

# CALL Software Evaluation

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## Abstract

This article describes the analysis and evaluation, in a critical way, of CALL(Computer Assisted Language Learning) software material we as educators plan to use before implementing it in the learning and teaching processes. Also, we want to identify some Educational Technology undergraduate students' pedagogical content considerations when evaluating CALL software materials, and to analyze if the selected software material provides appropriate academic feedback to engage this specific population of undergraduate students in the English language learning process.

## Resumen

Este artículo describe el análisis y evaluación, de una manera crítica, de un material multimedial con enfoque CALL (Computer Assisted Language Learning), el cual nosotros como educadores planeamos utilizar con los estudiantes en los procesos de enseñanza y aprendizaje. Además, se pretende identificar algunas consideraciones de contenido pedagógico por parte de estudiantes del programa de pregrado en Informática Educativa cuando evalúan esta clase de materiales; así mismo, analizar si el material seleccionado brinda una adecuada retroalimentación al estudiante en el proceso de aprendizaje del Inglés.

**Key words:** Evaluation, CALL, pedagogical content considerations, academic feedback, learning process.

**Palabras clave:** Evaluación, CALL, consideraciones de contenido pedagógico, retroalimentación académica, proceso de aprendizaje.

## Introduction

After having used some multimedial materials with Educational Technology undergraduate students at Universidad Pedagógica y Tecnológica de Colombia, we believe that it would be highly relevant to know students' considerations about the pedagogical contents of New Interchange 1 software program. Consequently, after the analysis and evaluation of this material done by the students, they feel free to express their critical and pedagogical considerations about the appropriateness and the effectiveness of this CALL software material as a useful device in the English learning process. We, as language teachers, think that they are the most suitable population to pilot and verify these classroom aids.

Although, we are convinced that technology is not the panacea, we think it is a good alternative to develop most of the learners' potentials, and at the same time, their language skills. Furthermore, with this type of activities, they might feel more interested in contributing directly in the knowledge construction, and in the improvement of the teaching and learning processes. Maybe, through this team work, we could also make students to see English as a useful tool to access the world.

As a preliminary step, we gathered in order to share our former experiences about the different software programs we have dealt with. After discussing our insights, we reached a consensus in terms of the software we decided to evaluate, methodology and procedures to be followed in this assignment.

This research paper is organized in the following way. First, we state the problem. Then, we pose our research questions and objectives. After that, we state the literature review, research design, data analysis, implications, conclusions and a list of references. Also, at the end of this paper we add some annexes related to the instruments, the affirmation of intent and the consent form, and some tables of the analysis of findings.

### Statement of the problem

It is obvious to every one that computers could bring new opportunities in education; this idea had already arisen before the creation of personal computer with the development of the first instructional systems a few decades ago. Since then, the new possibilities in education have received a growing attention. It has been also supported by the increasing availability of more powerful and cheaper hardware and software, as well as of more ductile and articulated networking and communication opportunities. At the same time, the schools, educational research, and policy makers have acquired and consolidated the awareness that teacher's involvement and suitable preparation is crucial to induce a change in the educational system to make the most of the possibilities offered by technology.

In this way, English teachers have realized about the importance of implementing the use of CALL (Computer Assisted Language Learning) software in their daily teaching practice. Furthermore, educators want to be updated in this field and they often see technology as a current need and as a useful

tool. Therefore, we feel the necessity to carefully analyze and evaluate in a critical way the CALL software material we are planning to use before implementing it in the learning and teaching processes.

## Rationale

Through this software evaluation process, we want to encourage our students toward the analysis and assessment of CALL software, and become critical active agents in the improvement of our institutional curriculum.

The aim of this project is to examine if the pedagogical contents of the multimedia material selected for this study, fulfills most of the students' learning needs, interests and expectations. At the same time, we want to analyze what kind of advantages and disadvantages might come up from this assessment which may contribute to the improvement of the English language learning and teaching processes.

Students will feel as relevant participants in the transformation and innovation of institutional policies. Besides, they might scaffold important achievements in their own development, that is to say, in their personal, academic, social, political, cultural, critical growth, and above all their voice would be heard and valued by the educational community.

In our EFL context, the language teacher is one of the agents who supplies communication practice and opportunities, and he or she is also one of the most important providers from whom students seek information on and about the target language. The language teacher also controls the input and his or her students' pace of learning. However, with the introduction of software programs into the classroom, students not only have access to a wider variety of resources and opportunities to practice English, but also have more autonomy in selecting what, how much and how fast they want to learn, and at the same time, evaluating it critically.

## Research questions

Based on our preliminary work and observations while teaching English through some CALL software multimedia materials in the EFL classrooms, we realized the necessity to take into account the students' considerations about the pedagogical contents, such as: organization, appropriateness, attractiveness, comprehensible input, level of difficulty and effectiveness, among others, of this type of teaching resources. Therefore the aim of this small-scale research project is to hear and analyze students' voices while evaluating the pedagogical contents of this type of materials in the English Language Teaching and Learning Processes.

### Main

What are the pedagogical content considerations done by Educational Technology undergraduate students (first semester) when evaluating CALL software materials in the ELTL processes at UPTC?

### Related

To what extent does the CALL software material, selected for the study, provides academic feedback to engage Educational Technology undergraduate students in the learning process?

## Objectives

### General

To identify some Educational Technology undergraduate students' pedagogical content considerations when evaluating CALL software materials.

### Specific

To analyze some pedagogical content considerations focused on the students'

exploration of the multimedia software material called "New Interchange 1".

## Literature review

Selecting software—whether programs on floppy disks, CD-ROMs, or videocassettes (laserdiscs)—is an exciting but imperfect activity. Often a program that works well for one teacher could fail for another one. Factors such as: personal teaching style, computer experience, and available preparation time, affect the use of software.

Even if a program is evaluated by others, at the end only the individual teacher will determine its effectiveness in the curriculum. More important than buying some amazing educational programs, it is educating teachers to use innovative strategies that fully use the computer's strengths. Then, they will be able to choose and use the software effectively.

Teaching strategies, such as cooperative learning and multiple intelligences development, can help teachers take full advantage of the power and possibilities of computers and software. After reviewing research on writing and computers, Valeri-Gold and Demming noted:

*...the most effective utilization of computer software in the basic writing classroom combines the best of writing instruction theory with a creative use of computer technology. Only well-informed, trained and caring composition instructors will help to bridge the gap between technology and humanity.*

Although teachers are the key to successful use of even good software, they require selecting appropriate programs. New ones come out daily, making it impossible for classroom educators to evaluate all of them. By following basic guidelines, however, teachers will be able to make excellent software selections.

Before selecting software, teachers might define their instructional goals and objectives. Do the goals emphasize on lower-order thinking skills

such as knowledge, comprehension, and application? Or do they stress higher-order thinking skills—analysis, synthesis, and evaluation? Will projects be developed individually or in cooperative groups? Will learning styles and multiple intelligences be considered? Is creativity a goal? Eggers (2003).

Once the teacher has set well-defined instructional goals and objectives, it is much easier to select appropriate software.

Some teachers fear that computers will replace them. If a teacher can be replaced by a computer, he or she probably should be! Technology without appropriate guidance is empty and wasted. So instead of fearing that they could be replaced by computers, we consider that teachers need a new standpoint. Rather than seeing themselves as expert dispensers of knowledge from the front of the room, they need to become "guides on the side" and fellow learners with their students. Software will be effective in classrooms where teachers have created a rich environment for learning.

## Pedagogical Contents of CALL software materials

How content is presented speaks of the pedagogical approach underlying a software program. Software programs are usually designed based on particular theories of language learning and teaching (Hubbard, 1987; Chapelle, 1997; Chapelle, 1998). Warschauer (1996) further distinguishes the development of CALL software programs into three different phases, corresponding to the teaching and learning approaches and technological sophistication. These phases go from behavioristic CALL in the 1960s and 1970s, communicative CALL in the late 1970s and 1980s, to integrative CALL in the 1990s. This differentiation does not imply that all software programs developed today are integrative CALL. Regardless of the pedagogical approach

used for the design of the software program, we think that teachers may be aware that it is sound and it may fulfill students' language learning needs, interests and expectations.

Every software program has a focus, such as general proficiency, writing, reading, pronunciation, grammar or vocabulary enrichment. Software programs oriented towards general proficiency are usually available at different levels of difficulty, covering all four language skills, plus grammar and vocabulary. In fact, some software programs are able to address the issue of differences in the level of language proficiency. We consider that while using especial software programs, teachers can assign tasks of different levels of difficulty to students. Depending on the students' respective proficiency level in each skill area such as grammar, reading, listening etc., this allows the teacher to choose and assign suitable exercises for the students to practice. Upon completing exercises within a particular level, students can choose to take a test and/or proceed to more challenging exercises at the next level. Such a program provides a goal and motivates students to work towards it.

Other considerations concerning pedagogical contents are: program suitability for the students we selected, its ability in motivating students, quality issues such as accuracy, and some other considerations: instructions, organization, sequence, factual correction, practice effectiveness, challenging without anxiety, comprehensible input, violence level, learning styles, basic language skills, difficulty level, feedback, etc.

Finally, teachers should make their students test the program. And answer some questions such as: Are they motivated to use it? Is the program easy to handle? Do the students get anxious and frustrated because of the level of knowledge or expertise required? Do they like it?.

Furthermore, we teachers can encourage critical thinking by asking students to analyze and evaluate the software. This might help them to become better users.

When considering the pedagogical contents of a CALL software material teachers and students are to keep in mind the following guidelines proposed by ISTE (International Society for Technology in Education) for Evaluating and Selecting Interactive Technology Resources (1995). We think those guidelines could be really useful in the development of this small-scale research project:

### Content

- The program content is presented impartially and without bias or distortion.
- The program content is appropriate to student needs, curriculum area, purpose, and grade level.
- The program content and design meet the needs of students at varied levels of English language acquisition.
- The program has current, thorough, and relevant information.
- Reference content on electronic media is fully and accurately indexed.
- Search strategy software for electronic reference tools is designed to stimulate student research and to facilitate student access to information.
- Search results can be displayed and printed appropriately.
- Search strategies are adapted as appropriate for periodical indexes.

## RESEARCH DESIGN

RESEARCH QUESTIONS	INSTRUMENTS PROCEDURES	SETTING & POPULATION	RESEARCH TYPE
<p>Main question: What are the pedagogical content considerations done by Educational Technology undergraduate students (first semester) when evaluating CALL software materials in the ETL processes at UPTC?</p> <p>Related: To what extent does the CALL software material, selected for the study, provides academic feedback to engage Educational Technology undergraduate students in the learning process?</p>	<p>-Checklist (analysis of responses)</p> <p>-Conference (Questions to the selected population)</p> <p>- Audio-taped recordings (Transcripts and Analysis of the recordings)</p>	<p>-Universidad Pedagógica y Tecnológica de Colombia - Tunja</p> <p>-Twelve Educational Technology undergraduate students from first semester.</p>	<p>- Qualitative, Quantitative and descriptive case study.</p>

## Population

**SAMPLE:** One group of Educational Technology undergraduate students from a basic English language level.

**SETTING:** Universidad Pedagógica y Tecnológica de Colombia.

The population was selected considering the cluster strategy stated by Cohen and Manion (1985) "...restrict one's selection to a particular subgroup from within the population..." Also, we took into consideration the convenience strategy, stated by the same authors, because of the nearness between the researchers and the selected population.

## RESOURCES

Language laboratory

## SOFTWARE

New Interchange 1

## Analysis of findings about the content pedagogical considerations of the multimedia material selected for this study

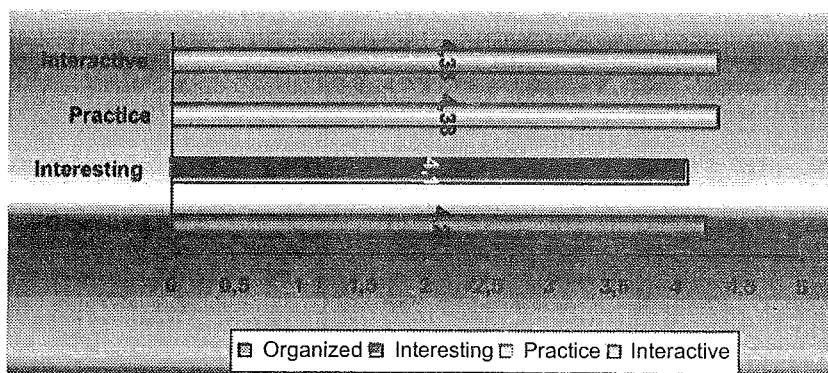
We designed and applied a checklist (see annex 1) to 12 students of the first semester of Educational Technology undergraduate program at Universidad Pedagógica y Tecnológica de Colombia, and this checklist consisted, mainly, in two parts:

- The pedagogical content considerations of a specific CALL software material.
- The academic feedback to engage ESP students in the learning process. (see annex 4)

Now we are going to analyze the first part and then we will concentrate on the second one. Also, we divided the data considering the categories which were at the lowest and highest rank. We decided this classification because the most relevant information was required following this model from bottom to top (1-5).

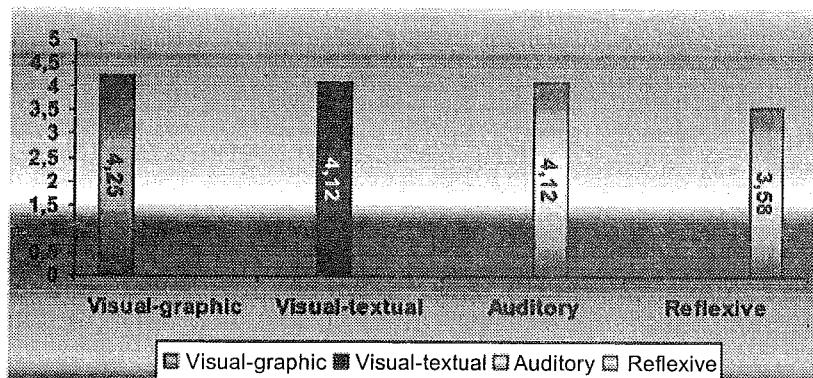
From the obtained results, on one hand, most of the students perceived that the software material New Interchange evaluated was very well organized, interesting, and provided enough practice. They also agreed that this type of material is interactive in a very relevant way and the activities displayed during students' interaction with it were varied. (See table 1).

Table 1



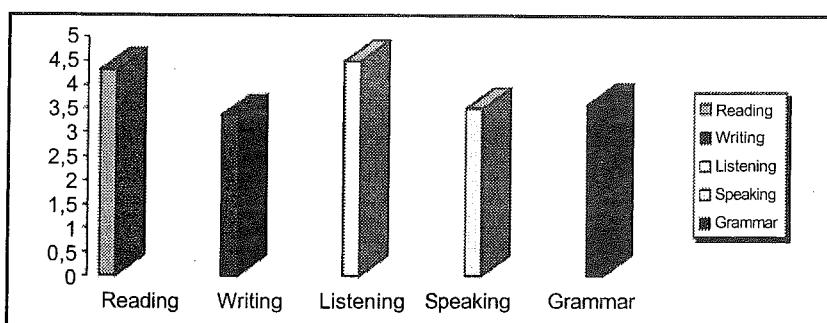
In the same perspective, these twelve participants considered that this multimedia material does take into account the different students' learning styles; they graded at a high level, specifically, the visual-graphic, the visual-textual, and the auditory one. However, they checked that the reflexive learning style was not fully developed during the exploration and evaluation of the software. (See table 2).

Table 2



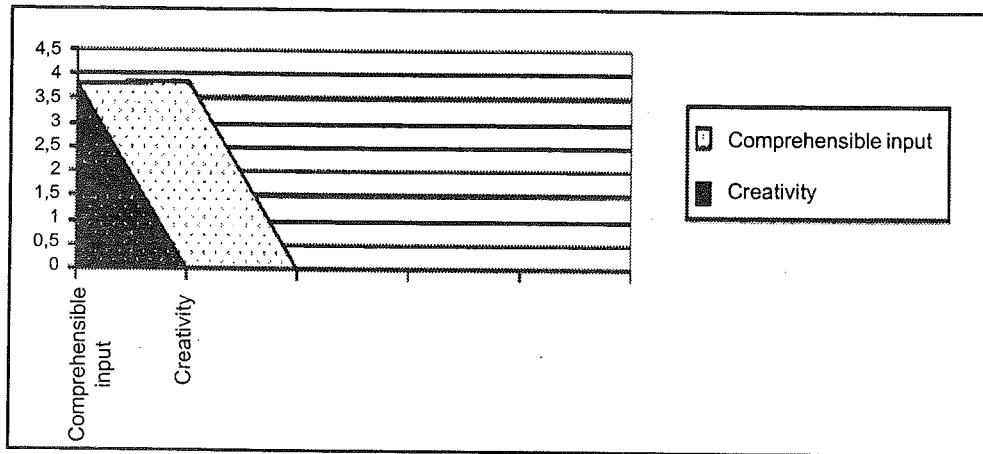
Furthermore, learners think this software promotes the five basic linguistic skills as follows: Reading and Listening were placed at the top of the scale. But on the contrary, Writing, Speaking, and Grammar were placed at the bottom. We assume this happened because the goal of the activities proposed in this software multimedia material is focused on listening. (See table 3).

Table 3



On the other hand, some other content pedagogical considerations were checked in a lower scale such as: the comprehensible input on the information and students' creativity; they highlighted, even during the conference, that the software does not stimulate learners' creativity at a level they expected. Moreover, the participants in this study said during the conference that, the multimedia material they were evaluating did not give them enough comprehensible input. In fact, we could corroborate these points of view when we revised the checklists given by the students. (See table 4).

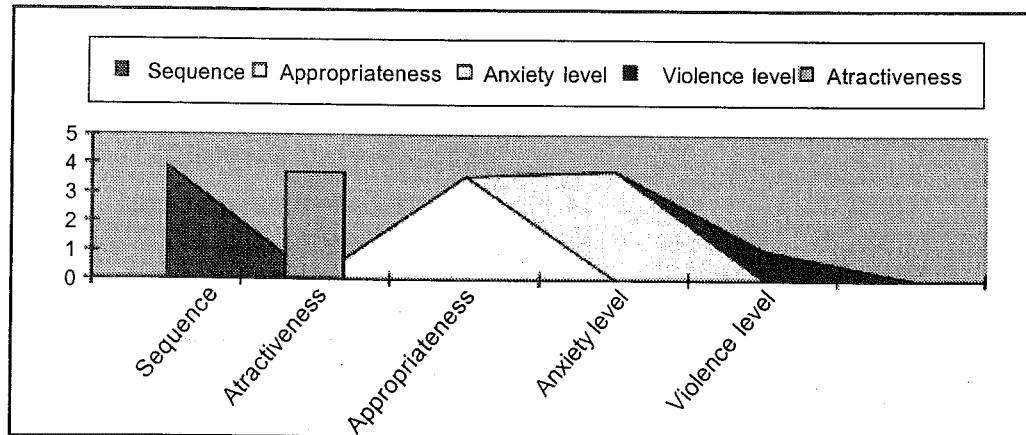
Table 4



In the same direction, and with regard to sequence, attractiveness and appropriateness, students well thought-out, that these features were presented in a quite good level. However, they also marked and pointed out that this material produced some anxiety and a high level of difficulty related to the English language proficiency. We needed to consider that they were still in the first English language level.

Another important aspect that 99% of the evaluators agreed was related to the level of violence. They expressed during the conference that this software did not display any violent aspect during the exploration process. Although, one of the participants marked that this program had a high level of violence. We wanted to inquire about this circumstance but we have not still had enough time to share the findings with the selected population. This was another part of this small-scale research project that really concerned us. We have to state that this study was partially validated not fully validated because we needed to communicate the findings to the participants. (See table 5)

Table 5



Some other results, obtained from this study that created a huge curiosity when analyzing the data, were:

- The level of anxiety: where one of the learners did not respond anything about it. He / she did not fill in the gap.
- The level of difficulty: where one of the participants wrote down 0 out of 5; while the other answers were between 2 and 5 points.
- The learning styles: specifically those ones that have to do with the visual-textual and the listening one. Students checked these aspects with a grade of 1 out of 5.

g. Nivel de ansiedad

2,4,3,3,3,2,4,5,–,5,3,5,3,=3.75

m. Nivel de dificultad

3,4,8,3,2,2,4,4,2,4,4,5,0,=3.15

n. Enfocado en diferentes estilos de aprendizaje:

visual-gráfico:3,5,5,4,2,5,5,4,4,4,5,5,=4.25  
visual-textual:4,4,5,4,1,5,4,4,5,4,5,5,4,=4.12  
auditivo:4,4,5,5,1,3,4,4,5,4,5,5,5,=4.12  
reflexivo:3,4,4,4,4,3,4,3,3,3,5,3,= 3.58

Talking about the second part of this small-scale research project that was connected with the academic feedback students attained from the specific multimedia software material selected for this study was:

We noticed that the highest score they gave to this part was about the organization of the material. During the conference they said that this software was well organized. They expressed that the pictures, the texts, and the different activities were placed in a good manner.

Also, according to the results of the checklist and the conference, they considered that the less important aspects when interacting with the software were: self-correction, motivational messages, the instructions of the program, and the opportunity this material could give them for independent practice or work. Even one of the students graded and highlighted that this specific course did not offer self-correction to the user and he/she checked it with 1.5 out of 5. In this same direction, another evaluator said, specifically during the conference, that this material did not provide him/her the opportunity for developing independent work in the sense that he/she had to interact with the program all the time only when he/she was sitting in front of a machine; and the grade given by the participant was 1 out of 5.

b. Auto-corrección

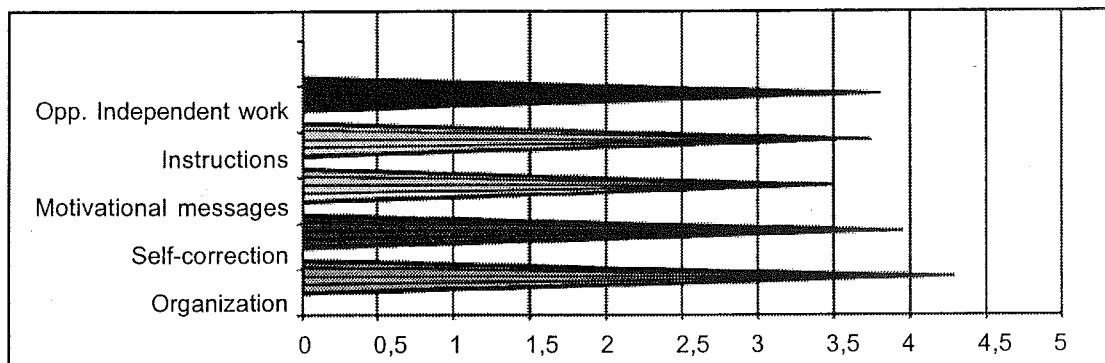
3,4,5,3,4,5,5,4,4,4,5,1,5,=3.95

f. Oportunidad de trabajo independiente

3,4,8,4,1,4,3,5,4,2,5,5,5,=3.81

Talking about these four last aspects, results show how students' self perception about the academic feedback of this software corresponds to low scores. (See table 6).

Table 6



## Implications for further pedagogical and research practice

By means of the development of this small-scale research project, we found out a lot of information about the pedagogical content considerations and the academic feedback students come up with while exploring and evaluating the New Interchange 1 software multimedia program. Based on the findings, we as English teachers might promote a critical position in students towards this kind of courses, and at the same time, to enhance the English Language Teaching and Learning (ELTL) processes with a specific group of students.

The Educational Technology undergraduate program might be benefit with this study because this project may enrich the software evaluation process not only in the English subject but also in other subjects, and beyond the classroom. That is to say, students might develop a skill to critically evaluate not only materials but also other type of activities and resources such as: books, lessons, papers, articles, projects, seminars, lectures, academic presentations, and everything related to students' daily real social context.

Considering the difficulties to find specific parameters and guidelines to evaluate software materials, we propose that students, oriented by teachers, design as a research proposal some specific rubrics to analyze and to evaluate the CALL software multimedia material that exist in the language laboratory at Universidad Pedagógica y Tecnológica de Colombia. The findings of that research proposal might be used to take advantage or reject those sources that are available in the laboratory.

## Conclusions

There are some pedagogical content and academic feedback considerations students have while evaluating a specific CALL multimedia software material in the ELTL

(English Language Teaching and Learning) processes. Some of those pedagogical contents are placed at a high level and some others at a low level. We are going to state some conclusions trying to give answers to the research questions we posed at the very beginning of this study.

**The main research question was the following:**

What are the pedagogical content considerations done by Educational Technology undergraduate students (first semester) when evaluating CALL software materials in the ELTL processes at UPTC?

- Most of the students considered that the evaluated software material New Interchange 1 was appealing and very well organized, interesting, and above all, this one provides enough practice. They also established that this kind of material is interactive in a very significant way owing to the fact that the activities displayed during students' interaction were diverse and plenty of options in order to enrich and complement prior knowledge.
- It goes without saying that it is hard to find a multimedia material that fulfills the different students' learning styles. We discovered that one of those learning styles called "reflexive learning style" was not completely developed throughout the software. In addition to, the five basic linguistic skills were fairly ranked, specifically Writing, Speaking, and Grammar. We think that happened because this multimedia program usually display lots of input exercises emphasized on the listening ability.
- Some other content pedagogical considerations such as: comprehensible input, creativity, sequence, attractiveness, appropriateness, anxiety, and difficulty were placed in a quite good level according to students' checklists and conference results.

### **The related research question was this one:**

To what extent does the CALL software material, selected for the study, provides academic feedback to engage Educational Technology undergraduate students in the learning process?

- According to the results of the checklist and the conference centered on the academic feedback, students considered that the organization of the material was properly structured. Conversely, some other aspects such as: self-correction, motivational messages, the instructions of the program, and the opportunity for independent practice were not adequately planned.

Finally, we want to pose two more relevant issues: the first one, related to the core of this small-scale research project; and the second one, connected to the validity of the same one.

1. It could be said that before selecting a CALL software material, teachers are to define their instructional goals and objectives and be careful because the program they select might lack good instructional design, pedagogical contents, academic feedback, or

have technical difficulties. Also, teachers might keep in mind students' considerations not only about CALL software multimedia materials but also every academic activity in the classroom to enhance the English language teaching and learning processes.

2. One of our concerns is associated with the validity of this study. We have to state that this research project was partially validated. In order to validate it we need to:
  - Share the findings with the selected population.
  - Listen to and analyze carefully the possible feedback done by the participants.
  - Incorporate the possible recommendations and opinions to this small-scale research project.
  - The replication of this project might validate or reject the information gathered.
  - The use of a conference with the students at the end of the software evaluation process can give more validity and reliability to the project.

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