

3. IELTS as a predictor of academic language performance, Part 1

Authors

David Ingram
The University of Melbourne

Amanda Bayliss
The University of Melbourne

CONTENTS

Abstract	2
Author biodata	3
1 Introduction	4
2 Previous studies	5
3 Aims of the study	6
4 Context of the study	7
4.1 Participants	7
4.2 Characteristics of the sample	8
5 Methodology	9
5.1 Instruments	9
5.2 Procedures.....	11
5.3 Validity constraints	12
6 Method of analysis	13
7 Results	15
7.1 Research question 1	15
7.2 Research question 2	21
7.3 Research question 3	49
8 Discussion	54
8.1 Addressing the needs of stakeholders.....	54
8.2 Understanding what an IELTS score means	54
8.3 Course language demands.....	55
8.4 Confidence and language performance	55
8.5 Specific problems.....	56
8.6 Language support.....	58
8.7 Entry pathways	58
9 Conclusion	59
10 Concluding summary	60
References	62
Appendix A: Interview questions for participating students	64
Appendix B: Random sample of interview questions for tutors	67

ABSTRACT

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This study investigates whether the IELTS scores obtained by non-English speaking background students can predict their language behaviour in a university context.

This study investigated the extent to which the proficiency scores obtained by 28 non-English speaking background (NESB) tertiary-level students could predict their language behaviour in the university context. The study also sought to ascertain the adequacy of that behaviour for the linguistic demands of each student's course and to consider the implications for raising or lowering entry levels to different courses.

Data was collected from a sample of 28 NESB students in their university programs at two Australian tertiary institutions. The students had gained entry to their chosen course on the basis of an IELTS score. The participants completed pre-study questionnaires, underwent semi-structured interviews and were observed in a variety of class types, during which their language behaviour was recorded and then transcribed for analysis. Students' lecture notes and written assignments were also collected. The data was analysed using a mixed methods approach to produce results for the group as a whole. Discursive descriptions of each student's language behaviour were then developed to produce results for individual participants.

The results revealed that the students were generally able to produce, in the context of their academic studies, the language behaviour implied by an IELTS test score. However, there was no apparent relationship between IELTS scores and student performance in course-related tasks which were beyond the scope of the proficiency test. The study found that although most participants who had achieved the requisite entry levels could perform effectively in the context of their studies, for a small number, the observed language behaviour was inadequate for their study program, raising questions about the adequacy of entry levels of the courses in which they were enrolled. In addition to recommending areas for further study, the discussion focuses on issues relating to the interpretation of IELTS proficiency descriptors, the setting of tertiary admission levels and observable student behaviour in the classroom context.

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AUTHOR BIODATA

DAVID INGRAM

David Ingram is a Professorial Fellow in the Faculty of Education at The University of Melbourne (2006). He was the Australian representative on the joint British-Australian team that developed IELTS in 1987-88 and was then IELTS Chief Examiner (Australia) for 10 years. He has published widely and, in 2003, was appointed a member of the Order of Australia for ‘service to education through the development of language policy, through assessment procedures for evaluation of proficiency, and through research and teaching’.

AMANDA BAYLISS

Amanda Bayliss is a PhD student in the Faculty of Education at The University of Melbourne. She currently teaches in the Faculty of Arts and also works in the university’s Language and Learning Skills Unit. Amanda was Acting Director of Studies at the Bond University English Language Institute in Queensland, where she developed and co-ordinated undergraduate and postgraduate English preparation programs and first trained as an IELTS examiner. Her areas of research interest include second language proficiency evaluation, second language behaviour in the academic learning context, impression formation and gesture studies. In her PhD research she is examining the role of kinesic factors on the impressions formed of L2 English speakers.

1 INTRODUCTION

This study examines the English language behaviour of two groups of international students enrolled in their first six months of study in an Australian university. It involves an investigation into a sample of NESB (non English-speaking background) students who used the IELTS test (Academic) to gain entry to their courses at two Australian tertiary institutions. The study sought to determine whether the language behaviour implied by their IELTS scores matched the language behaviour the students exhibited in a range of tertiary education contexts, and whether that behaviour and the implied proficiency was sufficient for the language tasks they had to undertake in their real-life academic studies.

IELTS was developed to facilitate the selection of students from non-English speaking backgrounds seeking to undertake university study in English-speaking institutions. The individual and overall subtest results are meant to indicate English language proficiency levels, providing a gauge by which universities and other institutions can determine whether students need to upgrade their English proficiency before attempting university study and whether they will be able to perform academically without being inhibited by their language skills.

The test comprises four different subtests: Listening, Reading, Writing and Speaking, designed to test the complete range of language skills that might normally be encountered by students when studying in an English-speaking context (IELTS, 2004, p208). All four subtests are conducted on the same day in an accredited testing centre and rated by trained assessors. On the basis of their test performance, candidates receive a report which includes an individual band score for each subtest and an overall score, ranging from a minimum of 1 (non-user of English) to a maximum of 9.0, described by IELTS as an expert user of English with fully operational command of the language (IELTS, 2003, p4). The minimum score required by different institutions varies, however most universities require a minimum overall score of 6.0 or 6.5 for undergraduate study and a score of 7.0 for postgraduate study (Elder & O'Loughlin, 2003, p208).

The IELTS guidelines recommend an IELTS score of 7.0 as 'probably acceptable' for linguistically demanding academic courses and 'acceptable' for linguistically less demanding academic courses (IELTS, 2003, p5). This recommendation is not intended to predict future academic success but, rather, to indicate whether or not students possess a level of proficiency in English sufficient to cope with the linguistic demands of an academic program or to cope academically without English proficiency inhibiting their academic performance.

It has been argued that 'if a student is admitted with a score below 6, the institution or department is taking a greater risk of failure' (Ferguson & White, 1993, p60). In spite of this recommendation, significant numbers of students are admitted into Australian universities at a level below that suggested as acceptable by IELTS (Feast, 2002, p71).

Although it is understood by academics and researchers that there are variable and complex reasons for student success or failure at university, given the high-stakes nature of the IELTS test, and the fact that it is generally preferred in Australia over other admissions tests (Deakin, 1997), ongoing research into a range of issues relating to the test has been recognised as vital (Elder & O'Loughlin, 2003, p208).

Reference to the IELTS handbook advises institutions 'to consider both the Overall Band Score and the Bands recorded for each individual module' (IELTS, 2003, p5) and to determine individual entry on the basis of each course's profile of linguistic demands. These decisions are of significant importance both to academic institutions and to the students they enrol. A clear understanding by all stakeholders of the linguistic capabilities implied by IELTS proficiency levels is therefore essential. However, there is some difficulty for university admissions administrators in determining what level

of linguistic proficiency is implied by IELTS scores and what the individual profiles mean. Language proficiency descriptors are not provided on official IELTS Results documentation and, although brief general descriptions are available to the public (in the IELTS handbook and on the official website), with Speaking and Writing descriptors recently added to this information, it is unclear how much use is made of these resources.

2 PREVIOUS STUDIES

A number of studies have been conducted to determine issues such as: test and rater reliability (eg, Bayliss, 1996; Brown & Hill, 1998; Merrylees & McDowell, 1999; O'Loughlin, 2000; Mikan, 2003); the influence of test preparation courses on test results and/or band score gain (eg, Brown, 1998; Elder & O'Loughlin, 2003; Read & Hayes, 2003); and the correlation between test scores and subsequent academic performance (eg, Gibson & Rusek, 1992; Bellingham, 1993; Elder, 1993; Ferguson & White, 1993; Cotton & Conrow, 1998; Dooley, 1999; Feast, 2002).

Of the predictive validity studies, some investigations have found there to be either little or no statistically significant connection between IELTS and academic performance. Cotton and Conrow's investigation (1998) of 33 international students at the University of Tasmania, for example, found no significant positive correlations between IELTS scores and the language difficulties experienced by students in their coursework. Furthermore, high IELTS entry levels (7.0+) were found to provide no guarantee of academic success and poor IELTS entry levels (5.5) did not necessarily lead to failure, despite weak correlations between reading scores and subsequent academic performance (Cotton & Conrow, 1998). Similarly, Dooley's studies at Curtin University found no evidence to suggest that students who did not meet an entry criterion of IELTS 6.0 were more likely to fail (Dooley, 1999, p177).

A number of other studies, however, have found generally positive (although sometimes weak or inconsistent) correlations between IELTS entry levels and Grade Point Averages (GPA). Feast (2002), for example, found a significant and positive relationship between English language proficiency and the performance of international students at university as measured by GPA, as did To (2000) in a study of Vietnamese students at Australian universities. Hill, Storch and Lynch (1999) found a moderately strong relationship between proficiency (as measured by IELTS) and academic success in the first semester of study but concluded that the overall predictive relationship between the two variables (as estimated by linear regression) was not strong. Kerstjens and Nery's (2000) study of 113 international students found positive but weak correlations between IELTS entry levels and academic performance, and studies by Ferguson and White (1993) and Bellingham (1993) both found that low IELTS scores correlate significantly with academic failure.

To date, therefore, the relationship between IELTS test results and subsequent academic performance remains hypothetical.

Gibson and Rusek (1992, p17) suggested that the contradictory results of these studies did not invalidate the proficiency rating but reinforces the fact that 'language skill is only one of the variables which predicts academic success', (cited in Feast 2002, p73). This highlights one of two serious limitations which intervene to make it difficult for most predictive studies to evaluate the extent to which a proficiency rating such as IELTS is able to select students appropriately: numerous variables intervene between English language proficiency and academic success. Consequently, most predictive studies based on language tests and their supposed ability to identify candidates who will succeed in subsequent studies can be criticised on the grounds that it is impossible to account for all the variables. As IELTS measures only English language proficiency, attempts to correlate test results with subsequent academic results that depend on a multitude of other factors (intellectual

ability, motivation, quality of teaching, learning style, acculturation, etc) will inevitably fail or, at best, be open to serious criticism.

In addition, most students who enter academic programs already have achieved a minimum proficiency set by the institutions (in terms of IELTS, this is generally 6 or 6.5 for entry to undergraduate or graduate studies), so there is not a spread of English ability (as measured by test scores) to correlate effectively with the spread of academic results obtained. Most predictive validity studies, therefore, have not been able to consider how well students with IELTS overall bandscores below 6.0 might have performed in the academic context. Studies by both Bellingham (1993) and Kerstjens and Nery (2000), appear to be the only studies involving a wider range of scores. Bellingham's study (cited in Feast, 2002, p73) included a number of participants with scores below IELTS 5.0. The study conducted by Kerstjens and Nery included participants with overall scores as low as 3.5 and individual bandscores as low as 3.0.

A number of studies have investigated the level of difficulty experienced by NESB students in coping with the English demands of their coursework. For example, qualitative data collected by Denham and Oner (1992), found little connection between IELTS Listening subtest scores and subsequent listening comprehension difficulties. Fiocco (1992 cited in Cotton & Conrow, 1998) also found no meaningful statistical relationship between IELTS scores and language-related coursework tasks, although her qualitative data did suggest that language proficiency was an important variable influencing academic outcomes (Cotton & Conrow, 1998, p78).

In contrast, Elder (1993), who extended her predictive validity study of test scores and academic performance to an investigation of their relationship with course language requirements, cautiously suggested that subtest scores may be able to predict subsequent language-related difficulties in coursework writing, reading and listening tasks.

Cotton and Conrow (1998) investigated the extent to which IELTS predicts the kinds of language difficulties experienced by international students while studying in Australia. Their study suggested that there was a relationship between IELTS scores and language-related coursework difficulties, with oral presentations, written assignments and academic reading identified as the most problematic language tasks. The amount of English language tuition received was found to be a key intervening variable, in addition to other factors such as motivation, cultural adjustment and welfare issues.

A study conducted by Kerstjens and Nery (2000) found generally positive attitudes in relation to the ability of students to cope with the language demands of their first semester of study, despite the difficulties they faced. Their study highlighted the challenges posed by language-based subjects, primarily due to the level of reading and the amount of prior knowledge they required (Kerstjens & Nery, 2000, p106). Again, the amount of English language assistance provided to students was considered to be a key intervening variable.

The findings of studies such as those outlined above contribute to debates as to whether the prescribed cut-offs in different institutional contexts have been set at an appropriate level, providing test-takers with the opportunity to demonstrate academic ability in their tertiary studies yet protecting them from failure due to inadequate language proficiency.

3 AIMS OF THE STUDY

Because of the many variables that influence academic performance, rather than focus on a hypothetical relationship between English language proficiency and academic success, the present study sought to focus on the extent to which IELTS test results were able to predict the actual language behaviour exhibited by students in the university context and the adequacy of that language for course-related tasks. Further, to obtain a more comprehensive investigation of language

behaviour, the study sought to include subjects from tertiary courses which allowed enrolment with an Overall IELTS Score of 5.5 (and some individual subscores as low as 5.0).

This study therefore initially set out to investigate the following research questions.

1. To what extent is the language behaviour implied by their IELTS scores reflected in the language behaviour (in all four macro skills) of university students during the first six months of their degree program?
2. To what extent is the language behaviour observed adequate for the study program being undertaken by the student?
3. Are there implications for raising or lowering common IELTS entry requirements for entry to undergraduate or graduate courses?

4 CONTEXT OF THE STUDY

4.1 Participants

A total of 28 international students were recruited from two tertiary campuses in Melbourne, Australia. All participants were enrolled in the first six months of a full-time academic program.

Half of the participants were drawn from different faculties and departments at The University of Melbourne, studying at all levels ranging from undergraduate to PhD. The minimum overall entry level to the courses in which participants were enrolled ranged from 6.5 to 7.0, with a specified minimum score in Writing which ranged from 6.0 to 7.0, according to faculty and course level. The remaining 14 participants were drawn from a postgraduate language-based course at Melbourne University Private (a small, internationally focused, corporate university, wholly owned by The University of Melbourne). The course had a minimum entry set at an overall IELTS score of 5.5 (or equivalent) with no subscore less than 5.0. (Note: Melbourne University Private was closed in December 2005, and its courses merged into different faculties at The University of Melbourne.)

The selection process varied between both institutions, and according to the attitude of individual faculties and departments. Participants from the private university (referred to as Arts students) volunteered for involvement in the study and a range of those volunteers was randomly identified according to IELTS results to provide a spread of proficiency levels. Participants from the public university included student volunteers and some participants who were initially identified by academic staff and subsequently invited to participate in the study. Participants were drawn from faculties including Education, Veterinary Science, Architecture, Physiotherapy, Dentistry and Medicine, with a spread of IELTS entry scores. See Table 1.

Of the total participant cohort, eight students were involved in undergraduate programs, 10 students were studying at the graduate certificate level, a further four students at the graduate diploma level, four were enrolled in masters programs and two students were enrolled in a PhD.

Participant	Nationality	Age	Gender	Institution	Course	Course level	Specified course entry level	Student IELTS score (overall) submitted for course entry	Place of test	Test date
1	Taiwan	25	M	MUP	Arts	PG	5.5	6.5	Melb.	Feb '05
2	Malaysia	19	M	UoM	Medicine	UG	6.5	7.5	Melb.	June '05*
3	PRC	23	F	MUP	Arts	PG	5.5	5	Melb.	Sep. '04
4	Japan	25	M	MUP	Arts	PG	5.5	6	Japan	Sep '04
5	Japan	26	F	MUP	Arts	PG	5.5	6.5	Melb.	Feb. '05
6	Taiwan	30	M	MUP	Arts	PG	5.5	6.5	Melb.	Feb '05
7	Botswana	19	F	UoM	Medicine	UG	6.5	7.5	Melb.	June '05*
8	Korea	30	F	MUP	Arts	PG	5.5	5.5	Melb.	Nov. '04
9	Malaysia	19	M	UoM	Dentistry	UG	6.5	7.5	Malaysia	Nov. '04
10	Malaysia	20	F	UoM	Dentistry	UG	6.5	8	Malaysia	Sep. '04
11	Thailand	24	M	MUP	Arts	PG	5.5	5.5	Melb.	Sept. '04
12	Hong Kong	33	M	MUP	Arts	PG	5.5	5.5	Melb.	Dec. '04
13	Korea	26	M	MUP	Arts	PG	5.5	5.5	Korea	Aug. '04
14	Thailand	23	F	MUP	Arts	PG	5.5	6	Thailand	Dec. '04
15	Japan	24	F	MUP	Arts	PG	5.5	6.5	Melb.	April '05
16	Japan	29	M	UoM	Dentistry	UG	6.5	6.5	Japan	June '00
17	Thailand	23	F	MUP	Arts	PG	5.5	5.5	Melb.	Dec. '04
18	Iran	29	M	UoM	Architecture	PG	6.5	6.5	Melb.	Feb '04
19	Indonesia	35	M	MUP	Arts	PG	5.5	6.5	Jakarta	June '04
20	PRC	27	F	MUP	Arts	PG	7	6.5	Melb.	Feb. '05
21	Korea	36	F	UoM	Education	PG	7	6.5	Melb.	Feb. '97
22	Korea	28	M	UoM	Physiotherapy	UG	6.5	6.5	Brisbane	Dec. '04
23	PRC	24	F	UoM	Education	PG	7	7	PRC	May '02
24	PRC	23	F	UoM	Education	PG	7	7.5	Melb	Feb. '04
25	PRC	20	F	UoM	Architecture	UG	6.5	6.5	PRC	Sep '04
26	Korea	30	F	UoM	Vet.Science	PG	6.5	6.5	Melb.	Aug '04
27	PRC	20	N	UoM	Physiotherapy	UG	6.5	6	PRC	Aug '02
28	Indonesia	25	F	UoM	Architecture	PG	6.5	6.5	Melb.	April '04

* denotes 'mock' IELTS test

Table 1: Participant details

4.2 Characteristics of the sample

There were 16 female participants and 12 males in the study, ranging from 19 to 35 years with the average age being 25.5 yrs. Participants came from China, Taiwan, Iran, Botswana, Malaysia, Japan, Indonesia, Korea and Thailand, with the vast majority of Asian origin. All students held a temporary study visa.

The living situations of students varied. Some were residing in home-stay situations and others with current or intended family members (spouse or relatives); however the majority were living in shared student accommodation (generally with other international students).

The English proficiency levels of the sample (based on the IELTS scores submitted with their applications for course entry) ranged from an overall IELTS score of 5.0 to an overall score of 8.0. The mean overall score of the sample was 6.43 (median 6.5). Subskill bandscores ranged from a minimum of 4.5 to a maximum of 9.0. In the case of four students a 'mock' IELTS test was conducted (with the permission of IELTS Australia) by a trained IELTS assessor. One student had

entered university study through a pathway other than IELTS so a mock test provided an IELTS equivalent rating; another student's IELTS results had been mislaid and could not be confirmed, so he was re-tested; a further two students were identified for a detailed discourse analysis, originally proposed to be part of the study. The IELTS test documents of these two students were not readily available because the test had been taken overseas, so they were re-tested in a 'mock' test situation to provide additional data for the analysis.

According to the students' IELTS scores, proficiency levels for students at The University of Melbourne (UoM) were generally higher than those of students studying at Melbourne University Private (MUP): the mean overall IELTS score of the former being 6.89 (with a median score of 6.5) and the latter being 5.96 (with a median score of 6.0). Figure 1 provides a comparison of the mean IELTS-rated proficiency levels of students according to institution.

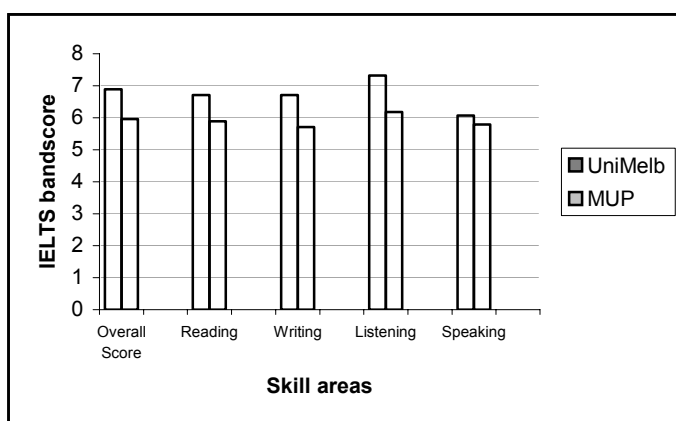


Figure 1: Comparison of IELTS proficiency mean scores between the two institutions

5 METHODOLOGY

5.1 Instruments

The following instruments were used for this study: pre-study questionnaires; semi-structured interviews with students and teaching staff; observation of students; tape recordings; video-taping; language behavioural descriptors; and IELTS scores.

Pre-study questionnaires (self-evaluations) were administered to all participants at the beginning of the study period. The questionnaire asked students to rate their own language behaviour in reading, writing, speaking and listening by selecting one description from a range of six options for each skill area. The descriptors for the questionnaire were developed with reference to the publicly available IELTS level descriptors, which were re-worded to provide examples of different types of language tasks relating to each of the skill areas and in relation to the academic context. Labelled alphabetically, from “a” at the lowest level to “f” at the highest level, each descriptor in fact represented an IELTS level from 4.0 at the lowest to 9.0 at the highest.

Table 2 (see next page) provides an example of the speaking descriptors in the self-evaluation questionnaires, matched against the equivalent broad IELTS band descriptors.

Self-evaluation questionnaire Speaking Descriptors	IELTS Band Descriptors (public)
<p>a. I feel confident speaking in simple face-to-face conversations, but I have difficulty in unfamiliar situations, such as using the telephone. Although I am able to talk about familiar things if I use simple sentences, I often don't know how to say what I mean. I usually have to stop a lot when I am speaking to think about what I want to say. I make a lot of mistakes in grammar, and often use the wrong words. Native speakers often can't understand my meaning.</p>	<p>4 Limited user Basic competence is limited to familiar situations. Has frequent problems in understanding and expression. Is not able to use complex language.</p>
<p>b. I can speak well in most familiar situations (such as talking to other students and in simple telephone conversations), but sometimes I can't express myself clearly or I don't use the right vocabulary. I am not always able to find other ways to say what I mean. When this happens I have to stop and think about what I want to say. Sometimes native speakers can't completely understand my meaning.</p>	<p>5 Modest user Has partial command of the language, coping with overall meaning in most situations, though is likely to make many mistakes. Should be able to handle basic communication in own field.</p>
<p>c. I speak well enough to feel confident in conversations on most topics, but I am not always able to express myself as clearly as I want to. Sometimes I don't know how to say exactly what I want or I don't know the correct vocabulary. When this happens I can usually find another way to say what I mean. Even though I often make mistakes, they don't usually confuse the listener.</p>	<p>6 Competent user Has generally effective command of the language despite some inaccuracies, inappropriacies and misunderstandings. Can use and understand fairly complex language, particularly in familiar situations.</p>
<p>d. I feel confident about my speaking in most situations, including complex discussions, and native speakers can normally understand me without difficulty. Occasionally, in some situations I make basic errors or say the wrong thing, but I am still able to express myself without difficulty.</p>	<p>7 Good user Has operational command of the language, though with occasional inaccuracies, inappropriacies and misunderstandings in some situations. Generally handles complex language well and understands detailed reasoning.</p>
<p>e. I speak English with competence and confidence in all situations, including complex discussions and arguments. My speech is almost completely fluent and accurate, although I occasionally make minor errors, particularly in unfamiliar situations. Native speakers have no difficulty understanding me and some would not realise that English is not my first language.</p>	<p>8 Very good user Has fully operational command of the language with only occasional unsystematic inaccuracies and inappropriacies. Misunderstandings may occur in unfamiliar situations. Handles complex detailed argumentation well.</p>
<p>f. I speak English just as well as native speakers. My speech is accurate and fluent, and native speakers can understand everything I say without difficulty. I am confident about my speech ability in all situations, (including social and academic discussions and arguments, oral presentations and speeches).</p>	<p>9 Expert user Has fully operational command of the language: appropriate, accurate and fluent with complete understanding.</p>

Table 2: Comparison of self-evaluation descriptors (Speaking) with IELTS broad descriptors (IELTS, 2003, p4)

Semi-structured interviews with student participants were held during the early stages of the study. The interviews contained a range of forced-choice questions supplemented by a number of open-ended items and were designed to elicit the extent to which the international students were coping with the language demands of their study programs. (Appendix A provides a sample of the questions posed to students). Questions related to levels of confidence in the academic context,

involvement in classes, interaction with peers and performance in assigned tasks. Due to the different nature of the class environment, different interviews were developed for each institution.

Semi-structured interviews with teaching staff at the two institutions sought to elicit information about each participant's performance in the learning environment, including perceived level of confidence, participation in class and interaction with peers, comprehensibility, perceived level of understanding and achievement (see Appendix B). Again, due to the slightly different nature of the class environment, different interviews were developed for each institution.

Observation of the student participants in a variety of learning contexts, including class seminars, group discussions, oral presentations, lectures, and both in-class and out-of class interactions with lecturers and other students. Three researcher/observers collected data for the study. One or two of these researchers observed each student in each teaching context. Researchers completed observation grids relating to spoken interaction, listening behaviour and peer response to each of the participants, in addition to compiling diarised notes which were recorded after each class observation. (Details of the in-class activities observed for each student are shown in Table 13).

Tape recordings of participants' spoken interaction in the various learning contexts were subsequently transcribed in order to provide samples of student language behaviour.

Video-taping of a small number of classes provided supplementary information about the level of student involvement and interaction in the learning context. Where video-recordings were made of class interactions, these were subsequently analysed and checked against observation notes and diary entries.

Language behavioural descriptors were developed for each of the four macro skills, focusing on key features of language behaviour in academic performance. These detailed descriptions were based on the publicly available IELTS overall bandscales (IELTS, 2003, p4) and informed by additional reference (with permission from IELTS Australia) to the individual IELTS Speaking and Writing assessment bandscales. These detailed descriptions were matched to IELTS band rating criteria, creating a scale against which researchers could measure the students' language performance and compare their language behaviour in academic contexts, with that implied in their IELTS scores. As these descriptors were informed by confidential IELTS rating bandscales, they are not provided in this report.

IELTS Scores which had been used by student participants to obtain entry to their courses.

5.2 Procedures

The study began in March 2005, at the commencement of the first semester of the academic year. Recruitment of participants commenced shortly thereafter. All participants were initially interviewed on an informal basis to determine their suitability for involvement in the research project (it was necessary for participants to have gained entry to their course on the basis of an IELTS test score). Of the initial 30 participants, two subsequently withdrew during the project, leaving a total of 28 participants for the full duration of the study.

The first questionnaire (Self-Evaluation) was administered to the students as soon as they had been recruited. Students were asked to read each description and select the one which, in their opinion, most closely described their English proficiency in that particular language skill. It was explained that this decision should be based on their performance when communicating in English with native speakers in the context of their university studies. Researchers observed each student individually as the self-evaluations were completed, to ensure that participants read the descriptors and made their selections based on language behaviour, rather than by counting the rating levels and attempting to position them as IELTS scores.

Observation of classes commenced shortly thereafter, and interviews with the students and their lecturers/tutors were conducted in the latter half of the semester to allow the students to experience the tertiary learning environment and also to enable those who taught the students to become familiar with them. During the interviews, respondents could view the questionnaire. Researchers clarified the meaning/intention of each question and the possible responses (where options were provided) to ensure that there was no confusion or misunderstanding among respondents, and provided additional explanation and assistance when required.

All participants were observed in the learning context by at least one researcher on at least one occasion, although in most cases participants were observed in a minimum of three classes. Activities observed included listening and note-taking in lectures and classes, participation in group discussions, pair-work and individual oral presentations as well as interaction with both peers and academic staff. All participant language was recorded in the class context, using either a lapel microphone or flat microphone. Some classes were videotaped for subsequent analysis of student interaction. When students were observed in lecture situations, the observing researcher took comprehensive notes against which the student's notes could be compared.

In the class context, researchers took notes and completed observation charts relating to the student's spoken interaction, listening behaviour and interaction with peers. These charts listed descriptors against which a range of different language behaviours (both speaking and listening) could be recorded in terms of nature, frequency and level of proficiency. After the data had been collected, spoken interaction was transcribed, then all data was analysed and rated against the language behaviour descriptors.

Throughout the data gathering and analysis process, the researchers were, as far as possible, unaware of the participants' IELTS scores. Two of the three researchers had no prior experience in IELTS testing and none of the researchers had access to the students' IELTS scores or to the language behaviour descriptors during the data collection/observation process. For the purposes of data analysis, student participants were allocated a random number (ranging from 1 to 28) and all tasks were analysed separately using a rating scale developed by researchers and based on IELTS assessment rating scales. Each task was analysed and rated twice, and on separate occasions by the researcher who had prior experience in IELTS testing.

5.3 Validity constraints

In addition to the occasional failure of audio-taping equipment, which slightly reduced the amount of data obtained, various problems encountered during the data collection period affected the research project in a number of ways. These are noted briefly below.

1. Resistance to the study by some faculties (on the basis of intrusive data collection procedures) meant it was not possible to involve participants from a wide range of faculties, departments and course levels. In particular, there were no participants from Law, Economics and Commerce or Arts at The University of Melbourne.
2. Although both institutions normally require an IELTS score up to two years prior to course entry, four participants had submitted scores obtained before then. It is possible that the delay between test date and university admission affected the relationship between implied language behaviour (on the basis of IELTS scores) and the actual language the students produced in the learning context.
3. The decision to close Melbourne University Private at the end of the year (2005) brought forward the completion date for the research project. This restricted the range of activities in which students could be observed and the amount of data collected, particularly reading proficiency levels, which were not observable in the class/tutorial/lecture situation. Therefore, despite the original intention to examine the language behaviour in

all four macro skills, the decision was made to omit reading skills from the final evaluations. This decision had a resultant impact on our capacity to fully address Research Question 1.

4. Because students were involved in different courses and at different levels, it was not possible to obtain a student sample which crossed all disciplines and, at the same time, experienced the same learning contexts. As a result, there was limited consistency in the type of classes in which participating students were observed.
5. A small number of students admitted they had sought assistance from the University of Melbourne's Language and Learning Skills Unit (LLSU) for one of their assignments. This assistance may have resulted in a researcher rating of writing proficiency which was not a true reflection of the writing ability of those students.
6. The interview with academic staff was somewhat problematic as a means of eliciting rich information about lecturer perceptions of students' performance. Many teaching staff at The University of Melbourne believed there had not been sufficient opportunity over one semester to become familiar with each student's academic performance or language behaviour, so those staff members could not be interviewed. In addition, a small number of the staff had not given students any written assignments and therefore could not respond to questions on the quality of the participant's writing skills or evidence of student research and range of reading.

It was therefore decided to refer to lecturer interviews with regard to Question 2 (adequacy of language behaviour for the study program) but not to refer to this information with regard to Question 1 (correlation between language behaviour exhibited and that implied by IELTS scores).

6 METHOD OF ANALYSIS

Self evaluations: Students' perceptions of their own language proficiency (gauged by their completion of the initial self-evaluation questionnaire) were tabulated for listening, reading, writing and speaking. For example, where students had awarded themselves the highest possible rank from the options provided (response "a"), this was rated as approximately equal to an IELTS score of 9. Similarly, where students had awarded themselves the lowest possible rank from the options provided (response "f") this was rated as approximately equal to an IELTS score of 5, and so on. A global band score was then calculated on the basis of these self-ratings. Each of these scores was then compared with the student's actual IELTS test score.

Student interviews: Data from the student interviews was entered into two databases, one providing an overview of each student participant and the other providing a collective record of all responses received. Quantitative data was numerically coded to enable graphic representation and statistical comparison. For example, where responses were on a four-step continuum, they were coded 0, 1, 2 or 3, with a score of 0 representing the poorest performance choice offered and a score of 3 representing the highest performance choice offered from the possible responses (see Section 7.2.5). Qualitative data was also entered into two databases, one for each student and one providing a collective record of additional comment or explanation provided by students in relation to each question. The data from interviews with academic staff were recorded in a similar fashion.

A descriptive or observational approach was adopted in the analysis of student language behaviour, focusing specifically on the language rated in the IELTS test and the language of the participants observed in the academic context. The recorded data from all 28 participants was transcribed. Essays, lecture notes, transcriptions and recordings of spoken interaction were analysed in terms

of the different rating sub-categories (grammatical accuracy etc) of the language proficiency descriptors for each of the different macro skills.

The detailed descriptions for analysis of students' academic language behaviour were developed at five different levels, based on proficiency levels 5.0 to 9.0 of the IELTS rating materials (with permission from IELTS Australia) and public descriptors. For ease of comparing student language behaviour against IELTS scores, each level of language behaviour on these descriptors was given a label of 5.0 to 9.0. This decision was based on an assumption that the students would have proficiency levels higher than 4.0 because both institutions required minimum individual bandscores of 5.0 or higher.

For each level of Spoken Interaction and Writing behaviour there were seven sub-categories (general language behaviour, pragmatics and register, pronunciation, content and meaning, fluency and coherence, grammatical accuracy and expression, and vocabulary). For each level of Listening behaviour there were six sub-categories (pronunciation was excluded from the listening descriptors).

On two separate occasions, each item of student data was individually analysed in a random order and rated against the different levels of the language descriptors to determine a proficiency level that most accurately reflected the different proficiency features of each piece of data. This progressively built a bank of information about the language being produced by each student in a range of different contexts. These results were then cross-referenced with the observational notes and charts completed by each researcher to form a collective overview of language performance for each skill area.

Because of the intrusion of too many uncontrollable variables (such as the behaviour of other students in the classes, the variable nature of different class types and the activities required, levels of embarrassment encountered by students due to researcher presence, and so on) it was decided not to use statistical correlations of the interview and observation data. Rather, a discursive approach was used to analyse and describe the students' spoken and written language as observed and recorded in the course of their university study programs. This included the transcripts of spoken interaction in classes, discussions and oral presentations as well as photocopies of lecture notes and assignments, each of which was analysed individually and rated against the language behaviour descriptors. Such features as syntax, language functions, range of lexis, language tasks, attitudes conveyed, organisation of information, interpersonal relationships and related linguistic forms were studied and documented. Analysis of each item of data was conducted twice. Following this, the findings for each macro skill were written up as a discursive analysis, which was then compared and matched to the detailed behavioural descriptions which had been developed, and also to the students' actual IELTS scores

Academic staff interviews: Data from the interviews with academic staff was entered into two databases, one providing an overview of each student participant and the other providing a collective record of all responses received. Quantitative data was coded in a fashion similar to that applied to student interview data, and a discursive description was prepared of lecturer comments on each student. This description was then rated against the detailed language descriptors to provide a 'lecturer's estimate' of student language behaviour.

7 RESULTS

7.1 Research question 1

To what extent is the language behaviour implied by their IELTS scores reflected in the language behaviour of university students during the first six months of their degree program?

This question was addressed by considering (i) the estimates made by student participants of their language proficiency, and (ii) researcher analyses of student language behaviour exhibited in the academic context.

The estimates made by the student participants indicated the students' perceptions of their language abilities, based on personal experience during the first six months of study in an English-speaking tertiary institution. Modelled on the global band descriptors published by IELTS (IELTS, 2003, p5), these self-ratings provided a gauge of measurement which could be directly compared with the students' actual IELTS scores.

In contrast, the researcher analyses identified samples of language behaviour that were actually exhibited by each student participant in the learning context. These samples of language were matched against the detailed descriptors we had developed, producing a language behaviour rating. As with the students' self-evaluations, this rating could be directly compared to the scores obtained by students in the IELTS test.

7.1.1 Participant self evaluations

Participants' estimates of their language proficiency, based on their experience of using English in the academic context and gauged by their responses to the self-evaluation questionnaire, were tabulated against the results their IELTS test results. The global and individual estimates provided by all 28 students, compared with their actual IELTS scores, are shown in Table 3 on the following page.

Overall proficiency estimates made by student participants ranged from being a full band (1.0) lower than the IELTS results they had received to 1.5 bands higher than the actual IELTS result. Of the total 28 participants, 10 students estimated their overall language proficiency (based on the self-evaluation descriptors) to be at a level that was higher than that implied by their global IELTS score; seven rated themselves at a proficiency level equal to that implied by their IELTS score, and 11 rated themselves at a lower level than their IELTS score suggested.

Table 4 (see next page) shows the mean difference between the IELTS score and the students' self-evaluations overall, and for each macro skill. The table also illustrates the variability of the differences in terms of the standard deviation. Columns 1 and 2 show the maximum variations in estimates made by participants of their English language proficiency when compared to the actual score they had received in the IELTS test. The variations ranged from two bands lower than the actual IELTS score to two bands higher. Columns 3 and 4 show the mean and standard deviations for all 28 students. The range of differences roughly corresponds to four times the standard deviation.

As can be seen, the mean difference between the students' perceptions of their language proficiency and those indicated by their IELTS scores are small, particularly the overall proficiency rating, however some of the individual differences are substantial. In column 5, a 95% confidence interval for the mean difference (IELTS minus self-rating) is given; this provides a range of 'true' mean differences consistent with the mean difference observed. For the overall self-assessment, for example, the 95% confidence interval for the mean difference is -0.28 to 0.32 . This describes underlying mean differences that could have generated the small mean difference observed. This confidence interval is relatively narrow, suggesting there is reasonable accuracy in estimating the mean consistency of the ratings.

Participant	IELTS overall	Self-eval overall	IELTS Reading	Self-eval Reading	IELTS Writing	Self-eval Writing	IELTS Listening	Self-eval Listening	IELTS Speaking	Self-eval Speaking
1	6.5	8	6	8	7	8	7	8	6	7
2	7.5	6.5	7.5	6	7	6	7.5	7	7	6
3	5	6	4.5	6	5	6.5	5.5	5.5	5	6
4	6	6	6	6	6	6	6	6	6	6
5	6.5	6	6	5	6	6	6	6	7	6
6	6.5	7	7	7	7	7	6	7	6	7
7	7.5	7.5	7	8	7	8	8.5	8	8	6
8	5.5	5	5.5	5	5	4	5.5	5	5	5
9	7.5	8.5	7.5	8	8	8	8	9	7	8
10	8	7.5	8	9	7	5	9	9	8	6
11	5.5	6	5.5	6	5	6	6	6	5	5
12	5.5	4.5	6.5	5	5	5	6	4	5	4
13	5.5	5.5	5	5	5	6	6	5	5	6
14	6	7.5	5.5	7	7	7	6.5	8	6	7
15	6.5	7	5.5	7	6	7	7	7	7	7
16	6.5	6.5	7	6	6	6	6	7	5	6
17	5.5	5	5.5	5	5	4	5.5	5	6	5
18	6.5	7	6	7	6	7	7.5	7	7	7
19	6.5	7.5	7	8	5	7	7	8	6	7
20	6.5	6.5	7	7	6	6	6.5	6	6	6
21	6.5	6.5	6	7	6	6	7	7	6	6
22	6.5	5.5	6.5	6	7	6	7	5	6	5
23	7	6	8	6	7	6	7.5	6	6	6
24	7.5	6.5	7	6	7	7	8	7	7	6
25	6.5	5.5	7	6	6	6	7	5	6	5
26	6.5	6	5	7	7	6	6.5	5	7	5
27	6	6.5	5.5	7	6	7	5.5	7	7	6
28	6.5	6.5	6	7	7	6	7.5	7	6	7
Mean	6.45	6.43	6.30	6.54	6.21	6.27	6.75	6.52	6.21	6.04

Table 3: Participant language proficiency evaluations compared with actual IELTS scores

Area of competency	Maximum variation below IELTS score	Maximum variation above IELTS score	Mean difference (IELTS minus self rating)	Standard deviation (IELTS minus self rating)	95% confidence interval for mean difference
Global	-1.0	+1.5	0.04	0.74	-0.28, 0.32
Reading	-2.0	+2.0	-0.23	1.14	-0.68, 0.21
Writing	-2.0	+2.0	-0.05	0.95	-0.42, 0.31
Listening	-2.0	+1.5	0.23	1.02	-0.16, 0.63
Speaking	-2.0	+1.0	0.18	1.02	-0.22, 0.57

Table 4: Student self-analysis of language proficiency in comparison to IELTS scores (N=28)

Despite the small mean differences for the group (as shown in Table 3), for individual participants there is quite a broad range of variability in the self-assessment of linguistic proficiency compared to the proficiency implied by their IELTS scores. Almost 36% of respondents rated their language

behaviour at a higher level (than that implied by their IELTS scores) and just over 39% rated themselves at a lower level, based on overall results.

As the questionnaire asked the students to rate their language behaviour in terms of what they could or could not 'do' with English, their self-ratings were based on real life experiences of using the language, including experiences in the early stages of tertiary study (eg, reading questions related to the understanding of complex texts, including academic textbooks and course reference materials, the comprehension of technical terms and cultural references).

7.1.2 Language analyses

Researchers observed student participants in the academic context, recording language behaviour on observation charts and in diary form. They also noted the attitudes conveyed by the participant; interpersonal relationships with other students; and both tutor and peer responses to the participant. Subsequent analyses of these records were matched against transcripts of student language in the classroom context, students' lecture notes and written assignments. The analyses resulted in a discursive description of each student's language behaviour in the learning context, including features such as syntax, language functions and tasks, content and meaning, fluency and coherence, pronunciation, range of lexis, organisation of information, class involvement, pragmatic awareness and register. Without knowledge of the students' actual IELTS scores, researchers then matched these language features to corresponding categories in the detailed behavioural descriptors which had been developed for Writing, Listening and Spoken Interaction. Due to a lack of observable data, the Reading descriptors were not used.

As mentioned, for each macro skill there were five levels of the descriptors (ranging from a rating of 5.0 at the lowest to 9.0 at the highest level) with a number of categories of language behaviour within each level. Because student language was rated separately for each category, it was possible that ratings would be better in some areas of language use than others, resulting in a jagged profile of language behaviour for each macro skill.

After completing the analysis, if the student's language behaviour across all categories predominantly matched one particular rating level, he/she was awarded that score as the rating for the associated language skill (even if one or two categories rated higher). However, if the student's language behaviour was predominantly above one rating level, but not consistently fitting the profile of the level above, a half-point was added to the lower level. An overall rating for each student was reached by averaging the three scores awarded for speaking, writing and listening and adjusting it up or down after considering the student's IELTS Reading test result, (recall, there was inadequate data for a reading evaluation, so the actual IELTS Reading test result was taken as a true score). The resultant ratings for each student were then compared with their original IELTS Test scores. These results are shown in Table 5.

It should be pointed out this process was not an attempt to award an 'IELTS score' but, rather, to apply a parallel language behaviour rating enabling a comparison of behaviour in the academic context to the language behaviour implied by the students' actual IELTS test scores.

Reference to Tables 5 and 6 shows that, for the 28 participants, researchers found that (based on overall scores) 25 students were rated at a level which suggested language behaviour that equalled or exceeded that implied by their overall IELTS rating. The overall rating awarded to three students was at a level one half-band (0.5) lower than that of their IELTS global score, (participants 2, 5, and 17). When considering this however, it should be noted that when the study was conducted, the IELTS Test did not award half-point scores for Speaking, which we rated at a lower level for all three participants. Also, the ratings awarded by researchers reflected the lowest consistently exhibited level of language behaviour, even if examples of higher levels were evident.

Participant	IELTS overall score	Researcher overall rating	IELTS Writing	Researcher Writing	IELTS Listening	Researcher Listening	IELTS Speaking	Researcher Speaking
1	6.5	6.5	7	6.5	7	7	6	6.5
2	7.5	7	7	7	7.5	7	7	6.5
3	5	5	5	5	5.5	5.5	5	4.5
4	6	6	6	6	6	6	6	6.5
5	6.5	6	6	6	6	6	7	6.5
6	6.5	6.5	7	6.5	6	6	6	6
7	7.5	7.5	7	7	8.5	8	8	7.5
8	5.5	5.5	5	5	5.5	5	5	5.5
9	7.5	8	8	8	8	8	7	7.5
10	8	8	7	7	9	9	8	8
11	5.5	5.5	5	5	6	6	5	5
12	5.5	5.5	5	5	6	6	5	5
13	5.5	6	5	6	6	6	5	6
14	6	6.5	7	7	6.5	6.5	6	7
15	6.5	6.5	6	6	7	7	7	7
16	6.5	6.5	6	7	6	6	5	6
17	5.5	5	5	5	5.5	5	6	5
18	6.5	7	6	7	7.5	7	7	7
19	6.5	6.5	5	5	7	7	6	6.5
20	6.5	6.5	6	6	6.5	7	6	6
21	6.5	7	6	7	7	7	6	7
22	6.5	6.5	7	7	7	6.5	6	5.5
23	7	7	7	7	7.5	7	6	7
24	7.5	7.5	7	7	8	8	7	7
25	6.5	6.5	6	6	7	7	6	6
26	6.5	6.5	7	7	6.5	7	7	7
27	6	6	6	6	5.5	6.5	7	6.5
28	6.5	6.5	7	7	7.5	6.5	6	6.5
Mean	6.45	6.46	6.21	6.32	6.75	6.66	6.21	6.39

Table 5: Researcher scores of student language behaviour compared with IELTS scores

IELTS Level	N	Estimate range	No of higher estimates	No of equal estimates	No of lower estimates
5.0	1	5.0		1	-
5.5	5	5.0 – 6.0	1	3	1
6.0	3	6.0 – 6.5	1	2	-
6.5	13	6.0 – 7.0	2	10	1
7.0	1	7.0	-	1	-
7.5	4	7.0 – 8.0	1	2	1
8.0	1	8.0	-	1	-
	28	5.0 – 8.0	5	20	3

Table 6: Frequency of overall score variations – researcher estimates

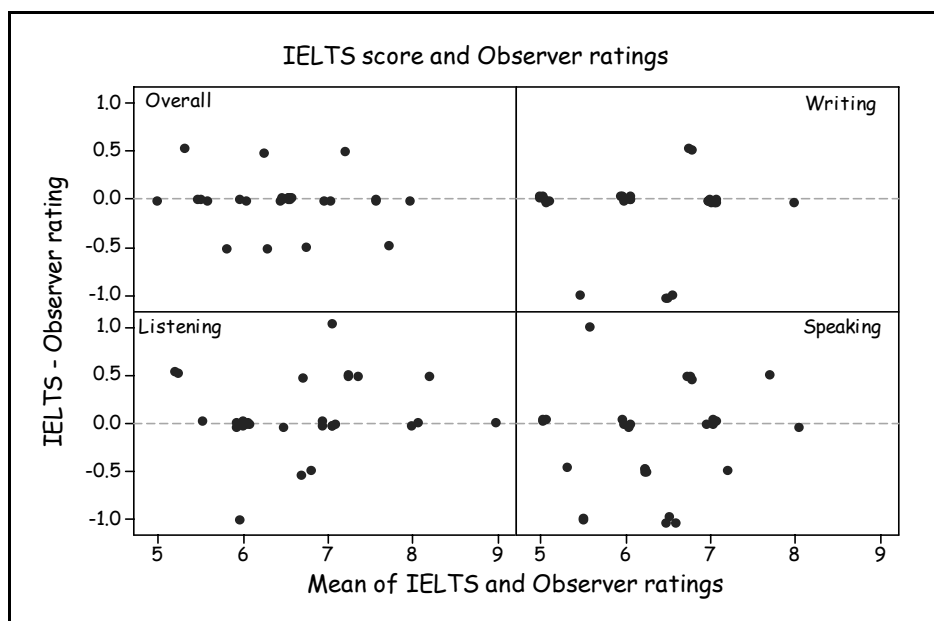


Figure 2: Agreement between IELTS score and researcher ratings

Figure 2 provides a plot of the difference against the average of these two scores, a line at zero indicating where the two scores correspond exactly. (It should be noted that, in interpreting the scattergraphs, dots are plotted according to individual student data. If students have identical data, the dots representing their data may be plotted in precisely the same position, therefore appearing as a single data point. Where possible, these plots have been jittered marginally to make all points visible. However, there may be instances in which some dot points overlap).

Variations in the language behaviour scores are provided in Table 7. Overall estimates made by researchers ranged from being 0.5 band lower than the IELTS results participants had received to 0.5 band higher than the actual IELTS result. Individual band scores ranged from 0.5 band lower than the participant’s actual IELTS result to one full band higher.

Area of competency	Maximum variation below IELTS score	Maximum variation above IELTS score	Median rating	Mean difference (IELTS minus researcher rating)	Standard deviation (IELTS minus researcher rating)	95% confidence interval for mean difference
Global	0.5	0.5	6.5	0.0	0.3	-0.1, 0.1
Writing	0.5	1.0	6.5	-0.1	0.4	-0.3, 0.1
Listening	0.5	0	6.75	0.1	0.4	-0.1, 0.2
Speaking	0.5	1.0	6.5	-0.2	0.5	-0.4, 0.0

Table 7: Researcher analyses of language proficiency in comparison to IELTS scores (N=28)

Columns 1 and 2 of Table 7 show the maximum variations in estimates made by researchers of the participants’ English language behaviour when compared to the actual proficiency score they had received in the IELTS test. Column 3 shows the median rating for all 28 students. Column 4 shows the mean difference between the students’ actual IELTS scores and the researchers’ ratings overall

and for each macro skill (excluding Reading). Table 7 also illustrates the variability of the differences in ratings in terms of the standard deviation.

As can be seen from Figure 2 and both Tables 6 and 7, the differences between researcher ratings and the students’ actual IELTS scores are very small, with less variability in the differences between ratings and IELTS scores than was the case for the students’ self-evaluations. (Recall, researchers awarded their ratings without knowledge of the students’ actual IELTS scores).

7.1.3 Agreement between student and observer perceptions

There is only a small difference between the mean of participant self-evaluations (a mean overall score of 6.43 – see Table 3) and that of the researcher/observer ratings (a mean overall score of 6.46 – see Table 5). However, there were considerable differences between the self-evaluations of individual students in comparison to the ratings awarded to them by the researchers.

Table 8 shows that the agreement between student and researcher evaluations was best for the overall score and worst for speaking, where the students, on average, rated themselves lower than did the researchers. Although the mean differences were relatively small, the limits of agreement, shown in Table 9, were between a bandscore of 1.0 and 2.0 higher or lower than the students’ actual IELTS scores. This is similar to the limits of agreement between student perceptions and the IELTS scores.

Area of competency	Mean difference (IELTS – Self rating)	Standard deviation (IELTS – Self rating)	95% confidence interval for mean difference
Overall	0.0	0.7	-0.3, 0.2
Writing	-0.1	1.0	-0.4, 0.3
Listening	-0.1	0.5	-0.3, 0.1
Speaking	-0.4	0.8	-0.7, -0.1

Table 8: Comparison of students’ self rating and observers’ ratings

Area of competency	Upper limit of agreement	95% confidence interval for upper limit	Lower limit of agreement	95% confidence interval for lower limit
Overall	1.3	1.1, 1.6	-1.4	-1.7, -1.1
Writing	1.9	1.5, 2.2	-2.0	-2.3, -1.6
Listening	0.9	0.7, 1.1	-1.0	-1.2, -0.8
Speaking	1.2	0.9, 1.5	-1.9	-2.2, -1.6

Table 9: Limits of agreement between students’ self rating and observers’ ratings

These figures show that although the researcher ratings and those of the student participants differed, both groups rated the students’ language behaviour at a level that was quite close to the students’ actual IELTS scores.

7.1.4 Research question 1: Summary of findings

Although the self-evaluations of the student participants did not provide direct evidence of their language behaviour, they did provide useful information about their perceptions of their language abilities after having spent one to three months studying in an English-speaking context. Of the 28 participants, 25% rated their overall language abilities at a level equal to that implied by their IELTS scores. Of the remainder, 36% rated themselves at a higher level and 39% at a lower level, with the overall variations ranging from two bands lower for individual macro skills to two bands higher than their IELTS scores. Despite these extremes, however, the group’s mean variation was small,

particularly for the overall result, indicating that the students, on average, rated their linguistic performance relatively consistently with the language behaviour predicted by their IELTS scores. The limits of agreement, however, ranged from -1.5 to $+1.5$. A difference of this level on the IELTS rating scale is significant, indicating that although the group, on average, had relatively close perceptions of their language proficiency (in relation to their IELTS scores), some students had very different perceptions of their language strengths and/or weaknesses to those suggested by their IELTS results.

The researcher analyses of student language behaviour led to 89% of the group being rated at a level equal to, or greater, than that implied by their IELTS scores. The remaining 11% were rated at a marginally lower level. However, in view of the different rating system applied, and particularly in view of the fact that the IELTS Speaking test did not apply the same half-point rating the researchers had used, this difference was not surprising. It is interesting to note that in seven of the eight instances in which the overall researcher rating varied, there was also a variation in Speaking. The limits of agreement ranged from -0.5 to $+0.5$, indicating a perception of student language behaviour that matched the IELTS scores more closely than did the student self-evaluations.

The statistical analyses indicated that although the researcher ratings and those of the student participants differed, both groups rated the students' language behaviour at a level that was quite close to the students' actual IELTS scores. However, the ratings given by the researchers had the highest level of agreement with the students' actual IELTS bandscores, particularly the overall result.

The findings suggest that IELTS scores can quite accurately predict students' language behaviour in the first six months of their study program but that individual students might perceive their language proficiency levels quite differently.

7.2 Research question 2

To what extent is the language behaviour observed adequate for the study program being undertaken by the student?

This question was addressed by considering (i) the responses to the student interview questionnaire, (ii) the interview responses from tutors and lecturers, and (iii) notes recorded by researchers as they observed students in the academic context.

The interviews provided information relating to the language tasks required of students as well as both student and lecturer perceptions about each participant's language performance in the academic context, including language adequacy, level of confidence, level of participation and academic success. The researcher observation notes provided additional information regarding the way the students were behaving and interacting in an English-speaking study environment.

7.2.1 Language tasks

The interviews asked student participants and their tutors/lecturers to identify the types of tasks and activities they were regularly required to undertake as part of their university program during the first semester of enrolment. The results from all interviews were cross-matched to provide an overall picture of the language demands of each faculty/subject area. Table 10 on the following page shows the different tasks required of students according to faculty.

	Undergraduate, Grad Cert, Grad Dip. & Masters level				PhD level	
	Architecture	Education, Humanities/ Language	Dentistry	Medical Sciences	PhD Non-Science	PhD Science-related subjects
Listening & note-taking	√	√	√	√	√	
Following spoken instructions	√	√	√	√	√	√
Following written instructions	√	√	√	√	√	√
Group discussions/ tutorials	√	√	≈	√	√	√
Oral presentations	√	√		√	√	√
One-to-one meetings				√	√	√
Reading textbooks, literature &/or journal articles	√	√	√	√	√	√
Conducting internet & library research	√	√	√	√	√	√
Writing essays	√	√	√	√	√	
Writing reports	√	√	√	√	√	√
Writing summaries		√		√	√	√
Diary records or journals	√	√	√			√
Working with others in a laboratory			√			√
Practical experience involving native speakers			√	√		√

Key: √ = Yes ≈ Equivalent activities (similar linguistic demands)

Table 10: Language tasks according to faculty and study level (first semester of study)

All undergraduate and PhD non-science students were required to participate in listening and note-taking activities, either through attending lectures and tutorials (at PhD level, this involved the option to audit classes) or through clinical/practical sessions, listening to audiotapes or watching videos. In addition, following spoken instructions was a listening activity that all students regarded as an important component of their course, at all levels of study.

Conducting internet and library research and reading textbooks, literature, course materials and journal articles were requirements for all students in the first semester.

Although Dentistry students indicated that they did not participate in group discussions and tutorials, they did attend vocational training (role-play) sessions which included tutor-led discussion and problem-solving. Dentistry, Veterinary (Science) and Medical students were also required to work co-operatively in laboratory experimentation with other students and both Dentistry and Medical Science (Medicine and Physiotherapy) students undertook hospital-based practical activities or observations involving professional staff and members of the public. Students in all subject areas apart from Dentistry, and at all study levels, were also required to deliver oral presentations in their first semester of study.

A range of written tasks were required of students, including essay writing in all undergraduate and masters level courses (although not in all subjects), writing summaries in Humanities and Medical/Science subjects, including extensive summary writing at PhD level, and the maintenance of

a journal or diary in Architecture, Humanities and Dentistry, as well as postgraduate-level Science to record the results of experiments.

7.2.2 Student interviews – group findings

The interviews administered to both student groups had a number of identical questions relating to a variety of language skills, supplemented by additional questions which related specifically to the learning context of each institution.

The responses to these questions provided the researchers with information about the students' experiences in the academic learning context and an indication of how well they believed they were coping in that environment. The results are presented in terms of responses relating to the individual macro skills and overall language adequacy for study in English.

7.2.2a Student interviews: group findings – Speaking

Students' reported confidence in four different areas of speaking as summarised in Figure 3 below. These data relate to Questions 6, 7, 9 and 16 on the student questionnaire. Confidence was expressed in a variety of response options (eg, very confident, quite confident), as was lack of confidence (eg, not very confident, a bit anxious, and so on).

The responses were coded to provide a numerical expression of confidence (in principle ranging from 0 to 5) to indicate the level of confidence in speaking expressed in each student's response. Figure 3 shows the proportion of students expressing confidence in each context (confidence expressed via a response of either "quite confident" or "very confident"). The level of confidence in speaking was lowest for initiating discussions with teaching staff and highest for speaking outside of the class context. As can be seen, over 60% of respondents expressed confidence in all four context areas.

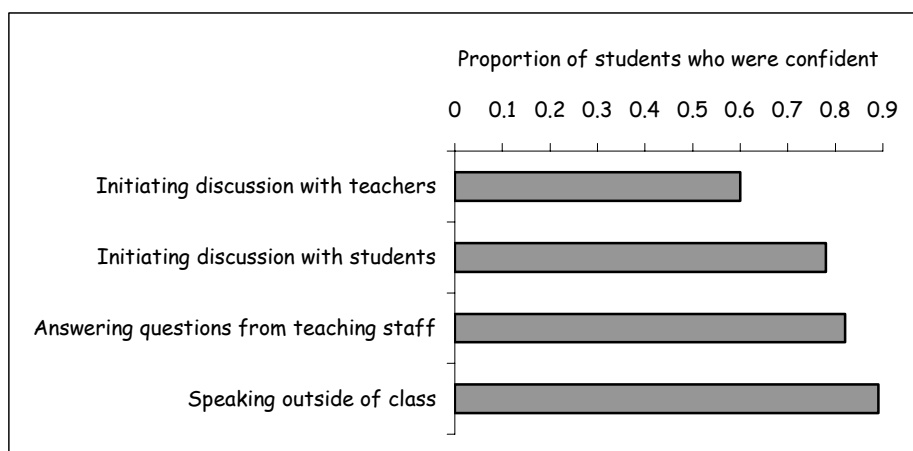


Figure 3: Student confidence in speaking

The coded responses were also tabulated against the students' IELTS Speaking scores. Figure 4 (see next page) shows the relationship between these scores and the level of confidence students expressed when using English to speak in different situations. The figure shows that there is no clear relationship between student confidence in speaking and IELTS scores, with respondents at each proficiency level, from 5.0 to 7.0, responding differently about their confidence using spoken English in each of the four different contexts. Only at a speaking proficiency level of 8.0 did students feel completely confident in all speaking situations.

Although confidence is caused by many variables (eg, connected to personality factors, personal and life experiences, level of acculturation, gender and age), analysis of the comments made by the students indicated that concern about language accuracy was the major reason for reduced confidence in speaking, particularly when initiating conversations with tutors and lecturers. Typical of the responses to this question were the following: *I know they (lecturers) are using perfect English, so I am anxious and I lose confidence, so my language deteriorates*. Additional comments indicated that the different cultural situation might also influence student attitudes to interaction with teaching staff, (eg *In Korea I don't usually do this. Korean students have different relationships with teachers* – participant 13). Respondents also indicated a level of embarrassment at needing to ask questions, particularly to or in front of other students.

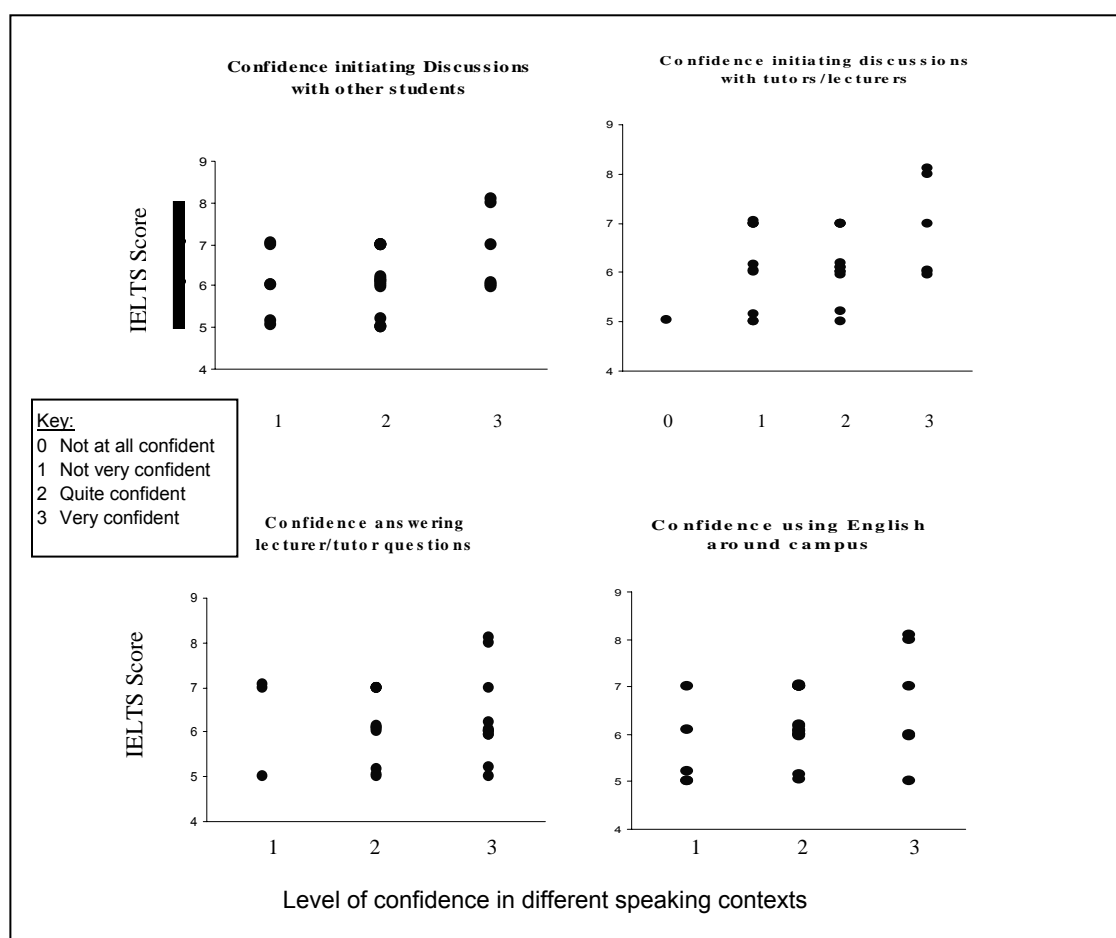


Figure 4: Student responses in speaking tasks relative to IELTS scores

Students reported greater confidence in responding to lecturer questions than in approaching the lecturers to initiate discussions or ask for information. This confidence was directly related to levels of student knowledge (ie, they were confident if they knew the answer to the question). Typical of student responses was the statement: *If I know the topic I'm quite confident, but if I don't know the topic, I'm not very confident* (participant 9). However, responses indicated that there were levels of anxiety about speaking before an audience (*I'm not at all confident about answering questions in a lecture* – participant 2) and grammatical accuracy, (eg *I need knowledge to answer the question and at the same time I must organise my language, so it needs you to do two things at the same time, so it's difficult* – participant 12).

Although the students were predominantly confident about initiating discussions with other students using the English language (78% of the group), there was nevertheless some hesitation because of linguistic inaccuracy (*Sometimes I feel bad about making mistakes* – participant 13). This was the situation in both university contexts, regardless of the nationality of the students' peers. Indications were that, although a small number of The University of Melbourne students were beginning to have conversations with local students (native-English speakers), there was generally little interaction between the participants and native speakers, whereas there was greater interaction between non-native speaking students. However, there were also indications that, over time, these students were gaining confidence in speaking in English with native-English speaking peers.

The highest level of student confidence in speaking English was for general communication around the university campus, eg in the cafeteria or library. In these non-academic situations students did not seem to be as concerned about their language accuracy, even if they thought their English was poor. Most students (64%) indicated that campus staff could understand them without asking for repetition or offering assistance. Despite some level of anxiety and embarrassment, just under half of the students (12, or 43%) were glad to try to use English around the campus, while a further 12 respondents indicated that they felt no embarrassment at all in these situations. Respondents generally indicated that they were increasing in confidence over time, particularly in informal situations.

When asked about their general ability to express themselves (Question 3, clarified to students as 'being able to say what you want to say'), most respondents (68%) indicated that they experienced little or no difficulty in this regard (57% and 11% respectively). Although it might be expected that students with a low proficiency level (5.0) may be inclined to find self-expression difficult and those with a high speaking proficiency level (over 6.5) may find speaking tasks easier, this was not reflected in individual responses. The two respondents who indicated that self-expression was a very difficult task both had a Speaking score of 5.0, while other students with the same score claimed they did not find it difficult. Similarly, respondents with an IELTS Speaking score of 7 said they found it quite difficult to express themselves and two students with a Speaking score of 6.0 indicated that they had no difficulty at all.

The students' responses indicated that the ability to express themselves was due to confidence in grammar, vocabulary and pronunciation, particularly if they were familiar with the topic of discussion. For those who found self-expression difficult, the primary reasons were embarrassment about pronunciation and lack of vocabulary, although there was also an indication that NESB students are conscious of cultural differences, (eg, *In Taiwan I didn't express my opinion, but I can express my opinion here because the teaching methods are different* – participant 1).

Responses also indicated that the students were developing strategies for situations where they needed to express themselves in class or general conversation. For example, *I check out their faces, and if they don't understand I explain again* – participant 6; and *If my grammar and vocabulary are not good enough, I can find a way to say what I want* – participant 14.

In summary, the results indicated that there was no relationship between IELTS Speaking scores and students' perceptions of their speaking proficiency or their confidence in using English to interact in a range of different situations within the university context.

7.2.2b Student interviews: group findings – Listening

Questions which related to listening referred to comprehension of lectures, classroom discussions and peer conversations, understanding of tutor/lecturer questions and causes of difficulty in listening.

Most students indicated that they could understand all, most or a lot of the content of classes and lectures as well as the discussions that took place in class (75% and 93% respectively, see Figure 5), describing a lot as 70-80% of the content when asked to clarify what this meant. Respondents indicated they experienced difficulty if the lecturer did not adjust his/her speech for native speakers. In particular, the speed and accent of teaching staff was cited as a major source of difficulty. Other problems cited included distraction and fatigue in lectures (as a result of having to concentrate) and the confusion caused by trying to understand discussions when other students were all talking at the same time. Again, respondents indicated that over the course of the semester their listening comprehension had begun to improve.

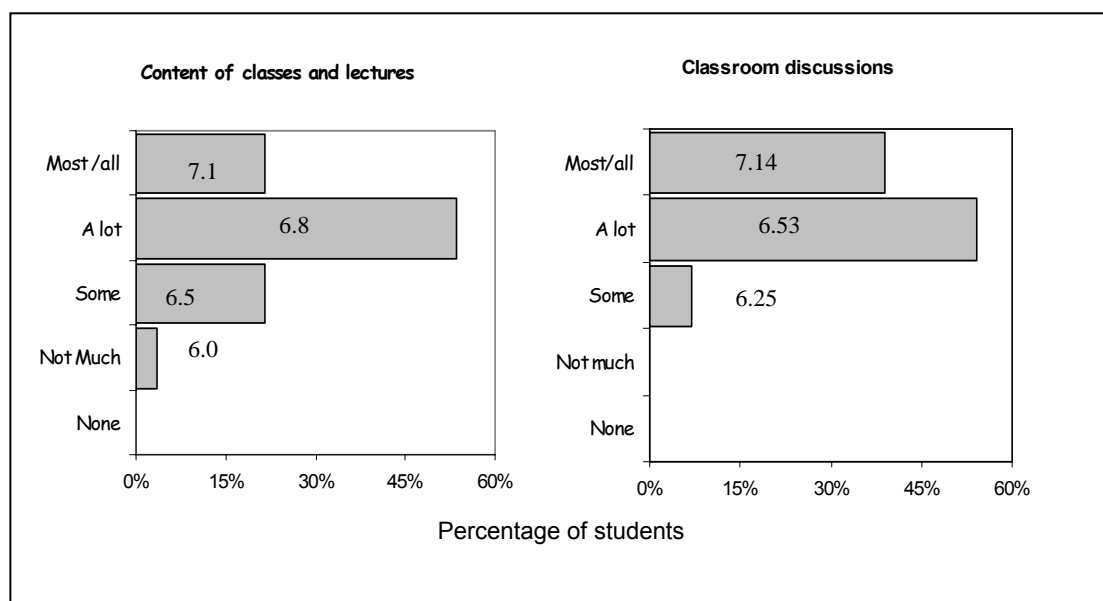


Figure 5: Mean IELTS Listening results for each level of listening comprehension

Initial analysis of the results suggested that there was a correlation between students’ IELTS Listening scores and their ability to understand the content of lectures, classes and general discussions in class. The mean score of respondents at each level of comprehension is shown in Figure 5, indicating that the mean IELTS Listening Score was highest for the respondent group which understood ‘most/all’ of the content in tutorial classes, lectures and class discussions, and lowest for students who understood less. This suggested that students with an IELTS Listening score below 6.5 would have more difficulty coping.

However, closer analysis of the data (when the coded results to these two questions were plotted against the students’ IELTS Listening scores) indicated that there was not, in fact, any obvious relationship between IELTS Listening scores and the amount of understanding of classes and discussions, according to the participants (see Figure 6 on the following page).

In an additional question on listening comprehension, the majority of respondents (68%) stated that they always or usually understood questions posed by teaching staff. The remaining 32% stated they sometimes understood these questions, any difficulty related to vocabulary.

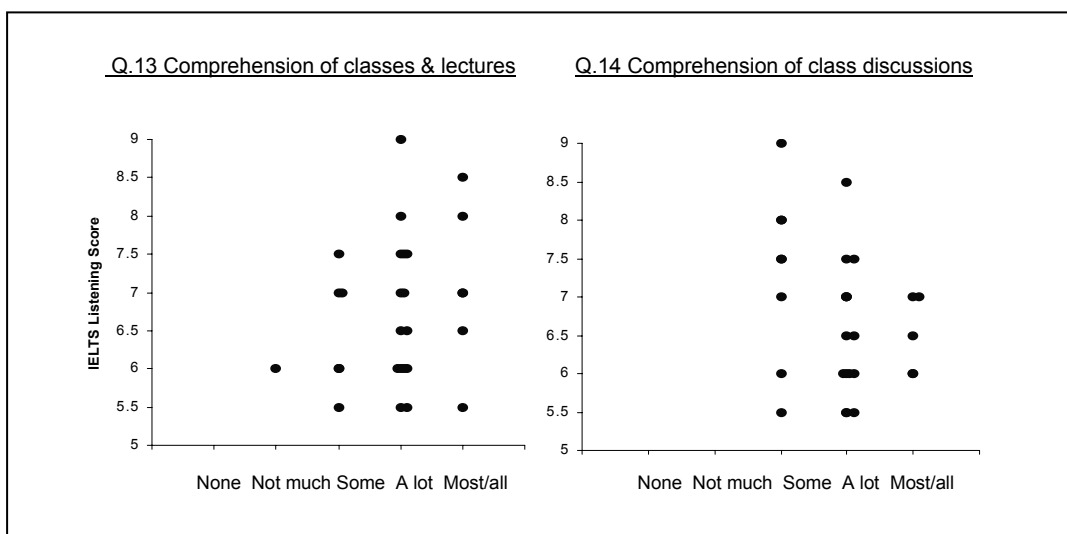


Figure 6: Level of listening comprehension according to individual IELTS scores

When listening to classmates speaking, students experienced greater difficulty. Most students (86%) understood their peers either very easily or quite easily (25% and 61% respectively), regardless of whether they were native English speakers or NESB students. However, 14% of respondents (all of whom were students at The University of Melbourne) indicated that they had trouble understanding the conversations of other students, primarily because of their accents, the speed of their speech and their use of idioms. In particular, social conversations were cited as problematic (as opposed to academic conversations).

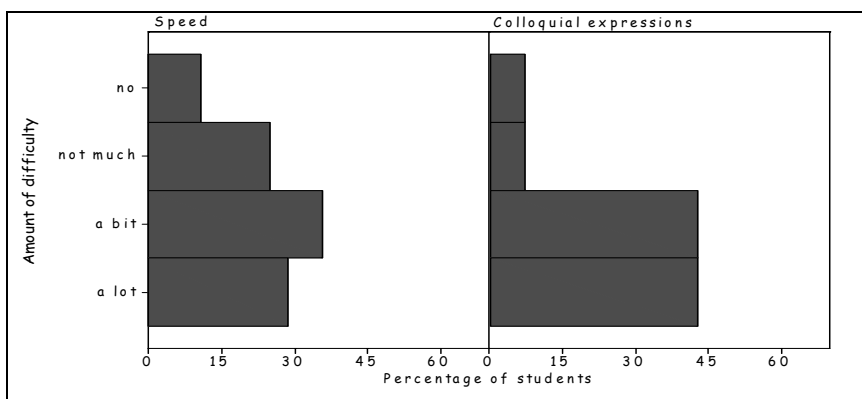


Figure 7: Listening difficulty caused by native-speaker speed and colloquial expressions

The majority of student respondents said they encountered problems with native speaker speech because of speed and the use of colloquial expressions (see Figure 7). Speed was less problematic than colloquial expressions, partly because many native speakers accommodated their speech to the students, (eg: *They don't speak too fast when they speak to me* – participant 23; and *They speak more slowly for me* – participant 14).

Respondents also indicated that their ability to understand rapid speech was improving over time. However, as can be seen from Figure 7, the vast majority of respondents (86%) experienced difficulty with comprehension of idiomatic speech.

When plotted against IELTS scores (Figure 8) it was apparent that there was a correlation between high IELTS scores and reduced difficulty with listening, particularly in relation to colloquial expressions.

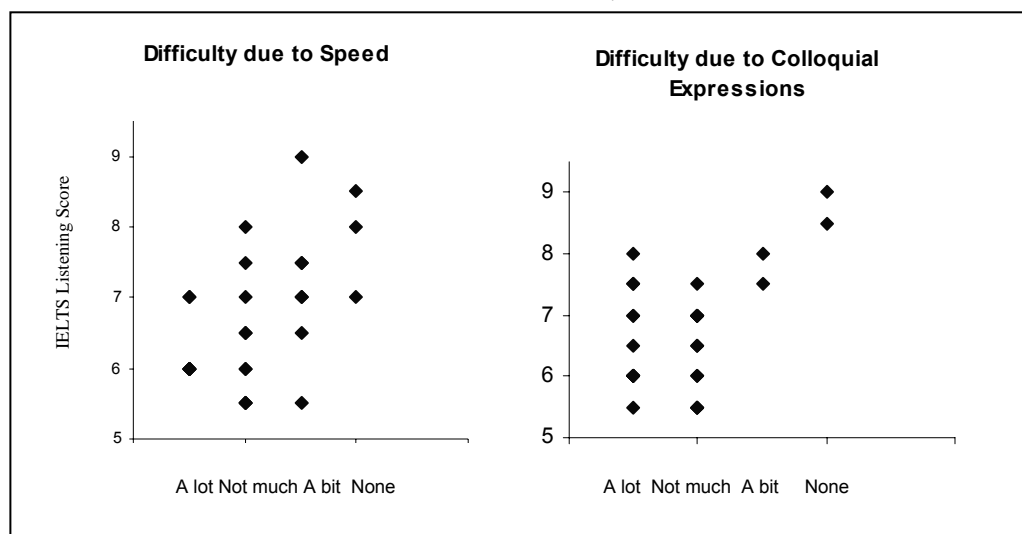


Figure 8: Listening difficulty caused by native-speaker speed and colloquial expressions in relation to IELTS scores

In summary, there was no general correlation between IELTS Listening scores and student perceptions of their listening comprehension, although students with higher proficiency level found native speaker colloquial expressions less problematic.

7.2.2c Student interviews: group findings – Writing

Student participants were also asked about the degree of difficulty they experienced in completing writing tasks and the level of success they had achieved in those tasks. Although some students had not been required to submit written assessment for all subjects, they had all been required to write essays, summaries or reports on clinical experiences.

Of the respondents, 14% said they found writing tasks extremely difficult and a further 43% found them quite difficult. 39% indicated that writing tasks were only a bit difficult, while only one student indicated that he did not find writing tasks at all difficult (participant 19, who had an IELTS Writing score of 5.0).

When participant responses were correlated against their IELTS Writing scores (Figure 9), there was no clear correlation between the IELTS score and the degree of difficulty encountered in completing writing tasks, although students with the highest IELTS Writing score of 8.0 did indicate that writing in English was ‘not too difficult’.

The main reasons cited for difficulty in writing were a lack of vocabulary, and problems in paraphrasing the content of reference materials. Other difficulties cited were problems with: grammar (*My tense is confided and I need to find enough evidences* – participant 6); academic style (*Using academic style is difficult. It is hard to provide evident for clear points, citation, paraphrase, plagiarism* – participant 13); understanding the topic (*Sometimes I miss important information in the assignment questions* – participant 28); and the difficulty of operating in another language (*Sometimes the structure is quite different, when I think in Persian but write in English* – participant 18).

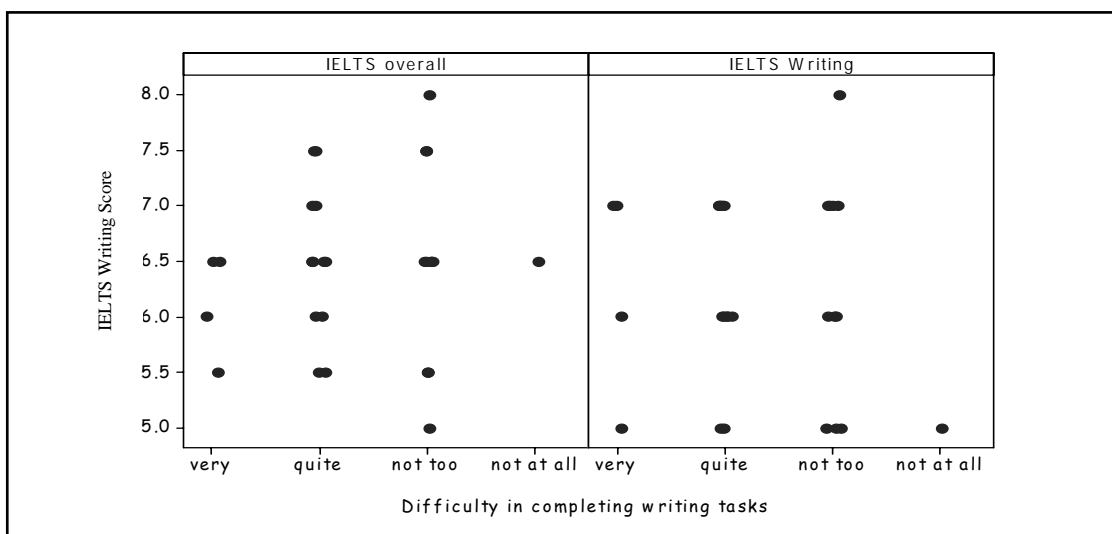


Figure 9: Difficulty in completing written tasks in relation to IELTS Writing Score

In contrast, students who found writing tasks less difficult primarily indicated that they did not encounter problems with grammar (including participant 3, whose IELTS Writing score was 5.0), and that they found useful information in library reference texts and reading materials to support their ideas. However, these respondents also indicated that they did experience some problems, particularly in organising ideas and adhering to word limits in essays.

Most students (64%) stated that they had been successful in their written assignments, citing the ability to self-express and grammatical accuracy as the main reasons for this. Additional comments indicated that some students made use of language support units to gain assistance with essay writing and others sought advice from lecturers to ensure they were on the right track. 25% of respondents indicated that they had not been very successful in written tasks, stating lack of time, grammar and vocabulary to be the main problems. Other comments indicated problems with essay organisation and addressing the question.

Although there did not appear to be a correlation between IELTS Writing scores and the difficulty encountered by students in completing written tasks (described as reports and essays), there did appear to be a weak correlation between the IELTS score and reported success in written tasks. Table 11 shows the variation in responses to Question 12 (success in written tasks) and the corresponding range in IELTS writing scores of respondents in each group.

Success in written tasks	N	Minimum IELTS writing score	Maximum IELTS writing score	Mean IELTS Writing score
Very successful	5	5.0	8.0	6.6
Quite successful	13	5.0	7.0	6.46
Not very successful	7	5.0	6.0	5.43
Not at all successful	0	N/A	N/A	N/A

Table 11: Success in written tasks

The mean IELTS Writing score is also shown for each response level. Although students at the lower level of proficiency (IELTS Writing score of 5.0) reported all levels of success in written tasks, the interview revealed that these tasks were not actually university essays and reports but were short IELTS-style writing tasks (250 words).

7.2.2d Student interviews: group findings – Reading

Students were asked one question relating to their reading proficiency to gauge how well they understood textbooks and materials, particularly when researching for assignments. Most students (60%) indicated they understood academic reading material most of the time, and a further 36% of respondents said they understood these materials some of the time. One student claimed that she rarely understood academic reading materials.

Correlation of student responses with their IELTS Reading scores showed no relationship between the two (see Figure 10). Although the only students who rarely understood reading materials had low Reading scores (5.5), there were responses from students at all proficiency levels (from a lowest IELTS score of 4.5 in Reading to a highest score of 8.0) indicating that they understood (or believed they understood) academic written materials most of the time.

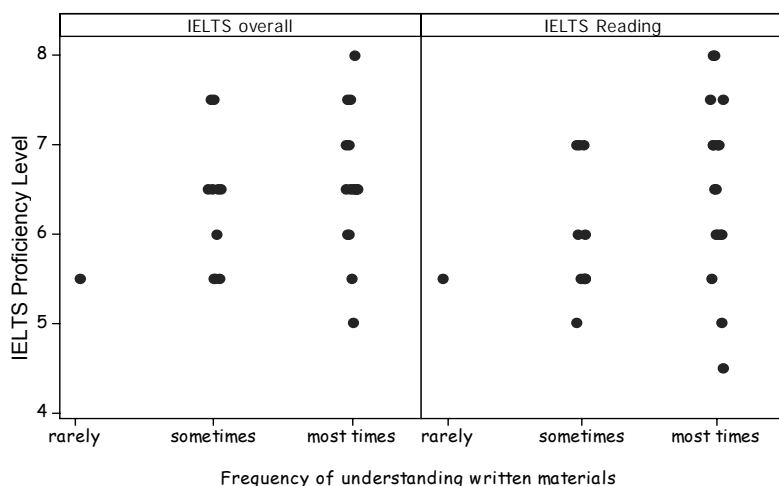


Figure 10: Frequency of understanding written materials in relation to IELTS Reading score

Comments made by respondents indicated that 93% of the students were able to understand or work out the meaning of the vocabulary in academic texts and 68% experienced no difficulty with grammar in these materials. However, 32% of respondents indicated that complex vocabulary often hindered reading comprehension. Typical of the comments made were the following: *Sometimes the ideas, concepts and arguments are too difficult to understand, but usually I can understand them* (participant 28); *I understand most things, except some jargon or uncommon language* (participant 16); and *Yes, but even if I think I understand, my understanding might be partial or shallow. I can't always judge it by myself* (participant 4).

Thus there was inconsistency in the responses of students relating to their experiences of reading academic materials. Although most participants reported that they understood either some or most of what they read (despite some difficulties with grammar) and, further, that they were generally able to work out the meaning of unfamiliar vocabulary, there was no correlation between the level of ease or difficulty encountered by the students and their IELTS scores.

7.2.2e Student interviews: group findings – Level of interaction

Level of interaction relates to the degree to which students conversed with peers, both in and out of the classroom context. The questions were different for students from each of the two tertiary institutions (The University of Melbourne and Melbourne University Private) to reflect the different contexts in which they were studying.

As mentioned, 50% of the students were enrolled at The University of Melbourne, where they took classes with other NESB students and native speakers of English. The remaining 50%, at Melbourne University Private, were studying content-based English language courses in classes comprising only NESB students. Accordingly, the questions directed to The University of Melbourne students related to frequency of conversations with native-speakers about study-related matters, frequency of participation and inclusion in class discussions and other types of class interaction (such as group projects) and frequency of conversation and interaction at a social level. In contrast, students at Melbourne University Private were asked about the frequency of discussion and interaction with other NESB students, using English as the medium of communication. Frequency of interaction was expressed in a variety of responses: Often, Sometimes, Rarely and Never.

For students enrolled at The University of Melbourne, frequency of interaction (often or sometimes) with native English-speaking students was marginally lower than the interaction levels of students at Melbourne University Private (all NESB students), although the differences were small, (see Figure 11). Both groups experienced the greatest level of involvement in social conversations and class group activities, and slightly lower levels of interaction about study-related matters. In general, whether or not interlocutors were native English-speakers or other NESB students appeared to have only a minimal effect on interaction levels.

Reasons for reduced or no interaction with native speakers were (i) psychological reasons, (ii) difficulty comprehending speech, (iii) lack of opportunity to interact with native speakers, and (iv) the fact that respondents had little in common with them. The primary reason for lack of interaction with other NESB students was poor English.

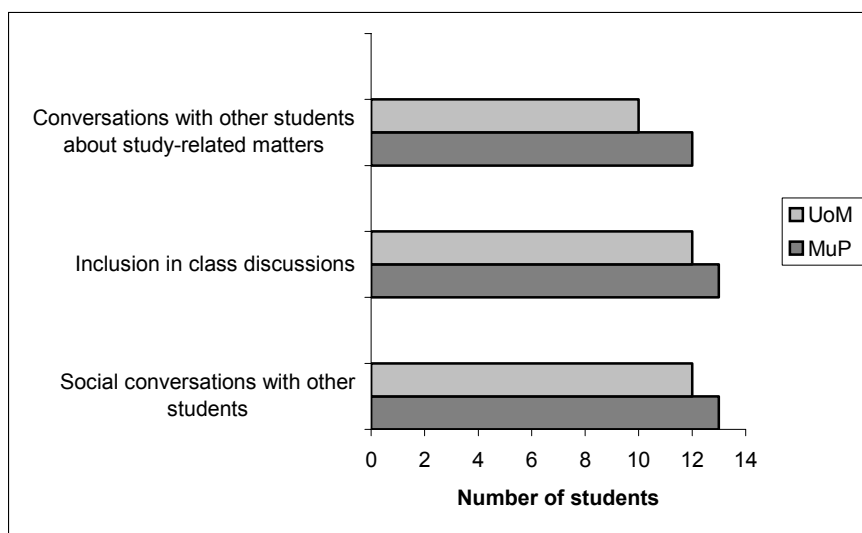


Figure 11: Frequency of involvement with other students using English

General comments indicated that respondents at The University of Melbourne enjoyed talking to native English-speaking students (eg *It's useful to talk to the native speakers. It helps me understand the lectures more* – participant 16; *One native speaker included me and started talking to me. It felt like she was listening to me. It made me feel good* – participant 2), but they were very conscious of 'being different', (*Native speakers talk to each other in a totally different way than they do to us* – participant 23) and they were also aware of their language limitations, (*Sometimes I just don't know what they're talking about* – participant 27; and *Usually I listen their speak fastly and idiom and some topics I have no idea* – participant 22.)

Language limitations when interacting with other NESB students were also cited as a problem by students at Melbourne University Private, particularly for students who felt their proficiency levels were low, (eg *Other classmates speech is better. I feel evaluated and judged and compared to others* – participant 13).

7.2.2f Student interviews: group findings – Adequacy of English for study

Three questions in the student interview related to the adequacy of their English for study in the tertiary academic environment. Question 2 asked students to gauge their overall level of confidence using English to study; Question 10 related to the amount of difficulty they were experiencing with their course; and Question 22 asked them to state whether their English proficiency was adequate for the nature of their studies.

In response to Question 2, 13 of the 28 respondents indicated that they were confident using English to study, a further 13 stated that they were a bit anxious, and the remaining two students both said they were not at all confident. Figure 12 shows that when plotted against their overall IELTS scores, there was no apparent correlation between IELTS result and level of confidence in using English to study.

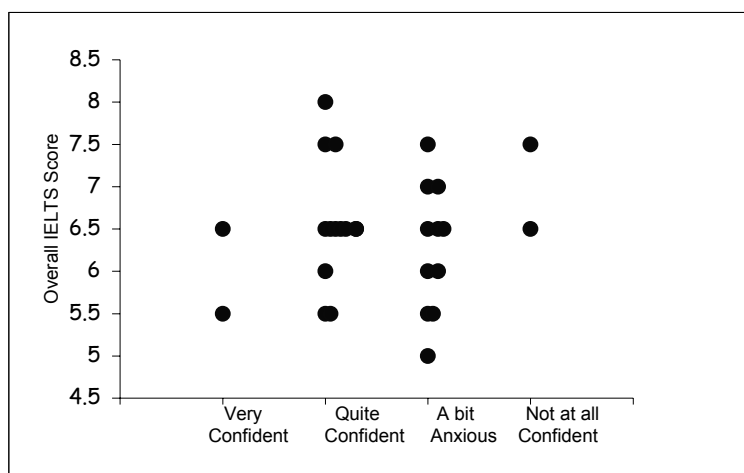


Figure 12: Level of confidence using English for study

Comments made by respondents indicated that the main reason for confidence was a progressively increasing level of courage speaking in English. Typical responses were the following: *I'm doing better. At first I was very quiet and didn't give my opinion, but I changed my attitude. Now I take a risk, even if I make mistakes* (participant 13) and *I am more confident now. I felt overwhelmed at the beginning of the semester* (participant 27).

In response to Question 10, which related to perceived difficulty with their course, most students were finding the course either quite difficult or a bit difficult (see Figure 13).

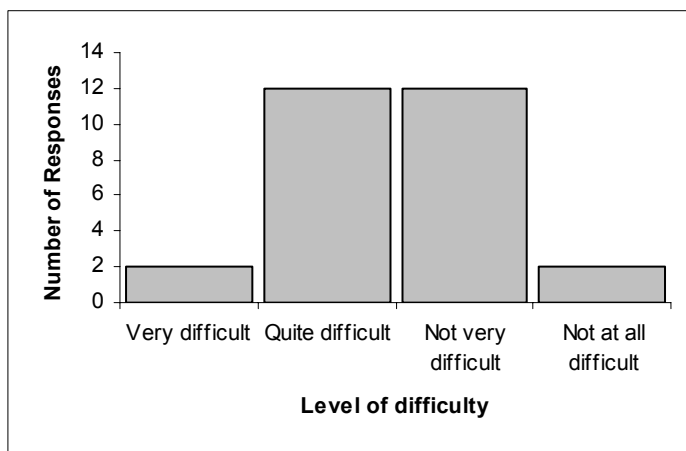


Figure 13: Students’ perceptions of the difficulty of their courses

The reasons for reduced confidence were varied. Most responses indicated anxiety about speaking, anxiety about writing and difficulty adjusting to a new style of thinking. Other reasons related to lack of vocabulary, general anxiety and pressure to succeed. Of note were several references to the fact that the students had not previously needed to use the English language in a ‘real life’ situation outside of the language learning context.

When plotted against their overall IELTS results (Figure 14) there was no evidence of a relationship between overall IELTS scores and perceived level of course difficulty (difficulty ascribed to responses of ‘very difficult’ or ‘quite difficult’ and lack of difficulty ascribed to responses of ‘not very difficult’ and ‘not at all difficult’).

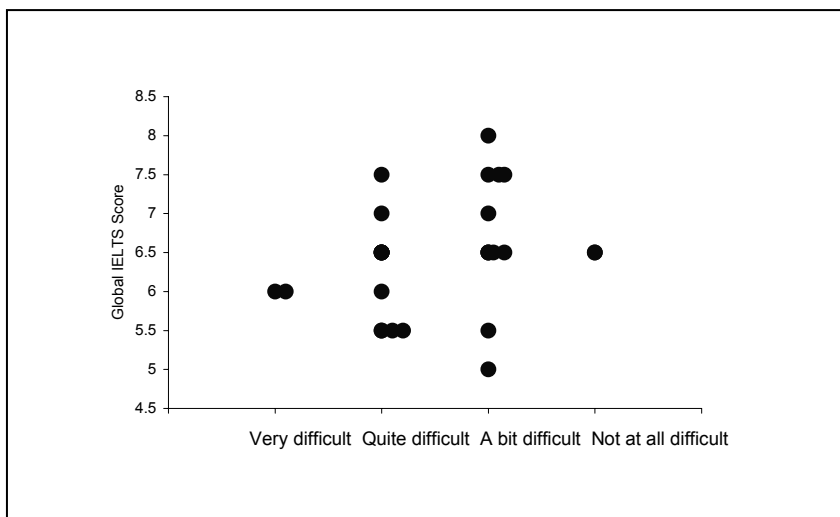


Figure 14: Perceived difficulty with course in relation to IELTS scores

In response to Question 22, which sought student opinions about the adequacy of their English language proficiency for the nature of their university studies, the majority of respondents (71%) indicated that they believed their language proficiency to be either good enough or completely

adequate for the nature of their studies at this early stage of the course. The remaining 29% believed that their language proficiency was not quite good enough. Again, when plotted against their overall IELTS results there was no apparent relationship, (Figure 15).

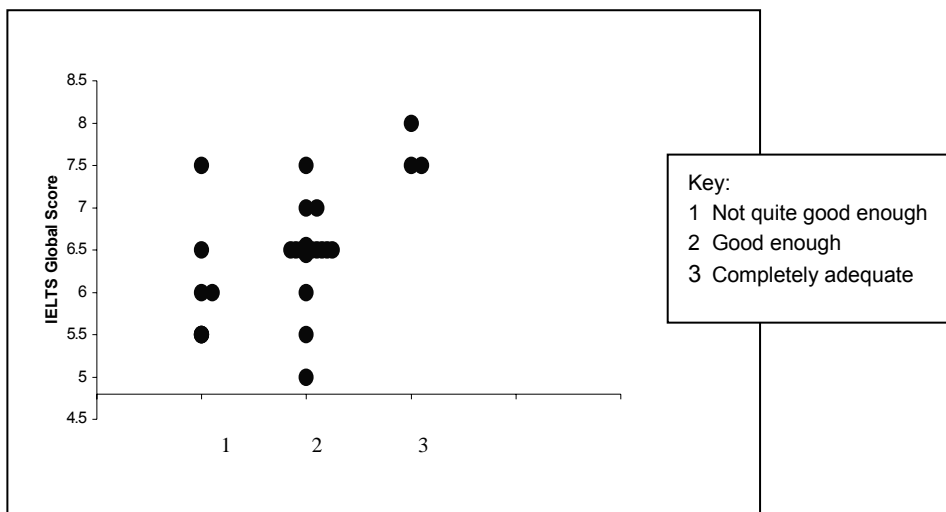


Figure 15: Student perceptions of language adequacy for studies

Surprisingly, when responses to this question were considered according to the two different institutions, students from Melbourne University Private, who were enrolled in a course designed to cater for lower proficiency levels, considered their language to be less adequate for their studies than did students at The University of Melbourne, who were enrolled in mainstream programs that were also delivered to native speakers of English (Figure 16).

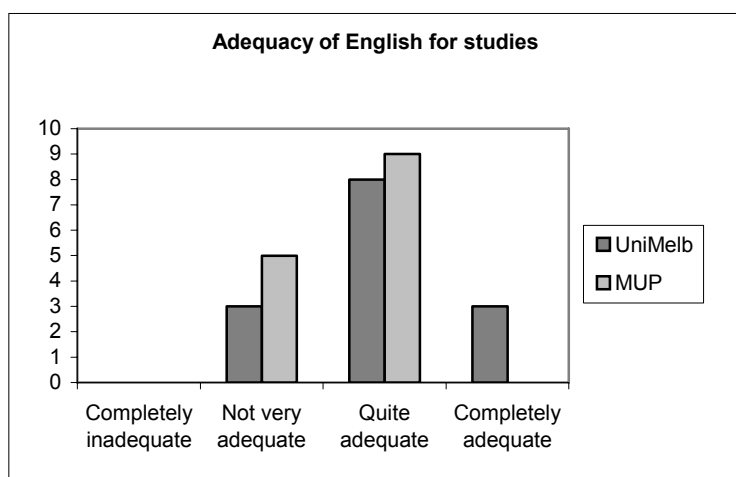


Figure 16: Comparison of responses from students at two different institutions relating to adequacy of English for study in their current course

There was no clear correlation between overall IELTS score and student perceptions of the adequacy of their language proficiency in relation to the different faculties. However, there were indications that in the Science/Medical Science disciplines, students at higher proficiency levels (a score of 7.0

or higher) were more likely to consider their English proficiency to be adequate than at lower proficiency levels.

7.2.2g Student interviews: summary of group findings

In summary, interviews with participants indicated that there was no clear correlation between individuals' IELTS scores and their reported experiences using English in the university context or their opinions of the adequacy of their English for study, although there did appear to be a relationship between writing proficiency and success in written tasks. Further, student perceptions of the adequacy of their language did not appear to relate with any consistency to the course of study, apart from an indication that in the Science (Medical) disciplines, those with higher proficiency levels might judge their proficiency to be more adequate than those with lower proficiency levels. This suggested that although student perceptions of course difficulty or language adequacy may relate to factors other than language proficiency, the success they experienced in some written tasks may be related to proficiency level.

7.2.2.2 Student interviews: individual findings

The student interview results were analysed for each individual participant to produce a profile of language behaviour. These results were then compared against the students' self-evaluations to ascertain whether there was a consistency between the two sets of data. The responses of all students were consistent with the proficiency levels they had selected in their self-evaluations.

Comments made by individual students were also considered by the researchers when determining their evaluations of language adequacy for the course. The student comments were matched against lecturer perceptions and researcher observations to make a final determination about each student's overall result. This is discussed further in Section 7.2.5.

7.2.3 Lecturer/tutor interviews

The interviews administered to both lecturer/tutor groups had a number of identical questions, supplemented by further questions which related specifically to the learning context of each institution. Although presented in a random order, the questions could be grouped according to language tasks, level of confidence, performance in class (involvement and participation), interaction with peers and general language performance. The tasks required for each faculty/course were considered alongside the information provided by students in order to produce Table 10 (see Section 7.2.1), which shows the types of language tasks required of students in each faculty.

The responses by tutors, lecturers and postgraduate supervisors provided information on how teaching staff perceived the students to be performing in the academic learning context. For the purposes of this report, all types of teaching staff are referred to as lecturers.

For some students only one member of teaching staff was interviewed due to the difficulty for lecturers to find time for the interview or, in some instances, their lack of familiarity with participants in the first semester of their program. (We selected the lecturer or tutor who had taught the student most often and who was, therefore, most familiar with the student's language behaviour). In other instances we interviewed two lecturers, who were teaching different subjects to the same student. Where more than one lecturer was interviewed, the responses were coded and averaged to produce one response for each student participant. Information regarding the number of academic staff interviewed for each student is provided in Table 12 (see next page).

Student Participant No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Academic Staff Interviewed	1	1	2	1	1	2	2	1	1	1	2	2	2	2
Student Participant No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Academic Staff Interviewed	2	2	1	2	2	2	1	2	1	1	1	1	2	2

Table 12: Number of academic staff interviewed for each participant

7.2.3a Confidence levels (lecturer interviews)

Lecturers were asked about the level of student confidence using English in the study context. 29% of students were perceived to be very confident, 38% to be quite confident and the remaining 33% a bit anxious about using English as the means of communication in their study program. No student was perceived to be completely lacking in confidence. There was no clear correlation between perceived confidence levels and IELTS scores (see Figure 17).

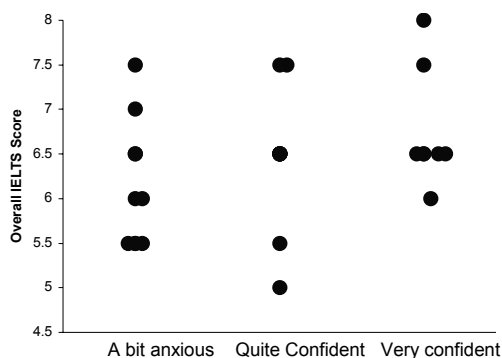


Figure 17: Lecturer perceptions of student confidence in relation to IELTS scores

Lecturers commented that, in general, student confidence was noticeably improving over time, and that students were becoming increasingly participatory in class. A small number of students were considered to be reluctant to participate and uncertain about their language abilities.

Of note was the difference in lecturer comment about students from each of the two institutions. Participants who were studying alongside native speakers were perceived to be no less confident than those studying alongside other NESB students. However, those studying at Melbourne University Private (all NESB classes taught by lecturers with specialist skills in ESL) were considered to be significantly more active and responsive in class, whereas those studying at The University of Melbourne, although predominantly viewed as quite confident in their language use, were perceived to be more reluctant to become involved.

7.2.3b Speaking (lecturer interviews)

Questions to lecturers about student speaking proficiency related to the frequency with which students expressed ideas and opinions, responded to questions, and their intelligibility.

Participation in class (Figure 18), measured by the frequency of expressing ideas and opinions, was greater than the frequency of response to lecturer questions. However, more students were seen as willing to participate than not (albeit reluctantly), with 75% of all students viewed as often or sometimes participating in class and 25% rarely participating.

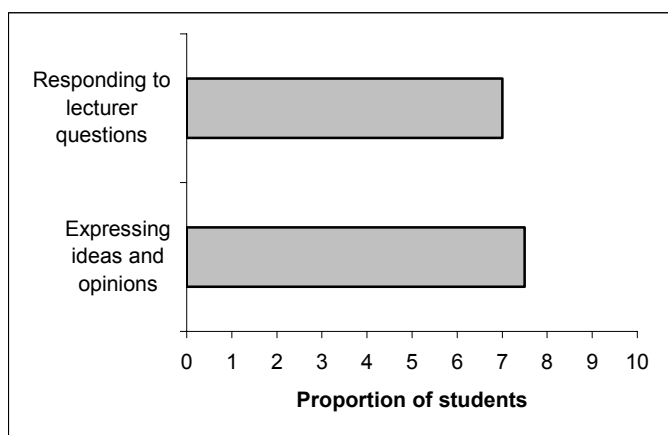


Figure 18: Student participation in class

Lecturers indicated that, in general, most students were becoming more confident about participating in class, but that they were more inclined to offer ideas when questioned, rather than initiating comment. Although there were language difficulties, lecturers indicated that they could usually work out the spoken meaning of the students. However, in some cases it was apparent that language problems were evident, for example: *His language is a turn-off for other people to stay tuned. There is a cumulative effect of not understanding* (participant 22), and *She’s always willing to express her ideas, but she doesn’t do it very well. Her grammar problems sometimes make it quite hard to understand her meaning* (participant 3).

When questioned further about student comprehensibility (Question 3), lecturers indicated that it was possible to understand the students’ spoken meaning all or most of the time (45%) or sometimes (37%). For 18% of the participants, however, lecturers rarely understood their speech. Of interest was the different response from lecturers at the two different institutions. Reference to Figure 19 shows that students were understood by lecturers much more frequently at The University of Melbourne than was the case for students at Melbourne University Private.

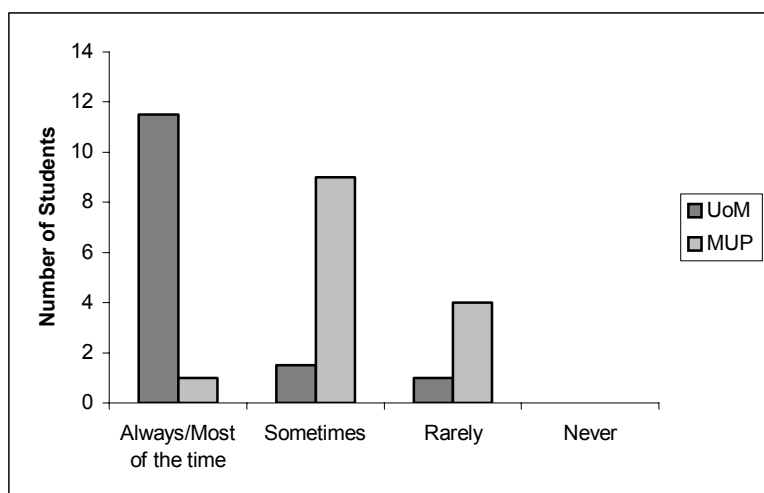


Figure 19: Comparison of lecturer responses to Question 3: Frequency of understanding students’ spoken meaning

When lecturer responses were plotted against IELTS results, it was evident there was a relationship between reduced comprehensibility and IELTS Speaking score, (see Figure 20). This explains the difference in lecturer response from the two institutions. The mean proficiency level in Speaking of students at Melbourne University Private was 5.8, lower than that of students at The University of Melbourne, whose mean Speaking score was 6.6.

Problems with understanding spoken meaning were seen as primarily relating to limited vocabulary and pronunciation problems, however lecturers at Melbourne University Private also noted that grammar errors in spoken language were a major hindrance to comprehensibility.

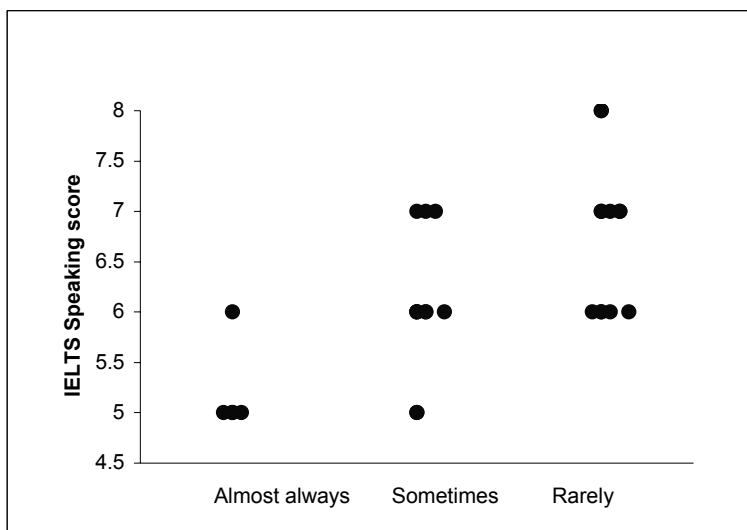


Figure 20: Frequency of lecturers’ understanding spoken meaning in relation to IELTS Speaking score

7.2.3c Writing (lecturer interviews)

Data was not available for all students enrolled at The University of Melbourne because some lecturers had not required written tasks or written tasks had not yet been submitted. As a result, seven student participants had no lecturer responses (participants 2, 9, 10, 16, 25, 26 and 27).

Lecturers generally rated student writing as good (37.5%) or fair (34%). Again responses from the different institutions differed. Two students were rated as writing poorly and one student’s writing was described as of a high standard. When plotted against IELTS Writing scores (Figure 21 on the following page), it was clear that, although there was a relationship between proficiency rating and writing standard at the extremes, there was no clear correlation between the Writing score and the standard of students’ written tasks.

Comments made by lecturers indicated that there were a range of problems with student writing, including lack of content and limited ideas, lack of depth, grammatical inaccuracy, inability to express ideas in students’ own words and organisation of information.

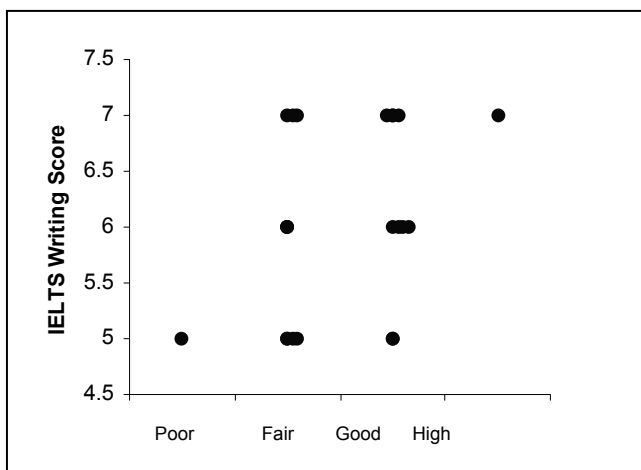


Figure 21: Standard of students' written tasks

7.2.3d Listening (lecturer interviews)

Lecturers were asked whether the students appeared to be listening and concentrating in class, how much of the content they perceived students to understand and how frequently the students asked for clarification of meaning. They were also asked whether the students appeared to comprehend the conversations of their peers. 84% of students were described as always listening and concentrating in class, with the remaining 16% described as sometimes listening and concentrating. Lecturers felt that 70% of the students always, or mostly, comprehended the content of classes and that the remaining 30% sometimes understood. However, only 52% of the student group asked for clarification of meaning, with the remaining 48% rarely or never asking lecturers to give more explanation.

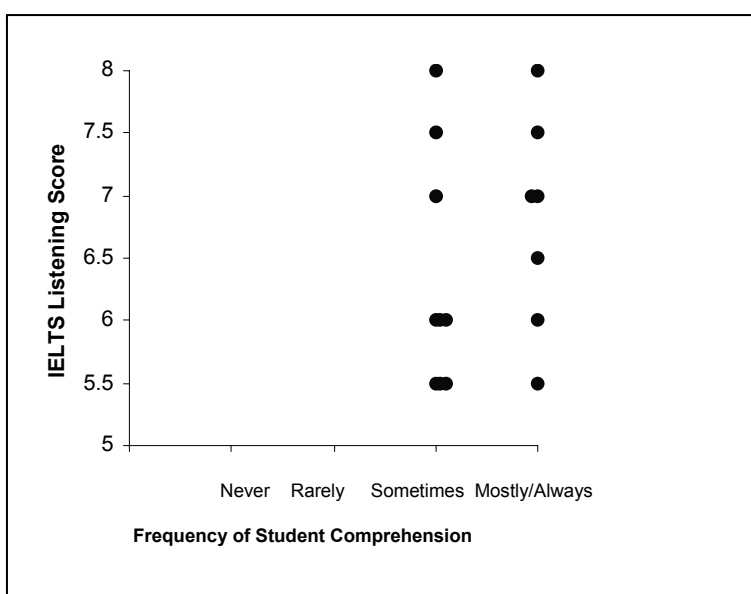


Figure 22: Lecturer perceptions of frequency of student comprehension

The general comment made by lecturers was that the students seemed to ‘get the best of it’. It was also apparent that students were often reluctant to ask for clarification in class, as a number of comments suggested that students were shy in front of other students, but would approach the lecturer in private after the class. Students who had more opportunity to interact with lecturers (eg PhD candidates, who met privately and on a regular basis with their supervisors), were more inclined to ask for clarification. Many lecturers appeared to be quite perceptive about their students’ listening difficulties, for example: *I can ‘read’ when he’s lost, so I stop the group and ask generally whether everyone is following* (participant 22) and *I tend to assume that the students might not have understood first time around, so I try to clarify things a bit just in case they’re too shy to ask* (participant 11).

As mentioned, students at The University of Melbourne were studying in classes that included both NESB students and native speakers of English. Lecturers believed that most of the students (75%) understood their peers all or most of the time. The remaining 25% were described as appearing to understand their student peers 25% of the time.

When plotted against the students’ IELTS Listening scores (Figure 22), there was no relationship between the rated Listening proficiency and the perceived levels of comprehension.

7.2.3e Level of interaction with other students (lecturer interviews)

Lecturers were asked to comment about the level of frequency with which student participants held conversations with other students, either at a social level or in relation to study matters.

Only 14% of students were perceived to interact with others about study matters at a frequent level, 43% to sometimes speak with their peers about coursework, and a further 39% were believed to rarely communicate with other students about their studies.

At a social level, students were perceived to interact more regularly with other students, with 27% of students described as often interacting in casual conversations and 38% as sometimes communicating socially. 7% were described as rarely involving themselves socially with other students. For the remaining 20%, lecturers said they had never noticed whether or not the student interacted on a social level with his/her peers.

Lecturers at The University of Melbourne noted that many NESB students tended to either remain isolated or to interact with other international students rather than with native speakers, who made little effort to include international students in social or study-related conversations.

7.2.3f Adequacy of English for study (lecturer interviews)

Lecturers were asked their perceptions of student performance in the learning environment and the adequacy of students’ English proficiency within the requirements of their study programs.

Most students were considered to be performing well or adequately in the learning environment (35.7% and 32.2% respectively). 19.6% were considered to be coping but experiencing difficulties and a further 12.5% were viewed as struggling to cope.

With regard to lecturer assessments of student language proficiency, 27% were viewed as having completely adequate levels of proficiency for studying in an English-speaking academic institution, and a further 52% considered to have reasonably adequate language proficiency. 21% were described as having English proficiency which was not very adequate for the nature of the students’ programs. When plotted against their IELTS scores, there was a tendency for students rated at higher levels of adequacy to also have higher IELTS results (see Figure 23).

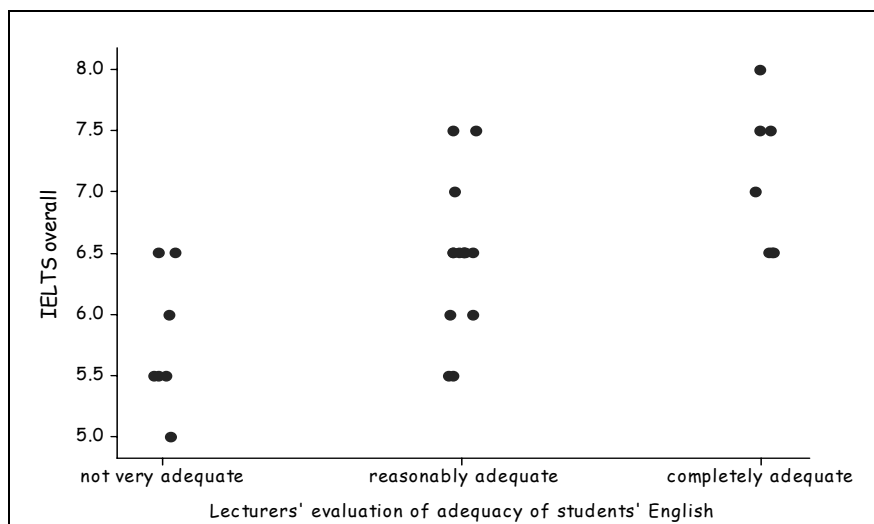


Figure 23: Lecturer's evaluation of the adequacy of student language for university study plotted against IELTS score

7.2.3.2 Individual findings (lecturer interviews)

Each of the lecturer interviews was analysed and the responses were added to a developing descriptive profile for each individual student participant. Each profile consisted of the student's self-evaluation, a discursive description of his/her comments and responses to the student interview questions, a discursive description compiled from lecturer interview responses, and a discursive description based on researcher analyses and observations (see 7.2.4). The individual profiles were used in a final researcher decision about each student's language adequacy for the nature of his/her study program once all the information had been cross-matched (see 7.2.5).

7.2.4 Researcher observations

In addition to analysing the actual language produced by participants, researchers recorded notes, both on observation charts and in diarised form, as they observed the students in the learning context. Details of the contexts in which each student was observed and the types of language tasks analysed are provided in Table 13.

Participant	Listening/note-taking: classes & lectures	Following spoken instructions	Following written instructions	Group discussions/PBL/ tutorials	Oral presentations	Informal Peer Interaction	One-to-one meetings with academic staff	Reading notes & note-taking	Essays	Written Reports	Journals, Case notes, Summaries
1		√	√	√	√	√			√		
2	√		√	√		√		√	√	√	
3	√	√	√	√	√	√			√		
4		√	√	√	√	√			√		
5	√	√	√	√	√	√			√		
6	√	√	√	√	√	√			√	√	
7				√		√				√	
8		√	√	√	√	√		√	√		
9	√	√		√					√	√	
10	√			√					√		
11	√	√	√	√	√	√		√	√		
12	√	√	√	√	√	√		√	√		
13	√	√		√	√	√		√	√		
14	√		√		√	√			√	√	
15				√	√			√	√		
16				√	√	√			√		
17		√	√	√	√	√	√		√		
18	√						√	√			√
19	√		√	√	√	√			√		
20	√		√	√	√	√		√	√		
21	√	√	√	√	√	√		√		√	√
22	√			√		√				√	
23	√	√	√	√	√	√		√	√		√
24	√	√	√	√	√	√		√	√		√
25	√	√	√	√	√	√	√				√
26		√					√				√
27	√			√	√					√	
28	√		√	√	√	√			√		

Table 13: Range of observation contexts and type of data collected

Each observation ranged from one to three hours in length (the majority of classes were two or three hours long) and frequently covered a variety of language tasks (eg listening to a presentation and taking notes, followed by a reading activity where groups of students discussed an article in light of the presentation, followed by an informal presentation of findings to the class). In some instances, a broad range of data was gained from one or two observations, while in other instances it was necessary to observe students more frequently to obtain a range of language behaviour considered adequate for subsequent analysis.

Researcher observation notes were used to develop the individual discursive language behaviour descriptions for each student. Many of the behaviours were so widely exhibited by all participants that a number of generalised observations could be made. These are listed below.

7.2.4a *Listening and note-taking (researcher observations)*

Researchers observed that many of the students took minimal notes in both classes and lectures. Where submitted, these notes were analysed with other data for each participant and considered in the determination of the awarded score for listening. Although well-organised and logical, the notes of many participants contained little substantive content and were generally limited to headings and abbreviations, leading researchers to question how beneficial they would be for study purposes. Several of the students took notes in their student diaries or a small notebook, with no additional references written down for further study. It was difficult for researchers to determine whether the lack of substance in these notes was the result of poor listening comprehension, difficulty caused by the speed of lecturers' speech, lack of concentration, or the result of poor note-taking skills.

When interviewed, most participants claimed that initially (in the early weeks of the semester) they had understood very little of classes and lectures but, by the end of their first semester of study, they generally comprehended 60% to 80% of class and lecture content (student estimates). All students said the speed of native-speaker speech in the lectures was problematic.

It was noted that some teaching staff in some faculties made little effort to modify their language, despite the fact that at least 25% of the students in their classes were from non-English-speaking backgrounds. Many of the teaching staff spoke extremely rapidly (particularly in lectures) and failed to repeat key information. In general, if the lecturer did not write significant information on the board or overhead, the participants did not make note of it.

In contrast to this, in situations where there was greater opportunity for one-on-one interaction between lecturer and student (as in the case of PhD candidates), the language of teaching staff was less problematic for participants. Two of the three PhD supervisors in this study made efforts to adjust their language speed, explain or clarify the meaning of vocabulary or colloquialisms (providing language scaffolding for the students) and frequently repeated statements to ensure the students understood their meaning. This was of significant benefit to the students yet did not appear to be obvious to them. The level of support received by the two PhD participants was therefore considerably greater than that received by other students.

7.2.4b *Spoken interaction (researcher observations)*

It was noted that students were extremely reluctant to volunteer opinions in class, even when classes consisted of only NESB students. Native speakers, on the other hand, would volunteer comments even if they had no idea of the correct answer, thus receiving considerably more and immediate feedback from lecturers.

As mentioned, students gave a number of reasons for their reluctance to participate in class. These included: lack of vocabulary, concerns about grammatical inaccuracy, a reluctance to demonstrate language inadequacy before peers, lack of knowledge, fear of making mistakes (that is, getting the information wrong), fear of being misunderstood, lack of confidence, cultural factors, shyness (personality) and embarrassment.

When interviewed, a number of students mentioned the need for time to think about lecturer questions and work out the answer before responding. These comments suggested that the silence of participants in these situations may reflect a need for time to process the question and formulate an answer before speaking. In general, by the time the answer had been formulated, someone else had answered the question.

Researchers analysed the transcripts of students in group discussions and found that participant behaviour in these situations supported this contention. In most situations where students were asked to discuss a problem or complete a task as a group activity with peers, participants spent the majority (if not all) of the time allocated for discussion, attempting to clarify and confirm with one another

what, in fact, the task was. By the time the lecturer called for the class to stop discussing and provide feedback, the group had not yet commenced addressing the assigned task, or had made limited progress. This suggested that the participants were taking significantly longer than anticipated by their lecturers to process instructions prior to undertaking the task.

7.2.4c Strategies (researcher observations)

Researchers noted that a number of participants were developing strategies to help them cope in the learning context and, in particular, when interacting with native speakers. For example, a number of non-research students, although generally taking minimal lecture notes, claimed they subsequently re-wrote and expanded the notes and, further, that they found these procedures adequate for their study purposes. In addition, some participants watched speakers closely, relying on facial gestures to gain feedback. Others made a point of sitting beside a native speaker and asking them to explain information given by the lecturer. In these situations, the students appeared to progressively gain confidence during the data collection period.

It was also noted that when the participants initiated discussions with native speakers (student peers), this generally resulted in acknowledgement or inclusion by the peer in subsequent classes, progressively leading to increased interaction with the rest of the class. If students did not initiate discussions with their native English-speaking peers, however, they remained excluded from the general class interaction at an informal level.

7.2.4d Oral presentations (researcher observations)

The students found giving oral presentations a very stressful experience. Researchers noticed that when required to stand up before the class, most students experienced sufficient anxiety to affect their performance. Grammar and fluency became noticeably worse. Interviews with lecturers indicated that this affected lecturer perceptions, not only of the students' proficiency levels but also about student knowledge levels.

7.2.4e Writing opportunities (researcher observations)

In some faculties and subjects, students were not required to do much written work early in the course, with lecturers expressing reservations about the possible poor quality of future written work. In some Architecture subjects, no substantial writing was required in the first semester and in postgraduate Veterinary Science no writing was undertaken in the first year of research (other than summaries of experiments and their results).

While this did not affect the findings of researchers in terms of evaluating participant language adequacy, it did lead to general lecturer concerns about the capacity of international students to cope with their studies, even though no evidence had been submitted to them (in the form of essays) that there was cause for concern.

7.2.4f Use of language support services (researcher observations)

The University of Melbourne offers a wide range of support services to students through a Language, Learning and Skills Unit (LLSU). In addition, international students in some faculties are able to take a credit subject which provides both academic skills and subject-specific language development. Medical Science faculties offer a comprehensive language support service, both on campus and in hospital/clinic practical sessions.

These services provide considerable practical and psychological support for students. Where these support services were utilised, there was a noticeable effect on students' confidence in their capacity to cope with academic study in English.

In the case of written tasks submitted for analysis, some students admitted that they had sought assistance from the LLSU. As a result, researcher rating of writing proficiency may have been affected (in the student's favour) by this assistance.

7.2.4g *Improvement over first semester (researcher observations)*

As mentioned, most students at The University of Melbourne commented that they found things much harder at the start of the first semester but it was beginning to get easier over time. As indicated above, in many cases, lecturers also reported considerable progress being made by students during the first six months of study.

7.2.5 **Cross-matching of data**

To determine whether each student's language behaviour was adequate for the current level of university study, the responses given by the student, the lecturers and the observations made by researchers in the learning context were considered together. Due to the extraneous variables (eg the nature of each class, the student mix in a tutorial, the number of students in a class or lecture, the age and gender mix in a class), it was decided not to apply a statistical analysis but to adopt an observational/discursive approach.

Three scores were given to each student based on data collected from the three different sources (students, lecturers, researchers). In the case of lecturers, an average score was calculated. The scores ranged as follows.

- A score of 0 indicated that, according to the data source, the student's language was inadequate for study at this stage of the course and the student was experiencing great difficulty coping with studies in the English language.
- A score of 1 indicated that the student's language was not very adequate and he/she was struggling using English in the academic context. Although just coping at this stage, there were doubts about his/her capacity to adequately handle further studies in English. This judgement indicated that, in the event of future academic failure, language weakness could be a contributing factor.
- A score of 2 indicated that the student's language was reasonably adequate for study at this stage. Although experiencing some language difficulties, the student's performance in the academic context suggested that he/she would be able to handle ongoing study in English. This score indicated that language was unlikely to be a contributing hindrance to future academic performance.
- A score of 3 indicated that the student's language was completely adequate for his/her studies at this stage of the course and also in the future.

The results of this process are presented in Table 14.

Participant	IELTS overall	Student: Adequacy of English for study	Lecturer: Adequacy of English for study	Observer: Adequacy of English for Study
1	6.5	2	2	2
2	7.5	2	2	2
3	5	2	1	0
4	6	1	2	2
5	6.5	2	2	2
6	6.5	2	3	2
7	7.5	3	3	3
8	5.5	1	1	0
9	7.5	3	2	2
10	8	3	3	3
11	5.5	1	2	1
12	5.5	1	1	0
13	5.5	1	2	2
14	6	2	2	2
15	6.5	2	2	2
16	6.5	2	2	2
17	5.5	2	1	0
18	6.5	2	2	3
19	6.5	2	1	1
20	6.5	2	3	2
21	7	2	3	3
22	6.5	2	1	1
23	7	2	2	2
24	7.5	1	3	3
25	6.5	2	3	3
26	6.5	1	2	2
27	6	1	1	1
28	6.5	2	2	2

<u>Key:</u>
3 Language completely adequate
2 Language reasonably adequate
1 Language barely adequate (doubts about future)
0 Language inadequate

Table 14: Evaluation of adequacy of student language for course of study

A useful way of summarising the results shown in Table 14 is by considering the mean IELTS score for students at each level of language adequacy. This is shown in Table 15 on the following page. As can be seen, some of the mean differences are relatively small; however, the general pattern is for better rated students to have higher overall IELTS scores.

It is interesting to note that the researchers were the only group to rate students with language as ‘completely inadequate’ for their university studies.

Source	Rating of adequacy	Number of students with each rating	Mean IELTS score	Standard deviation of IELTS score
Lecturer	Not very adequate	7	5.8	0.6
	Reasonably adequate	14	6.5	0.6
	Completely adequate	7	7.1	0.6
Researcher	Completely inadequate	4	5.4	0.3
	Not very adequate	4	6.1	0.5
	Reasonably adequate	14	6.5	0.5
	Completely adequate	6	7.2	0.6
Student	Not quite good enough	8	6.0	0.7
	Good enough	17	6.4	0.6
	Completely adequate	3	7.7	0.3

Table 15: Mean (and standard deviation) of IELTS scores by ratings of adequacy of English from three different sources (lecturers, observers and students)

7.2.6 Research question 2 – summary of findings

The question of the adequacy of participant language for their university studies was addressed by considering the responses to the student and lecturer interview questionnaire and the notes recorded by researchers as they observed students in the academic context.

Of the participants, 71% believed that their English language proficiency was either good enough (reasonably adequate) or completely adequate for their course of study, while the lecturers believed this to be the case for 79% of the participants. Researchers reached the same conclusion for 71% of students.

While 29% of students believed that their English was not quite good enough; lecturers held this view for 21%. Researchers rated just over 14% as having slightly inadequate language for their tertiary studies and considered a further 14% to have completely inadequate language proficiency for the courses in which they were enrolled.

Students cited a range of reasons for their levels of confidence, their willingness or reluctance to participate in class and their difficulty or lack of difficulty in their studies. Although each course/faculty had a number of common tasks that students were required to undertake, every course was different in nature and the challenges faced by students were not consistent across faculties. For example, students enrolled in Medical Science subjects such as Physiotherapy, Dentistry and Medicine were required to interact with patients in professional settings during their first semester of studies. For NESB students, this was a daunting task.

Regardless of the audience (lecturer or member of the public in clinics), many of the students were struggling to communicate effectively, either because of native speaker accents, or speed of speech and colloquialisms. Others, however, found they were managing to cope despite these challenges. In general, student participants believed that either their proficiency in English was continuing to improve over time, or they were adjusting to the learning environment.

Lecturers indicated that some students experienced difficulty communicating in spoken English, with pronunciation, lack of vocabulary and grammatical inaccuracy as hindrances. In particular, lecturers in the Medical Science faculties expressed concern about the speaking proficiency of some of the students, particularly in their ability to function in professional contexts while training. In spite of this, many of the students were judged by their teaching staff as (currently) coping adequately, despite the difficulties they encountered, and demonstrating improvement.

Observers were not as familiar with the students as were the lecturers, and based their evaluations on observations made over the course of a semester and the analyses of spoken language transcripts and written language tasks submitted by students during that time. A small number of students were considered to have language problems which were so severe that lecturers questioned the capacity of those students to maintain satisfactory future progress in the courses in which they were enrolled.

Researchers noted that a number of participants were progressively coping better in the learning context over the course of the semester, in addition to receiving increasingly positive responses from native English-speaking peers when they initiated informal interaction.

To determine whether or not the students’ language behaviour was adequate for the nature of their studies, researchers categorised participants according to broad discipline groups. These groups were Architecture, Arts (Applied Language Studies), Education and Science.

The proficiency level of each student was considered in terms of the entry level for each course. For the faculties of Architecture and Science, the entry level was an IELTS score of 6.5; for the Arts students (enrolled at Melbourne University Private) the entry level was an overall IELTS score of 5.5, and for the Education Faculty the entry level (graduate) was an IELTS score of 7.0. Table 16 illustrates the proficiency levels of the different students in each faculty in terms of the researchers’ decisions about the adequacy of their language for their respective courses.

Faculty	Entry level	Inadequate Language		Adequate Language	
		Participant	Proficiency level	Participant	Proficiency level
Architecture	6.5			18 28 25	6.5 6.5 6.5
Arts (Applied Language Studies)	5.5	3 8 11 12 17 19	5.0 5.5 5.5 5.5 5.5 6.5	1 4 5 6 13 14 15 20	6.5 6.0 6.5 6.5 5.5 6.0 6.5 6.5
Education	7.0			21 23 24	7.0 7.0 7.5
(Medical) Science	6.5	22 27	6.5 6.0	2 7 9 10 16 26	7.5 7.5 7.5 8.0 6.5 6.5

Table 16: Adequacy of student language for individual faculties

As can be seen from the table, in the case of all but three of the student participants, a proficiency level of 6.5 or higher was considered to be adequate for the chosen course of study. However, in the Medical Science disciplines, two students (one with an overall score of 6.5 and the other with 6.0) were considered to have an inadequate level of proficiency. Of the Arts (Applied Language Studies) participants, all but one of the students who met the required entry score of 5.5 were considered to have an inadequate level of proficiency, and one participant with an overall score of 6.5 was also considered to have less than adequate language levels. The participants enrolled in the Faculty of Architecture (all had an IELTS score of 6.5) were rated as having adequate English for their course. Similarly, students enrolled in Education, who met the entry requirement of 7.0 or higher, were also viewed to have adequate language for their studies.

The adequacy of different proficiency levels according to faculty is shown in Figure 24. The information provided in this figure and Table 16 above indicates that students in Applied Language Studies who have an overall IELTS score of less than 6.0 clearly have a greater risk of language-related problems; and those in the Medical Science disciplines with a proficiency level of 6.5 (or less) also risk more language-related difficulties than those at a higher level.

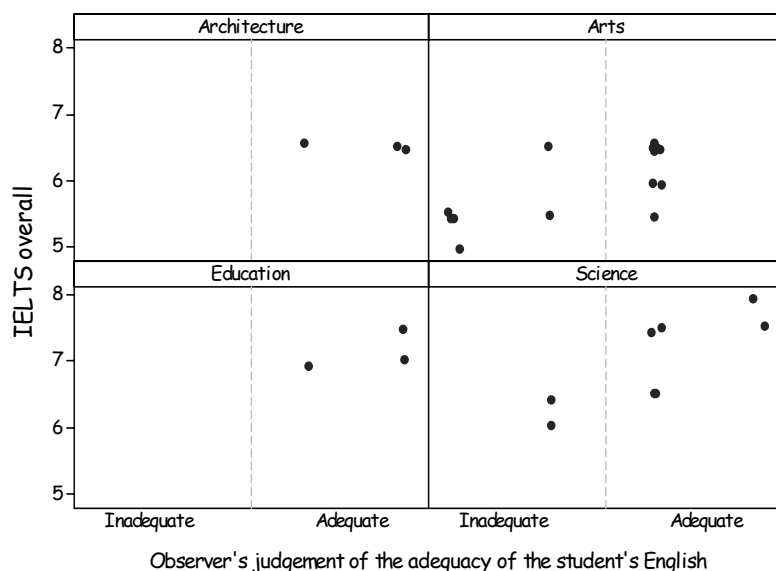


Figure 24: Adequacy of student IELTS scores according to faculty

7.3 Research question 3

Are there any implications for raising or lowering the IELTS scores for particular courses?

The reasons for success or failure in a university program are varied, with a multitude of factors facilitating or hindering student progress. Factors such as intelligence level, aptitude for the chosen field, level of acculturation, personal circumstances (gender, age, marital status, home environment, extraneous variables such as financial and health issues), attitude to the course, study methods, personal organisation and previous academic/learning experience are but some of the many influences on the success or failure of all university students. For non-native speakers of English who are studying in an English-speaking academic context, first language and proficiency in English are additional variables.

IELTS does not imply that its language proficiency bandscores are a predictor of academic success. Rather, the Test Scores are described as a profile of a candidate's ability to use English; the Academic Reading and Writing Modules assessing whether a candidate is ready to study or train in the medium of English at an undergraduate or postgraduate level, (IELTS, 2005, pp3-4). IELTS reiterates that assessment of performance in the test depends on how the candidate's ability in English relates to the language demands of the course of study, rather than the ability to reach a fixed pass mark (IELTS, 2005, p5).

Institutions are provided with guidance on acceptable levels of language performance for different courses and reminded that many diverse variables, such as those described above, can affect student performance.

With a total participant cohort of 28 students in this exploratory study, there were only a small number of students in each faculty. However, within the context of the study there were clear indications that a number of students were struggling in their university program, if not in all subjects, at least in some. The faculty areas providing greatest challenge to participants whose overall proficiency met but did not exceed the entry level requirements were those of Arts (Applied Language Studies) and the Health Sciences (Physiotherapy, Dentistry and Medicine).

The recommendations provided by IELTS (IELTS, 2005, p5) stress that language skills can be matched to particular courses and suggest that each institution or faculty/ department must decide in the light of knowledge of their own courses and the experience of overseas students enrolled in those programs. Table 17 shows the guidance given by IELTS on acceptable levels of performance for different courses.

Band	Linguistically demanding academic courses, eg Medicine, Law, Linguistics, Journalism, Library Studies	Linguistically less demanding academic courses, eg Agriculture, Pure Mathematics, Technology, Computer-based work, Telecommunications
9.0-7.5	Acceptable	Acceptable
7.0	Probably acceptable	Acceptable
6.5	English study needed	Probably acceptable
6.0	English study needed	English study needed
5.5	English study needed	English study needed

Table 17: IELTS guidance on acceptable language proficiency levels for different academic courses

Based on this advice, faculties such as Architecture and Education with IELTS entry levels of 6.5 and 7.0 respectively are offering NESB students admission to their courses with an English proficiency level that is ‘probably acceptable’ for their course of study. (Recall, this does not suggest that they will probably pass, but that their English should probably be adequate to cope with the language demands of the course).

The Health Science faculties, however, are offering international students entry to their programs at a level at which IELTS recommends further English study, suggesting that (in the view of IELTS) the language demands of the course are unlikely to be met by students with an IELTS score under 7.0. The School of Applied Language Studies at Melbourne University Private admits students with an IELTS entry level of 5.5, which is lower than that recommended by IELTS for Linguistics courses and indicative of further English study being required. Given the fact that these studies involve language development programs in the field of English as an International Language, the setting of an entry level lower than the ‘probably acceptable’ score of 7.0 is understandable.

Reference to Figure 24 (above) indicates that the participants enrolled in the Faculty of Architecture (all with IELTS scores of 6.5) and in the Faculty of Education (scores of either 7.0 or 7.5) were exhibiting language behaviour that was considered to be adequate by the students themselves, their lecturers (based on their academic performance in the learning context) and the researchers, who observed them in a variety of class-types over the course of a semester.

In the Medical Sciences, however, one participant with an IELTS of 6.0 (under the course’s set entry level) was considered to have inadequate language proficiency for the program, and one student with a score of 6.5 was struggling; while another was considered to be coping adequately. In contrast, the one Veterinary Science student, who was enrolled in a PhD with a score of 6.5, was coping with the language demands of her research program, which required only speaking and note-taking over the

first year. Her supervisor did, however, express concerns about the possible standard of her writing when she eventually commenced work on her thesis. All other participants in the various Science faculties had IELTS scores in excess of 6.5.

In the School of Applied Language Studies at Melbourne University Private, all but one of the students deemed to have inadequate language proficiency for their studies had an IELTS score of 5.5 or less; however, not all of these participants agreed with the lecturer and observer evaluations of inadequacy. A smaller number of participants who also met the admission requirement of 5.5 were coping, but with difficulty.

The self-evaluations of the students who were deemed to have inadequate language behaviour provided information about whether or not they felt able to perform the tasks required by their courses. IELTS scores do not predict success or failure in certain tasks but, rather, the descriptors imply an ability to exhibit certain language behaviour with a level of consistency. The responses to the student evaluation indicated whether or not the student believed he/she could produce that language behaviour. Given the fact that, in some cases, the claims made by students with regard to what they could or could not do was not matched by the assessment of lecturers or observers, it seems that the self-evaluations of many students might have been influenced by their level of self-confidence. This could, for example, explain why in some cases the variation between their self-evaluation and their IELTS band scores were as much as 2.0 points above or below the actual IELTS result.

Eight of the 28 student participants in this study were considered by the researchers to have insufficient command of English to cope with the linguistic demands of their study programs (either completely inadequate language proficiency, or not adequate enough). In the case of all but one of these students, the lecturers agreed with researcher perceptions. For the one remaining student there was disagreement between the teaching staff about his language behaviour, with a resultant average rating suggesting that his language was ‘reasonably adequate’ – ie, he was struggling but coping. Four of the eight students considered their language to be ‘not good enough’ and the other four considered it to be ‘reasonably adequate’. This information is summarised in Table 18.

Participant	IELTS overall	Student: Adequacy of English for study	Lecturer: Adequacy of English for study	Observer: Adequacy of English for Study
3	5	2	1	0
8	5.5	1	1	0
11	5.5	1	2	1
12	5.5	1	1	0
17	5.5	2	1	0
19	6.5	2	1	1
22	6.5	2	1	1
27	6	1	1	1

Key:
3 Language completely adequate
2 Language reasonably adequate
1 Language barely adequate (doubts about future)
0 Language inadequate

Table 18: Ratings of eight students whose language behaviour was considered inadequate for study

Examining the responses given by these eight students when interviewed, high levels of confidence (very confident or quite confident) were expressed across a range of fields by participants 3, 8, 19 and 27, (in particular participants 3 and 19, who indicated that they were very confident in a number of areas). Participant 8, however, was not confident when required to interact with academic staff, despite indicating confidence in other situations. In contrast, participants 11, 12, 17 and 22 expressed

reduced confidence levels in all contexts, (in particular, participants 11 and 12, who indicated they had no confidence at all in a number of situations).

When asked to explain lack of confidence, participants 8, 11 and 12 referred, in particular, to embarrassment, shyness and/or nervousness as major factors. Participants 8, 11, 12, 22 and 27 also stated that they frequently had trouble understanding and being understood by native speakers and, indeed, for all eight students, lecturers indicated that comprehensibility was a significant problem.

Lecturer responses concurred with this. In other words, students who reported self-confidence were perceived by lecturers to be self-confident, and those who expressed a lack of confidence were perceived by their teaching staff to be shy, reserved and reluctant to participate.

All eight participants had received low marks for some, if not all, written assignments and were aware that their grammatical inaccuracy was a hindrance to academic success. In addition, these students repeatedly referred to vocabulary, pronunciation, native speaker speed and colloquialisms (and for participant 12, time management) as major problem areas.

Interestingly, participants 3, 8, 11, 12, 17 and 19 did not cite course difficulty as a problem. Any concerns they had about the adequacy of their language for study appeared to relate to their perceptions of their language proficiency rather than the linguistic and cognitive challenges of their study tasks. All of these students were enrolled in Applied Language Studies courses.

Participants 22 and 27 (both enrolled in Medical Science courses) did cite course difficulty as a hindrance, in addition to the abovementioned problems. In other words, they were aware of their language limitations but also they found their studies to be intellectually challenging.

Of the eight students whose language was considered inadequate, participant 19 seemed to be the only one unaware that his lecturers considered his English proficiency problematic. He consistently indicated in his interview, and also in his classroom behaviour, that he was highly confident in all respects and that he regarded the course as 'not difficult at all', (although he failed a number of essays during first semester due to language inaccuracy and plagiarism). He claimed that his grammatical accuracy made it easy to express his intended meaning, his vocabulary was sufficiently broad to address course requirements and that he found it easy to organise ideas and express them in his own words.

The high confidence levels of both participants 3 and 19 in particular enabled them to participate actively in all class activities. Both contributed animatedly to group discussions, provided enthusiastic responses to lecturer questions, accepted correction willingly, and clearly enjoyed the interactive demands of the academic context. As a result, both students gained on-going feedback and encouragement from their lecturers, thus maintaining their confidence levels. For participant 19, this also seems to have led to maintenance of a positive self-perception of his language proficiency (despite his consistently poor results).

Although language weakness is not a confidence inhibitor for certain personality types, for many students it can be a major contributor to reduced self-confidence. While enthusiastic participation exposes a student's language limitations, it also provides opportunities for feedback and on-going support, both linguistic and pastoral. For students who withdraw and fail to participate in various class activities and tasks because of shyness, nervousness, lack of confidence, awareness of language inadequacy, or any combination of these factors, the opportunity for this feedback and support are significantly reduced.

Different teaching styles, experienced in a different culture and using a different language are, in themselves, major challenges for the most linguistically gifted students. For those who are struggling due to inadequate language proficiency, the hurdles are clearly raised. Regardless of the academic demands of the course, NESB students have much to contend with when they come to study in an

English-speaking context. The prospects of success would seem to be significantly decreased if their language proficiency levels are inadequate to fulfill course task requirements at an acceptable level, particularly in the earliest stages of the study program.

The results of this exploratory study indicate that IELTS scores can be relied on to provide a relatively accurate assessment of student language abilities. Whether or not university staff and, in particular, faculty and admissions staff, understand what abilities are implied by those scores (given the limited scope of the public language level descriptors and the lack of explanation on IELTS Results documents) is another matter.

Although the sample size is small, the results also suggest that students with an IELTS entry level of 6.5, who are enrolled in faculties such as Medical Sciences, are likely to experience considerable difficulty with the linguistic demands of their studies. For these students (who are required to interact in professional settings from the start of their course), there is an increased risk of failure due to language inadequacies rather than an inability to perform at the academic and intellectual level required for course success. Other Science faculties (including Veterinary Science) do not involve the same language tasks such as those demanded by problem-based learning (PBL) tutorials and clinics, and thus pose less risk for students at this proficiency level.

Given the sample size, the results may not provide a sufficiently definitive picture to warrant recommending the raising of entry scores to Health Sciences courses, however they do justify a cautionary comment. If it is the intention of universities to admit students on the basis that they have sufficient English to cope with the demands of their academic study program without English proficiency levels interfering, there is more likelihood of student success if a conservative approach is adopted. In other words, entry levels should be set on the high side, rather than at the current level of the barest minimum. This being the case, the advice that an IELTS level of 6.5 is inadequate for the linguistic demands of Medical courses such as Physiotherapy, Dentistry and Medicine should be heeded.

Similarly, students enrolled in Applied Language Studies are likely to struggle with the minimum IELTS entry level of only 5.5, particularly when addressing the demands of lengthy discursive essays. Despite the language development component of the particular course undertaken by the participants, the linguistic demands of this program are challenging, particularly beyond the first semester of study, and this needs to be taken into account by administrators in the setting of admission levels. Similar, if not greater, demands are placed on students enrolled in fields such as mainstream Arts/Humanities, Linguistics, Law, Education and Journalism. The results of this study indicate that, for linguistically demanding courses such as these, the recommended IELTS entry level of 7.0 is 'probably adequate', but admission to courses such as these with an overall IELTS score below 7.0 should be treated with caution.

Participants who were studying in the Faculty of Education at The University of Melbourne were all enrolled in a masters program. With an entry level of 7.0, these students were performing satisfactorily, however the participant with an IELTS score of 7.0 was experiencing greater difficulty than her peers (who had an overall result of 7.5). Given the performance of the participants in this study, the current admission level of 7.0 appears to be appropriate.

Participants in the Faculty of Architecture were enrolled at all levels (undergraduate, masters and PhD), with an IELTS entry requirement of 6.5 or higher. All students were performing at an adequate level, despite obvious language limitations and the associated uncertainties. The students, lecturers and researcher/observers were all confident that these participants had adequate English proficiency to cope with the linguistic demands of their programs. On this basis of this study, an IELTS entry level of 6.5 seemed to be acceptable for this course.

8 DISCUSSION

The results of this study indicate that IELTS scores can broadly predict students' language behaviour in academic contexts, and hence may provide certain information about their linguistic readiness for academic studies. However, in determining the appropriate entry levels to different university courses, a number of factors must be considered, particularly with regard to those students whose language proficiency meet, but do not exceed, required entry levels.

8.1 Addressing the needs of stakeholders

The academic staff interviewed expressed considerable concern about the ability of many NESB students to cope with the linguistic demands of their studies. Some staff believed that course entry levels should be raised. However, one of the difficulties associated with the setting (or adjusting) of entry proficiency levels to tertiary institutions is that of addressing the needs of all stakeholders: university administrators and course teaching staff; students (both native-speaking and NESB); and IELTS and the language centres (many of which are affiliated with universities) which offer test preparation programs. Balancing the need for income, course quality (in terms of content, delivery and grading) and reputation with the need to be competitive is a difficult task for universities.

International student anxiety to gain direct entry to their courses is based on a different, but an equally complex range of factors, among which linguistic readiness may not feature as significant, and the prospect and implications of academic failure may not be considered or understood. The success and reputation of colleges offering proficiency test training may rest on their perceived ability to raise student proficiency to a certain level within a limited time-frame, and it is equally in the interests of IELTS that students who achieve recommended entry levels are able to attain success in their chosen courses. While lower entry requirements might satisfy some of these varying stakeholder needs, higher levels may be desirable to address others.

8.2 Understanding what an IELTS score means

The usefulness of an IELTS proficiency rating to key stakeholders is limited to their understanding of what that rating means and what the individual level descriptors imply. There may be difficulty interpreting IELTS scores from the broad public descriptors which, at present, provide the only available information upon which to base their decisions. For example, when being considered for course admission, should a student be a 'Competent User' of English (Level 6) or a 'Good User' (Level 7)? What is the difference between 'some inaccuracies, inappropriacies and misunderstandings' (Level 6) and 'occasional inaccuracies, inappropriacies and misunderstandings' (Level 7), and how is their severity judged? The descriptors provide no real information about what a student should or should not be able to 'do' with language at any given proficiency level; there is no guidance about the types of tasks they should be able to perform or the degree of task complexity they might be reasonably expected to cope with.

This makes it difficult for university admissions staff and faculties to determine whether students are linguistically equipped to fulfil the task requirements of study disciplines. For example, will they be able to interact with patients in clinical situations? Can they write 3,000 word discursive essays? Are they able to analyse complex problems, write a report and recommend solutions? Will they be able to understand culturally-specific lectures or subject-specific journal articles, medical histories or legal arguments? From the brief descriptors on which these decisions must be based, it is difficult to make these judgements.

8.3 Course language demands

A broader description of each proficiency level, especially relating to each macro skill, would undoubtedly facilitate the interpretation of scores, although IELTS makes it clear that institutions and departments need to consider these scores ‘in the light of knowledge of their own courses and their experience of overseas students taking them’ (IELTS Handbook, 2005, p5).

While academic success relates to many factors, the ability to meet the language demands of certain tasks is clearly connected to proficiency. A lack of linguistic readiness presents a threat to academic success in that it affects the student’s confidence, his/her capacity to become involved and included in the learning context, and it also influences the perceptions of those responsible for grading student performance. If a student’s proficiency is inadequate for the task requirement to the degree that it intrudes upon comprehensibility or ability to perform, then it becomes difficult – if not impossible – for academic staff to rate the student’s performance against the task fulfillment criteria.

The effect of linguistic inadequacy was particularly evident in the Medical Science courses (Medicine, Physiotherapy and Dentistry), where students participated in PBL tutorials and clinical sessions, involving different spoken interactions with native speakers, including patients. Levels of proficiency and comprehensibility were relevant to both student performance and confidence, as well as to interlocutor perception of knowledge and ability. In some cases, participants with lower proficiency levels (particularly in Speaking) struggled in these situations, whereas those with higher levels (7.0 or higher) generally performed better. Because of the small number of participants, however, it is possible that these participants might not have been broadly representative of other students in those faculties with similar proficiency levels.

In the Arts/Applied Language Studies discipline there was also evidence of linguistic inadequacy for students who had entered the course with IELTS scores which met only the minimum entry level requirements of 5.5. Less than satisfactory proficiency was evident in both the speech and writing tasks (the two most readily observable macro skills), with language errors either severely hindering comprehensibility or limiting student capacity to adequately fulfil task requirements. For example, participation and/or comprehensibility in class discussions was limited, comprehensibility in oral presentations was reduced and written assessments were either difficult to understand (due to excessive grammatical errors) or brief and simplistic, with a tendency to simply describe rather than critically address the task at hand.

Despite the limited size of the study sample, these results emphasise the importance for individual faculties to consider course entry levels in light of the tasks students will be performing. This small study suggests there may be merit in raising the entry level (or at least the Speaking proficiency level) to Medical Science courses. Similarly, Arts/Language courses may need to consider the Speaking and Writing proficiency levels of applicants.

8.4 Confidence and language performance

The students were asked about their confidence in performing certain tasks and, whether or not they thought their English proficiency was adequate for their course. For some participants it was evident that their perceptions of both their proficiency and its adequacy differed significantly from those of their lecturers and the researchers. The difference in some ratings ranged from ± 0.5 to 2.0 bands. In general, student perceptions about both performance and proficiency related directly to level of self-confidence. For some participants, confidence may have been a personality factor; for others it may be the result of their academic experiences.

For a handful of participants, personal confidence was so high that it blocked their perceptions of their language proficiency. Despite poor results relating to comprehensibility, the students’ willingness to participate and interact in the learning context provided them with increased opportunity for feedback and also heightened lecturer awareness of their learning needs.

In the long-term, this may well prove to their advantage as their weaknesses can be more readily identified and (hopefully) addressed. However, too much confidence can also be problematic for some students in that it can hinder their capacity to perceive interlocutor difficulty or interpret negative feedback, leading to the potential fossilisation of some language errors.

With other participants, low levels of self-confidence interfered with their willingness to participate in class. This left them isolated in the learning environment, particularly because of reduced interaction with peers, making it hard for lecturers to identify, evaluate and therefore address their learning difficulties.

Low confidence and poor performance may have also related to a lack of adjustment to the Australian academic culture. Understanding what is appropriate, acceptable and expected behaviour is essential if NESB students are to benefit from their experiences as tertiary students in this country. If they are not attuned to those expectations, they will struggle, even with adequate language proficiency levels. Behaviours such as questioning or contradicting a lecturer, participating in argumentative debates with other students, applying critical thinking strategies to assigned tasks, independently managing one's study regime and attending classes with other genders, age groups, social and cultural groups who may dress and behave in an unfamiliar way are all part of the Australian university experience. What is more, the cultural expectations of the Australian academic community are that newcomers will respect, tolerate and adjust to such behaviours. However, the cultural practices of some NESB students may differ from those in Australia, and behaviours such as those mentioned above may not only be unfamiliar but also confronting and distressing. For students who are struggling with English, coping with these challenges will be even more difficult.

8.5 Specific problems

Researchers made a number of observations in the classroom context about not only the language behaviour of participants but also of their general behaviour and performance (see 7.2.4). The frequency of these observations has implications for the nature of pre-university language development courses offered to students, the teaching strategies used by university tutors and lecturers, and the measures taken by university faculties to encourage the adjustment and acculturation of NESB students into the academic environment.

Participation: Most participants were reluctant to volunteer opinions in class, even when those classes consisted primarily, or only, NESB students. Although the reasons for this may have been variable (eg, cultural factors, language factors and the presence of researchers observing the students), this reluctance appeared to be a major contributor to observer (peers, lecturers and researchers) doubts about participant language proficiency and level of understanding. As a result, the students were isolated in class, having minimal involvement with native English-speaking peers and receiving little (if any) feedback from academic staff.

In contrast, native speakers frequently volunteered comments and answers even if they had no idea of the correct response, thus receiving considerably more and immediate feedback from teaching staff and greater benefit from an interactive teaching environment.

Listening comprehension: In general, participants took few notes in both classes and lectures and (in some cases) little or no support was provided by lecturers/tutors to encourage note-taking or facilitate listening comprehension. Many lecturers failed to provide handouts and there was no apparent attempt made to either limit or explain complex, culturally specific vocabulary or expressions, although some field-specific language was clarified by some lecturers.

Participants frequently commented they had difficulty understanding the Australian accent, the speed of native speaker speech and, in particular, the meaning of colloquial expressions. For NESB students to benefit from the type of discussion and debate that forms such an important part of the tertiary learning experience, they need to understand class exchanges. Lecturer strategies such as

repetition (and, if necessary explanation) of correct responses and valid comments, as well as clarification of vocabulary, would greatly assist NESB students. Whether or not such behaviour would have a flow-on effect to the extent that it is adopted by native English speaking students, however, is debatable.

Of particular interest was the comment made by some participants that, when academic staff asked questions in tutorials, they were unable to respond immediately (even though they had understood what had been said) because they needed time to think over the question and formulate a response. These comments were supported by the analyses of in-class dialogue (in group discussions) and researcher observations, which found that the participants needed considerably more time than was allowed by lecturers to process information and complete tasks. As a consequence, someone else in the class generally responded before participants had worked out how to express their answers. In group discussions, participants frequently used the entire time allocated for task completion to understand both the task and the information relevant to it. This may have led both lecturers and peers to conclude that the students either did not know the answers or did not understand the questions. Academic staff, in general, appeared to be unaware of the needs of their NESB students in terms of (i) clarification of task requirements and (ii) the need for time to process initial information and formulate a response

It is therefore difficult to determine whether the participants' failure to take extensive notes was because: they did not understand what had been said; they failed to comprehend the significance of the content; they had understood the information and its significance but simply decided not to make note of it; or because they did not know how to take lecture notes while listening to and processing information delivered at speed. However, the fact that participants generally believed they had comprehended anywhere between 60–80% of lecture/class content indicates that, although they understood a good deal, they also missed a lot of information.

Oral presentations: A high level of anxiety was experienced by most participants when required to make oral presentations. While this experience is not limited to NESB students, it places them in a position where language inadequacies are on display. Researchers noticed that when standing up before the class, most participants experienced sufficient anxiety to affect their linguistic performance. Grammar and fluency, in particular, became noticeably worse.

The cultural backgrounds of NESB students meant that some have had little experience in this type of situation; a factor which may exacerbate their anxiety. In addition, different non-verbal behaviour in some cultures means that the impression given by some speakers is not interpreted as they might expect it to be. It is therefore important that language support services provided by universities give them the opportunity to develop their presentation skills and practise speaking before an audience. In particular, strategies in giving effective presentations (gestures, voice modulation, facial expression, eye contact, use of overheads and so on) are essential.

Interaction with native speakers: There was very little, if any, interaction between most participants with their English-speaking classmates and a notable side-effect of this study was the impact it had on this type of interaction. The presence of researchers in some classes (observing the participants, setting up microphones etc) sparked curiosity from other students, not only about the reasons for our presence but also about the participating student. In some instances, the small level of informal interaction generated between the participant and the native English speaking peers led to greater levels of interaction and increased inclusion by the peers in the classroom context. A similar response, as mentioned, was noted when participants initiated discussions with other native English-speaking students. This not only increased participant confidence and encouraged further interaction, but very progressively appeared to break down the resistance of those peers to the linguistic inaccuracies of the NESB student.

This suggests that the greater the interaction NESB students have with native speakers, the more confident they are likely to become as they realise that (i) they can communicate effectively and (ii) that accuracy is not as strong a factor in their being able to communicate as they might fear. However, there are also risks that negative response from peers (such as an obvious lack of comprehension) might have a detrimental effect on the confidence of NESB students.

In the interests of a more balanced level of overall interaction within university classes, however, despite the risks, there would seem to be potential benefits associated with interaction between international and local students. In addition to raising the confidence levels of NESB students as informal relationships between peers were established, there would be more opportunity for non-native speakers of English to encounter the language spoken with a wider range of accents, idiomatic expressions and so on. Local students might also develop greater sensitivity to the particular difficulties encountered by NESB students and, as a result, respond more positively. This may have spin-off effects such as a more cohesive, collaborative learning environment for all students, with greater in-class support for NESB students from their peers.

Although it is difficult to ascertain whether “mentor” or “buddy” systems would be particularly welcomed by students (either native speakers or NESB) or, indeed, if they would be maintained long-term, in the early part of university studies (eg during the first semester or even the first few weeks of the semester), systems such as these may be worthwhile.

8.6 Language support

During or prior to their first year of tertiary study, NESB students need considerable encouragement to develop confidence and understand Australian teaching and learning styles. Although most participants in this study indicated that their levels of confidence, their overall comprehension of English, the adequacy of their language and their capacity to cope in an English-speaking academic environment had begun to improve during their first semester, a number of participants were struggling in some, if not all, macro skills, and there were very real concerns expressed by lecturers about the future academic survival chances of a few students.

This being the case, there seems to be strong justification for ongoing language development and support for NESB students in all skill areas, if not throughout their university programs, at least for the first 12 months. It makes sense for individual faculties to develop these services, as they are best able to identify the specific demands of their discipline areas. In addition, individual academic staff may need to develop strategies to deal with eliciting information from and responding to NESB students in class, and to better assist their comprehension of class and lecture content.

8.7 Entry pathways

Finally, it should be pointed out that informal discussions in class with some NESB students (who were not participants in this study), as well as with teaching staff, provided anecdotal evidence that many ‘international’ students (including some who appeared to be experiencing language difficulties in their courses) did not gain entry using an IELTS score. Entry for these students was obtained through other pathways (such as Year 12 studies in secondary school with ESL as a subject; through Foundation Studies courses with a direct-entry link; or through other language proficiency testing measures). As this was not the focus of the study, this issue was not explored in greater depth. However, it suggests that some international students may not be identified in the selection and enrolment processes as potentially being in need of English language support and, further, that inadequate linguistic readiness might be unfairly blamed on unreliable proficiency test scores.

9 CONCLUSION

The study provided detailed information on aspects of the linguistic performance of a small group of overseas students in relation to their IELTS results in the context of their academic study programs. Of the total cohort of 28 students, 25 were found to be exhibiting language behaviour that equalled or exceeded that predicted by their IELTS scores, using a scoring system that reduced the score to the lowest common level. The remaining three candidates were all rated at 0.5 overall lower than their IELTS global score.

It must be stressed that the findings relate to a group rather than individuals. However, it is clear from the analysis of data that individual characteristics, such as personality, motivation and confidence are variable both in nature and to the many challenges, both socio-cultural and academic, faced by the learner.

The findings reported in this study should be treated with some caution due to the small sample size. Nevertheless, a number of broad implications can be drawn from the results.

1. The clearest finding emerging from this research is the predictive validity of IELTS scores in relation to general language performance. There are some doubts, however, about whether university staff (admissions and administrative staff) fully understand the meaning of those scores on the basis of the currently available public descriptors.
2. Researcher ratings of participants' proficiency levels, based on a scale developed from ratings used by trained IELTS assessors, was sufficiently close to actual IELTS scores to suggest that the validity of ratings in IELTS tests should be relatively good. This is encouraging, not only for IELTS but also for other stakeholders who rely on the test scores for placement.
3. The fact that participant self-assessment of linguistic proficiency closely matched actual IELTS scores suggests that students are more often than not aware of their proficiency and how it relates to their ability to perform different tasks.
4. In some cases, the current score used for course admission may not be adequate for certain tasks undertaken in the first 6 to 12 months of university study, with potentially serious implications for course demands beyond the first 12 months.
5. Students with proficiency levels below those recommended by IELTS and, in particular, those with scores between 5.0 and 6.0 in individual macro skills may struggle in some courses and may need considerable extra help in progressing to a stage where they can cope with their studies independently. This is particularly relevant for courses where there is a need for linguistic strength in particular macro skills (such as speaking proficiency in clinical interaction, or reading and writing skills in research-writing based courses). In these instances, a subscore of 6.0 seems inadequate.
6. There are no clear indications from this study of what institutions can do to assist students whose linguistic weaknesses affect task performance, although a number of recommendations have been made. The type of language support provided by different faculties was not observable within the classroom context, although interviews with teaching staff in the Medical Science and Architecture faculties in particular suggested that this was a priority in those disciplines. The fact that this subject was not raised in interviews with other staff does not, in any way, suggest that language support is not an equal priority for other disciplines.

In view of this, avenues for further action or research are suggested below.

There may be value in introducing half scores to those macro skills which are only awarded a full bandscore at present, particularly the Speaking test. Despite the small scale of this study, it is

interesting to note that this might have had a minor impact on variations in Overall ratings. In situations where speaking proficiency levels are in doubt this may be of significance, in particular for students seeking entry to courses which emphasise proficiency in this macro skill at an early stage of study.

There may also be value in developing broader public profiles of individual IELTS proficiency ratings to better assist university faculty and admissions staff in the selection of students for particular courses. Inclusion of such profiles on IELTS Results documentation would also be of assistance. However, while a broader description of each proficiency level, especially relating to each macro skill, would undoubtedly facilitate the interpretation of scores, IELTS makes it clear that institutions and departments need to consider proficiency levels ‘in the light of knowledge of their own courses and their experience of overseas students taking them’ and, further, that institutions should ‘consider both the Overall Band Score and the Bands recorded for each individual module, which indicate the candidate’s particular strengths or weaknesses’ (IELTS, 2005, p5).

Institutions should be heeding this advice and making decisions about course entry according to the particular language demands of individual courses and with reference to students’ IELTS profiles, rather than the overall score. To facilitate these decisions, further study is clearly needed across different discipline areas to identify (i) the connection between proficiency level and course difficulty, (ii) the language skills required for discipline-specific tasks, and (iii) what it is that contributes to the failure of students who are deemed to be ‘not coping’ in those tasks.

In view of the possible effects of some Medical Science participants being ‘hand-picked’ by faculty staff, in addition to the small number of participants from those courses, further research on a wider scale is also recommended to determine whether or not the results obtained are representative across those particular discipline areas.

As for student confidence levels, although confidence entails significantly more than language proficiency, it seems likely that proficiency (or a lack thereof) and level of task difficulty did indeed affect the confidence levels of many of the participants in this study and, equally, that confidence had an impact on their capacity to perform particular course tasks or attempt to perform them. Of interest, therefore, would be further studies to determine what factors affect confidence and, in addition, what role confidence has on language performance in general.

Finally, in view of the anecdotal evidence relating to the different entry paths used by NESB students, further study is also recommended to ascertain whether there is a clear link between language difficulties and different entry paths.

10 CONCLUDING SUMMARY

This study set out to investigate three specific questions.

1. To what extent is the language behaviour implied by their IELTS scores reflected in the language behaviour (in all four macro skills) of university students during the first six months of their degree program?

The study found that IELTS scores can quite accurately predict NESB students’ language behaviour in the first six months of their study program, even though individual students might perceive their language proficiency levels quite differently. These findings relate to Writing, Listening and Speaking skills and a judgement of overall performance based on those three macro skills. There were no results in relation to Reading for reasons which are outlined in earlier sections of this report.

Although there were some variations in researcher decisions about the proficiency levels of a small number of individuals in some macro skills (when compared to their actual IELTS results), these

variations were small and may be explained by (a) the time elapsed between the students' IELTS Test dates and the research period, and (b) the experience of using English to study in an Australian tertiary institution and the impact (either positive or negative) it may have had on the language behaviour of the participants.

2. To what extent is the language behaviour observed adequate for the study program being undertaken by the student?

In the case of all but three of the student participants, an overall proficiency level of 6.5 or higher was considered to be adequate for the chosen course of study. However, in the Medical Science disciplines there were doubts about the language adequacy of students who had scores of 6.0 in Speaking and, in the field of Applied Language Studies there were serious doubts about the adequacy of students with proficiency levels less than 6.0 (both overall and in individual macro skills). In the other disciplines in this study, an undergraduate overall score of 6.5 (with no subscore less than 6.0) was considered adequate for the chosen course, while a graduate overall score of 7.0 (with no subscore less than 7.0) was also deemed adequate.

3. Are there implications for raising or lowering common IELTS entry requirements for entry to undergraduate or graduate courses?

Based on the findings, there are implications for raising the IELTS entry levels for courses requiring students to use spoken English in vocational training contexts in the early stages of their study programs. These include Medical Science disciplines (such as Medicine, Dentistry and Physiotherapy which were included in this study), where a score less than 7.0 in Speaking may not be adequate. Although other linguistically demanding disciplines such as Law were not included in this study, more extensive research seems justified into the potential effects of such a change (in one or more macro skills) on student performance in such disciplines.

In addition, there are implications for reviewing the IELTS entry requirements for admission to courses which place an early emphasis on written language proficiency (such as humanities-based disciplines that require students to write critically evaluative essays), regardless of the level of in-built language support within those courses. The results of this study suggest that a score of less than 6.0 in individual macro skills, and particularly in Writing and Speaking, are inadequate for study in these fields.

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APPENDIX A: INTERVIEW QUESTIONS FOR PARTICIPATING STUDENTS

(This questionnaire is to be used as the basis for a discussion between interviewer and student participant. The form should be completed by the interviewer and student co-operatively).

<p>Office Use Only</p> <p>Identifier:.....</p>
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NOTE: Statements in **bold** will need to be ‘unpacked’ by the interviewer.

STUDENT NAME:
family given English (if any)

I am asking you these questions to find out more about your experiences as an international student studying at an Australian university. I am interested to know about your experiences and your personal opinions. Please select the best answer to each question. If necessary, you can give extra explanation or comment.

Your answers to these questions will remain confidential.

Random sample of the questions used in the student interview:

S1. **How difficult** are you finding your course?

Extremely difficult / Quite difficult / A little bit difficult / Not difficult at all

Is this because of any of the following reasons? (Choose one):

- My English is not good enough** to understand the course materials or the classwork;
- My English is good enough** to understand the course materials and classwork, but I find the **academic standard too high** (content too difficult) for my abilities;
- My English is good enough** to understand the course materials and classwork, and I find the **academic standard is not too difficult** for my abilities;
- My English is good enough** to understand the course materials and classwork, and the **academic work is relatively easy.**

S2. Do you find it difficult **to express yourself** in discussions and tutorials?

Very difficult / Quite difficult / Not very difficult / Not difficult at all

(i) **If you answered YES (Very difficult or Quite difficult)**, is it because (select as many as appropriate):

- My grammar isn't good enough to explain my ideas and I can't think of another way to express myself;
- I don't know the right vocabulary to say what I mean;
- I am scared that other students and the lecturer won't understand my meaning;
- I know how to say what I mean, but I'm embarrassed about my pronunciation.

Any additional comment:.....

(ii). **If you answered NO (not very difficult, or not difficult at all),** is it because (select as many as appropriate):

I feel confident that my grammar and vocabulary are good enough to explain my ideas, even if I make mistakes;

My pronunciation is good enough for other students and the lecturer to understand me;

Any additional comment:

S3. Do you **become involved in**, or **get included in** class discussions and other forms of class interaction?

Yes, often / Sometimes / Rarely / Never

(i) If you said **RARELY** or **NEVER**, is this because (choose as many as applicable):

You aren't confident about participating in group discussions because of your language skills.

You aren't confident about participating because you don't understand what the class is about.

You are confident about participating in a small group discussion, but not if it is a whole class activity.

You don't feel welcome to participate.

You try to participate but no-one takes any notice of you.

You try to participate, but no-one can understand you, so you lose confidence.

Other reasons (please explain).....

S4. Do you **experience difficulty** in completing **written assessments** and other writing tasks?

I find it: Very difficult / Quite difficult / Normally not too difficult / Not difficult at all

(i) **If you answered YES (Very difficult or Quite difficult),** please explain why

(choose as many as appropriate):

It is too difficult to express my meaning in English because my grammar is bad;

My vocabulary is not good enough and I have to use a dictionary all the time;

I can't organise and support my ideas properly;

I can't understand the reference books and reading materials;

I can understand the reference materials, but I have trouble expressing it in my own words;

I can't understand the assignment questions.

Can you make any additional comment or explanation about these difficulties?

.....

(ii) **If you answered NO (Normally not too difficult, or Not difficult at all),** please explain why (choose as many as appropriate):

- I find it easy to express my meaning with the grammar I know;
- My vocabulary is good enough to answer the questions;
- I can organise my ideas and support them in my own words;
- I can find useful information in the library reference books and reading materials;
- Even if I don't always have the right grammar and vocabulary to express myself, I can usually find other words and expressions to explain my meaning.

Additional comment /explanation:

S5. How well do you understand **the content** of classes or lectures? (choose one):

- I understand most or all of the lecture
- I understand a lot of what the lecturer is saying, but sometimes I miss some points
- I understand some things, but there is a lot that I miss or can't comprehend
- I don't understand very much at all
- I can't understand anything

Additional comment:

S6. In your opinion, is your **English language proficiency** adequate for the nature of your university studies? (Choose one answer):

- Yes, my English is completely adequate for my university studies and causes no major problems for me.
- Although I have some language difficulties, in my opinion my English is good enough for my university studies.
- My English is not quite good enough for my university studies and I struggle quite a lot because of this.
- My English is not good enough for my university studies and I am unable to cope.

Thank you for your time. **(Interviewer)**

APPENDIX B: RANDOM SAMPLE OF INTERVIEW QUESTIONS FOR TUTORS

The University of Melbourne

Office Use Only

Identifier:

STUDENT NAME:

family given English (if any)

COURSE:

TUTOR:

These questions are designed to ascertain your perceptions of the performance of this particular international student and of any difficulties he/she may seem to be experiencing.

S1. Does the student **attempt to express ideas and opinions** in tutorials or other class sessions?

Often / sometimes / rarely / never

S2. When he/she speaks, are you able to clearly understand his/her **spoken meaning** (ie can you understand what ideas and opinions are being expressed)?

Always / sometimes / rarely / never

S3. If you experience any difficulties understanding his/her spoken meaning, it this because of any of the following? (choose as many as appropriate)

poor grammar

limited vocabulary

pronunciation problems

first language interference

other (please explain – either linguistic or non-linguistic causes):

.....

S4. Does he/she interact with other native-speaking students **in the classroom situation**? (eg participating in two-way discussions which relate to the class)

Yes / No / Not Applicable

If YES, how often? (Choose one):

The student frequently interacts with native-speaking students in class;

The student sometimes interacts with native-speaking students in class;

The student rarely interacts with native-speaking students in class;

The student never interacts with native-speaking students in class.

S5. What is the standard of his/her written work? (for example, are essay results good; are there are language corrections on written work? do they address the question? Can he/she develop and support arguments and ideas?)

Choose one of the following:

- The student's work is of a very high standard in terms of the above criteria;
- The student's work is of a good standard in terms of the above criteria.
- The student's work is of a fair standard in terms of the above criteria.
- The student's work is of a poor standard in terms of the above criteria.

Further comment / explanation:

.....
.....

S7. Does the student ever seek clarification of meaning?

Yes (often or sometimes asks for clarification) / No (remains quiet/no response)

Comment / explanation:

S8. What is your general perception of his/her performance in the learning environment?
(Choose one answer):

- The student is performing well in the learning environment
- The student is performing adequately in the learning environment
- The student is coping in the learning environment, but is experiencing difficulty
- The student is struggling to cope in the learning environment

Additional comment / explanation:.....

S9. In your opinion, is the general English language proficiency of this student adequate for the nature of his/her university studies?

Completely adequate / Reasonably adequate / Not very adequate / completely inadequate

Thank you for your time.