This paper describes a research study aimed at identifying the characteristics that multimedia material should have in order to promote the development of intercultural competence in undergraduate students at the Universidad del Norte in Barranquilla, Colombia (Uninorte). Specific pedagogical and technological features were explored in this research. Results showed that the use of the ICT (Information Communication Technologies) promotes the development of intercultural competence; facilitates self-directed learning processes and increases motivation. Findings also led to the definition of very specific features for this type of material.

*Keywords*: Intercultural, competence, multimedia, culture, technology, communication, information

Este artículo describe una investigación encaminada a identificar las características que debe tener un material multimedia para contribuir al desarrollo de la competencia intercultural de los estudiantes de pregrado de la Universidad del Norte en Barranquilla, Colombia. Se exploraron tanto las características pedagógicas y técnicas para determinar cuáles eran las características ideales de este material. Los resultados mostraron que el uso de tecnologías de la información y la comunicación promociona el desarrollo de la competencia intercultural; facilita el autoaprendizaje e incrementa la motivación. También la investigación permitió determinar las características específicas para que este tipo de material pueda ayudar en el logro del desarrollo de la competencia intercultural en estudiantes.

*Palabras claves*: Intercultural, competencia, multimedia, cultura, tecnología, comunicación, información
Background

In 2003, the Instituto de Idiomas initiated a revision and adaptation of the general objectives of the English undergraduate program. During this revision, aspects such as intercultural competence, learner autonomy and effective use of technology for language learning purposes were identified as areas to be strengthened.

Instituto de Idiomas’ decisions were coherent with the Universidad del Norte Plan de Desarrollo for 2003-2007, which states that graduates should have competitive international standards both academically and professionally; therefore, along with their disciplinary knowledge, they should also be open-minded towards other cultures, be technologically savvy, be competent foreign language users and take an active part in the internationalization processes occurring on the campus. Aligned with institutional policies, the Instituto de Idiomas, then, included cultural and autonomous-oriented objectives throughout the eight levels of the English program and started looking at technology as a way to help achieve those goals. However, finding appropriate material (bibliographic, multimedia and audiovisual) to help in the achievement of the cultural and autonomous-related objectives became a problem with, apparently, no immediate solution.

As part of Uninorte’s actions to strengthen and support the academic work of teachers, the Centro de Informatica offers a Diplomado every year for teachers willing to design and implement technology-based materials. Administrators and teachers at the Instituto perceived this opportunity as a way to find an answer to this problem. It was then decided to implement a project to design multimedia materials conducive to the development of students’ intercultural competence. The project was addressed, firstly, to the identification of pedagogical and technical characteristics of the ideal type of multimedia material and, secondly, to the actual design process of the material (not in the scope of this research report). The project was focused on level 7 of the program since at that level content is more oriented to culture and also because one of the participating teachers was the coordinator of that level and this made the data collection process easier.

Justification

The Instituto de Idiomas has assessed the impact of the implementation of intercultural activities during the past three years (2003-2006) through in-house
research studies carried out among professors and students. The results of these studies have shown that students’ attitudes towards foreign cultures are generally positive and that they want more interaction with foreign peers in order to improve their language learning processes. Results have also shown that students are aware of cultural differences and of the benefits of studying other cultures. They are also conscious of the culture shock they could face when traveling or studying abroad.

Professors at the Instituto started to implement activities among peers that implied interaction using technology. These activities included use of chats, videoconferences, e-mail and blogs, among others. Teachers using these tools reported an increase in students’ motivation as they felt they were using the language for real purposes and not learning it in a “vacuum”. Students’ performance in their language skills has shown improvement as well as their knowledge about other cultures as confirmed by results obtained by students in the TOEFL ITP test that is applied by the Instituto in order to monitor externally students’ language level upon leaving the university (graduating).

The implementation of the above mentioned actions were creating better conditions for language learning such as increased motivation in students who interacted with international peers and materials to meet students’ need to develop intercultural competences. To move forward, the next action was the design of our own multimedia material to strengthen students’ incipient intercultural competences since such material was almost impossible to find on the market.

This research was then conceived to provide answers for this lack of material. The research group was conformed and the research question posed: What pedagogical and technical characteristics does multimedia material need to have in order to promote the development of intercultural competence in undergraduate students at Universidad del Norte?

The objectives of this research were then addressed to

- identify the pedagogical and technical characteristics educative multimedia material should have.
- identify the pedagogical and technical characteristics that educative material with cultural content should have.
- establish the relationship among the characteristics of educative multimedia material and educative material with cultural content.
- establish the relationships among student-material, professor-material and professor-student-material.
State of the art

In the development of this research, we conducted a theoretical revision related to education and culture in language teaching and learning. Some key ideas are presented below.

McKay (2002) states that one of the primary functions of learning foreign languages is to prepare the speaker to share and communicate aspects of his/her own culture and to learn cultural aspects of the society of the language being learned. Culture is a key component in the language class because it facilitates crossing boundaries and creating transcultural encounters (McKay, 2002, Internationalization Working Committee, 1994). Moreover, culture in language learning processes becomes a motivating factor (Richards, 1995; Kramsch, 1993). Learning about culture promotes understanding among people; increases learning of one’s own culture and prepares students to adapt to new contexts more easily when abroad (Adaskou, Britten, & Fahsi, 1990).

Culture in English language classes is mostly understood as learning about the culture of English speaking countries, of having students become aware that it is necessary to learn the culture not only of these countries but the culture of non-English speaking countries as well (McKay, 2004). In that line of thought, Uninorte aims at having global-ready graduates capable of assimilating other cultures to participate effectively in the international world (Plan de Desarrollo, 2003-2007).

Learning a foreign language, on the other hand, means understanding the ways someone expresses feelings and thoughts (Spradley, 1980; Andocilla & Rasero, 2004; McKay, 2004). For this reason, when culture is taught in language classes it should be related to everything a human being is connected to: what people do (cultural behavior), what people know (cultural knowledge) and what people use (cultural artifacts) (Spradley, 1980). According to a study conducted by Andocilla & Rasero (2004), the more a professor gets closer to cultural contents related to the student’s daily life, the more the student learns in a meaningful way. Moreover, if these cultural contents are shared with people from other cultures and these people, at the same time, share their own culture with the student, the results will be a comprehensible, profound and significant increase in knowledge of language learning (McKay, 2004).

Technology itself is a powerful motivating factor in language learning (Warschauer, 2001; Teeler and Gray, 2000; Rey & Rosado, 2000). It is worth noting that multimedia material could be a motivating tool when people are learning a new language (Warschauer, 2001). Students find it easy to do new activities using...
Technology. Technology helps them to be autonomous, to complete research assignments, and grants them access to a generally updated, huge amount of information (Teeler & Gray, 2000). Besides, technology addresses most of the learning styles that are used when learning a language (auditory, visual, kinesthetic, tactile, individual, group, etc.) (Reid, 1987). Educators have found that multimedia materials are useful, motivating and appropriate tools as a complement to their virtual and face-to-face classes (Rey & Rosado, 2000; Teeler & Gray, 2000; Hardisty & Windeatt, 1990; Pallof & Pratt, 2001; Porter, 1997).

As such, the combination of culture and technology is beneficial for language learning processes. The need to use new technologies connected to culture is imperative in order to succeed around the world (Marzio, 2000). Having a cultural component included in multimedia material provides a vital space to promote interaction among peers of different countries, which could foster better knowledge and understanding of one’s own cultural identity and that of others (Adaskou, Britten & Fahsi, 1990).

**Methodology and techniques**

This study adopted a qualitative approach with a case study design. Data collection occurred over a period of four months. Sources of data included one scheduled interview with two students and a teacher, six non-participatory classroom observations of the interviewed teacher with pre- and post-lesson conferences and an evaluation of existing multimedia material (8 software programmes) available at the institution. Questionnaires were also applied to participating students and teachers.

Participants in the research were level 7 students and teachers of the undergraduate English program of Universidad del Norte. Level 7 focuses on a balanced development of the four language skills: reading, listening, speaking and writing and intercultural skills. The chosen class was a group of twenty students from varied fields such as business administration, mass media communication, mechanical engineering, systems engineering, electronics engineering and industrial engineering. Half of the participants were male and the other half female.

In order to interpret the gathered information, data was analyzed through hermeneutics, using the categories obtained from literature and some other emerging categories. It was necessary for the researchers to learn about the characteristics of multimedia as regards user interface and the hypermedia structure as well as about the factors related to good multimedia materials such as easy installation, easy surfing,
interactivity, content quality, content relevance, etc. (Pacheco, 2005; Marqués, 1995; Salinas, 1994; Díaz, Catenazzi & Aedo, 1996).

Data analysis was submitted to triangulation (Patton, 2002; Brown, 2002). In this research, data triangulation (students, teachers and documents), investigator triangulation (researchers) and methodological triangulation (class observations, surveys, interviews and document analysis) were used.

**Results**

Following is a summary of the most important findings of this research study. Results show the most salient pedagogical and technical features that the intended material should have to successfully attend to our students’ language learning and cultural competence needs.

**Pedagogical and technical characteristics of the ideal educative multimedia cultural-oriented material**

The transcultural ideal material should have topics associated with students’ own culture and that could be easily related to foreign cultures. It should not just be presenting the other culture but how this is similar to or different from ours. This is essential if the students are expected to come across new cultures. They have to identify themselves with their own culture to be ready to face a new one (Jánica, 2004; Richards, 1995).

In addition, the material needs to provide students with the tools that allow them to contact people in other cultures. Students seem to appreciate the contact with new people very positively. These days “A good networker will learn twice as fast about local conditions and cross-cultural issues...” (Marx, 2001; P. 72). This should be done through chats, videoconferencing, and blogging, among other options.

The material should include advice or suggestions for people who will be in contact with other cultures. This is an important issue for Universidad del Norte students as they are getting prepared to face new challenges in national and/or international settings and, therefore, they have to acknowledge the information that would facilitate them these new challenges (Oficina de Planeación, 2004; Richards, 1995; Adaskou, Britten, & Fahsi, 1990).

The material has to be visually attractive to students. According to Torrandell (2005) and Pacheco (2005), the ideal multimedia material must have a very high level
Characteristics of Effective Intercultural Multimedia Material in the English Language Class

of visual quality. Aesthetic and technical aspects must be considered in the design of the multimedia materials (MMs): the audiovisual setting (sound, screens, presentation and formats), multimedia elements (quality and quantity), the contents (quality, depth and organization), the originality and the cutting edge use of technology, the site map, viability, efficiency and speed adequacy, and the interaction tools (types of dialogues, data access, result analysis).

It needs to have content related to students’ interests and contexts and should train them to behave properly in a culture different from theirs. These two aspects are relevant to meet the students’ needs regarding intercultural competence. They need to feel confident about the context where they are expected to perform (Cornes, 2004). It is necessary that the transcultural material should also instruct the student how to meet people from other countries (FindAid Page, 2004; Olson, 1996). The preparation to face a new culture is an important fact because the students should be conscious of the challenges that need to be faced when getting to know a new culture (Marx, 2001; Cornes, 2004; Adaskou, Britten & Fashi, 1990; Tomalin & Stempleski, 2003).

The material is expected to include general information about English speaking countries as well as of non-English speaking countries. In this way, students can increase their awareness of the varieties of English (Takagaki, 2005) and the use of English as an international language (McKay, 2004).

The intercultural multimedia material needs to be varied and let students express their opinions. Variety is one of the main points to take into account in designing the content, the activities and the hypermedia of the material (Torrandell, 2005; Pacheco, 2005; Salinas, 1994; Gutierrez, 1996; Díaz, Catenazzi & Aedo, 1996). Activities could include multiple choice, fill in the blanks, matching, etc; activities could be multisensorial and could be based on videos, listening, texts, images, etc. The material must give students the possibility to express opinions so they feel that they can make a stand and start valuable transcultural exchanges (Hooks, 1994; Gomez, 2004).

The material should feature information about Colombia and Colombians. It is necessary to have a certain amount of readily available material about students’ own country in order to help them understand their own context and culture and acquire a wider international understanding. Actually, it is the understanding of one’s culture and then understanding of foreign cultures which facilitates the learners’ visits overseas or contact with foreign visitors (Adaskou, Britten & Fashi, 1990).
The targeted functions to be developed by this type of material might be to exercise language skills, to instruct, to inform, to explore, to entertain, to experiment to solve problems, and to evaluate. Other important factors to be considered in the design are the motivation capacity (attractiveness, interest); the user adequacy (contents, activities); the applicability and creative approach of the activities; and the possibility to facilitate cooperative work (Warschauer, 2001; Teeler and Gray, 2000). This last point is essential if the educator needs to raise cultural awareness and tolerance among the students while they are exchanging cultural information of their own backgrounds (Gacel-Avila, 1999). Furthermore, our students’ oral tradition needs to be encouraged and reflected in the design of the material so it is essential in favoring oral development activities. Evidently, the pedagogic objectives of the software program should be aimed at enhancing students’ language and cultural competences.

Material should be self-contained and self-sufficient. Therefore, reference information should be included to help the user find the specific information required to complete the assignments. This means that websites or other sources need to be included as links or in support modules. It is also important to include tools that will help students to locate new information they need in order to complete assignments.

Results showed that the material could be used both inside the classes in order to set assignments and show students’ production and outside the class so students could autonomously complete assignments at their convenience. This implies that the materials need to be Internet-based so students can access it from their home computers. Moreover, the installation of the software programs in the network should be trouble-free. The documentation of the material should be found in the instructor guide and the didactic guide. The information for the software should be on paper, in a CD-ROM and/or on-line.

Another valuable pedagogical finding was that of which didactic strategies to use. Users will have to find their way through the material using either guided exploration or free discovery. In other words, the material should be surfed freely without constraints. It should allow for different hypermedia representations, i.e. allowing users to explore it according to their own information representational processing models. Users, for example, should be allowed to follow links and information in ways that accommodate their own ways of processing information. For example, surfing in a linear way, i.e. finishing an activity before the program allows users to
enter the next activity, was not attractive for either students or teachers. They wanted to be able to move freely from one activity to another in a free discovery type of exploration.

Conclusion

The implementation of this research was the result of institutional decisions aimed at addressing cultural and autonomous-related objectives explicitly in the undergraduate English program for students at Instituto de Idiomas, Universidad del Norte, and looking at technology as a way to help achieve those goals. Finding suitable material for this purpose was a challenge to academics from the institution. The purpose of this research was to determine the characteristics of our ideal pedagogical and technical educative cultural-oriented material and determine the relationship between the characteristics of educative multimedia material and cultural oriented material. We also wanted to establish the relationships among student-material, professor-material and professor-student-material. The second step will be the actual design of material that could serve this purpose (not reported in this report).

The literature revised confirmed that the use of the ICT facilitates self-directed learning processes (Torrandell, 2005) and increases motivation and, most importantly, that cultural-oriented multimedia material could contribute to the development of both language and cultural competences. From data gathered we concluded that this type of material needs to promote multi-representational interactions, multiculturalism (including information from varied countries and cultures), and multisensorial communication possibilities.

Multiculturalism: One significant finding was that material should address strengthening of one’s own cultural competences since results show that the first step to greater cultural competence results from a deeper understanding of our own culture. So material intended to promote intercultural competence should address personal, regional and national cultures or subcultures first. The challenge now will be to find a balance in both cultural dimensions to be able to reflect that balance in actual pedagogical activities.

Multiple Interactivity and multisensorial communication: In order to attend to our students’ needs, material should include interaction activities about topics relevant to their personal and academic contexts. Those activities should not only promote interaction with teachers and peers, both at local and international levels,
but also interaction between user and material itself. The material should then favor multiple information processing interactions; material should be provided with technological tools that allow users to process information offered by the material in ways that best accommodate their own mental representational models. This finding needs to be carefully revised and studied to allow finding technological options that could be incorporated into the design.

Some questions have arisen from this first stage of the research. Issues such as the validity of our material in a rapidly changing technological world are important to be reflected upon. How valid and practical will this design be if technology is changing so fast that once we finished this multimedia material, it could already be outdated? This is just the initial stage, and data gathered and the analysis carried out shed light on the way ahead and into the nature of the needs of our current student population regarding language and cultural development as well as autonomy in language learning processes. We hope soon to be able to share the resulting material from this research study.

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