Predictive validity of the IELTS Listening Test as an indicator of student coping ability in Spain

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This study explores the predictive validity of the IELTS Listening Test for student performance on English-taught courses at a Spanish university. IELTS Listening scores reliably predict the amount of difficulty students will experience on courses taught in English, and have small to moderate correlations with their academic performance.

Click here to read the Introduction to this volume which includes an appraisal of this research, its context and impact.

ABSTRACT

In view of the enormous expansion of English-taught programs at European universities over the last 10 years, it is imperative that appropriate tools for predicting student performance should be validated, and appropriate cut-off scores established for different subject areas. In this context, listening skills are particularly important, since the traditional form of instruction through lectures tends to predominate. This study investigated the issue of student listening skills from a variety of perspectives. Groups of students enrolled on bilingual programs in Humanities, Law and Medicine took an IELTS Listening Test at the beginning of their first semester. Questionnaires on student listening ability and coping skills and strategies were developed, and these were administered to the students at the end of the semester. Qualitative interviews were also carried out with a sample of students in each faculty, and the results of these were analysed to provide a more detailed picture of the way that students face the challenge of taking academically demanding courses in English. Finally, statistical tests were performed to explore the relationship between students’ numerical IELTS Listening scores and their final course grades, on the one hand, and their IELTS band scores and self-report data, on the other. Small positive correlations were detected between students’ numerical listening scores and their final grades in the courses that were taught in English. Moderate to large correlations were found between the IELTS Listening band scores and self-report data obtained from the questionnaires.

In parallel to this process, a modified Angoff procedure was performed with eight experienced teachers of English for Academic Purposes. A consensus cut-off score of 23 was obtained, which was consistent with the general practice of requiring a minimum band score of 6 at universities in English-speaking countries. Nonetheless, when the final course grades of students who had obtained 6 or more were compared with those of students who had obtained Band 5 or less, it was established that Listening scores less than Band 6 were not predictive of academic failure.

The report concludes with a recommendation that the ideal cut-off score for Law, Medicine and Humanities should be Band 6, but that this may not prove feasible under current circumstances. Instead, it is suggested that students with band scores below 6 should be informed that the course will require them to invest more time than for an equivalent course in their native language, and that they should be offered language support.
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# Predictive validity of the IELTS Listening Test as an indicator of student coping ability in Spain

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INTRODUCTION

In the last 10 years, a large number of universities across continental Europe have introduced bachelor and master degree courses taught entirely or partly in English (Wächter and Maiworm, 2008). In many of these universities, students are required to take English language tests before admission, or in the first year, either to determine whether or not their level of English is sufficient for them to succeed on their chosen course, or to plan provision for language back-up.

IELTS is commonly used as part of the university admissions criteria in the United Kingdom and Australia, mainly because it focuses on language skills in an academic context, and because it offers a very precise diagnosis of students’ competences. However, there is some uncertainty as to whether it would be appropriate to transfer the use of IELTS examinations in general, and the cut-off scores in particular, to the European context, which is substantially different from the UK and Australian situation in various ways. First, it is unclear how the language requirements may be affected by the special situation in universities outside English-speaking countries. On the one hand, the students are not in an “immersion” situation, and are unlikely to be exposed to a large amount of English outside their studies. This might mean that their initial level of English may actually need to be higher than in English-speaking countries, because of the lack of exposure to the language outside the classroom. On the other hand, in practice the opposite might also sometimes be true, because the teachers responsible for courses taught in English may adapt their style to a non-native audience, providing extra visual back-up, or integrating some language support into the course program (Kurtán, 2003; Panday, Hajer and Beijer, 2007).

A second key issue is that of the relative importance of the different language skills, since the European situation may also differ in terms of the actual balance between reading, writing, listening and speaking. Even after the changes brought about as a result of the Bologna Process (EIAE, 2010), the European university model tends to give priority to lectures rather than seminars or self-study (students may attend up to eight hours of lectures every day), with a heavy emphasis on understanding and taking notes, rather than writing essays or participating in seminars. In such a context, students’ listening comprehension ability is of paramount importance.

To date, the emerging panorama of bilingual universities in Europe has not been extensively researched in terms of the linguistic demands it makes on students or the competences students should have before admission to bilingual programs. The aim of this study was to explore the predictive validity of the IELTS Listening Test as an entry test for students enrolled on three different bilingual degree programs in a large Spanish university, and to propose appropriate cut-off scores for each course. This research was designed to provide greater insights into the appropriate use of IELTS listening module scores for admission to degree courses taught partly in English within a European context, or for diagnostic purposes in that context.
2 REVIEW OF LITERATURE

Studies on the predictive validity of the IELTS Test as an indicator of academic success have been carried out in various contexts, with diverse results. For example, Bellingham (1993), Ferguson and White (1994) and Allwright and Banerjee (1997) found that international students’ overall IELTS band scores were positively correlated with academic success at universities in English-speaking countries, while Feast (2002) tracked international students from a variety of disciplines across five semesters and detected significant relations between their initial IELTS score and subsequent academic performance, which decreased over time. However, other studies (Fiocco, 1992; Cotton and Conrow, 1998) found no such associations for the overall IELTS band score. After providing a comprehensive overview of previous studies, O’Loughlin (2008, p 6) concluded that IELTS generally has “weak to moderate predictive power of academic success”, and that IELTS band scores should not be used exclusively when considering the suitability of potential candidates in higher education. In particular, aspects such as the candidate’s past academic record, their performance at interview, and their language learning aptitude, should also be taken into account when selecting students (Rees, 1999; Chalhoub-Deville and Turner, 2000; O’Loughlin, 2008).

As far as the different components of the IELTS Test are concerned, a considerable amount of attention has focused on the IELTS reading examination, which was found to have small to moderate correlations with students’ academic performance, particularly in the first year of study at an English-medium university. Studies by Hill, Storch, and Lynch (1999), Kerstjens and Nery (2000) and Dooey and Oliver (2002) suggest that the reading component may correlate significantly with academic performance, measured as the first or second semester GPA. Along similar lines, although Cotton and Conrow (1998) found no significant correlation with GPA, they were able to identify a positive association between students’ reading and writing scores and staff ratings of academic performance. It has been suggested that the reason why reading is particularly important is that the specific reading skills required for success in the examination model the type of reading needed for university study more closely than the other competences tested in IELTS; therefore, reading skills are more easily transferred to actual study situations, giving the student who is proficient a head start over others (Picard, 2007). This may hold true for students studying in English-speaking countries. However, in other situations, such as continental Europe where students are not expected to read widely or analytically, reading skills may be much less important.

Research into the predictive validity of the IELTS Listening Test has yielded somewhat inconclusive results (Lee and Greene, 2007). In the studies listed above, the students’ listening scores were not found to show any significant correlation with their GPA. Nonetheless, some research indicates that there may be a positive relationship between listening scores and academic achievement, at least in the early years of study in English-medium universities. Elder (1993) found a correlation coefficient of 0.40 between students’ IELTS scores and GPA in a small group of postgraduates in education (n=32). More recently, Woodrow (2006) found that listening scores had a correlation of 0.35 with first semester GPA among international students in education and social work (n=82). In her study, IELTS Speaking scores also had moderate correlations with GPA, whereas reading and writing did not. She surmised that speaking and listening competences may be more important in her context because of the type of teaching and the nature of the assessment tasks in education, particularly at the postgraduate level. Finally, a study by Huong (2001) brought to light significant correlations between IELTS Reading and Listening scores and GPA among groups of Vietnamese undergraduate and postgraduate students at several Australian universities, across a range of disciplines. In this study, the
correlation between the IELTS Listening score and first semester GPA was 0.322, while in the second semester it had dropped to 0.309, presumably because the weaker students’ listening ability had improved with practice. Although the positive relationship between listening and academic performance held for most of the groups of students in that study, it should be noted that one group actually had a negative correlation between the IELTS Listening score and academic results, a phenomenon which had previously been noted by Cotton and Conrow (1998). In this case, Huong (2001) suggested that the greater degree of social integration among students with good oral skills may actually have been detrimental to their academic performance in certain contexts.

Finally, approaching the question from a rather different angle, a study based on benchmarking and comparison with qualitative data about the tasks that students actually have to perform at a Canadian university suggested that listening was one of the least taxing aspects of the course for many overseas students, who agreed that listening was “a fairly easy task” (Golder, Reeder and Fleming, 2010, p 20). These authors came to the conclusion that candidates should have a Listening band score of 6.5, not on the grounds that this would reflect sufficient ability to follow lectures, but because it would show that they had good enough listening competence to “understand complex and fast-paced conversations that take place among team-mates” (Golder et al, 2010, p 2). By implication, the listening skills needed for lectures alone in this context would be represented by a somewhat lower band score.

The general picture is, therefore, uncertain regarding the relationship between IELTS Listening scores and overall academic achievement. A variety of factors, such as pedagogical approaches, assessment traditions, and the type of discipline being studied, play a part in determining the relative importance of the different skills, and the relationship between students’ initial level and their subsequent performance. One major problem in previous studies is that most of them focus on the GPA as the point of comparison. The GPA measures academic success in general, and this is such a complex, multi-dimensional construct that student listening comprehension abilities are unlikely to influence the final outcome particularly heavily. Nonetheless, listening ability must have a considerable impact on the amount of benefit and satisfaction that students receive from attending lectures, and therefore, it is extremely important on balance.

This brings us to a slightly different issue, namely that of the general relationship between students’ IELTS scores and their subjective coping ability in English-medium classes. In general, little information is available concerning what IELTS results may indicate about the more subjective aspects of the international students’ experience. Fiocco (1992) reported that students’ overall IELTS scores correlated with their self-perceived ability to manage in English in their university courses. More recently, Bayliss and Ingram (2006) studied a group of 28 international students at the University of Melbourne, and found that their self-perception of their language abilities was relatively close to their proficiency measured by IELTS scores. They emphasise the negative effects of low self-confidence among students with lower language levels, which may lead to a downward spiral of lack of integration and failure to meet course demands. However, the type of coping skills needed by international students in British or Australian universities may differ radically from those required in European universities, where English is used only as a language of instruction, and possibly as a means of communicating with exchange students. It is, therefore, important to remember that results from English-speaking countries cannot simply be transferred to other situations where many of the parameters are utterly different.
3 RESEARCH DESIGN

Against the background described above, the primary aim of this project was to investigate the predictive validity of the IELTS Listening Test in the context of a Spanish university in which specific content programs are taught in English, and to determine the minimum Listening module band score that students should be recommended to attain before admission to bilingual degree courses in Law, Medicine and Humanities. At present, students are admitted to these bilingual programs with a B1 certificate in English (Law), or with no specific qualification in English (Medicine and Humanities), and so this sample is likely to reflect a broad cross-section of the Spanish undergraduate population enrolled on degree courses in these areas. It should be noted that there are several major differences between the three subgroups of students. The general entrance requirements for the degree in Medicine are more demanding than those for the degrees in Law and Humanities, which means that these students are likely to have higher academic qualifications. The students on the bilingual program in Law constitute a subset of the students in the Law faculty who are particularly interested in gaining a qualification in Anglo-American Law or International Business Law to complement their Spanish Law degree, and they are likely to have a greater specific interest in English and the English-speaking world than other Law students. The students in Humanities are highly heterogeneous, but as such may be regarded as representative of students on non-vocational degrees in the Spanish context.

In this study, the grade awarded in the courses taught entirely or partly in English is correlated with the students’ IELTS Listening scores. However, since this grade is also inevitably influenced by factors other than listening ability, self-report data were also obtained from all the students in the study to fill in the broader picture of how listening ability may affect individual students in different aspects of their studies.

In summary, to obtain a broad view of this issue, we obtained three types of empirical data.

1. IELTS Listening scores were obtained for first-year students registered for the bilingual programs at the start of the course delivered in English. The Listening Test was administered to all available students, most of whom continued on the bilingual program and some of whom later dropped out. The function of the Listening Test was diagnostic, and although the respective faculties were informed of the results, individual students were not. The final grades for the courses taught in English were obtained at the end of the semester, and correlated with the individual students’ IELTS Listening scores.

2. A modified Angoff procedure was used with groups of teachers involved in teaching on bilingual programs in order to establish a potential cut-off score.

3. Self-report data were gathered from the same students at the end of the course, including their own impressions as to whether their level was sufficient to cope with the classes, and whether they had to resort to other means of understanding the course material. Qualitative, semi-structured interviews were held with students who had obtained different band scores, and were recorded and transcribed.

3.1 Research questions

The research questions addressed in this project were as follows.

- Research Question 1: What is the minimum IELTS Listening module band score that should be recommended for admission to bilingual degree courses in Law, Medicine and Humanities at a Spanish university?

- Research Question 2: How does student coping ability in English-taught courses map into their IELTS Listening band scores?
4 LISTENING SCORES

A full IELTS Listening Test was administered to 289 students in January/February 2009. Scores were obtained for 202 students of Medicine, 74 students of Law and 13 Humanities students. The same Listening Test was administered to a further 42 Law students at the start of the first semester in September 2009, and the scores were recorded.

4.1 Reliability tests

To ensure that the Listening Test was performing adequately in the context of this study, basic descriptive statistics and reliability coefficients were calculated for the test as a whole and for the different sections of the test, for the samples of students tested in January/February 2009. These calculations were subsequently repeated for each of the three student groups (Medicine, Law and Humanities). The full results are set out below in Tables 1 to 8.

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<th>Mean</th>
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Table 1: Full test reliability

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Table 2: Full test reliability by section

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Table 3: Test reliability by group – Humanities

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Table 4: Test reliability (Humanities) by section
Table 5: Test reliability by group – Law

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Table 6: Test reliability (Law) by section

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Table 7: Test reliability by group – Medicine

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Table 8: Test reliability (Medicine) by section

The Cronbach’s alpha values indicate a good to high degree of reliability for this test across the samples studied. Overall, parts 3 and 4 proved slightly more reliable than parts 1 and 2, but the Cronbach’s alpha values are within acceptable limits for all groups.

5 ANGOFF PROCEDURE

One significant question is that of establishing exactly what the minimum ‘passing’ score should be on the IELTS Listening Test for students in this particular context. For the establishment of test cut-off points a wide range of methods are available (Measurement Research Associates 2004). Here, we used a variation of the Angoff method (1971), the so-called modified ‘Angoff method’ or the ‘Yes/No method’. This procedure provides a systematic technique for eliciting judgements from groups of experts, discussing these judgements and then arriving at a reliable consensus. The modified method has been shown to produce results similar to those of the original procedure and also has the great advantage of being easier to administer and use (Impara and Plake 1997).
In our case, eight teachers, all with substantial experience in the teaching of English for Academic Purposes to students such as those enrolled on the bilingual programs in Law and Medicine, were asked to envision a student with the minimum linguistic ability to be able to successfully follow a lecture in his or her speciality in English. With this student in mind, and provided with the full text of the test, the teachers listened to the complete Listening module and decided for each item whether this minimally competent student would answer the question correctly or not. Teachers were asked to give the item a score of one if they considered that this hypothetical student would provide a correct answer and zero if not. The total scores were then summed and this represented the minimum ‘passing’ score as judged by each teacher. This first round was completed individually with no consultation between teachers. In round two, the procedure was repeated but after each section of the Listening Test, the teachers were asked to discuss their results in groups and come to a consensus score for each item and thus a ‘passing’ score for the whole subtest.

6 QUESTIONNAIRES AND INTERVIEWS

6.1 Questionnaire development and administration

Two questionnaires were developed in order to obtain self-report data from students about their ability to cope with their English-medium courses. First, 10 semi-structured qualitative interviews with students were carried out to gain a rounded view of the English-taught courses for each degree program, the difficulties that students have, and the strategies they adopt to overcome these. Each interview lasted around 20 minutes, and was recorded and transcribed. Following on from this, the construct of listening in the context of English-medium lectures was analysed (Buck, 2001), and the information obtained from students was compared with the taxonomy of listening subskills devised by Richards (1987). A list of subskills was compiled, and a questionnaire was drafted. This was then piloted on a further set of five students for validation purposes: irrelevant items were eliminated, and confusing items were rephrased to ensure proper understanding. At the end of this process, two questionnaires were drawn up as set out below.

Questionnaire 1: The core of the questionnaire, to be used across all participants in the study, consisted of 15 questions focused on self-perception of listening ability, represented in one global question and 14 items dealing with subskills (Section 2). The other two sections of Questionnaire 1 contained further questions designed to provide a detailed picture of English-taught courses on the bilingual degree programs in question, such as the self-help or survival strategies they had adopted, the degree of participation in lectures through asking and answering questions, and use of supplementary sources of information. All the responses in Section 2, and most of the responses in the other sections, were rated on a Likert scale from 1 to 5, although there were also four open-ended questions and three yes/no questions. This questionnaire was used with all the students in the Humanities course (n=13), and with a sample of students from each available IELTS Listening band score in Law and Medicine. The full questionnaire is provided in Appendix 2.

Questionnaire 2: The second questionnaire consisted of Section 2 of Questionnaire 1 (one global question and 14 questions designed to measure listening subskills, rated on a Likert scale from 1 to 5). Questionnaire 2 was used with all the participants in Law and Medicine. The full questionnaire is provided in Appendix 3.
6.2 Interview administration

Questionnaire 1 was used as a basis for semi-structured qualitative interviews with all available students on the obligatory English-taught first year subject of the degree in Humanities (13 students). Questionnaire 1 was also applied as the basis for semi-structured qualitative interviews with 11 Law students and six Medicine students in order to obtain descriptors of student self-evaluation at different band scores. These interviews were recorded and transcribed. The transcripts were then analysed by the principal researchers, and relevant information was extracted to complete the table of band score descriptors for each faculty. Where the interview data had been recorded in Spanish, the relevant parts of the transcripts were translated into English by the researchers.

7 RESULTS

In this section, the results for the three bilingual degree programs are reported separately.

7.1 Humanities

An IELTS Listening Test was administered in February, at the beginning of the course “History of the English language” (first year of degree in Humanities). The Listening Test data were processed and band scores were calculated.

Towards the end of the course in May, interviews were carried out using Questionnaire 1 (the full questionnaire) with all 13 students to obtain a thick description of students’ coping skills and students’ responses to the open-ended questions in order to map them onto the IELTS band scores. The data from Section 2 of Questionnaire 1 (which is identical to Questionnaire 2) were extracted for use in the statistical tests.

Basic statistical tests (scattergrams) were run to check for correlations between the IELTS Listening Test raw scores and band scores, on the one hand, and the students’ global self-assessment, the mean of the analytical self-assessment of listening subskills, and the students’ final course grade. Since the sample was very small (n=13), both Spearman’s rank correlation coefficient and Pearson’s correlation coefficient were used, as is standard practice in such cases. The results are displayed in Table 9 and in Figures 1 to 3 below.

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Spearman’s rho</th>
<th>Pearson’s correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation IELTS numerical score and final course grade</td>
<td>0.408</td>
<td>0.344</td>
</tr>
<tr>
<td>Correlation IELTS band score and global self-assessment</td>
<td>0.923**</td>
<td>0.914**</td>
</tr>
<tr>
<td>Correlation IELTS band score and analytical self-assessment</td>
<td>0.984**</td>
<td>0.921**</td>
</tr>
</tbody>
</table>

** Correlation significant at 0.01 level.

*Table 9: Correlations for Humanities sample*

The IELTS scores show positive correlations with the final course grade, despite the fact that this is probably heavily influenced by each student’s study skills and general academic ability. However, the correlations between IELTS band scores/numerical scores and their global and analytical self-assessments are very high (p<0.01) (Cohen, 1988). This is a striking result, although it should be remembered that the sample of students in the Humanities sample was very small (n=13).
Figure 1: Scatterplot showing moderate correlations between IELTS Listening score and final course grade: Humanities

Figure 2: Graph showing correlations between IELTS Listening band score and students’ global self-assessment: Humanities (numbers refer to bubble size)

Figure 3: Scatterplot showing correlations between IELTS Listening band score and students’ analytical self-assessment: Humanities
We matched the interview data with the IELTS band scores in order to obtain richer descriptions of what the different band scores appear to mean for this student population. Examples can be seen in Table 10 below.

<table>
<thead>
<tr>
<th>IELTS Listening score</th>
<th>Descriptors obtained from interview transcripts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 8</td>
<td>I have no problems understanding the lecturer and taking notes.</td>
</tr>
<tr>
<td>Band 6</td>
<td>The course in English means more effort than the equivalent course in Spanish, but I can manage well if I consult outside sources to check my understanding of complex topics.</td>
</tr>
<tr>
<td>Band 5</td>
<td>I have to pay more attention than I would in Spanish. You have to concentrate more. I sometimes need to ask my fellow-students if I don't understand a word or phrase. I need to use the dictionary frequently. Most of the time I can follow what the teacher says, but sometimes I lose the thread of what he is explaining. I often have to check whether my lecture notes are right by reading more.</td>
</tr>
<tr>
<td>Band 4</td>
<td>I can understand the lectures if I do extra reading before and after the class. I do not have a large enough vocabulary to follow the lectures easily. I can usually get the main points, but it is hard to concentrate for 50 minutes. I feel I miss the details. I need to look for extra information at home. I generally also have to put my notes together with a friend.</td>
</tr>
<tr>
<td>Band 3</td>
<td>The teacher speaks too fast for me to take notes effectively. It is particularly hard for me to concentrate over long periods of time. Because I don't understand everything, it is harder for me to integrate the new information given in the lecture with what I already know about the subject. It is very difficult for me to take notes because the lecture in English seems to go so fast. I have to ask my friends for their notes. Since I don't know all the words, I often miss important points in the lecture.</td>
</tr>
</tbody>
</table>

Table 10: Band score descriptors for Humanities sample

7.2 Law

The IELTS Listening Test was administered to a sample of 74 students enrolled on the Anglo-American Law Program and the International Business Law Program (taught in English as part of the Spanish Law degree) in January/February 2009. The same test was administered to 42 new students enrolled on the Anglo-American Law Program in September 2009. The Listening Test data were processed and band scores were calculated. Questionnaire 2 was administered to both sets of students at the end of their respective English-medium courses (Criminal Law and Contract Law in May 2009, Introduction to Anglo-American Law in November 2009). After elimination of students who dropped out of the program or who failed to complete the questionnaire, the total sample was reduced to 83 students (Table 11).
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS score</td>
<td>83</td>
<td>4</td>
<td>39</td>
<td>26.08</td>
<td>7.310</td>
</tr>
<tr>
<td>Band score</td>
<td>83</td>
<td>3</td>
<td>9</td>
<td>6.097</td>
<td>6.096</td>
</tr>
<tr>
<td>Final course grade</td>
<td>83</td>
<td>3</td>
<td>9.5</td>
<td>6.7</td>
<td>1.738</td>
</tr>
<tr>
<td>Global self-assessment</td>
<td>83</td>
<td>2</td>
<td>5</td>
<td>3.904</td>
<td>0.906</td>
</tr>
<tr>
<td>Analytical self-assessment</td>
<td>83</td>
<td>2.14</td>
<td>5</td>
<td>3.661</td>
<td>0.654</td>
</tr>
</tbody>
</table>

**Table 11: Descriptive statistics for Law sample**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Spearman’s rho</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS numerical score and final course grade</td>
<td>0.283**</td>
</tr>
<tr>
<td>IELTS band score and global self-assessment</td>
<td>0.453**</td>
</tr>
<tr>
<td>IELTS band score and analytical self-report data</td>
<td>0.546**</td>
</tr>
</tbody>
</table>

**Correlation significant at 0.01 level.

**Table 12: Correlations for Law sample (Spearman’s rho)**

**Figure 4: Scatterplot showing small correlations between IELTS Listening score and final course grade: Law**
As the Shapiro-Wilks test established that the data did not have normal distribution, Spearman’s rho for non-parametric data was used to obtain the correlation coefficients between the different data sets (Table 12, Figures 4 to 6). The IELTS scores for the Law students yielded positive correlations with the final course grade (rho of 0.283, p<0.01) that bordered on moderate, if Cohen’s explanation of levels of significance for correlations is applied (Cohen, 1988). Although course grades are heavily influenced by each student’s study skills and general academic ability, the correlation detected here appears to indicate that listening comprehension ability does account for a small part of the differences in student performance. Moreover, the correlations between IELTS Listening band scores and global self-assessments are moderate, bordering on large, and the correlations between the IELTS Listening band scores and analytical self-report data are large (rho of 0.546, p<0.01).
On the other hand, if we take a cut-off score of 6 on the IELTS Listening Test and compare the outcomes in terms of final course grade for students obtaining 6 or more, on the one hand, and 5 or less, on the other, the results appear to be less conclusive. In this sample, 47 students with a score of 6 or more passed the course, while 10 failed. Of those with a score of 5 or less, 22 passed the course and 4 failed. Expressed in other words, the distribution of pass/fail grades among students with IELTS scores over 6 and IELTS scores under 5 was close to the expected random distribution. The statistical analysis yielded a chi-square value of 0.055 (p=0.9966), which is not statistically significant.

<table>
<thead>
<tr>
<th>IELTS Listening score</th>
<th>Descriptors obtained from interview transcripts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 9</td>
<td>I have no problem at all understanding the lectures.</td>
</tr>
<tr>
<td>Band 8</td>
<td>In my case, I don’t feel that I need help with the language, but I do think that the course in English requires more work than an equivalent course in Spanish.</td>
</tr>
<tr>
<td>Band 7</td>
<td>I understand most of what the lecturer says, but I really find it useful to complement the lectures and course notes with information from other sources. The schedule is very intensive, and although I understand most things, it is difficult to concentrate for such a long time without losing the thread of a complex argument.</td>
</tr>
<tr>
<td>Band 6</td>
<td>A law course taught in English definitely means more work than a law course taught in Spanish. We would benefit from more language support. It was essential for me to read through the material before the class. In my opinion, the lecturers speak too fast and try to cover too much material in one hour. They really don’t try to adapt to a “foreign” audience. It is sometimes hard for us even to understand what the lecture is really about. We get lost. The case study method is also quite strange for us. We are given the case to read before the class, but even if we read it, we don’t really understand it, because we don’t know what we are supposed to notice. In Spain, we learn the theory, and then we see a case and try to apply the theory. That is easier for me. Although we have the textbook in the exam, it doesn’t help much. We need help with the language, but also with the contents. For me, the case-based method is frustrating. We want to know what the law is. There is too much material, and it is very difficult to concentrate on English for such a long time. Twenty minutes would be long enough for us. Since I don’t understand everything, I feel insecure, especially since the legal system is so different and the way of explaining is quite strange for us.</td>
</tr>
<tr>
<td>Band 5</td>
<td>I think we have a lot of difficulties with the vocabulary. Sometimes we are not even sure what the lecturer is talking about, and we don’t feel confident enough to ask questions. We would definitely benefit from more language support. The course in English was very hard work. In the end, an American student helped us by explaining the main ideas and words to us. It was particularly difficult to understand because the concepts are often different, for example in contract law, and you don’t feel really sure that you have understood properly.</td>
</tr>
<tr>
<td>Band 4</td>
<td>I don’t understand everything the lecturer says. I can manage in this course if I read the book and notes carefully and check all the things I don’t understand using a dictionary. In law classes in general, I have to make my own “picture” of what the teacher is saying. That is hard enough in my own language, but in English it is often quite confusing.</td>
</tr>
</tbody>
</table>

Table 13: Band score descriptors for Law sample
7.3 Medicine

The IELTS Listening Test was administered to a sample of 202 students enrolled on the Bilingual Degree in Medicine. After elimination of students who dropped out of the program or who failed to complete the questionnaire, the total sample was reduced to 63 students (Table 14). Since the policy of the Medical School is not to teach entire courses in English, but to deliver 20-30% of the classes on specific compulsory courses in English, the course grade used as a reference point is an average of the marks obtained by these students in the two major courses with English-taught components given during the second semester of 2008-9 (Genetics and Immunology).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS score</td>
<td>63</td>
<td>12.00</td>
<td>38.00</td>
<td>27.159</td>
<td>6.533</td>
</tr>
<tr>
<td>IELTS band score</td>
<td>63</td>
<td>4.00</td>
<td>9.00</td>
<td>6.222</td>
<td>1.197</td>
</tr>
<tr>
<td>Final exam grade</td>
<td>63</td>
<td>3.30</td>
<td>9.50</td>
<td>6.706</td>
<td>1.506</td>
</tr>
<tr>
<td>Global self-assessment</td>
<td>63</td>
<td>2.00</td>
<td>5.00</td>
<td>4.032</td>
<td>.879</td>
</tr>
<tr>
<td>Analytical self-assessment</td>
<td>63</td>
<td>3.00</td>
<td>5.00</td>
<td>3.730</td>
<td>.515</td>
</tr>
</tbody>
</table>

**Table 14: Descriptive statistics: Medicine**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Spearman's rho</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS numerical score and final course grade</td>
<td>0.257*</td>
</tr>
<tr>
<td>IELTS band score and global self-assessment</td>
<td>0.346**</td>
</tr>
<tr>
<td>IELTS band score and analytical self-assessment</td>
<td>0.330**</td>
</tr>
</tbody>
</table>

*Correlation significant at 0.05 level  **Correlation significant at 0.01 level

**Table 15: Correlations for Medicine sample (Spearman’s rho)**

![Figure 7: Scatterplot showing small correlations between IELTS Listening score and final course grade: Medicine](image-url)
Since the Shapiro-Wilks test showed non-normal distribution, Spearman’s rho was used as above to obtain the correlation coefficients between the different data sets (Table 15; Figures 7 to 9). A small correlation was apparent between students’ IELTS scores and final course grades (p<0.05), while there were moderate correlations between IELTS band scores and both types of self-assessment data.

As far as the cut-off scores of 23 (band 6) obtained by Angoff methodology was concerned, in this study, the failure rate among students in Humanities, who had the lowest band scores, was 0%. The failure rate in Law was 17.5% among students with a band score of 6 or more, and 15.4% among students with 5 or less. The failure rate in Medicine was 11.1% among students with scores of 6 or more, and 17% among students with scores of 5 or less.
The failure rate among the sample of students tested in Humanities, who had the lowest band scores (mean 5.5), was 0%. The failure rate in the Law sample was actually higher (17.5%) among students with a band score of 6 or higher, than among students with 5 or less (15.4%), although this difference was found not to be statistically significant when tested using Chi square. On the other hand, the failure rate in the sample from Medicine was 11.1% among students with scores of 6 or more, and 16.6% among students with scores of 5 or less, though this also lacked statistical significance.

<table>
<thead>
<tr>
<th>IELTS Listening score</th>
<th>Descriptors obtained from interview transcripts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 9</td>
<td>It is easy to understand the classes. For me, having a class in English is the same as having a class in Spanish.</td>
</tr>
<tr>
<td>Band 8</td>
<td>I have no problem following the lectures.</td>
</tr>
<tr>
<td>Band 7</td>
<td>It is not difficult to understand the lectures, but it may sometimes be hard to take notes when the lecturer speaks very fast. I sometimes need to spend time looking up new vocabulary.</td>
</tr>
<tr>
<td>Band 6</td>
<td>In general, it is easy for me to follow the lectures. I still have some difficulty integrating new information from the lecture with what I already know, and understanding what is important from the lectures. Some of the specialised vocabulary is new for me. I have no real problems understanding, but some of the scientific words are difficult.</td>
</tr>
<tr>
<td>Band 5</td>
<td>I can understand the lectures when the teacher speaks clearly and has a good accent. Sometimes the teachers speak too fast for me. I need to learn important words related to the topic.</td>
</tr>
<tr>
<td>Band 4</td>
<td>I find it hard to understand if the teacher does not pronounce the words clearly. I don’t understand when the teacher speaks fast. It is definitely more work to take a class that is taught in English. I understand the subject better when I study the powerpoint slides and textbooks after the class.</td>
</tr>
</tbody>
</table>

**Table 16: Band score descriptors for Medicine sample**

7.4 Angoff results

Descriptive statistics for the individual round one scores are shown in Table 17. As can be seen, a degree of variation existed between the different teachers. However, in Round 2 (Table 18) the discrepancies between the three consensus group scores were much smaller with a real consensus being reached.

<table>
<thead>
<tr>
<th>Minimum score</th>
<th>Maximum Score</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>29</td>
<td>22</td>
<td>4.8</td>
</tr>
</tbody>
</table>

**Table 17: Individual Round 1 Angoff scores**

<table>
<thead>
<tr>
<th>Minimum score</th>
<th>Maximum Score</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>24</td>
<td>23</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Table 18: Final (Round 2) group consensus scores**
In conclusion, these results indicate that for these teachers, the cut-off score should be 23 points out of 40. This would correspond to Band 6 and would mean that of the 159 students who completed this study, 51 would have to be considered as not having a sufficient level of English language proficiency to successfully follow their lectures in English. The implications of the corresponding loss of one third of the students on the bilingual program would have to be studied carefully before such a decision could be taken.

8 DISCUSSION

The findings of this study add important new information to the general picture concerning IELTS results and academic success, since they suggest that the relationship between students’ IELTS Listening scores and academic performance in specific contexts may be more significant than has sometimes been supposed. This may be particularly relevant in the emerging panorama of English-taught programs in non-English speaking countries where lectures are the principal method of instruction. Moreover, the relationship found here between IELTS Listening scores and student self-assessments shows that IELTS Listening scores offer a reliable prediction of how well students will feel that they can manage on courses that are taught in English.

8.1 Inconsistent findings across predictive validity research studies

Previous research into the predictive validity of the IELTS Listening Test for academic performance has yielded contradictory and somewhat inconclusive results. The consensus view appears to be that listening comprehension ability is just one variable among many that contribute to academic performance. The two recent exceptions to this general pattern are studies by Woodrow (2006) and Huong. Woodrow (2006) found correlations between all the IELTS subcomponents and the first semester GPA of students, including a correlation of 0.35 between IELTS Listening scores and first semester GPA. The study by Huong found a correlation of 0.32 between IELTS Listening scores and first semester GPA. In the present study, the students’ IELTS Listening scores were found to have small to moderate correlations (Spearman’s rho of 0.408 in Humanities, 0.283 in Law and 0.257 in Medicine) with the final grades they were awarded in courses taught in English. In Law and Humanities, where the courses in question were given entirely in English, the correlation between the IELTS Listening score and the final grade was significant at p<0.01, while in Medicine, where courses were taught only partly in English, the correlation was significant at p<0.05.

Our study also brought to light a significant relationship between IELTS band scores and students’ perceptions of their own listening abilities. The correlation between IELTS band scores and global self-evaluation of listening abilities in English-medium courses was strong in Humanities courses (Spearman’s rho of 0.947), and moderate in Law (0.453) and Medicine (0.346) (p<0.01 in all cases). Students’ IELTS band scores also correlated significantly with their analytical self-evaluation scores (0.923 in Humanities and 0.546 in Law), and correlated moderately in Medicine (0.330) (p<0.01 in all cases). The students’ own assessment of their listening ability and capacity to cope with lectures delivered in English thus tended to correlate strongly with their listening ability as assessed by their IELTS scores. This is the case despite the fact that the IELTS Listening Test did not serve a high-stakes purpose, as the students had already been admitted to the university and met the minimum requirements for the bilingual program, and some students may have underperformed. Since the students had not been informed of their IELTS scores, their self-perception cannot have been influenced by knowledge of their test results.
The fact that our results are not consistent with those of authors working in English-medium universities (Dooey, 1999), who found that correlations between IELTS Listening scores and course grades were low or negligible, requires careful analysis. Several factors may account for these discrepancies. First, in the context of the present study, listening competence is arguably much more central to academic achievement than in English-speaking countries. In Spain, undergraduate courses are usually taught by formal lectures, with little opportunity for student participation. Examinations are based on the content of the lectures, and although further reading may be encouraged, students are generally not expected to read extensively. Examinations generally focus on short answers or problem-solving activities, so that there is less need for good writing skills and mastery of academic genres than there would be in an American, British or Australian university where it is customary for students to write essays and term papers.

Secondly, the studies carried out at universities in English-speaking countries (Cotton and Conrow, 1998; Dooey, 2002; Feast, 2002) used the students’ GPA as the measure of academic performance. The GPA is inevitably a composite grade which is influenced by many different aspects of the students’ performance, including course work and, in some cases, mathematical and other abilities, and it is therefore not surprising that GPA should not be strongly related to English listening ability. In any case, such a measure would not be relevant in our context, since only a few courses were being taught in English, and English proficiency would therefore be unlikely to affect students’ overall grade to any significant extent. Nonetheless, the design of our study presents certain advantages in terms of clarity and simplicity. In the present case, by taking as reference point the grades obtained in specific courses taught entirely in English (Humanities, Law) or partly in English (Medicine), we obtained a clearer picture of the way that English listening proficiency might directly affect particular academic results.

Thirdly, our study included students with a wide range of IELTS scores, including many of bands 4 and 5. Most of the studies conducted in the universities of English-speaking countries focus on groups of students who have scored at least 6 overall on the IELTS Test, since this is the usual minimum requirement for university admission (Feast, 2002). One exception to this, a study carried out in New Zealand across a sample of students with a wide range of IELTS scores including some below band 5 (Bellingham, 1993), reported a moderate association between language proficiency as measured by IELTS scores and academic success. In the present study, 29% of Law and Medicine students and 62% of Humanities students had band scores of 5 or below. We may surmise that the wider range of scores (bands 3 to 9) obtained by the students in our study may account for the higher correlations found between IELTS Listening scores and course grade. In most of the previous studies reviewed here, the nature of the sample meant that all students were band 6 or higher. In statistical terms, this would give rise to the phenomenon of range restriction, which would render it less likely that any strong correlations could be detected.

8.2 Students’ perceptions of their coping abilities

In addition to course grades, this study paid considerable attention to students’ perceptions of their own coping abilities. IELTS band scores correlated strongly with students’ global self-assessment on all three bilingual programs, and with their analytical self-assessment in Humanities and Law. This is an important consideration, since it provides an insight into the students’ own feelings of satisfaction and achievement with the courses that are taught in English. A student who responds with less than 3 on a scale from 3 to 5, when asked how easy it is for him or her to understand lectures in English, is evidently experiencing a certain degree of real difficulty in understanding the course. Interview data revealed that many of the students who answered with 3 or less had to spend a considerable amount of time researching the subject outside the classroom, re-reading course notes from other students, or working in study groups with students whose English level was better, in order to acquire the knowledge that they would usually have obtained from the lectures. It would be useful for universities consider this when setting the entry requirements for English-taught courses.
This does not necessarily mean that universities should set a cut-off band of 6 on the IELTS Listening component for entry to the bilingual programs, a move which would be unpopular with university admissions departments. Rather, it could be suggested that students with a lower IELTS score should be informed as to the amount of extra work they are likely to need to do in order to pass the course. If large numbers of students on a particular English-taught course fall into band 5 or below, extra language support should be provided, if possible with an ESP focus, so that students can receive proper training in subject-related vocabulary, listening strategies and note-taking skills.

8.3 The relationship between cut-off scores and success/fail rates

Regarding the cut-off score, the Angoff procedure carried out with staff members involved in the bilingual programs produced a result that is completely consistent with university policies worldwide (Feast, 2002; Woodrow, 2006). The professionals who carried out the Angoff procedure item by item reached a raw score of 23 (beginning of band 6) as the subjective cut-off point at which a student would probably be able to cope with courses taught in English. The current practice of requiring Band 6 or higher for study in an English-medium university has been shaped by research on the one hand, and market pressures on the other. However, there is a general consensus in the literature review that “Band 6 seems to represent some kind of cross-over line” (Ferguson and White, 1993, p 34), since it appears to be a watershed below which the failure rates tend to escalate. The fact that the group of university teachers who participated in the Angoff study independently decided on a cut-off score of 23 on the IELTS Listening Test would seem to vindicate Angoff methodology as a procedure for determining cut-off scores for specific contexts.

Nonetheless, it should be emphasised that in the present study, students with bands 6 or higher were not consistently more likely to pass the final examination than those with 5 or less. In fact, when the sample was divided at the cut-off point of 23, ie, band 6 or higher on the one hand, and band 5 or lower on the other, the picture that emerged concerning pass and fail rates was unclear. The failure rate among the sample of students tested in Humanities, who had the lowest band scores (mean 5.5), was 0%, which would tend to suggest that the teacher responsible for the course makes adjustments for this type of student group.

The situation in Law and Medicine, both high-profile degree courses with large student numbers, was rather different. The failure rate in the Law sample was actually higher (17.5%) among students with a band score of 6 or higher, than among students with 5 or less (15.4%), although this difference was found not to be statistically significant when tested using Chi square. On the other hand, the failure rate in the sample from Medicine was lower (11.1%) among students with scores of 6 or more, compared with 16.6% among students with scores of 5 or less, though this difference also lacked statistical significance.

It is interesting to compare these findings with current practices in English-speaking countries, where IELTS scores of 7 or more are often required for degrees that are considered to be linguistically challenging, such as Law, while lower scores are needed for science-related courses (Hirsch, 2007). What is clear here is that it is not easy to transfer results or recommendations from one context to another. The parameters in an English-taught course in a European university are not the same as those in Britain or Australia. Law students in Spain, even those studying areas of American law in English, are not likely to have to compete against native speakers in debates and class discussions, or in long written examinations based on the analysis of cases. The level of a particular course, and the demands placed on students, are inevitably conditioned by a multitude of factors which include the students’ general level of English, as well as their educational background and culture.
9 CONCLUSION

On the basis of this evidence, we can conclude that although IELTS raw scores and band scores are correlated with academic performance in particular courses, this relationship does not determine success or failure in specific contexts. It should be stressed that some students who had low IELTS scores managed to obtain good grades in the final exam, while other students with high scores failed the final exam. As in previous research, it is evident that aspects other than listening ability may condition student success or failure on a particular course.

It could, therefore, be stated that IELTS band scores provide a reasonable indication of the way particular students will react to the experience of lectures delivered in English. Students with low Listening scores are likely to experience more anxiety and frustration than students with higher Listening scores. This may be reflected in a need to make a greater effort, to use more outside sources, and to bring a wider range of study skills to bear. English-medium courses will almost certainly prove to be more time-consuming and require more independent work than courses delivered in the students’ native language, but this effect is likely to be less marked for students who have better listening skills in English from the outset.

In conclusion, a score of 6 or more on an IELTS Listening Test may be proposed as desirable at admission, because this is the level at which students feel sufficiently comfortable in courses delivered in English and derive maximum benefit from such programs.

Students with lower IELTS Listening scores should be encouraged to consider the following points before enrolling on bilingual degree programs:

- they are likely to experience some degree of frustration in the lectures because they do not understand everything
- they will probably need to complement their lecture notes with extra reading and research
- above all, the course taught in English will almost certainly mean more work than an equivalent course taught in their native language.
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Fiocco, M, 1992, ‘English proficiency levels of students from a non-English speaking background: A study of IELTS as an indicator of tertiary success’. Unpublished research report, Curtin University, Perth

Hirsch, D, 2007, ‘English language, academic support and academic outcomes: A discussion paper’, University of Sydney Papers in TESOL, 2 vol 2, pp 193-211

Huong, TTT, 2001, The predictive validity of the International English Language Testing System (IELTS) Test, Post-Script, 2, 1, pp 66-96


## APPENDIX 1: CALENDAR 2009–2010

### 2009

<table>
<thead>
<tr>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening Tests administered</td>
<td>Listening Tests administered</td>
<td>Interviews held and questionnaires developed</td>
<td>Questionnaires piloted Angoff procedure (Humanities)</td>
<td>Questionnaires administered, interviews carried out</td>
<td>Listening Test data processed and compared with questionnaire data</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angoff procedure (Law and Medicine)</td>
<td>Angoff procedure (Law and Medicine)</td>
<td>Further Listening Tests administered</td>
<td>Further questionnaires administered</td>
<td>Processing data and writing final report</td>
<td>Processing data and writing final report</td>
</tr>
</tbody>
</table>

### 2010

<table>
<thead>
<tr>
<th>January</th>
<th>February</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing data and writing final report</td>
<td>Submission of final report</td>
</tr>
</tbody>
</table>
APPENDIX 2: QUESTIONNAIRE 1

Explanatory note

The questionnaire is intended to be administered through a structured interview which is recorded, and the transcript analysed. The questionnaire is in English, but the interview may be conducted in Spanish. The questionnaire is divided into three sections:

- Section 1: How do you see lectures and how do they fit in with the way you study your subjects?
- Section 2: Understanding lectures in English
- Section 3: Strategies and suggestions

Of these sections, 1 and 3 are designed to elicit the broader picture concerning English-taught courses in the Spanish university context. Section 2 is specifically useful for the Project, since it consists of one "global" question (A) and fourteen questions relating to listening subskills (C-P). It is proposed that the answers to question A and the mean of C-P should be added together to make a score out of 10 that constitutes the respondent's overall self-assessment of how easy it is to understand lectures delivered in English. This composite self-assessment score will be correlated with students' IELTS listening scores.

IELTS Research Project

Follow-up Interviews

Name:_____________________________________________
Course: ____________________________________________

As we already have an idea of your general ability to listen to lectures in English (based on the results of the IELTS listening exam you did) we would now like to analyse how easy or difficult it is for you to listen to real lectures in your subject area. Consequently we would be very grateful if you would answer the following questions. Obviously, all information given is confidential and has no connection with possible course grades.

Section 1: How do you see lectures and how do they fit in with the way you study your subjects?

A. How important do you consider understanding lectures to be?

<table>
<thead>
<tr>
<th>Not important</th>
<th></th>
<th></th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

B. How important is it to understand all the information given in a lecture?

<table>
<thead>
<tr>
<th>Not important</th>
<th></th>
<th></th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>5</td>
</tr>
</tbody>
</table>

C. What level of understanding do you think is necessary? ____%
D. Do lecturers provide key lecture information as a back-up (e.g., notes/slides in Copia/ADI?)

E. Is it easy for you to find the information given in the lecture from other sources?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Extremely easy</th>
</tr>
</thead>
</table>

F. Do you normally supplement the information from lectures with information from other sources?

<table>
<thead>
<tr>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Always</th>
</tr>
</thead>
</table>

G. Do you take notes during the lectures?

<table>
<thead>
<tr>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Always</th>
</tr>
</thead>
</table>

H. In English or Spanish or both?

I. Do lecturers allow you to ask questions to clarify things you have not understood?

<table>
<thead>
<tr>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Always</th>
</tr>
</thead>
</table>

J. Are you expected in any way to actively participate in the lecture (e.g., by answering questions, giving opinions, etc.)?

<table>
<thead>
<tr>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Always</th>
</tr>
</thead>
</table>

K. How frequently do you actively participate in the lecture (e.g., by answering questions, giving opinions, etc.)?

<table>
<thead>
<tr>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Always</th>
</tr>
</thead>
</table>

L. In general, how difficult do you find it to participate in a lecture (by answering questions or giving opinions?)

<table>
<thead>
<tr>
<th>Not difficult</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Extremely difficult</th>
</tr>
</thead>
</table>

M. To what extent do you feel that lecturers make a special effort to make themselves understood by students whose mother tongue is not English?

<table>
<thead>
<tr>
<th>No effort</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>A lot of effort</th>
</tr>
</thead>
</table>
N. Do you consider that a 3 credit course in English represents the same amount of student work as the equivalent 3 credit course given in Spanish?

O. If more, how much more?

**Section 2: Understanding lectures in English**

A. In general, how difficult is it for you to understand lectures in English?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

B. What are the main problems you have found?

C. How easy is it for you to separate the sounds you hear into individual words you can recognise?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

D. How easy is it for you to maintain your concentration over long stretches of talk?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

E. How easy is it for you to deal with the more colloquial aspects of a lecture (false starts, irregular pausing, hesitations, etc)?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

F. How easy is it for you to understand lecturers who speak fast or with particular accents?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

G. How easy is it for you to identify the purpose and scope of the lecture?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

H. How easy is it for you to identify the topic of the lecture and its development?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>
I. How easy is it for you to identify the main ideas (in contrast to supporting detail) of the lecture?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

J. How easy is it for you to infer the relationships between different parts of the lecture (e.g., what causes what, what contrasts with what, what is an example, etc.)?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

K. How easy is it for you to identify irrelevant matter in the lecture (e.g., jokes, asides, digressions, etc.)?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

L. How easy is it for you to identify key lexical items/terminology related to the subject of the lecture?

<table>
<thead>
<tr>
<th>Not easy</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

M. How easy is it for you to deduce the meaning of words that you do not know by using the context and what you know about the subject?

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

N. How easy is it for you to understand instructions given by lecturers?

<table>
<thead>
<tr>
<th>Not easy</th>
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</table>

O. How easy is it for you to understand chunks of language and remember them long enough so that you can take notes?

<table>
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<tr>
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<th>1</th>
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<th>5</th>
</tr>
</thead>
</table>

P. How easy is it for you to integrate the new information given in the lecture with what you already know about the topic?

| Not easy | 1 | 2 | 3 | 4 | 5 |
Section 3: Strategies and suggestions

A. How often do you use the strategy of listening for key phrases (Now I’m going to deal with, the main idea here is that, in other words, etc) which clearly mark the general structure of the lecture?

<table>
<thead>
<tr>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Always</th>
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</table>

B. How often do you use the strategy of listening to the speaker’s intonation as a way of helping you decide what is important and what is not?

<table>
<thead>
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<th>5</th>
<th>Always</th>
</tr>
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</table>

C. How often do you use the strategy of listening for key words (However/although, Moreover/in addition, etc) which clearly mark the relationship between specific concepts?

<table>
<thead>
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<th>4</th>
<th>5</th>
<th>Always</th>
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</thead>
</table>

D. Can you name any specific strategies that you use to help you to "survive" on the courses that are taught in English (e.g. reading about the subject before the class, using a friend's lecture notes, etc.)?

E. Do you feel you would benefit/have benefited more from the course if you had received more language support? What kind of support (e.g. specific help on how to take notes, lists of key vocabulary, etc)?
APPENDIX 3: QUESTIONNAIRE 2

Questionnaire on listening to lectures in English

Name: _____________________________________________
Course: ____________________________________________

As we already have an idea of your general ability to listen to lectures in English (based on the results of the IELTS listening exam you did) we would now like to analyse how easy or difficult it is for you to listen to real lectures in your subject area. Consequently we would be very grateful if you would answer the following questions. Obviously, all information given is confidential and has no connection with possible course grades.

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| Not easy | 1 | 2 | 3 | 4 | Extremely easy | 5 |
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<th>4</th>
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