Abstract

Research on language teaching of lingua francas like Spanish or English emphasize the need to consider cultural diversity and intercultural communication competence, as learners are more likely to interact with non-native speakers of different nationalities. In English for Specific Purposes for engineers, concepts such as intercultural teams, international meetings, geographical mobility, worldwide negotiations, and globalization are associated to the professional profiles of graduates and reveal the need to include intercultural communicative competence in their courses. This study uses inductive content analysis to identify the perceptions and attitudes of ESP students towards intercultural competence based on a corpus of self-assessment essays.

Keywords: English for Specific Purposes; intercultural communicative competence; inductive content analysis; attitudes; ICC assessment.

1. Introduction

Globalization together with recent advances in communication technologies and social media have led to a remarkable increase of people's interaction and communication worldwide. According to recent United Nations statistics (http://data.un.org) there are approximately 450 million native speakers of English while the number of non-native speakers of English almost trebles to 1.7 billion, not to mention the official use of English in

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international organizations or the amount of published academic articles in some academic fields. These statistics and the current context of communication in English reveal a transformation in the English as a foreign language (EFL) paradigm towards further development from Standard English towards global English, world English or international English.

According to Fritz, Möllenberg & Chen (2002) “The trend towards globalization and internationalization has increased the importance of being competent in communicating with people of different cultural backgrounds.” On the other hand, recent research indicates that knowledge of the language alone is not a guarantee of success in an international professional environment, according to the Committee for Economic Development (2006:4), which is directly related to the inclusion of a basic intercultural communicative competence (ICC) awareness component in the design of EFL courses.

Research on language teaching of larger global lingua francas like Spanish or English, emphasize the need to take into consideration cultural diversity and therefore, intercultural communicative competence, since learners are likely to use their foreign language with non-native speakers of different nationalities (Planken et al., 2004).

At first sight, the most common lingua franca context variables are the different accents, the different pragmatic expectations, and the different discourse patterns (Beamer, 1992; Byram, 1997), however recent language research places an emphasis on the awareness of the intercultural dimension of foreign language education, and the development of tools to assess this dimension towards intercultural communicative competence development of training courses and teaching material (Lies, 2004).

In the case at hand of English for Specific Purposes (ESP) for industrial engineers, concepts such as intercultural teams, international meetings, geographical mobility, worldwide negotiations, and globalization to name just a few are intrinsically associated to the professional profiles of graduates and reveal the need to include ICC contents in their foreign language courses syllabi.

Industrial engineers have a generalist profile, are qualified to work in any technological field and occupy positions of responsibility. Among their common tasks in all kinds of industries are business services and consulting, research and technological development, development of industrial projects, quality control management, and business management and administration in industry, the public administration, and education or research facilities.

At the same time, most ESP courses need to be customized according to the user's academic context, social demands and professional profile, consequently needs analysis is a common strategy to design or improve ESP courses and material and adapt methodologies and contents to these new demands and requirements. From the learner-centred language teaching approach, needs analysis contributes to identify training needs and expectations, interests or requirements of future industrial engineering students to successfully face their professional career.

Hence, this study attempts to identify the perceptions and attitudes of industrial engineering ESP students reflected on a self-assessment essay on their attitude and knowledge of intercultural competence.

2. Background

Perhaps the most significant change that is taking place in Europe with the establishment of the European Higher Education Area (EHEA) refers to the teaching methodology and the organization of university teaching and educational activities. Among the main aims of this new university system is the professional focus, for which it is necessary to define new curricula. In this process, it is essential to define the professional profiles demanded by society, analyze the skills required for such professions and design the curriculum with the necessary contents. Thus, at the end of their training period, students would have acquired the skills required for the job and contexts that they will be occupying in the future.

This update is even more necessary in professional languages that need to be in pace with society’s demands and in the case of higher education – in compliance with the Bologna Process and the EHEA. Thus, this research arises from the need to update English as foreign language training to the current global context of its users.

The aim of the brief literature review that follows is to design a framework of analysis based on existing ICC assessment models in order to identify its most widespread categories or dimensions for the inductive content analysis of this study and carry out the study of ESP students’ attitudes towards ICC.
2.1. Intercultural communicative competence

Although at first glance the definition of intercultural communication competence can build on the assumption that ICC deals with the ability to interact effectively in a variety of cultural contexts, the evolution and approach to the study of ICC evidences a much wider range of interpretations. Theoretical conceptualizations of intercultural communication competence seem to be diverse in their disciplines, terminologies, and academic and practical objectives, as reflected in the variety of denominations such as intercultural competence, intercultural effectiveness, cross-cultural awareness, international competence, global competitive intelligence and intercultural adaptation that trace back to the 1970s (Fantini, 1999:457).

Thus, the academic debate on the definition of intercultural competence seems still open after five decades mainly because an agreed definition of communication competence has not been reached yet (Arasaratnam, 2009; Fantini, 1999; Han, 2012; Arasaratnam and Doerfel, 2005). Among the reference definitions are the following: "an individual's ability to communicate and interact across cultural boundaries" (Byram, 1997:7); the "ability of individuals to develop a positive attitude towards the foreign culture" (Fritz, Möllenberg & Chen 2002:166); or "the appropriate and effective management of interaction between people who, to some degree or another, represent different or divergent cognitive, affective, and behavioural orientations to the world" (Spitzberg and Chagnon, 2009:7).

Given this complexity to assess intercultural competence, authors like Deardorff (2009:403) underline the importance of it using a multimethod, multiperspective approach when assessing intercultural competence, which has been rarely used to date.

2.2. Dimensions of ICC assessment

For the purpose of assessment, the discussion is also approached from numerous perspectives. As a consequence, the availability of tools and instruments to assess intercultural communication competence vary depending on their focus: language or cultural aspects, and international or intercultural differences. (Fantini, 1999:456).

In any case, research on intercultural communication competence has mainly attempted to produce models based on attitudes and skills to measure interculturally successful behaviors, such as intercultural adaptation, appropriateness, and effectiveness of the interaction (Arasaratnam and Doerfel, 2005; Byram and Morgan, 1994; Chen and Starosta, 1996; Fritz, Lies, 2004; Möllenberg & Chen 2002; Shuang, 2012; Spitzberg and Chagnon, 2009).

As with the definition of intercultural communicative competence, the terminology of the ICC areas or dimensions that group attitudes and skills is also varied depending on the author and the focus of the ICC model: intercultural awareness, intercultural sensitivity, and intercultural adroitness (Chen and Starosta, 1996); cognitive dimension, affective dimension, behavioral dimension (Spitzberg and Chagnon, 2009); empathy, experience, motivation, positive attitude toward other cultures, and listening (Arasaratnam and Doerfel, 2005); and from the organisational context: effective communication skills/abilities, cultural awareness and understanding, open-mindedness and non-judgemental attitude, and personal competence and intelligence (Matveev, 2004).

For the inductive content analysis of this research, the model selected identifies three inter-related areas: knowledge, attitudes, and behaviour (Byram and Morgan, 1994:135). Among the reasons to use this three-dimension model is the coincidence in the nomenclature with most models studied, but mainly because it applies directly to foreign language education, and therefore closely related to the final purpose of our research: to complement the needs analysis of the inclusion of ICC in English for Specific Purposes training.

Furthermore, Byram and Morgan (1994) provide clear guidelines of the attitudes and skills included in each of the three dimensions which provided precise guidance during the subsequent inductive content analysis stage of this research. Thus, with regards to the Knowledge dimension, Byram and Morgan (1994:136) argue that in order to communicate interculturally, students need factual knowledge such as historical and geographical facts, facts about the society and its institutions and ceremonies, among other things. As for the Attitudes dimension: positive attitudes towards language learning and towards people from other countries and communities. Finally, Byram and Morgan (1994:139) describe the Behaviour dimension in a very broad way, not only limited to politeness, etiquette and social niceties.

Finally, among the techniques to obtain data, several tools use surveys and questionnaires, interviews, and self-assessment procedures, among them writing (Arasaratnam, 2009). The open-ended question or composition method
was used in this research not only for its ease of use, but because it is also common in language classes and was regarded by students as a usual class activity, not as something extraordinary, which could have biased the results otherwise.

3. Methodology

The methodology followed in this research work consisted in several stages: First, one hundred students (4th year of the degree in industrial engineering) were requested to write a composition and give their opinion on intercultural communication competence and identify its key characteristics and components. This writing task was carried out on their first day of class of a B2 English for specific purposes course on cross-cultural communication for engineers, before any prior exposure to any of the contents of the course.

The second stage concentrated on the design of an intercultural communication competence assessment framework of analysis adapted to the characteristics of the objective of this research and as simplified as possible to facilitate the implementation of inductive content analysis techniques. Byram and Morgan’s model of ICC assessment (1994) was chosen among many others as it was specifically designed for foreign language learning contexts and compared to the other models under consideration was rather compact and simplified.

The method of data analysis of inductive content analysis was used because its techniques are widely used in the social sciences to analyze written and unstructured qualitative material like that obtained from the students answers to the open-ended question of the composition. This technique uses a number of codes to identify patterns and achieve insight by arranging and simplifying the patterns found and increase understanding of the material object of study.

This stage consisted in identifying the broadest dimensions of ICC and its components which would be used to act as the codes to classify the patterns and data observed during the inductive content analysis. Finally, with the framework of analysis in mind, it was carried out an inductive content analysis on the corpus of students' compositions. The last stage entailed the classification of findings and tabulation of results to facilitate the presentation of results and reach concluding remarks.

4. Results and discussion

The findings obtained can be classified into two categories, those related to the perceptions and attitudes towards the three established ICC dimensions, and those related to new variables added by the ESP students participating in the study. Both results are equally relevant for this research as they confirm the validity of the model used and provide an update adjusted to ESP students.

4.1 Attitudes towards established ICC dimensions

After the inductive content analysis, several successive coding phases of the students' written material in accordance with the ICC assessment model selected, the patterns identified were tabulated into the three dimensions proposed by Byram and Morgan (1994). Thus, keywords such as understanding, adaptation, open minded, empathy, flexibility were classified into the Attitude dimension; with regards to the Knowledge dimension, the keywords and patterns extracted were awareness, style of life, cultural differences, stereotypes, cultural diversity; Finally, for the third dimension, Behaviour, patterns such as respect, appropriate behavior, politeness, etiquette and behavior were included in this classification.

| Table 1. Percentage of respondents that identified Byram and Morgan’s dimensions (1994). |
|---------------------------------|-----------------|-----------------|-----------------|
| Dimension                      | Attitude        | Knowledge       | Behavior        |
| % of respondents               | 58%             | 55%             | 41%             |

The results in Table 1 are quite significant of the respondents' ICC awareness, however Table 2 below shows the correspondence between the number of respondents and the number of ICC dimensions that have been taken into
consideration in their writings. As it can be seen, it is significant that only 14 of the 100 participants have a broader view of all three dimensions, however there is still a large number of respondents (18) who have not identified any of the three dimensions used in this study. For example, some respondents identified patterns of Behaviour and Attitude, but not of Knowledge, and so on.

Table 2. Percentage of respondents that identified ICC dimensions in their writings.

<table>
<thead>
<tr>
<th># of ICC dimensions</th>
<th># of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
</tr>
</tbody>
</table>

4.2 Other ICC components

In parallel to the identification of patterns that fall into the three ICC dimensions of Byram and Morgan’s model (1994), during the data encoding stage, components and variables that did not fit into the three dimensions under study and the most relevant findings were grouped into the 6 headings shown in Table 3.

Table 3. Other components identified by respondents as key components of ICC.

<table>
<thead>
<tr>
<th>Components</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>44%</td>
</tr>
<tr>
<td>Foreign language</td>
<td>43%</td>
</tr>
<tr>
<td>Misunderstandings</td>
<td>31%</td>
</tr>
<tr>
<td>Important</td>
<td>19%</td>
</tr>
<tr>
<td>English</td>
<td>14%</td>
</tr>
<tr>
<td>Globalization</td>
<td>12%</td>
</tr>
</tbody>
</table>

These results have been sorted according to their frequency of occurrence. It should be noted that 44% of respondents in one way or another refer to intercultural communication specifically within a business environment or related to their professional career development. 43% associated foreign language with ICC skills, although as shown in Table 3, only 14% refer to English as the lingua franca in intercultural communication, advocating knowledge of other languages like Chinese or French for a full integration into a multicultural environment.

Other relevant data in Table 3 refer to problems or misunderstandings that may arise in the case of not having a proper ICC. 31% of respondents highlight the possibility of conflict caused by inadequate intercultural relations. Among the examples that illustrate this claim are: "you have to be careful", "...to avoid possible misunderstandings and conflicts", "...the difference between cultures could create problems", "...people can feel annoyed."

4. Conclusions

This study explored the perceptions and attitudes towards intercultural communication and its key components based on an inductive content analysis of one open-ended question to a group of 100 industrial engineering ESP students. The results of the study revealed that most participants are aware of common cultural differences and stereotyping, and that knowledge of the language alone is not guarantee of success in an international environment.

However, with regards to identifying the three general dimensions of ICC, only 14% of the respondents were capable of identifying the three of them, and most surprisingly, 18% did not identify any of them.

Among the other findings that contribute to the development of ICC assessment in the field of languages for specific purposes are the emphasis on the business/professional relevance of intercultural communication, the fact
that a great deal of respondents, 43%, highlight a substantial association of intercultural communication with foreign language learning, with some of them pointing out intercultural communication competence as a mean to learn languages.

References


