrators must decide if and which ICT's are appropriate for the class' objectives and student needs.

2. Which second language acquisition (SLA) theories should be looked at and considered to insure the successful implementation of web tools in the foreign language classroom?

Several theoretical principles were revised for their relevance in second language acquisition and foreign language teaching. The first one was *the role of interaction*; humans learn through interaction with others. With conversation, students move into phases of thinking and speaking that they would not be able to go to alone (Vygostky, 1934/1962 as cited in Kreeft Peyton, 1999). Long (1996) uses *interaction hypothesis* to express that conversational interaction is the basis of language development. In a conversation, learning can take place during the interaction, or in the negotiation phase which can serve as an initial step so acquisition can occur (Gass, 2003). In this sense, learners will be able to access to *comprehensible input*. This means that while students understand the conveyed message, this utterance must be one step beyond the learner's current linguistic competence (i+1) (Krashen, 1981).

In general, the interaction hypothesis points out the importance of students having the opportunity to engage in conversations with others, not only to practice what they have learned, but to acquire new things and to have the social element that is imperative to language learning.

Secondly, *speech accommodation theory* and the important of audience were reviewed. In language use and learning, the intended audience is key, but particularly the relation between the learner and the audience because this determines the forms of language to be used. Speech

accommodation theory indicates that speakers adjust their language according to who they are talking or writing to. A speaker either converges to (moves towards) or diverges (moves away) from the addressee's style (Giles, 1970, as cited in Johnston, 1999).

In many traditional language classes, most texts students produce are for an "audience of one" (the teacher) and their oral production is limited to their classmates (Johnston, 1999). If educators reappraise how to design activities and consider Giles' speech accommodation theory in the planning of language lessons, we can give our students to write for a *real* communicative purpose and not to obtain a grade for the "mastery" of language structures and vocabulary.

The third principle that was analyzed was *authenticity in language and tasks*. Many researchers believe that students learn best if they can do activities in class that bear a resemblance to situations they will face in *real life*. Defining if an activity or task is authentic can be complicated, Chapelle (1999) mentions that to evaluate a task's authenticity, one must evaluate the correspondence between the language learning task in the classroom and the tasks that the learner might possibly face outside the classroom. Second language tasks are supposed to provide students the opportunity to practice language similar to that used outside classrooms. If additionally to providing authentic language learning tasks, we can give our student an authentic audience for that task, the educational setting will be much richer and it is more likely that learning can occur.

The last hypothesis that was reviewed was *ego permeability*. It argues that some people – particularly adults- find it hard to learn a foreign language because they are unwilling to give up control over their self-presentation (Hudson & Bruckman, 2002; Guiora, 1972). Because language students might not have the same control over the foreign language as over their native languages, they become inhibited by using the new language, so speaking in this new language becomes a face threatening act. Ego Permeability hypothesis suggests that improved linguistic performance can be obtained in a foreign language through situations that lower inhibitions, or Krashen's (1981) affective filter. This is to say, a

situation that does not threaten the learner's face. Language production in a low-inhibition environment, may contribute toward deeper and meaningful learning.

3. What are some of the conditions that are needed for successful learning to take place using technology as part of the methodology in a foreign language classroom?

To begin to answer this question, we must reintroduce the challenges IS has set for education proposed by Hernandez Rojas (2009); the predominance of symbolic information in productive sectors, that information has a very short expiration date, that users must face up to this information with the appropriate resources to filter, select and evaluate the information, the risk of substituting knowledge with information and that not all information is relevant. These challenges, like Hernandez Rojas (2009) points out, are demanding students of all ages to obtain a series of skills that will allow them to constantly learn in a way that is strategic and negotiable, in other words *learn to learn*. These five challenges must be considered before planning to implement technology in the language classroom.

To ensure the highest probability of success with technology and foreign language teaching, teachers and administrators need to reflect on the technical and pedagogical considerations that Hernandez Rojas (2009) brought up. Generally speaking, the pedagogical considerations are those that relate to the actual form of instruction (e.g. proposed methodology, content adjustments, assessment criteria, etc.) and the impact that ICTs can have on the didactic triangle teacher-students-content. ICTs will not work to its full potential if educators and school administrators do not find the way to explore them appropriately and completely. The technological considerations refer to the infrastructure that is need for ICTs and the different international standards for their implementation; the NETS-T, NETS-S and ICT-CFT.

Despite what the question enquires about technology as part of the teaching methodology, literature has suggested, the inclusion of technology should not be seen as a methodology in itself. ICTs

are merely a medium to reach a previously set educational goal. This particular point will be fully addressed in the general conclusion section that follows.

4. How can we merge SLA theories with the practice of computer assisted language learning (CALL)?

Second language acquisition theories can be merged with computer assisted language learning when it comes to decision making. The theories that were mentioned in the previous chapters give teachers a framework to begin working with as to choose the web tools that are the most suitable for their classrooms. In addition to the educators' professional experience, their knowledge on teaching techniques and methods, as well as their students' needs and likes, being familiar with theories and principles makes their decisions a lot better rounded and informed. Knowing what scholars and research says in regards to second language acquisition gives instructors the foundation and justification for their technology choices.

5.2 General conclusions

In addition to the answered research questions, there are several conclusions that can be drawn from the information obtained through the literature review and the study carried out. The first conclusion we can reach is that technology has revolutionized the way we live, and this includes the way we teach languages. Access to the internet has given teachers and learners around the globe the opportunity to learn, create, collaborate and be part of something that goes beyond their classroom. However, the benefits from using technology in a language classroom will not be seen unless students are prepared to interact and learn in a virtual environment. The five challenges for education set out by the IS (Monereo and Pozo, 2001) mentioned in chapter two clearly reflect this situation. Particularly the last one that states that students must know how to identify and select information, contrast dissimilar ideas and critically analyze the argument that they are faced with.

According to the ICT-CFT (UNESCO, 2008) and the NETS-S, while using technology students should be able to solve problems and make decisions; be communicators, collaborators, publishers and producers; be creative and effective users of productivity tools, as well as capable of seeking, analyzing and evaluating the information they acquire. Overall, students should be able to use technology responsibly, effectively, consciously, productively and most importantly, critically.

The second conclusion is that technology should not be used just because it is a trend. It is not uncommon that some teachers use technology in their classrooms without thinking through the full extent of the implications of this choice. The use of technology in a lesson will not necessarily lead to a successful and effective class. This is why checklists such as the “theories’ handout” are important. Any pedagogical decision made in an educational setting should be supported by theoretical principles that justify any particular action. In the study that was carried out, teachers used the checklist with SLA theories and principles as well as their knowledge to select a tool that would aid them to obtain their instructional goals. I believe that the use of the information that was provided in the handout will be useful to those teachers who have not had the opportunity to receive formal training or to those who wish to base their teaching practices in theory even if only partially.

When a teacher is faced with the option of including or not including technology in their language lesson, s/he should reflect on what will be taught and which is the best approach to do so. The teacher should determine if the objectives will be reached effectively in technological resource or in a zero-resource class. Any choice made in the classroom should be based on pedagogical reasons and technological tools should be taken into consideration as a means to enhance the learning experience and class. This is so the students focus on the real purpose of the class and not on the technology.

Schrum (2000) suggests that many school administrators and educators believe that learning with technology will “occur almost by osmosis”, that all that is needed is to have the state of the art technology in the classroom so that students begin to learn, but the reality is that without specific

pedagogical objectives, little to no learning will occur. Warschauer (1996) comments on this by saying “(...) those who expect to get magnificent results simply from the purchase of expensive and elaborate systems will likely be disappointed. But those who put computer technology to use in the service of good pedagogy will undoubtedly find ways to enrich their educational program and the learning opportunities of their students” (p.11).

The third conclusion we can reach and that is closely related to the previous one, is that the use of computers and technology does not constitute a teaching method, they are simply a medium to reach a goal. In a classroom that is technologically boosted, students should not focus on learning technology; technology must be the means for significant learning, not an end. Teachers will be able to successfully implement technology in their classrooms with greater ease if they 1) are willing to try new things and explore what is offered, 2) educate themselves on how the tools work and how they can be incorporated and implemented, and 3) incorporate technology in a way that enhances the already existing curriculum, and not to design a new curriculum that revolves around a specific tool.

Program administrators and educators should consider the applications and limitations that technology has and rethink the specific goals and overall projects set for its use. As mentioned above, the use of technology should support, not replace the goals of the curricula. Reflecting on what can and cannot be accomplished by technology will determine the instructional road to follow. In this respect, an important component of the implementation plan is teacher training. Some teachers fear technology because it is unknown to them and they think that they will encounter many problems. Frustration on the use of technology does not necessarily come from technology itself but from inadequate or inexistent training about how to use it. Teacher training should be a focal point when developing technologically rich curricula; this investment will result in better results when the technology is implemented.

The fourth conclusion brings us to mention that although different scholars point out different disadvantages to the uses of technology in language classrooms, the advantages, if technology is implemented correctly, are greater. In regards to disadvantages, Warschauer and Meskill (2000) focus on three aspects: investment of money, investment of time and uncertainty of results. Relating to the money investment, the authors point out that the uses of new technologies tend to result in higher productivity in the economic sphere, but productivity in education is harder to assess and measure. They also note that for language learning programs, expenses go beyond hardware, software and installation, staffing and training must be considered too. They mention that to intelligently use the resources, one-third of the money destined should be destined for hardware, one-third for staff support and training, one-sixth for software, and the rest for maintenance and upgrade costs. Another disadvantage that goes hand in hand with money investment is that the increase in educational costs can result in inequity of education because when computers become a requirement, low budget schools and low-income students might not be able to afford a computer resulting in unfair educational conditions (Gips, DiMattia, & Gips, 2004).

The second aspect addressed by Warschauer and Meskill (2000) is time investment. They say that implementing a new technology in the classroom takes careful planning and thorough thinking. This planning is not limited to the lesson; it includes getting to know the tools, how they can be used to be more beneficial, as well as the development of rubrics to assess the results. The authors focus on the uncertainty of results as one of the main disadvantages of technology in educational settings as there is no predictable outcome for using computers. This means that institutions, administrators and teachers are asked to invest large amounts of time and money without any guarantee of beneficial results.

Warschauer and Meskill (2000) explicitly state that advantages of technology can only be interpreted in terms of the goals of language education. However, many educators indicate that there are clear advantages when using technology in the language classroom. Chieh Lai and Kirtsonis (2006)

point out that computers and their language software can give learners more independence from classrooms, leaving teachers time to focus on parts of the language that still require personalized attention such as pronunciation or training for essay writing. The proper implementation of technology in classrooms can 1) give students practice so they can have significant and experiential learning; 2) motivate them, 3) enhance their achievement, 4) increase access to authentic material, 5) promote collaboration between students, teachers, and peers, not necessarily in the physical classroom, 6 cater to individual learning needs and, 7) enlarge global understanding (Lee, 2000 as cited in Chieh Lai and Kirtsonis, 2006).

Further research is encouraged to examine the long term impact of a Web 2.0 tool in students' performance. Because in this study the use of this tool was only done once, the positive results teachers mentioned may have been due to the fact that it was a novel and different activity. It is possible that an activity that involved using much more than the textbook or Power Point presentations excited the students, but if the use of Web 2.0 tools is recurrent students' reactions could be different. A longitudinal study that considers the newness factor is suggested to bridge this information gap.

I would like to mention that as helpful and important technology can be, it cannot and should not substitute the teacher. Language learning is one of the most interactive and complex processes that humans go through, and this process can benefit greatly from the teacher and carefully used technology. Just as Long (1996) mentioned in his interaction hypothesis, conversation interaction is the basis of language development and nothing is superior to human to human interaction.

Regardless of the advantages or disadvantages that technology may or may not have in a language classroom -or in any classroom-, positive results will only be seen if its use is well justified, carefully thought out and cautiously implemented. Technology offers endless possibilities, but its costs, complexities, limitations and weaknesses should not be underestimated.

The literature reviewed and the study carried out for this thesis, was done with “language teaching and learning” in mind, however it can be applied for teaching in general as the same cautions apply whether it is for history, French or biology. Image 5.1 largely sums up what I recommend be taken into account when considering the use of Web 2.0 tools or any type of technology in the classroom. Teachers should be familiar with relevant theories and research in the second language acquisition area (or in the area they are teaching/are involved in); use their experience and professional training as guides; and have clear and concise objectives in mind in order to create significant and authentic learning opportunities that will provide students new cultural, social and linguistic knowledge. Meaningful teaching and meaningful learning comes from the combination of different teaching techniques, methods and if pertinent, technology.

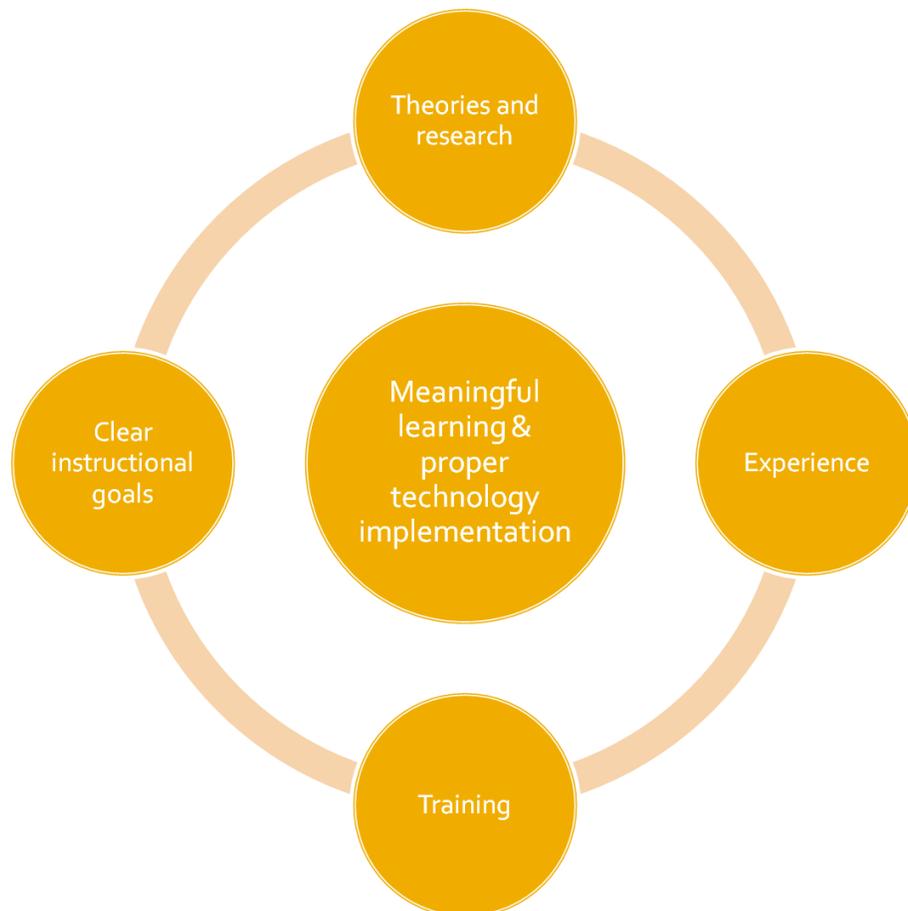


Image 5.1 Important factors to consider when implementing technology in the classroom.