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V E N E Z U E L A

Integrating Multimedia Technology in a High School EFL Program

Due to the current status of English as a global language of science, technology, and international relations, many countries around the world consider the teaching of English a major educational priority (Crystal 1997; McKay 2000). However, English as a Foreign Language (EFL) is often taught under unfavorable conditions, and, as a result, high school graduates are not always competent users of English. EFL teachers in South America, Asia, Africa, and elsewhere, for whom this situation is probably familiar, can profit by sharing information about the problems they encounter and by investigating the various alternatives available to improve EFL instruction.

One important alternative is to take advantage of the continuing advances in multimedia technology and to make an effort to integrate this technology with in-class instruction. It is well documented that multimedia technology can help with some difficulties associated with the EFL situation, such as large class sizes and mixed-ability classrooms. And where multimedia technology has been used for EFL instruction, better results have been achieved with training students to be autonomous learners. This explains the growing number of schools with facilities for students to access computers and audiovisual equipment.

In this article I will describe a Technologically Enhanced Language Learning (TELL) program I had the privilege to be a part of and will describe how that program improved high school EFL instruction. The project, known as the High School English Program (HISEP), has been operating for several years now in a private high school in Caracas, Venezuela, and is an example of how TELL can be used to complement and reinforce traditional in-class instruction.

Some challenges of teaching EFL

For several reasons, EFL instruction often does not accomplish its objective and leaves students without an adequate level of proficiency in English. Of course, a major issue is the EFL environment itself, because there is an overall lack of English speakers for students to interact with. Below are six

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additional factors that contribute to the lack of success with EFL in high schools in Venezuela —and probably many other countries.

1. *Late initiation of official instruction.* Although some private schools include extracurricular English classes, there is no official EFL curriculum for preschool or primary schools. Thus, most students do not begin formal English instruction until they are 12 or 13 years old.

2. *Insufficient time for instruction.* Many programs allow only three academic hours weekly for the teaching of English.

3. *Overcrowded classrooms.* As many as 40 students may attend the English class, making it difficult for the teacher to keep control and provide individual attention.

4. *Mixed-ability classes.* Some students in the classroom are more advanced in English because they have traveled to or lived in English-speaking countries, while others know English only from what they have learned in school. As a result, teachers often have a hard time providing the appropriate level of instruction in classes with such disparity in English proficiency.

5. *Low salaries for teachers.* Salaries for English instructors in public and private high schools are low, which causes good teachers to leave the educational system for more profitable jobs in private academies or commercial establishments.

6. *Use of untrained English teachers.* The void created by departing teachers opens vacancies that are often filled by native English speakers who are generally untrained in language pedagogy.

Although these problems are not easily solved, they must be explored and remedied if EFL instruction is to be successful. The following description of an English program illustrates how some of these issues were solved by adding TELL to the EFL curriculum.

Context: A private high school

About six years ago, administrators at the Emil Friedman High School in Caracas decided to make some major changes to its English program. The school had constantly received complaints from students and parents about the English program, which led the headmaster to look for an external solution to improve the teaching of English. The school selected a company with a long history in EFL teaching methodology, to conduct a program analysis. The analysis specified that although some unfavorable conditions could not be changed, some improvements to the program were possible, including problems associated with large class sizes, the lack of contact with English, mixed-ability levels within the same class, and the need for student autonomy. (Pino-Silva and Antonini 2000).

In 1999 the HISEP was implemented, and a key element was to join multimedia technology with traditional classroom English instruction. This connection was not meant to replace the classroom, textbook, or teacher but rather to supplement them with the hope of achieving the program's main objectives: to develop the students' mastery of reading, listening, writing, and speaking skills, as well as the subskills of vocabulary and grammar (Pino-Silva and Antonini 1999). Some specific objectives were: (1) to increase students' awareness and understanding of their own learning processes; (2) to develop an autonomous attitude in students toward language learning; (3) to help students recognize and incorporate pertinent strategies that help them learn on their own; and (4) to encourage students to think critically and express themselves reflectively (Pino-Silva and Antonini 1999, 2000). Throughout the years multimedia technology for language learning has had demonstrably positive results, and so its integration with the existent high school curriculum was a logical step.

Justification for using multimedia technology in language programs

Numerous researchers have reported on the theoretical constructs that support the use of multimedia technology for EFL instruction (Jonassen 2000; Kitao 1995; Kang 1999; Pino-Silva 2002, 2004; Stepp-Greany 2002). This research shows that using multimedia technology in the classroom:

- allows students to work individually at a computer station, at their own pace, and according to their own needs;
- helps teachers to deal more effectively with a large group of students;
- makes the introduction and presentation

of content more dynamic and attractive for students;

- increases student motivation due to the interactive nature of the activities;
- trains students to self-monitor and self-assess their progress, which promotes autonomous learning;
- promotes a task-based approach to learning;
- allows students to experience real-life and communicatively meaningful language situations and contexts; and
- introduces a variety of print, audio, and visual materials that match different student learning styles and preferences.

With the rapid development of the Internet, computer use in the classroom also offers additional possibilities for designing communicative tasks such as those built around computer-mediated communication and tele-collaboration, including the ability to interact in real time with oral and written communication, to conduct information searches to find attractive and meaningful material, and to engage in distance learning and e-learning (Anderson 2003; Belz 2002; Dudeney 2000; Jonassen 2000; Pino-Silva 2002).

The literature that deals specifically with the use of videos in the foreign language classroom also indicates many benefits (Ambrose 2002; Antonini 2004; Gower, Phillips, and Walters 1995; Hemei 1997; Hoven 1999; Mackenzie 1997; Rubin 1994). For example, the use of videos can:

- be more appealing and entertaining for the students than audio exclusive materials;
- expose students to authentic language in natural situations;
- provide a situational and visual context to language interactions; and
- expose students to authentic nonverbal (body language, cultural traditions) and verbal (register, colloquial speech) elements of language.

To be realistic, teachers should not think of technology as a panacea that solves all the problems associated with language teaching. The use of technology in EFL instruction should be based upon numerous pedagogical considerations, which must be well thought out in advance (Pino-Silva 2002, 2004; Reis 1995; Stepp-Greany 2002). For example, some issues to consider before deciding to create a TELL center include:

- teacher resistance to technology, because of a lack of interest or knowledge, or because of uncertainty regarding its effectiveness;
- the impersonal nature of the multimedia equipment and its potential to limit interaction and present tasks that are so repetitive that there is a danger of boredom and passive learning (Jonassen 2000);
- the costs of maintaining and upgrading multimedia equipment, which can be witnessed today as the VCR format is being replaced by DVD; and
- concerns about the actual autonomy that multimedia allows students, since it is still the teacher who chooses the options students must work on.

After careful consideration of the above advantages and disadvantages, the HISEP was designed and implemented. A TELL center was developed in accordance with theoretical principles and research findings reported by language teaching professionals. Today, teachers and students at the high school call this center the English Learning Center, or simply the ELC.

The English Learning Center: Materials, activities, and evaluation

The ELC is an integral multimedia environment consisting of 36 stations (18 computer stations and 18 video stations). It receives about 360 students per week. Activities at the ELC both complement and reinforce what is being taught in the classroom. Every student from the last year of middle school to the last year of high school attends one 90-minute ELC session per week in addition to three academic hours for in-class activities.

For each ELC session, a 40-student class is divided into two equal groups; one group stays in the classroom for traditional language instruction using the communicative approach, and the other group attends the ELC to work individually for 90 minutes. This 90-minute session allows every student to work 45 minutes at a computer station

and 45 minutes at a video station (Pino-Silva 2002, 2004.)

The computer station

Students at the ELC work on computers loaded with the multimedia software program *Focus on Grammar,* which leads them through a series of activities selected by the teachers according to each student's particular level and need. While using the computer program, students typically focus on formal aspects of grammar, although they work on listening and reading activities as well. Completion of a specified number of activities is mandatory for all students. Students are also provided with a list of supplementary activities that are optional for those who finish the obligatory activities or who feel they need extra practice.

The video station

Today, the development of listening comprehension is linked more to the use of video materials than to the use of materials such as audiocassettes or CDs (Hoven 1999). At the video stations students work on vocabulary building and listening comprehension exercises from recorded news reports, movies, song clips, and documentaries.

The creators of the HISEP developed worksheets with specific activities related to the content of video segments that were selected from programs of topical interest to the students (Pino-Silva and Antonini 1999). During a 45-minute period, students choose how many video segments they want to watch.

The exercises associated with the video materials are conducted before, during, and after the video presentation, which are known as the stages of previewing, viewing, and post-viewing (Gower, Phillips, and Walters 1995). These stages are designed to maximize student understanding of the subject matter, which will in turn increase motivation and involvement.

- *Previewing* activities activate students' prior knowledge and raise their expectations relating to the content of the video. At this stage the teacher can prepare vocabulary lists, reading texts, and comprehension questions about the video so students will start reflecting about what they know of the topic.
- *Viewing* activities give students practice in both content-based and form-focused tasks that require them to use top-

down and bottom-up processing. Activities include answering multiple-choice questions, filling in the blanks, drawing inferences, and listening for the gist (Antonini 2004).

- *Post-viewing* activities give students the opportunity to evaluate and comment on the video and the associated activities. Students answer various open-ended questions about the video in terms of their personal enjoyment and the relevance of the content. At this stage they are required to reflect and write about the content of the video, which encourages them to think critically about the subject. At first they can write their comments in their native language, but they are progressively required to express themselves in the target language (Pino-Silva and Mayora 2004).

Evaluation of ELC activities

The complete evaluation for HISEP students is composed of two parts, the classroom activities and the ELC activities. Classroom evaluation involves a midterm test, workbook assignments, class participation, extensive reading evaluation, and self-assessments of students' contributions to the class. The evaluation of the ELC activities involves three areas:

1. A computer-station assessment that automatically evaluates the students' performance on grammar and listening comprehension lessons (Pino-Silva 2002). Students answer tests on the screen and receive their score as soon as they finish. They then have the chance to check which of their answers were right and which were wrong.

2. At the end of each video session, students receive the answer keys for the worksheets they completed and have the opportunity to correct their work and monitor their progress; this material is kept as a portfolio and is evaluated once every term on criteria that include the number of worksheets completed, the completeness of the work, the quality of self-correction, and a special credit for the substance of students' comments in the post-viewing section (Pino-Silva and

Antonini 2001; Pino-Silva and Mayora 2004). See Appendix 1 for the portfolio evaluation parameters.

3. Weekly self-evaluation exercises occur during the last five minutes of every ELC session. On the computer screen, students rate themselves on eight items on a 1 to 5 scale ranging from *Very poor* to *Excellent,* including punctuality, time management, and dedication to work (see Appendix 2 for self-evaluation form). The score they give themselves is their grade for that session; at the end of the term, the self-evaluation scores for all sessions are averaged.

Student perception of the ELC

Up to this point I have given a brief overview of the procedures and activities of an ELC session. To get an idea of how well TELL actually improves the students' competence in English, it is useful to gather different types of quantitative and qualitative data from test scores, surveys, and interviews, among other methods.

The first indication of the HISEP's success comes from anecdotal evidence. After graduating, many students said that the working sessions at the ELC during their last years of high school were a key factor for their success at passing English proficiency and placement tests at universities or other institutions. However, although such evidence does suggest the success of the program, these personal and informal responses must be supplemented by more formal assessments to adequately judge the success of the HISEP. For this reason the program's effectiveness, including both the in-class and ELC activities, is evaluated annually by the HISEP staff. One component of the evaluation is a survey designed, administered, and analyzed by the program administrators (Pino-Silva and Antonini 1999). Presented below are some partial results from one survey that was administered during the 2002–2003 school year to determine student perceptions of the ELC.

A total of 316 students were given a survey instrument consisting of a number of statements about equipment, personal progress, and EFL methodology, and they were asked to rank these statements on the following five-point scale: 1 = *Very poor;* 2 = *Poor;* 3 = *Average;* 4 = *Very good;* and 5 = *Excellent*. Additionally, the final item on the survey offered an opportunity for students to express their own opinions about the ELC activities. Students responded anonymously so they could feel completely free to be honest.

The evaluated aspects included students' views about the opportunities offered by the ELC and how much benefit they derived from the computer activities and video-based listening tasks. Figure 1 shows the evaluated aspects and the percentage of students who ranked each aspect positively. (To determine a "positive" classification, the percentages of *Very good* and *Excellent* responses were combined.)

FIGURE 1: STUDENT EVALUATION OF ENGLISH LEARNING CENTER ACTIVITIES

Evaluated aspect	Percentage of students who ranked the aspect as *Very good* or *Excellent.*
Opportunities provided by the multimedia material and ELC method to listen to authentic English	100%
Opportunities provided by the multimedia material and ELC method to increase vocabulary	92%
Personal progress on the acquisition of English through this approach and through technology	86%
Opportunities provided by the multimedia material and ELC method to practice grammatical content	84%
Overall perception of the effect of the computer software activities on the process of learning the language	76%
Overall perception of the effect of video segment activities on the process of learning the language	75%

The results show that all these students felt that the ELC provided them with substantial opportunities to listen to authentic language, which is a key element for the acquisition of English. A large majority of the students also felt positive about the opportunities the ELC provided to increase their vocabulary and practice grammar. In addition, most students indicated that computer- and video-based activities had a positive effect on their process of learning English. Finally, when asked to self-rate the effect the technological approach had on their personal progress, 86 percent of students responded *Very good* or *Excellent.*

The last part of the survey consisted of an open-ended question where students could express their opinions or make suggestions about their experience with the ELC. For reporting purposes, the various open-ended responses were grouped according to their similarity, and Figure 2 below shows the frequency of grouped responses.

Figure 2 reveals great satisfaction with the ELC. Nearly half of the comments indicate that students regard the ELC in general as a motivating, productive, and advanced way to learn English. Only ten percent of the comments are truly critical. An additional 30 percent of the comments may appear "negative" but actually express the need to increase ELC sessions, practice oral skills, and introduce ELC activities directly into the classroom; therefore, these comments actually support the ELC approach and provide useful feedback for the administration.

These results are similar to those obtained during four other assessment periods, which means that, according to the students, the HISEP and ELC have been positive for the learning of English. Multimedia materials and tasks are motivating and appealing for students, which improves their attitudes toward learning and makes the teacher's job more productive and rewarding. These student perceptions suggest that the HISEP and ELC help English teachers to tackle some of the unfavorable conditions of teaching EFL. For example, dividing classes in half lessens the effects of overcrowding, and having students work individually with multimedia allows each one to work on tasks at the correct level.

Conclusion

Through this article I intended to give colleagues a picture of how TELL can counteract some common problems of teaching EFL. My suggestion is simple: to implement a program that seeks to raise in the student an autonomous attitude toward learning a language and the integration of multimedia technology as a reinforcement of in-classroom activities.

It is important to recognize that in many EFL situations not all schools have the resources and space to install and maintain a multimedia center like the ELC. Nevertheless, it is a challenge for language teachers to seek ways to improve our classes, and there are plenty of ways for teachers to begin to install at least the beginnings of a multimedia lab. If your school can not afford a large language laboratory, more modest or smaller areas may be used. In fact, sometimes all that is needed to take the biggest step in the direction of TELL is a change of teachers' attitudes toward technology. Teachers

FIGURE 2: STUDENT COMMENTS RELATING TO THE ENGLISH LEARNING CENTER

Comments	Percentage of frequency of comment
1. The ELC is motivating and productive. It is an advanced way of learning English.	44%
2. We should have more weekly sessions at the ELC.	20%
3. ELC materials are motivating and adequate.	8%
4. The ELC puts us ahead of other schools regarding technology and educational resources.	8%
5. I like ELC, but I think we should have more opportunities to practice oral fluency.	7%
6. I don't like ELC. It is not an appropriate method.	7%
7. Sessions may get boring and dull.	3%
8. In the classroom we should have some of the ELC resources and activities.	3%

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can begin little by little, such as transitioning from audiocassettes to CDs and then moving gradually toward videocassettes and DVDs. Talk to school administrators and headmasters and generate interest in investing in a small multimedia area with two or three computers. Technology is prevalent, and it is the teacher's role to think about how to acquire it and integrate it into the curriculum.

A final word on technology: whatever you use it for in the classroom, it is not going to do the job for you. You will still have a great responsibility as a conscientious materials developer and adviser to develop the multimedia activities and to train students in their proper use. I think that one of the most important things I learned from the ELC and HISEP experience was the understanding that technology use in language instruction must be based on sound pedagogical and theoretical principles, and that both teachers and technology are part of an interrelated system.

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PARAMETER	RUBRIC	CREDITS
Amount of worksheets the student completed	*Excellent:* Above 90% of the mean of worksheets calculated for the group.	7
	Very good: Between 89% and 70% of the mean of worksheets calculated for the group.	6–5
	Good to average: Between 69% and 50% of the mean of worksheets calculated for the group.	4
	Poor: Between 49% and 40% of the mean of worksheets calculated for the group.	3
	Deficient: Between 39% and 30% of the mean of worksheets calculated for the group.	2
	Very deficient: Below 30% of the mean of worksheets calculated for the group.	1
Self-correction of activities	*Excellent to very good:* More than 90% of the worksheets the student completed were consciously corrected. S/he clearly demonstrates awareness of own errors and mistakes.	5–4
	Good to average: Between 89% and 40% of the worksheets the student completed were consciously corrected. The remaining percentage of worksheets were either loosely corrected or not corrected at all. Rights and wrongs are not evident.	3
	Deficient to very deficient: Below 40% of the worksheets the student completed were consciously corrected. The remaining percentage of worksheets were either loosely corrected or not corrected at all.	2–1
Systematic approach and dedication to work	*Excellent to very good:* More than 90% of the worksheets the student completed show s/he went through the activities systematically and thoroughly. All tasks were finished. The student provided dates and all other required information.	5–4
	Good to average: Between 89% and 40% of the worksheets the student completed show s/he went through the activities systematically and thoroughly. The remaining percentage of worksheets show incomplete or unfinished tasks. The student did not provide the dates or other required information.	3
	Deficient to very deficient: Below 40% of the worksheets the student completed show s/he went through the activities systematically and thoroughly. The remaining percentage of worksheets show incomplete or unfinished tasks. The student did not provide the dates or other required information.	2–1
Relevance and contribution of wrap-up commentaries	*Excellent to very good:* More than 90% of the commentaries the student made in each worksheet show reflection and comprehension of the content of the video segment. The student takes risks expressing opinions and emotions toward the information.	3
	Good to average: Between 89% and 40% of the commentaries the student made in each worksheet show reflection and comprehension of the content of the video segment. The remaining comments are either shallow or irrelevant to the content of the video segment.	2
	Deficient to very deficient: Below 40% of the commentaries the student made in each worksheet show reflection and comprehension of the content of the video segment. The remaining comments are either shallow or irrelevant to the content of the video segment.	1

(Pino-Silva and Antonini 2001)

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APPENDIX 2 | ENGLISH LEARNING CENTER SELF-EVALUATION FORM

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Items	Excellent	Very good	Average	Poor	Very poor
1. Punctuality					
2. Readiness to work					
3. Behavior					
4. Respect to classmates and teachers					
5. Equipment handling					
6. Dedication to work					
7. Personal appearance					
8. Time management					

(Pino-Silva and Antonini 1999)