This report was prepared by the Language Testing Research Centre University of Melbourne June 2020 and reflects the views of the researchers from an academic perspective based on the literature and benchmarking only.

The National Boards and Ahpra have considered the research findings and recommendations together with wider project findings, analysis, National Scheme data and our regulatory experience, to develop proposals for consultation. As a result, we've adopted some of the report's initial recommendations especially where supported by broader evidence and analysis and where appropriate for a multiprofession regulator. Other proposals that may require longer term work and consideration, or do not easily align with our regulatory approach, have not been adopted but will continue to be considered as part of our ongoing reviews.

Report prepared for the Australian Health Practitioner Regulation Agency (Ahpra) on behalf of the National Boards

Research to inform the Review of English language skills registration standards for 15 health care professions

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CONTENTS

0 EXECUTIVE SUMMARY AND RECOMMENDATIONS

This report commissioned by the Australian Health Practitioner Regulation Agency (Ahpra) forms part of the National Boards' regular review of the English language skills (ELS) requirements for registration of health professionals in Australia. The current ELS Standards implemented by most national boards commenced in 2015 and are now due for scheduled review. To prepare for this review, Ahpra on behalf of the National Boards commissioned the work in this report completed by the Language Testing Research Centre (LTRC). The aim was to investigate the suitability of current practices within both the test and non-test registration pathways by conducting a comprehensive literature review complemented by desk research on the practices of other health regulatory bodies for 15 professions.

The report is structured into two sections, (1) test pathway, and (2) non-test pathway.

Section 1: Test pathway

General considerations in language testing for professional purposes

In the section discussing the test pathway, the report first outlines some general considerations relating to language testing for professional purposes, including the difference between general academic language tests (such as IELTS, TOEFL, Pearson PTE) and occupation-specific language tests (such as the OET). The report also describes language frameworks, such as the Common European Framework of Reference (CEFR), which are often used to compare standards on language tests. This introductory section of the test pathway section also discusses how well equipped English language proficiency tests are to capture the communicative domain of health care communication, pointing clearly to the limitations of all existing English language assessments, but particularly those designed for general academic purposes. The next section sets out some key validity considerations in occupation-specific language testing and the setting of appropriate standards on such tests for various purposes.

The main body of the section on test pathways addresses the questions that were posed by Ahpra.

Tests used by other health regulatory bodies

The first section presents the findings of the desk review of tests used by other health regulatory bodies in English-speaking countries (including the minimum standards set on those tests). The following countries were included in the review: Canada, Republic of Ireland, South Africa, United Kingdom, New Zealand, Singapore, United States, and Australia.

Our review showed that various tests are accepted. The most frequently tests accepted are summarized in the table below.

General academic tests	Occupation-specific tests
IELTS	OET
TOEFL iBT and TOEFL PBT	CELBAN (Canada only)
Cambridge English: Advanced (CAE) (now C1 Advanced)	
Cambridge English: Proficiency (CPE) (now C2 Proficiency)	

Cambridge English: Business Higher (BEC Higher) (now C1 Business Higher)	
Pearson PTE	
CAEL	
MELAB (retired)	
CanTEST (Canada only)	

Review of standards required on English language tests by other regulatory bodies

Certain professions have much higher, more stringent minimum standards, whereas other professions (e.g., like Chinese Medicine) are less regulated.

A review of the standards also shows differences across countries. New Zealand has the most stringent requirements across the professions reviewed and South Africa has the least stringent requirements or the lowest minimum scores, in most cases. Australia's language requirements of IELTS 7 is situated somewhere in the middle of the countries we reviewed. It is often not clear how the minimum levels were originally arrived at, although many have been in place for significant periods, and as we outline in the section on empirical standard-setting studies in the report, some countries have attempted to arrive at the registration standards empirically. It is possible that other registration bodies adopted standards from other countries, arrived at the decisions based on discussions with the test developers or based on a review of the short statements that test publishers make available about the meaning of the score levels, or based on their regulatory experience.

Evidence from the small number of empirical standard-setting studies available shows that the minimum standards should probably differ for different professions (with medicine requiring higher minimum standards than other professions). There is also evidence that some sub-skills are deemed more important than others. Speaking and (in some cases) listening seem to require higher minimum standards than other skills. In the case of nursing, the writing minimum scores needed are generally found to be lower. Interestingly, however, where multiple standard-setting studies are available for the same profession, the trend in cut-scores is not always the same. Different panel composition, test items and standard-setting methodologies may have an impact on these results.

The report also reviewed English language standards adopted by non-health regulatory bodies in Australia, focussing on statutory authorities and professional associations servicing high stakes professions in teaching, law, aviation and engineering. Our survey showed that general academic language tests are accepted as evidence of English language proficiency by regulators of professions in law, teaching, and engineering; for these professions the standards are set differently for certain skills, although this is not always consistent across all of the tests accepted.

Validity of tests currently accepted by health regulatory bodies

In the next section, the current report presents a discussion on the validity of the tests currently accepted by various health regulatory boards. We could find no evidence to suggest that the validity and reliability of any of the tests may be compromised. Firstly, our review found evidence that all the tests are supported by a body of reputable research although, as noted, there is a larger body of research for some tests than others. Secondly, for all the tests reviewed in this section (with one exception), we were able to find evidence

of satisfactory reliability and technical performance on measures relating to robustness of scoring mechanisms, test fairness (equivalence of parallel test forms), and soundness of test administration.

The report also discusses the suitability of the NAATI qualifications and the ISLPR test for evidence of English language proficiency, as requested by Ahpra. Both qualifications are described in some detail and based on this, the report concludes that neither of the qualifications is suitable for providing evidence of English language proficiency for professional registration.

Recommendations – test pathway

The report then set out a number of recommendations based on the work undertaken in the section on the test pathways.

Recommendation 1: *We recommend that the National Boards continue accepting the tests currently accepted for registration purposes.*

***Recommendation* 2:** *We recommend that the National Boards also consider accepting scores on the following tests as demonstration of meeting the English Language Standard:*

- Cambridge C1 Advanced
- Cambridge C2 Proficiency
- MELAB (MET)
- CAEL

We make our second recommendation from the combined perspectives of international precedent, and test quality and relevance. We observe that it is not common amongst overseas regulators for more than three tests to be accepted, and therefore highlight the need for National Boards to consider the operational requirements of recognition of additional tests.

Recommendation 3: *We recommend that the National Boards also consider accepting scores on the following tests, which can only be taken in Canada:*

- CanTEST
- CELBAN (nursing only)

Our third recommendation above, is made specifically in relation to the CanTEST and CELBAN because we would anticipate that these two tests would be unlikely to have much impact in the Australian context since their availability is limited to Canada.

Recommendation 4: *We recommend that consideration be given to conducting an empirical standard-setting session in the Australian context.*

This could either focus on one key profession or draw on a varied panel from a number of professions. If a standard-setting workshop is conducted on one test, then these standards can be mapped across to other tests drawing on the Common European Framework of Reference. Due to the paucity of research on standards for allied health professions,

National Boards/Ahpra may want to convene one panel for all these professions, unless there is evidence that the language requirements differ.

Panel composition is important to consider. Most studies have included panel members from only the same profession. However, our discussion of the communicative requirements of health professionals shows that communication is required both within the same profession, across health professions and with lay people, such as patients, family and other non-health professionals. For this reason, it may be valuable to include panel members from a range of backgrounds, as was the case in the study conducted by Berry et al. (2013).

Recommendation 5: *We recommend, if any changes to the standards are adopted, that the impact of these changes are modelled prior to policy implementation and tracked following the implementation of the change.*

This could involve modelling possible changes in workforce migration, and its associated impact on both workplace risk, workforce shortages and workforce integration. Following implementation it would be important to (a) check whether any changes in standard have positive or negative consequences for the workplaces as well as the overseas-trained health professionals, and (b) conduct tracking studies to see how overseas-trained health professionals are coping once in the workforce. It is important to ensure that any change in standards does not increase the risk to the public. Ahpra-internal data on notifications may be the most objective data source, but it may be difficult attributing difficulties reported to English language skills as these may be difficult to separate from other issues experienced by overseas-qualified health professionals.

Section 2: Non-test pathways

The second focus of the report is on the validity of the three non-test pathways offered by Ahpra, and the comparison of these pathways to the standards expected of health professionals registering through the test pathway.

Literature review on language development in higher education

The first sub-section of the report details a review of the literature around the likelihood of someone enrolled in an English-medium university reaching an English language proficiency equivalent of IELTS Level 7 or OET Band B. We first investigated the university English language entry requirements for health degrees at various institutions in a number of selected countries, and then reviewed the literature to ascertain whether the difference between language entry requirements and the expected IELTS or OET level could feasibly be achieved.

Our discussion of the findings of our literature review on language development in higher education in relation to the levels required for entry into higher education courses show that the literature provides inconclusive evidence that health professionals registering through the non-test pathways are at the same level of English language proficiency (as measured by IELTS) as someone entering through the test pathways. Studies on students' language progression when studying in English-medium universities does not provide sufficient evidence that students will exit at an IELTS Level 7.

However, it could be argued that IELTS may be an impoverished measure of ability to communicate in a health professional context and therefore those that are entering through

the test pathway may also not be guaranteed to be sufficiently prepared to cope with the language demands of the workplace. Evidence of the communication skills acquired during courses is missing in the literature, and for this reason it is difficult to make any firm claims about the strengths and weaknesses of someone who is entering through the education pathway, as opposed to someone providing evidence of a test score. However, it needs to be noted that the two first pathways are relatively stringent when compared to other countries. The report the following recommendation:

Recommendation 6*: We recommend that online education as the main evidence of education is not accepted as an alternative to the English language pathway.*

We recommend this because we expect online courses to provide impoverished English language input in terms of time and exposure when compared to face-to-face courses. We were not able to find any research studies that examined language development in such contexts, but discussions in second language acquisition research (Lantolf, Thorne, & Poehner, 2015; Long, 1996), lead us to conclude that online courses are unlikely to provide sufficient opportunity for students to practice in particular spoken communication during their studies.

Proposed empirical examination of non-test pathways

To empirically investigate the question of whether health professionals who have registered through the non-test pathway are coping with the language demands of their Australian workplaces, Ahpra asked that we propose possible research projects, which Ahpra may want to conduct. Four research projects are proposed in the body of the report, each drawing on a different methodology.

Recommendation 7*: We recommend that consideration be given to conducting or funding one of the research studies we have recommended to investigate whether health professionals registering through the non-test pathways are coping linguistically in their workplaces.*

We make this recommendation because such an investigation would shed much more direct light on health professionals entering through the pathways in question, and therefore provide Ahpra with much more direct data than our literature review may be able to provide. At the same time, it may be worth also investigating how a comparison group of test-pathway health professionals is coping in their workplaces. Some recent research conducted at the Language Testing Research Centre may be of interest in this context.

Non-test pathways offered by other health regulatory bodies

The report also reviewed non-test pathways used by other health regulatory bodies internationally and compares these to those currently accepted by Ahpra. There are instances where alternative pathways do not exist or do not have English language requirements:

- No alternative pathway
- No formalized standards
- No English language requirements (some with certification exams)

The review also identified the following list of possible evidence that can be supplied to fulfil alternative pathways:

- In-country study
- English as the first/main language (some with certification exams)
    - English as the first language and qualification taught in English
    - English as the first language, qualification in English and registration in an English-speaking jurisdiction
- Nationality
- Other education in English (primary, secondary, tertiary other than relevant qualification)
- Qualification obtained in an English-speaking country
    - Qualification obtained in an English-speaking country and qualification specified as having been taught in English
    - Qualification obtained in an English-speaking country and registration in an English-speaking jurisdiction
- Other country of qualification (includes non-English-speaking countries)
    - Other country of qualification and how recently that qualification had been obtained
- Qualification with English as the medium of instruction
- Registration in an English-speaking country
    - Registration and practice in an English-speaking country
- Other pathway types (the remaining unclassified pathways)

Our review of the non-test pathways accepted by overseas regulatory bodies for health professions showed the first two pathways currently available for registration in Australia ('primary language', and 'combined secondary and tertiary education') are relatively stringent and no changes are necessary. Note this finding is irrespective of whether or not a health professional entering through either of these pathways would have the same level of English proficiency, *as measured by test scores,* as someone entering through the test pathway. As for the third pathway ('extended education'), which has been flagged due to the issue of applicants being able to combine a number of short courses with low entry levels, the addition of requirements for acceptable courses would remedy the problem.

Recommendation 8: *We recommend that requirements for course(s) other than the qualification in the relevant professional discipline be set at a minimum level to ensure similar English language requirements, such that it/they:*

- have a minimum IELTS 6.5 entry requirement or equivalent
- are a bachelor's degree or higher
- are continuous (i.e., at least 12 months full time equivalent)

Recommendation 9*: We recommend clarifying that the definition of 'continuous' excludes recognition of prior learning.*

We recommend this because recognition of prior learning does not ensure the same amount of time spent using English.

Many jurisdictions were found to accept work experience as a pathway for registration. Although it can be difficult to verify work experience and references for a pathway based solely on experience, we recommend being cautious but open to accepting work experience in conjunction with a previous language test.

Recommendation 10*: We recommend that consideration be given to accepting work experience in an English-speaking environment as evidence of continued use of English after an applicant has reached the minimum English language test score in the past for entry into a qualification or as part of registration in another English-speaking country.*

This leads to our next recommendation, regarding special cases, of which work experience may be a part.

Recommendation 11*: We recommend that consideration be given to collecting further evidence from special cases before deciding whether there should be a more general pathway for them, accepting other types of evidence.*

We make this recommendation because although there are deserving special cases, there is the possibility of receiving too many special-case applications if a dedicated pathway were to be created. It is also unknown if applicants accepted through this type of pathway in other countries have indeed performed satisfactorily in the workplace.

Review of list of recognized countries

The final section of the non-test pathway is a discussion of the possible changes to recognized countries. To do this, we surveyed the English language requirements for entry to qualifying degrees in each of these countries and compared them with Australian standards. Based on the expectation that where students are able to enter the relevant degree program with a lower level of proficiency, they may not make sufficient proficiency gains by the time they graduate to be considered at a level equivalent to IELTS 7.0, we drew two conclusions: firstly, country recognition should not necessarily apply to all professions as the entry requirements for qualifying degrees for some professions are too low; secondly, where qualifying programs for a given profession are offered at multiple institutions, recognition should be limited to institutions where the minimum entry standards are on a par with Australian standards. We therefore offer the following recommendations in relation to the continued status of South Africa as a recognised country:

Recommendation 12*: Recognition be limited to those professions for which minimum English language requirements for entry to qualifying degrees are not lower than standards for entry to Australian qualifying degrees for the same profession.*

Recommendation 13*: Where qualifying degrees for a given profession are available at more than one institution in South Africa, recognition be limited to those institutions with minimum English language entry requirements for the relevant degree that are not lower than standards for entry to Australian degrees for the same profession.*

In Singapore, Malaysia, and Hong Kong, for professions where the entry standards for qualifying degrees are lower than Australian standards, there is no case for introducing recognition of these countries. However, there are also qualifying degrees for some professions in these countries with minimum entry requirements that are on a par with

Australian standards. Therefore, in considering possible recognition of Singapore, Malaysia, and Hong Kong, we recommend the same contingencies for limited recognition, as observed in relation to South Africa:

Recommendation 14*: Recognition should only be considered if limited to those professions, and institutions, for which minimum English language requirements for entry to qualifying degrees are not lower than standards for entry to Australian qualifying degrees for the same profession.*

1 INTRODUCTION/BACKGROUND

This report commissioned by the Australian Health Practitioner Regulation Agency (Ahpra) forms part of the National Boards' regular review of the English language skills (ELS) requirements for registration of health professionals in Australia. The aim of this work was to conduct a comprehensive literature review as well as desk research on the practices of other health regulatory bodies for 15 professions. The current ELS Standards implemented by most national boards commenced in 2015 and are now due for scheduled review. To prepare for this review, Ahpra on behalf of the National Boards commissioned the work in this report to be completed by the Language Testing Research Centre (LTRC). The work focussed on two main strands: (1) Test pathway, and (2) non-test pathways. The results are presented in these two broad sections, and answer the questions posed in the request for quote (RFQ).

2 TEST PATHWAY

In this section of the report we focus on the test pathway (or Stream 1 of the project, as set out in the RFQ). We first discuss some general considerations in language testing for professional registration, including the differences between general academic and specific purpose language tests, methods for establishing test quality, and how standards are set on tests for different purposes. After setting out these principles, we review the tests and test standards currently in place for registration for various health professions in Australia, New Zealand, the United Kingdom, the United States, Canada, Republic of Ireland, South Africa and Singapore and compare these to the current requirements in place by the National Boards and Ahpra. We also describe how various other, non-health related professional bodies regulate in this area in Australia. The information about the tests and test standards used by other health registration boards as well as other professions was identified through a search of the relevant board websites. If no information was found, we also attempted to contact the registration boards directly through the contact details listed on their websites, although not all these requests were answered. Wherever we were not able to find information about the language requirements, we have noted this in the report.

2.1 CONSIDERATIONS IN LANGUAGE TESTING FOR PROFESSIONAL REGISTRATION

In this section, we set out some general principles in relation to language testing for professional registration purposes. This information forms the backdrop of our review of tests used in various other health and non-health contexts described later in this section.

2.1.1 GENERAL ACADEMIC AND OCCUPATION-SPECIFIC LANGUAGE TESTS

Two types of language tests are currently used in the registration process of overseas-trained health professionals intending to practise in English-speaking countries, (1) general academic English tests and (2) specific purpose language tests. When making decisions about English language proficiency tests and the standards on these tests, it is helpful to understand the differences and the implications for the decisions we make about test takers based on these tests. We describe the two test types below.

Language tests for general academic purposes

Language tests for general academic purposes are designed to give an estimation of the readiness of test takers to enter an English-medium university and are usually designed for students entering tertiary education at the undergraduate level. Examples of such tests are the International English Language Testing System (IELTS), the Test of English as a Foreign Language (TOEFL), the Pearson Test of English (Academic) and the Cambridge suite of assessments, such as English First. The tests are general academic, rather than more specific, because they do not assume any background knowledge in any specific discipline. Because these tests are administered globally, they need to be general enough not to unfairly bias against test takers from any specific country or context.

While these general academic tests are all designed for the same purpose, they differ in their design features, administration and scoring procedures. These differences are outlined below:

- IELTS (academic & general): IELTS test users can choose whether they would like to take the IELTS academic or general-purpose test. The tests are both offered in four sections: reading, listening, writing and speaking. The two versions differ only in the format of the writing and reading sub-tests. While the score levels are no different, the tests differ in the level of academic content, with the reading section of the general test including shorter, and a larger variety of texts, drawn from various, non-academic sources. The writing sub-test has one writing task in common. The second task, which is a graph description task in the academic test, requires candidates to write a letter in the general test. It is important to note, however, that both test formats were originally designed for entry into tertiary study, with the IELTS academic test developed for university entry and the IELTS general being adapted for the entry into vocational training programs. The general test is now marketed more for migration purposes by IELTS. The levels awarded on the two test versions are, however, identical in meaning. That is, a Level 6 on the academic test and a Level 6 on the general test point to the same level on the Common European Framework of Reference (CEFR). IELTS is administered in pen-and-paper format for reading, listening and writing. Speaking is conducted in person with an examiner conducting the speaking test in a one-on-one format. Reading and listening are objectively scored by clerical markers. Writing and speaking of IELTS is only rated by one person.

- Pearson Test of English (Academic): PTE Academic is a fully computerized test in which all test content is presented on the computer and all responses by test takers are marked automatically. This limits the types of tasks that can be administered and the aspects of a test taker's response that can be assessed. Test takers are asked to produce short essays and produce short spoken, monologues in the speaking test. Test takers are aware that they are not speaking to a human.

- Test of English as a Foreign Language internet-based test (TOEFL iBT): The TOEFL iBT is also administered on the computer, but while reading and listening test sections are automatically scored, speaking and writing performances are scored by one human rater and an automated scoring engine (as the second rater).

- Cambridge C1 Advanced: Cambridge C1 Advanced is administered in pen-and-paper format. The speaking test involves two test candidates speaking to each other and to an examiner in response to prompts. Reading and listening sections are objectively scored by clerical markers. The speaking and writing performances are double-rated.

Occupation-specific language tests

Occupation-specific language tests are designed to assess the language proficiency of test candidates in a specific work context. For this reason, the test materials are designed to create a backdrop as authentic as possible for test takers to display their language proficiency. Proponents of occupation-specific language tests argue that unless test candidates are required to display their language in a way that is modelled on the context in which they will be using the language, the skills measured may be irrelevant. These tests are therefore considered to be more valid as assessments of language proficiency for work purposes as they are more likely to accurately predict test takers performances in the work domain (Douglas, 2000; Knoch & Macqueen, 2019). Actually measuring/proving this effect is difficult, because successful performance in the workplace is dependent on a much wider skill set than just language proficiency. Another feature that is often considered an advantage of occupation-specific tests is their ability to create 'positive washback'. This means that these tests are able to make test takers more aware of the language requirements they will be exposed to once entering a workplace and thus promote the learning of appropriate communication strategies during test preparation. It is common for test takers to put in considerable time and effort into preparing for tests, and the washback phenomenon is supported by a substantial body of research (Cheng & Watanabe, 2004; Wall, 2012). Occupation-specific language tests differ widely in how specifically they model the domain of interest, or how broadly the domain is defined. For example, a language test may be designed to assess the language proficiency of the health domain more generally, or it may be targeted at physiotherapists training in a specific setting.

There are two examples of language tests for occupational purposes that are relevant to this report.

- Occupational English Test (OET): The OET is an occupation-specific language test for health professionals (focusing on twelve professions). The tasks that test takers encounter are designed to model their future work contexts, although this is of course

limited by the test situation. The test is administered in pen-and-paper format for listening, reading, and writing and the speaking test is undertaken in person with an actor pretending to be a patient. The writing and speaking sub-tests are rated by human raters and all performances are at least double-rated.

- Canadian English Language Benchmark Assessment for Nurses (CELBAN): The CELBAN is a nursing-specific occupational language test used in Canada as part of the internationally qualified nurse registration process. It is similar to the OET in that it is administered in pen-and-paper format, and includes role plays for the speaking test. The writing and speaking tasks of the CELBAN are double-scored.

2.1.2 LANGUAGE FRAMEWORKS

In certain contexts, policy makers may, rather than specifying a language test for registration purposes, indicate a point a test taker needs to reach on a language framework (also referred to as language standards). Notable examples of such frameworks are the Common European Framework of Reference (CEFR), or the Canadian Language Benchmark (CLB).

Language frameworks are generalised descriptions of language learning progressions and are designed to assist comparison across language learning, teaching and assessment contexts. It is important to note that language frameworks are not language tests but rather a set of criterion-level statements which can be used by teachers, policy makers and test developers for various purposes. The most well-known example of a language framework is the Common European Framework of Reference (CEFR) designed in Europe and published in the early 2000 (Council of Europe, 2001). The CEFR comprises a series of levels of functional communicative language ability, expressing these in terms that are meaningful to users. The CEFR scale makes distinctions between three broad learner levels:

- A – basic: further subdivided into A.1 and A.2
- B – independent: further subdivided into B.1 and B.2
- C – proficient: further divided into C.1 and C.2

In Figure 1 below, we have reproduced the higher levels of the global scale in the CEFR, which are the most pertinent to the context of this report. Apart from the global scale, the CEFR includes more detailed descriptions for the various language skills, including reading, writing, speaking and listening.

Proficient User	C2	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.
	C1	Can understand a wide range of demanding, longer texts, and recognise implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.
Independent User	B2	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
	B1	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.

Figure 1: Extract - CEFR global scale

We have chosen to include language frameworks in this description, as we have found some instances of these being used as being listed by a small number of registration agencies (e.g., the General Osteopathic Council in the UK). The use of language frameworks in this context has a number of drawbacks. Firstly, the levels are generally very broad, and therefore not very useful for setting cut-off levels (this is further discussed in the section on comparing standards across language tests below). Secondly, the descriptions are very general, and not reflective of the language requirements of healthcare professionals. Finally, as language frameworks are not in themselves testing instruments, the testing needs to happen using a test that is linked to the framework. To ensure that the testing instrument is used is valid, it is more efficient for registration bodies to specify accepted tests directly.

2.1.3 ENGLISH LANGUAGE PROFICIENCY TESTS AND THEIR MATCH TO THE COMMUNICATIVE DOMAIN OF HEALTH CARE COMMUNICATION

To understand how well the different language tests capture the language competence needed to be able to work as a health professional, it is useful to break health communication into three simple building blocks. In Figure 2 below, we have presented one such division of health care communicative competence. At the bottom level, underpinning the other competences, is general linguistic competence. This includes aspects such as spoken production and comprehension (fluency, pronunciation, speed of speech), ability to

use the non-verbal channel (through body language), as well as written production and comprehension.

The second level in our basic model relates to the ability to understand and produce health-related language, including the comprehension and production of medical terminology, abbreviations, acronyms relevant to the health sector and the ability to understand medication names. Included in this level is also the ability to explain medical terminology to patients and family in layman's terms.

The third level, labelled as professional communicative competence, includes aspects such as using language to provide patient-centred care (e.g., using open questions, active listening, and involving patients in decision-making), drawing successfully on nuances of language to build rapport with patients, being able to adjust language to different patient groups (e.g., mental health patients, children, patients with dementia), and different situations (e.g., communicating bad news).

Not only do health professionals need to be able to apply all these three competences within their daily work, they also need to communicate with different audiences with differing amounts of technical language and with differing levels of specialist content (Knoch & Macqueen, 2019). Health professionals need to communicate with colleagues from the same profession drawing on intra-professional register, with colleagues from other health professions (inter-professional register) and they also need to be able to communicate with others in the workplace (e.g., patients, family, or non-health workers, such as administrators).

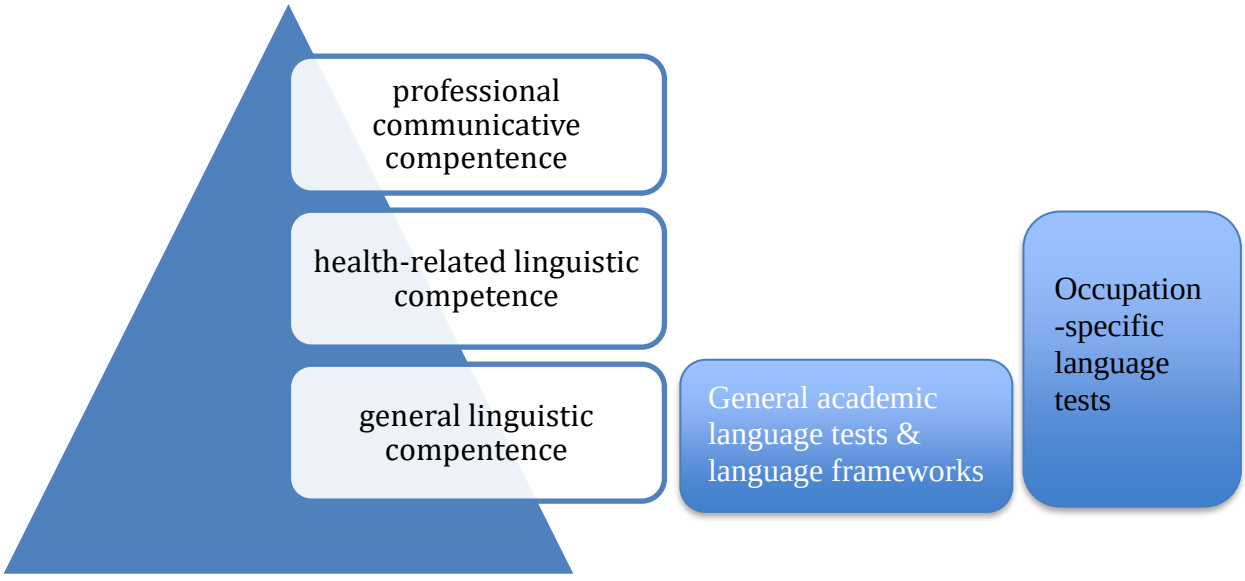

Figure 2: Competences underpinning health communication

The general academic language assessments we have described above are designed to tap into general linguistic competence only. The same is the case for language frameworks. The occupation-specific language tests are able to tap into both the general linguistic competence and the health-related linguistic competence, although it is important to point out that the coverage of this competence is also limited. There are two reasons for this. First of all, they all fall short on fully measuring intra- and inter-professional communication. For example, in the case of the Occupational English Test, test takers are only assessed on their ability to

speak to a patient (as part of the simulated role plays), while communication with colleagues both from the same and other professions is not included in the speaking test. The second reason relates to the context of use of the tests. Abbreviations, medication names and certain medical terminology is context-dependent and can therefore not be modelled by a test that is used across contexts. The final level in Figure 2 above, professional communicative competence, is not tested in any of the tests currently in use but is rather often tested indirectly in tests of clinical competence (e.g., clinical assessments using OSCEs).

2.1.4 VALIDITY CONSIDERATIONS IN OCCUPATION-SPECIFIC LANGUAGE TESTING

There are a number of different factors or qualities that need to be considered when choosing a language test for professional registration purposes. These considerations are represented in validation frameworks (see, e.g., Chapelle et al., 2012; Kane, 2006; Bachman & Palmer, 2010) used in language testing and in other educational testing contexts. These considerations extend beyond a focus on the statistical properties of test materials to examine the suitability of the test for the context in question, and the consequences of using the test scores for decision-making for various stakeholder groups. Below, we describe some of these key considerations.

The first consideration focusses on the *domain-relevance of the test materials*. As described above, it is desirable that test takers encounter test materials that are relevant to the domain that they are being tested for. This is more likely to elicit the test takers' ability to engage communicatively in the domain at stake. For this reason, tests designed to measure readiness to enter an academic domain in an English-speaking context, may not be ideal to establish readiness to communicate in a health context.

A further important consideration is the *robustness of the scoring mechanism*. Test answers need to be scored reliably. This is particularly an issue in relation to the scoring of speaking and writing sub-tests, where human raters are asked to make impressionistic decisions guided by scoring rubrics. In the case of both human scoring and automated, computer-scoring, it is also important to scrutinize what aspects of the performance are subject to scoring. While performances scored by human raters may be subject to rater effects (such as lenience and harshness of raters), automatic scoring mechanisms have been criticized for representing an impoverished view of spoken or written communication.

Another important factor to consider is the *appropriateness of standards* on a language test. Passing standards need to be set appropriately, so that test takers with sufficient language ability to function in the domain in question pass, and those without do not. The passing standards need to be valid and appropriate. We discuss the issue of standards in more detail below. The appropriateness of standards in workplace settings can be examined by checking how well overseas-trained professionals who have already entered a workplace domain are coping with the language demands of the profession.

The consequences of a test's use in a certain context should also be scrutinized. It is hoped that the use of a specific test should generally have beneficial consequences for different stakeholder groups (including test takers, employers and their workplaces, patients, and the relevant policy makers). For regulators, employers and patients, a positive consequence is if staff registered in the workforce is at the appropriate skill level and is therefore functioning without creating any risk to the workplace and patients. For test takers a positive consequence may be that they experience the

phenomenon of test washback, which posits that language tests have an impact on teaching and learning during test preparation.

2.1.5 SETTING APPROPRIATE STANDARDS IN OCCUPATION-SPECIFIC TESTING

Results on language tests are generally reported in a range of band levels or scores, which may be reported in letter format (e.g. A to E), or integer format (e.g. bands 1 to 9 or scores from 10 to 220). These score ranges, however, provide little information about decision-making points for various score uses.

Policy makers, however, need to set specific cut-offs on language tests for certain decision-making purposes, such as whether a score point is sufficient for registration to the profession. To arrive at a meaningful decision-making point, specialists in educational assessment draw on the process of standard-setting. Standard-setting is usually conducted in a workshop setting, where a group of carefully selected stakeholders review test tasks and/or performances (this may differ depending on the standard-setting method chosen) and make decisions about what is enough, or what constitutes readiness in the particular context. It is complex to check how well standards serve a specific context once they have been implemented, but tracking studies could examine whether professionals are able to cope with the language demands of a job once employed. Of course this is always a truncated sample, and does not provide information about professionals who have not passed the language requirements.

There are a number of key considerations in standard-setting for English tests for professional purposes. One of these is the choice of standard-setting method. Standard-setting methods have been broadly divided into two types, those that are test-centred and those that are examinee-centred (Jaeger, 1989). In test-centred methods, panellists focus on test tasks or test items and evaluate how a 'minimally competent' test taker would perform on each of these items. In examinee-centred methods, panellists are asked to review test taker performances, making this method less hypothetical and potentially easier for panelists. Jaeger's classification, while simple, does not capture the various differences between standard-setting methods. For this reason, a more complex system has been proposed by Hambleton, Jaeger, Plake and Mills (2000). Their system focusses on (a) the stimulus that panellists focus on, (b) the decision task given to panellists, (c) the justification of the subsequent method and (d) the type of test task.

A vast number of standard-setting methods are available. For the purpose of this report, we introduce a small number of common methods. The Angoff method (Angoff, 1971), an example of a test-centred method, requires panellists to review test items and to provide an estimate of how many minimally-qualified candidates would answer the item correctly. The average of the judges' estimates becomes the difficulty of the item, with this difficulty being averaged across all items, resulting in the cut-score for the test. Angoff's method was later modified, resulting in the modified Angoff method (Impara & Plake, 1997). In this method, judges are asked whether a minimally-qualified candidate would answer a test item correctly. In the Bookmark method (Mitzel, Lewis, Patz, & Green, 2001), participants are provided with a booklet of test items which are placed in order of difficulty for test takers, from easiest to hardest. Panellists are then asked to consider at what point the cut-score would occur (and place a bookmark at this point into the booklet). This method has the advantage that panellists are provided with the difficulty of the items. The disadvantage is that panellists may not agree with the empirically-established difficulty which may cause

problems in the cut-score estimation. The Angoff and Bookmark methods are commonly used for test sections comprising selected response items (e.g. multiple-choice questions). For constructed responses (e.g. speaking and writing), examinee-centred methods are often used. The analytic(al) judgement method (Plake & Hambleton, 2001) requires standard-setting workshop participants to consider each performance at a time and sort these into categories (the number of categories would be determined by the number of cut-score decisions made). Between the 'full' categories (e.g., 'minimally proficient' and 'proficient') are in-between categories which panellists can use if they are unsure of which full category to assign a performance to. The scores of the performances assigned to the in-between categories are averaged to arrive at the cut-score between the adjacent full levels. Finally, in the body of work method (Kingston, Kahl, Sweeney, & Bay, 2001) panellists consider more than one response from a candidate (e.g. several speaking performances) to identify a suitable cut-score.

As can be seen from this description of various common standard-setting methods, the method chosen will introduce a methods effect and ultimately influence the final cut-score. The method is, however, not the only consideration in standard setting. The composition of the standard-setting panel is also important. The background and qualifications of the panellists needs to be considered as well as the representativeness of their workplaces and experience. While not commonly found in the literature, it may make sense to include panellists from other professions or the public in a standard-setting session. For example, when setting standards on an English test for the nursing profession, it may make sense to include panellists that are doctors, from allied health professions and panellists representing patients. We also recommend the inclusion of panellists with experience supervising overseas-trained health professionals and panellists who themselves are from non-English-speaking backgrounds. As workplaces are likely to differ in the language demands put on staff, we recommend including professionals from a range of contexts.

Panellists also need to be carefully trained. In this training process, one of the key questions to consider is how the 'minimally competent' workplace entrant is discussed at the outset of the session. Is this person considered to be working independently once entering the workplace or are they under supervision for a certain period of time? These considerations would ultimately influence the cut-score decisions. During the training, the panellists also need to gain an in-depth understanding of the test and test tasks. Standard-setting sessions are increasingly being offered online in a non-synchronous environment to account for the problem of recruiting suitable professionals and having these all available at the same time.

Finally, it is important to include a number of procedural checks at key points during the standard-setting to ensure procedural validity. With any expert panel approach, however, regulatory experience still carries significant weight, as standard-setting results need to be interpreted and various decisions need to be made to implement this.

In many contexts, however, no formal standard-setting meetings are conducted. Standards are often adopted from other contexts or standards are changed following complaints from workplaces or employers. Such standards may lack validity as they may mask other problems. For example, standards may be set too high because of complaints from employers, but the real reason may be that the test in use is not measuring the important qualities needed to communicate in the relevant domain. If standards are set too stringently, this may result in workforce shortages. As mentioned above, ongoing monitoring of standards is necessary to provide assurance to regulators that standards set provide the appropriate balance between minimizing risk and providing access to the workforce.

A final consideration is whether standards set for various health care professions should be uniform (as is, for example, the case in Australia for the majority of professions), or whether they should differ. One consideration in this is the fact that inter-professional communication needs to take place for effective workplace functioning. To address this issue, standard-setting panels could comprise members of various professions (Berry, O'Sullivan, & Rugea, 2013). We do not believe, however, that interprofessional communication necessitates uniform standards across professions based on the results of the standard-setting studies we have reported on. It may mean that certain minimum standards are required for optimal workplace communication. This is an area that requires further investigation.

2.1.6 COMPARING STANDARDS ACROSS TESTS THROUGH THE USE OF LANGUAGE FRAMEWORKS

As setting standards on multiple English language tests is costly and time-consuming, policy makers need to find an alternative way to set standards on more than one language test. Most notable language tests are formally linked to language frameworks, in particular the CEFR, and through this, test 'equivalence' can be established. The developers of the CEFR published a manual outlining the procedures involved in linking tests to the language framework (Council of Europe, 2009).

Figure 3 below, for example, presents the relationship of the IELTS test to the CEFR levels.

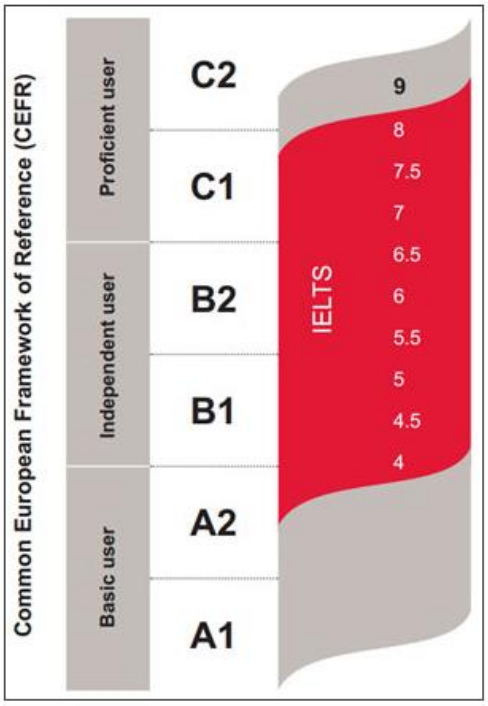

Figure 3: CEFR – IELTS comparison

It can be seen from this figure that the IELTS band levels have been linked to the Levels on the CEFR scale, with IELTS scores of 7, 7.5 and 8 falling into C1 level. The IELTS scale is thus finer in its gradations.

One problem is that standards on different tests are difficult to compare, especially if the tests are designed for different purposes. Language frameworks generally set out very generic language levels and are not aimed at profession-specific contexts. Even though both language tests for general academic purposes and occupation-specific purposes can be linked to language frameworks, the equivalence claim is difficult to uphold if two tests have very different designs.

2.2 Review of current English language tests and standards used by other regulatory bodies

In this section, we present an overview of our review of the English language tests used by other regulatory bodies as well as the standards required on these tests. We respond to the following questions from the AHPRA tender document:

Which English language tests do other professional regulatory bodies (both Australia and international) use to test English language proficiency prior to registration in the profession?

Does the current research base continue to support IELTS 7 as an appropriate baseline for entry to a highly skilled health profession?

a. **If so, do the scores for other tests currently recognised by National Boards (TOEFL, PTE, OET) appropriately align with IELTS 7?**
b. **Are there any variations to individual components of any tests that should be considered?**

We review the tests and test standards currently in place for registration for various health professions in Australia, New Zealand, the United Kingdom, the United States, Canada, Republic of Ireland, South Africa and Singapore and compare these to the current requirements in place by the National Boards and Ahpra. We also describe how various other, non-health related professional bodies regulate in this area in Australia. The information about the tests and test standards used by other health registration boards as well as other professions was identified through a search of the relevant board websites. If no information was found, we also attempted to contact the registration boards directly through the contact details listed on their websites, although not all these requests were answered.

We present the findings in the following sections. First, we focus on the tests used by international health regulatory bodies as well as the standards required and compare these with those required in Australia. We follow this by presenting relevant empirical standard-setting studies we have identified and discuss the standards required in light of these. We conclude this section by describing tests and standards used by other Australian regulatory bodies, including teaching, law, aviation, and engineering.

2.2.1 Language tests and standards required by health regulatory bodies internationally

We reviewed the regulatory requirements for English language for 15 professions for this report. In this section, we present the language tests accepted by regulatory bodies for those professions in New Zealand, the United Kingdom, Canada, Republic of Ireland, South Africa, Singapore and the US as well as the standards set on these tests. Please note that

some of the professional associations listed in this report do not have a regulatory role (e.g., Canadian Chiropractic Association, the National Dental Examining Board of Canada). It also needs to be noted that in the United States and Canada, regulation is a State/Province responsibility. The full list of professions, with links to the relevant registration board websites can be found in Appendices 1 and 2 (ordered by profession and by country respectively). We found that a variety of academic language tests, two occupational language tests and a small number of language frameworks were accepted. For each profession, we list the tests accepted and compare the minimum standards set and compare these requirements to those currently in place in Australia.

Chinese Medicine

In New Zealand, Chinese medicine is currently not regulated and there are thus no formalized registration standards. The regulation of the profession is currently being considered under the Health Practitioner Competence Assurance ACT (HPCA) 2003 and therefore this may change in the future. In the UK, Republic of Ireland and the US, there are also no centralized regulatory bodies for the profession that we could find, and there do not seem to be language requirements. In Canada, Chinese medicine is only regulated in British Columbia and Ontario at this stage. We could not find any language requirements for Columbia, but in Ontario (apart from producing a number of non-test pathway documents, applicants can prove their English by taking an interview with the registrar or registration panel. The specific details of what this entails are not clarified in the policy document . In South Africa, Chinese medicine falls under the Allied Health Professions Council of South Africa and in Singapore under the Traditional Chinese Medicine Practitioners Board. There do not seem to be specific language requirements for registration to either of these.

Australia seems to be the only country in which English language requirements are stipulated. The tests and minimum standards currently accepted are set out in Table 1 below:

	Minimum score	Sittings	Shelf life
IELTS	7.0 all skills	Single, or maximum of two repeat sittings within 6 months if minimum overall score of 7 in each sitting and minimum score of 7 in each component across two sittings, and no score in any component below 6.5.	Test results from within 2 years before the date of lodgement of application; longer shelf life acceptable if continuous employment in recognised country, and application lodged within 12 months of finishing this employment; or longer than 2 years if enrolled in Board-approved program of study
OET	B in all skills	Single, or maximum of two repeat sittings within 6 months if tested in all four skills in each sitting, and achieved minimum score of B in each	Test results from within 2 years before the date of lodgement of application; longer shelf life acceptable if continuous employment in

	Minimum score	Sittings	Shelf life
		component across two sittings, and no score on any component of the test is below C.	recognised country, and application lodged within 12 months of finishing this employment; or longer than 2 years if enrolled in Board-approved program of study
PTE Academic	Minimum overall score of 65 with a minimum score of 65 in all skills	Single, or maximum of two repeat sittings within 6 months if minimum overall score of 65 in each sitting and minimum score of 65 in each component across two sittings, and no score in any component below 58.	Test results from within 2 years before the date of lodgement of application; longer shelf life acceptable if continuous employment in recognised country, and application lodged within 12 months of finishing this employment; or longer than 2 years if enrolled in Board-approved program of study
TOEFL iBT	Minimum overall score of 94 with the following minimum on each test section: Listening: 24 Reading: 24 Writing: 27 Speaking: 23	Single, or maximum of two repeat sittings within 6 months if minimum overall score of 94 in each sitting and minimum score of 24 for listening, 24 for reading, 27 for writing, and 23 for speaking across two sittings, and no score is below 20 for listening, 19 for reading, 24 for writing, and 20 for speaking.	Test results from within 2 years before the date of lodgement of application; longer shelf life acceptable if continuous employment in recognised country, and application lodged within 12 months of finishing this employment; or longer than 2 years if enrolled in Board-approved program of study

Table 1: Language standards (test pathway) – Chinese Medicine Board of Australia (as well as chiropractic, dentistry, medicine, medical radiation, nursing, occupational therapy, optometry, osteopathy, pharmacy, physiotherapy, podiatry and psychology)

Chiropractic

In New Zealand, chiropractic is regulated under the Chiropractic Board of New Zealand and therefore operates under the Health Practitioner Competence Assurance Act (HPCA) 2003. Currently, the IELTS test is accepted as evidence of English language competence. The score requirement is an overall score of 7.5 with a minimum of 7 for each band. In the UK, the General Chiropractic Council regulates chiropractic registration. We were not able to locate language requirements for this council nor for the Canadian Chiropractic Association, the South African Allied Health Professions Council of South Africa, the Chiropractic

Association of Singapore, the Chiropractic Association of Ireland, and the American Chiropractic Association.

In Australia, the language standards are set by the National Boards as required by the National Law[1]. Table 1, above, sets out the standards for the English language test pathway.

Based on this information, it can be seen that only two countries (Australia and New Zealand) have set English language requirements that can be satisfied through an English language test pathway.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
Australia	7	7	7	7	7

Table 2: IELTS standards - chiropractic

Table 2 above compares the minimum requirements on the IELTS test in New Zealand and Australia and shows that the requirements in New Zealand are slightly more stringent.

Dentistry

The Dental Council of New Zealand accepts either the IELTS or the OET as evidence of English language proficiency. The minimum requirements for various dental professions vary on the IELTS test with dentists, dental specialists, dental hygienists, dental therapists, clinical dental technicians, required to achieve a 7.5 on average with a minimum of 7 on each sub-test. Orthodontic auxiliaries are required to achieve a 7.0 on average.

In the United Kingdom, the General Dental Council accepts IELTS (overall score of 7.0, with no individual skill lower than 6.5) but mentions provision for the acceptance of other language tests if this test is accepted by another regulatory body in an English-speaking country. In Canada, the National Dental Examining Board of Canada does not set specific language requirements, but graduates from non-accredited programs are required to enrol in a qualifying/degree completion program. There are several universities offering such programs and each university has different entrance requirements, as can be seen in Appendices 1 and 2. A range of language tests are accepted by these universities, including the Michigan English Language Assessment Battery (MELAB), the Canadian Academic English Language Assessment Examination (CAEL), IELTS, TOEFL iBT, Canadian Test of English for Scholars and Trainees (CanTEST), PTE Academic, Cambridge English: Advanced (CAE), Cambridge English: Proficiency (CPE), all of which are general academic English tests. Regulation is generally province based. In Ontario, a Level 7.5 overall on IELTS academic is accepted, as well as equivalents on TOEFL iBT and the Canadian CanTest. In Manitoba, a Level 7 on the Canadian Language Benchmark framework is also accepted. Note the MELAB was discontinued in 2018. The test provider, Michigan

[1] The Health Practitioner Regulation National Law as in force in each state and territory (the National Law)

Language Assessment (CaMLA) offers a test which is similar in format and construct to the retired test such that it may be considered a replacement offering: the MET (Michigan English Test). As far as we can ascertain, this development is not yet reflected in the published university entrance requirements.

The Dental Council of Ireland accepts both IELTS (7.0 for all skills) and OET (B for all skills), as does the Health Professions Council of South Africa. The Singapore Dental Council accepts IELTS (7.0 for all skills), OET (B for all skills), TOEFL iBT (100 marks) as well as equivalences for the TOEFL computer-based and paper-based tests.

Getting licenced in the US requires application for an accredited dental program that has TOEFL requirements which differ by university, as can be seen in Appendices 1 and 2.

In Australia, IELTS, OET, PTE (academic), and TOEFL iBT are accepted, as set out in Table 1 above.

Table 3 below summarises the minimum IELTS requirements for dentists in the countries described above. It can be seen that New Zealand has the most stringent requirements, whereas the UK, the most lenient. Most countries accept IELTS 7 for dentistry.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	6.5	6.5	6.5	6.5
Rep of Ireland	7	7	7	7	7
South Africa	7	7	7	7	7
Singapore	7	7	7	7	7
Australia	7	7	7	7	7

Table 3: IELTS standards - dentistry

The minimum requirements on the OET are consistent in all countries accepting this test (as set out in Table 4 below).

OET	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	B	B	B	B
Rep of Ireland	B	B	B	B
Singapore	B	B	B	B
Australia	B	B	B	B

Table 4: OET standards - dentistry

Three countries accept the TOEFL iBT as evidence of language proficiency (Table 5): Singapore, the US and Australia. Singapore only specifies an overall minimum score, which is slightly higher than those set in the US and Australia.

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
Singapore	100	Not specified	Not specified	Not specified	Not specified
US	95	24	25	17	21
Australia	94	23	27	24	24

Table 5: TOEFL standards - dentistry

Medicine

The Medical Council of New Zealand accepts both OET (350 for each band) and IELTS (speaking and listening 7.5, writing and reading 7.0). To register with the General Medical Council in the United Kingdom, applicants can present either an OET or an IELTS score to satisfy the test pathway. On the OET, they are required to achieve a B for each skill and on IELTS an overall score of 7.5 with no less than 7.0 on each sub-skill. In Canada, although the Medical Council of Canada is the first step in registration, English language standards are set by each province who provide the licenses to practise and differ slightly from province to province. The details can be found in Appendices 1 and 2. Most provinces accept IELTS, and some also accept the TOEFL iBT. The Medical Council of Ireland accepts IELTS (Overall 7.0, minimum 6.5 in each module), OET (B in all skills), and Cambridge: Advanced (CAE) at Level C1 or C2. In South Africa, only the IELTS (7 in all skills) is accepted, while in Singapore, IELTS (7 in all skills), TOEFL iBT (100 marks) and all other TOEFL tests, and the OET (B grade for all skills) are accepted. In the US, international medical graduates are required to take a certification process that includes taking the Clinical Skills (CS) test, a subcomponent of which is Spoken English Proficiency (SEP).

In Australia, IELTS, OET, PTE (academic), and TOEFL iBT are accepted, as set out in Table 1 above.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	--	7.5	7	7.5	7
UK	7.5	7	7	7	7
Rep of Ireland	7	6.5	6.5	6.5	6.5
South Africa	7	7	7	7	7
Singapore	7	7	7	7	7
Australia	7	7	7	7	7

Table 6: IELTS standards - Medicine

OET	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	B 350	B 350	B 350	B 350
UK	B	B	B	B
Rep of Ireland	B	B	B	B
Singapore	B	B	B	B
Australia	B	B	B	B

Table 7: OET standards - Medicine

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
Singapore	100	Not specified	Not specified	Not specified	Not specified
Australia	94	23	27	24	24

Table 8: TOEFL iBT standards - Medicine

The tables above (Tables 6-8) show that New Zealand is the most stringent, followed by the UK, with the Republic of Ireland having the lowest requirements in terms of IELTS scores. Most countries accept IELTS 7, in line with the requirements in Australia. Please refer to the section below where we report on results from empirical standard-setting studies which outlines a study conducted in the UK for medicine.

Medical radiation practice

In New Zealand, the Medical Radiation Technologist Board of New Zealand accepts the IELTS test (Overall score 7.5, minimum of 7.0 on each module) as evidence of language proficiency. In the United Kingdom, both TOEFL (score of 100) and IELTS (overall score of 7.0, individual skills no less than 6.5) are accepted by the Health and Care Professions Council. The Canadian Association of Medical Radiation Technologists accepts tests from three test providers. These include the TOEFL iBT (total score 73; Speaking 21), TOEFL paper-based test (Overall score 500, speaking score 40), IELTS academic (overall score of 6, speaking score 6), IELTS General (overall score of 6, speaking score 6), and the Michener English Language Assessment (MELA) (reading, listening, speaking: 8; Writing 7). The MELA targets workplace communication for radiologists, medical laboratory technologists, and respiratory therapists, and was originally developed as a test for admission to bridging programs for internationally trained health technologists at the Michener Institute in Canada. The test has been subject to a validation and benchmarking study, but we are not aware of subsequent research, and use of the test appears to be limited. In the Republic of Ireland results from three tests are accepted: OET (B Grade in all skills), IELTS (Overall score of 7 and no less than 7 on all sub-skills), CAE (Grade C or minimum of 185) on the Cambridge C1 test. The Allied Health Professionals Council in Singapore accepts IELTS (7 for all skills), TOEFL iBT (100 marks) or equivalent on the other TOEFL tests, and the OET (B grade for all skills), although it is not entirely clear from the website whether medical radiation practice is part of these requirements. We could not find any details for regulatory bodies in South Africa. In the US, there seem to be no language requirements for registration with the American Board of Radiology as radiologists in the US require a full medical license and therefore must have taken the Spoken English Proficiency (SEP) assessment as part of the certification process for international medical graduates.

In Australia, IELTS, OET, PTE (academic), and TOEFL iBT are accepted, as set out in Table 1 above.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	6.5	6.5	6.5	6.5
Canada (academic or general test)	6	6			
Rep of Ireland	7	7	7	7	7
Singapore	7	7	7	7	7
Australia	7	7	7	7	7

Table 9: IELTS standards – Medical radiation practice

OET	Min Speaking	Min Writing	Min Listening	Min Reading
Rep of Ireland	B	B	B	B
Singapore	B	B	B	B
Australia	B	B	B	B

Table 10: OET standards – Medical radiation practice

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	100	Not specified	Not specified	Not specified	Not specified
Canada	73	21			
Singapore	100	Not specified	Not specified	Not specified	Not specified
Australia	94	23	27	24	24

Table 11: TOEFL standards – Medical radiation practice

The tables above show that the Republic of Ireland, Singapore and Australia have very similar minimum requirements on IELTS, while New Zealand is more stringent, while the UK is more lenient. The requirements in Canada are much lower. The requirements on TOEFL iBT also differ across the four countries where this test is accepted, with Australia accepting equivalence of IELTS 7, the UK and Singapore only specifying an overall score (also at IELTS 7 but higher than that in Australia). In Canada, the requirements are again lower, although the minimum speaking score of 21 equates to an IELTS speaking score of 6.5, so higher than the IELTS minimum requirement. Please also refer to the section below on empirical standard-setting studies which reports an empirical study for medical radiation practice.

Nursing & Midwifery

The Nursing Council of New Zealand accepts the OET (350 for each band – equivalent to B) and IELTS (7 for each band). This is very similar to the Nursing and Midwifery Council in the UK, where also the OET and the IELTS are accepted. In the case of the IELTS, however, the NMC allows the writing component of the IELTS to be 6.5 (rather than 7), a recent change implemented in 2018 due to pressure from the profession. More information about the rationale for this change can be found at the following link: https://www.nmc.org.uk/globalassets/sitedocuments/councilpapersanddocuments/council-2018/october/final-open-council-papers-on-language-testing-november-2018.pdf

In Canada, both the IELTS (overall 7.0, speaking and writing 7.0, Listening 7.5, Reading 6.5) and the Canadian English Language Benchmark Assessment for Nurses (CELBAN) (Speaking and Reading 8, Listening 10, and Writing 7) are accepted by the National Nursing Assessment Service. The Nursing and Midwifery Board of Ireland accepts both the IELTS (overall 7.0, Speaking and Writing 7.0, Listening 6.5, Reading 6.5) and the OET (Listening and Reading C+, Writing B, Speaking B). In South Africa, the South African Nursing Council accepts the IELTS (overall score 6.0). We were not able to find language proficiency requirements for Singapore. In the US, the state nursing board accepts both the IELTS (overall band 6.5, individual bands 6.0) and the TOEFL (total score 84, Speaking 26). Nurses educated in English speaking countries or where English was the medium of instruction and/or textbooks were written in English are exempt.

In Australia, IELTS, OET, PTE (academic), and TOEFL iBT are accepted, as set out in Table 1 above.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7	7	7	7	7
UK	7	7	6.5	7	7
Canada	7	7	7	7.5	6.5
Rep of Ireland	7	7	7	6.5	6.5
South Africa	6	Not specified	Not specified	Not specified	Not specified

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
US	6.5	6	6	6	6
Australia	7	7	7	7	7

Table 12: IELTS standards - nursing

OET	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	B (350)	B (350)	B (350)	B (350)
UK	B	B	B	B
Rep of Ireland	B	B	C+	C+
Australia	B	B	B	B

Table 13: OET standards - nursing

As the two tables above show, the standards required in the different countries surveyed are not uniform. The lower writing standard set in the UK for writing seems unusual considering that there is not a lower requirement set on the OET to match this. Canada and the Republic of Ireland have set slightly lower reading requirements on (IELTS and on OET in the case of the Republic of Ireland), but the minimum listening requirements have been set in opposite directions in the two countries, with Canada requiring a higher IELTS score on listening than most countries, and the Republic of Ireland a slightly lower.

Please also refer to the section on empirical standard-setting studies below, where we list studies for nursing.

Occupational therapy

The Occupational Therapy Board of New Zealand accepts the IELTS test (with an overall score of 7) as evidence of language proficiency. In the United Kingdom, the Health and Care Professions Council accepts the IELTS test (overall score 7.0, no skills below 6.5) and the TOEFL iBT (with a minimum score of 100). There is also mention on the website that language tests may be accepted as evidence but that the candidate needs to show equivalence to the IELTS test. In Canada, the Association of Canadian Occupational Therapy Regulatory Organizations specifies that language requirements are set by provincial regulators. When researching the individual provinces, we found that most provinces seem to be deferring to an equivalency assessment (the Substantial Equivalency Assessment System, SEAS), which is not a language test. It is not clear what levels of English are required to be able to cope with the language demands of the SEAS. In the case of the provinces of Newfoundland and Labrador we did find reference to language tests (TOEFL, IELTS, CanTEST) but no mention of the minimum score requirements. Three provinces publish clear language testing guidelines (Manitoba, Ontario, Nova Scotia). They all accept the IELTS, the TOEFL iBT and the CanTEST. The minimum requirements for each of these tests can be found in Appendices 1 and 2. The CORU, Republic of Ireland's multi-profession health regulator, accepts the OET (B grade in three components and C+ in one), the IELTS (overall score of 7.0 with no less than 6.5 in each sub-test) and the Cambridge CAE (with a Grade C). We could not find any language requirements set by the Health Professions Council of South Africa. In Singapore, the IELTS, TOEFL iBT (and equivalent versions), and the OET are accepted. The minimum scores can be seen in the tables below. In the US, the TOEFL iBT is accepted; graduates from occupational therapy programs in English-speaking countries are exempt.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7	Not specified	Not specified	Not specified	Not specified
UK	7	6.5	6.5	6.5	6.5
Rep of Ireland	7	6.5	6.5	6.5	6.5
Singapore	7	7	7	7	7
Australia	7	7	7	7	7

Table 14: IELTS standards – occupational therapy

OET	Min Speaking	Min Writing	Min Listening	Min Reading	
Rep of Ireland					Note: B grade (350) in three components and C+ (300) in one component
Singapore	B	B	B	B	
Australia	B	B	B	B	

Table 15: OET standards – occupational therapy

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	100	Not specified	Not specified	Not specified	Not specified
Singapore	100	Not specified	Not specified	Not specified	Not specified
US	89	26	Not specified	Not specified	Not specified
Australia	94	23	27	24	24

Table 16: TOEFL standards – occupational therapy

A comparison of the standards shows that, in the case of the IELTS, the overall score requirements are equivalent, but the UK and the Republic of Ireland are less stringent in the case of the sub-score requirements. Australia and Singapore have the most stringent requirements. The same is also true for the OET. In the case of the TOEFL iBT, the overall score requirement is lower in the US and slightly lower in Australia when compared to the UK and Singapore, though the US requires a slightly higher speaking score than Australia.

Optometry

The Optometrists and Dispensing Opticians Board of New Zealand accepts three language tests as evidence of language proficiency, the IELTS, OET and PTE. The minimum requirements for the IELTS and OET are noted in the tables below. For the PTE, an overall score of 70 is required, with a minimum of 65 on each sub-section. In the UK, the General Optical Council only accepts the IELTS. In Canada, registration is through the individual provinces. Not all provinces publish the language requirements on their websites – we have supplied the ones we found in Appendices 1 and 2. The CORU, the Republic of Ireland's multi-profession health regulator, accepts the OET (B grade in three components and C+ in one), the IELTS (overall score of 7.0 with no less than 6.5 in each sub-test) and the Cambridge CAE (with a Grade C). We were not able to find the language requirements set by the Health Professions Council of South Africa, nor those set by the Optometrists and Opticians Board of Singapore. For the US, there do not seem to be any language requirements for registration with the state boards. When comparing the minimum standards, the tables below show evidence of variability, in particular in the case of the IELTS test. New Zealand's requirements are the most stringent, followed by those set in

Australia. The minimum standards required in the UK, are the lowest, although the overall average score is the same as that in the UK and Australia.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	7	6.0	6.0	6.0
Republic of Ireland	7	6.5	6.5	6.5	6.5
Australia	7	7	7	7	7

Table 17: IELTS standards - optometry

OET	Min Speaking	Min Writing	Min Listening	Min Reading	
New Zealand	B	B	B	B	
Republic of Ireland					B grade (350) in three sub-tests and minimum of C+ (300) in one component
Australia	B	B	B	B	

Table 18: OET standards - optometry

A comparison of the IELTS standards reported for optometry in Table X above, show that there are differences in minimum requirements. New Zealand is the most stringent with an overall score of 7.5, with the UK and the Republic of Ireland being more lenient with lower scores being accepted across IELTS sub-skills.

Osteopathy

The Osteopathic Council of New Zealand accept only the IELTS as evidence of language proficiency, with 7.0 on each module. In the UK, the IELTS, the TOEFL iBT and a suite of Cambridge exams (Cambridge CAE, Cambridge English Business Higher, ESOL Skills for Life) are accepted, all at Level C1 of the Common European Framework of Reference. The ESOL Skills for Life test has now been discontinued by Cambridge. In the Canadian context, registration is through the different provinces. We could not find the language requirements. No language requirements were listed for the Republic of Ireland, South Africa or Singapore either. There are no pathways for internationally qualified osteopaths to become licenced in the US. The tables below show that the language requirements for those countries accepting the IELTS are the same, while there are some small variations on the OET and the TOEFL iBT.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand		7	7	7	7
UK	7	7	7	7	7
Australia	7	7	7	7	7

Table 19: IELTS standards - osteopathy

OET	Min Speaking	Min Writing	Min Listening	Min Reading	
Rep of Ireland					B grade (350) in three sub-tests and minimum of C+ (300) in one component
Australia	B	B	B	B	

Table 20: OET standards - osteopathy

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK		25	24	22	24
Australia	94	23	27	24	24

Table 21: TOEFL standards - osteopathy

The tables above show that the language test requirements for those countries accepting the IELTS for Osteopathy registration are the same, while there are some small variations on the OET and the TOEFL iBT.

Paramedicine

Many countries do not stipulate minimum language standards for paramedicine. In the US, there are no pathways for internationally qualified paramedic practitioners to get registered in the US. We were only able to find information about accepted tests and minimum standards in the case of the UK and Australia. In the UK, the IELTS and the TOEFL are accepted.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	7	6.5	6.5	6.5	6.5
Australia	7	7	7	7	7

Table 22: IELTS standards - paramedicine

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	100				
Australia	94	23	27	24	24

Table 23: TOEFL standards - paramedicine

The tables above comparing the minimum requirements on the IELTS and TOEFL iBT show that while the UK is slightly more lenient in relation to the minimum requirements on the IELTS, the overall score needed on the TOEFL is higher (although still equating to an IELTS 7 score).

Pharmacy

The Pharmacy Council of New Zealand accepts the IELTS test and the OET as evidence of language proficiency. The General Pharmaceutical Council in the UK only accepts the IELTS. The National Association of Pharmacy Regulatory Authorities in Canada accepts the IELTS, TOEFL iBT (and other TOEFL equivalent tests), the MELAB (discontinued, but potentially replaceable with MET, as noted earlier) and the CanTEST. The Pharmaceutical Society of Ireland (the Irish regulator) accepts the IELTS, the OET, and the TOEFL iBT (as well as other TOEFL equivalents). The South African Pharmacy Council accepts the IELTS.

In Singapore, the IELTS, TOEFL tests and the OET are accepted. In the US, the Foreign Pharmacy Graduate Examination Committee Certification is a requirement and a prerequisite for this certification is a minimum TOEFL iBT score.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	7	7	7	7
Canada	7	6	6	6	6
Rep of Ireland	7	7	7	7	7
South Africa	6				
Singapore		7	7	7	7
Australia	7	7	7	7	7

Table 24: IELTS standards - pharmacy

OET	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	B	B	B	B
Rep of Ireland	B	B	B	B
Singapore	B	B	B	B
Australia	B	B	B	B

Table 25: OET standards - pharmacy

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
Canada	97	27	25	--	--
Rep of Ireland	95	23	27	25	--
Singapore	94	26	24	--	22
US	--	26	24	21	22
Australia	94	23	27	24	24

Table 26: TOEFL standards - pharmacy

The tables above show some variation in different countries in terms of the minimum requirements for Pharmacy registration. New Zealand has the most stringent requirements on IELTS with Canada and New Zealand having the most lenient. The requirements for TOEFL also show some small variations both in overall scores and in sub-scores.

Please refer to the section reporting results from empirical standard-setting studies below for a report on a study conducted for pharmacy in Canada.

Physiotherapy

The Physiotherapy Board of New Zealand accepts both the IELTS and the OET tests. In the UK, IELTS and TOEFL are accepted. The Canadian Alliance of Physiotherapy accepts IELTS, TOEFL iBT and the CanTEST. In the Republic of Ireland, CORU, Ireland's multi-profession health regulator accepts the OET, IELTS and Cambridge CAE as evidence of language proficiency. In South Africa, physiotherapy is regulated through the Health Professions Council of South Africa. We were not able to find any English language requirements for physiotherapy. In Singapore, the Allied Health Professionals Council accepts, IELTS, TOEFL iBT (and other TOEFL equivalents) and the OET. In the US, the Canada Alliance of Physiotherapy Regulators accepts the TOEFL iBT. The standards for these can be found in the tables below (or, if only mentioned once, in Appendices 1 and 2).

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	6.5	6.5	6.5	6.5
Canada	7	--	--	--	--
Rep of Ireland	7	6.5	6.5	6.5	6.5
Singapore	--	7	7	7	7
Australia	7	7	7	7	7

Table 27: IELTS standards - physiotherapy

OET	Min Speaking	Min Writing	Min Listening	Min Reading	
New Zealand	B	B	B	B	
Rep of Ireland					B grade (350) in three sub-tests and minimum of C+ (300) in one component
Australia	B	B	B	B	

Table 28: OET standards - physiotherapy

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	100				
Canada	92	21	21	21	21
Singapore	100	--	--	--	--
US		26	Composite of writing, listening and reading 83		
Australia	94	23	27	24	24

Table 29: TOEFL standards - physiotherapy

The tables above show some differences in the minimum standards accepted in different countries for the IELTS test. As is the case for most professions we surveyed, the standards in New Zealand are slightly higher, with the UK and the Republic of Ireland accepting slightly lower minimum IELTS results. There are also some slight variations accepted on the OET as well as on the TOEFL iBT.

Podiatry

The Podiatrists Board of New Zealand accepts both IELTS and OET as evidence of language proficiency. In the UK, registration is through the Health & Care Professions Council which accepts both IELTS and TOEFL. In Canada, registration is through the individual provinces. We did not find the language requirements on the individual websites. Neither the Republic of Ireland nor South Africa currently seem to have English language requirements, although podiatrists may soon be regulated under CORU, Ireland's multi-profession health regulator. In Singapore, IELTS, TOEFL iBT (and TOEFL equivalents) and the OET are accepted. There are no pathways for internationally qualified podiatrists to get licenced in the US.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	6.5	6.5	6.5	6.5
Singapore	--	7	7	7	7

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
Australia	7	7	7	7	7

Table 30: IELTS standards - podiatry

OET	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	B	B	B	B
Singapore	B	B	B	B
Australia	B	B	B	B

Table 31: OET standards - podiatry

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	100	--	--	--	--
Singapore	100	--	--	--	--
Australia	94	23	27	24	24

Table 32: TOEFL iBT standards - podiatry

The tables above show some small differences in the minimum standards accepted for podiatry with New Zealand requiring an IELTS 7.5 overall, Australia and Singapore accepting IELTS 7 and the UK requiring an IELTS 7 overall, with a minimum of 6.5 on the various sub-skills. Slight differences can also be seen in the requirements on the TOEFL iBT in the UK, Singapore and Australia.

Psychology

In New Zealand, psychology is regulated through the New Zealand Psychologists Board, which accepts IELTS. In the UK, the Health and Care Professions Council accepts the IELTS and the TOEFL. In Canada, individual provinces set the language requirements, and these differ from province to province in terms of the standards and the tests accepted. Please refer to Appendices 1 and 2 for more details. In the Republic of Ireland, psychologists are currently not regulated, but this will soon change with CORU being in charge, at which time language proficiency requirements are likely being introduced. In South Africa, the Health Professions Council of South Africa accepts IELTS as evidence of language proficiency. We did not find any language requirements for psychologists set by the Singapore Psychological Society. In the US, each state checks foreign trained applicants for equivalence of education, degree and experience to the requirements established in each jurisdiction before they can take the Examination of Professional Practice of Psychology; there do not seem to be any language requirements.

IELTS	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
New Zealand	7.5	7	7	7	7
UK	7	6.5	6.5	6.5	6.5
South Africa	6	--	--	--	--
Australia	7	7	7	7	7

Table 33: IELTS standards – psychology

TOEFL iBT	Overall	Min Speaking	Min Writing	Min Listening	Min Reading
UK	100	--	--	--	--
Australia	94	23	27	24	24

Table 34: TOEFL iBT standard - psychology

The tables above show that there are differences in the minimum requirements on the IELTS in different countries with the overall IELTS requirement being highest in New Zealand and lowest in South Africa.

Summary

Our review of the tests and minimum standards in place in various countries for the professions under review, show that various tests are accepted. The most frequent tests accepted are:

- General academic tests:
    - IELTS
    - TOEFL iBT and TOEFL PBT
    - Cambridge English: Advanced (CAE) (now C1 Advanced)
    - Cambridge English: Proficiency (CPE) (now C2 Proficiency)
    - Cambridge English: Business Higher (BEC Higher) (now C1 Business Higher)
    - Pearson PTE
    - CAEL
    - MELAB (retired)
    - CanTEST (Canada only)
- Occupation-specific language tests
    - OET
    - CELBAN (Canada only)

Certain professions have much higher, more stringent requirements, whereas other professions (e.g., like Chinese Medicine) are less regulated.

A review of the standards also shows differences across countries. New Zealand has the most stringent requirements across the professions reviewed and South Africa has the least stringent requirements or the lowest minimum scores, in most cases. Australia's language requirements of IELTS 7 is situated somewhere in the middle of the countries we reviewed. It is often not clear how the minimum levels were originally arrived at, although, as we outline in the section on empirical standard-setting studies below, some countries have attempted to arrive at the registration standards empirically. As discussed earlier in the report, it is possible that other registration bodies adopted standards from other countries or arrived at the decisions based on discussions with the test developers or based on a review of the short statements that test publishers make available about the meaning of the score levels.

2.2.2 EMPIRICAL STANDARD-SETTING STUDIES

A number of studies have set out to formally establish standards for language assessments used in health contexts by conducting formal standard-setting exercises. For example, a group of studies conducted for the United States National Council of State Boards of Nursing (NCSBN) was designed to establish passing standards for overseas-trained nurses who seek licensing and certification in the United States. Focussing on the paper-based Test of English as a Foreign Language (TOEFL paper-based test), O'Neill (2004), and O'Neill, Marks and Wendt (2005) recommended passing standards for nurses. A more recent study by Wendt and Woo (2009) then compared these standards (using a panel of nursing experts) to the TOEFL internet-based test (iBT) and concluded that the iBT standard they recommended was consistent with the previous level required on the paper-based test. The studies recommended the following passing standards on the TOEFL iBT for nurses: Overall score of 84, with 26 on speaking (this translates to a 6.5 on IELTS overall with an 8 on speaking). Also in the context of the United States, O'Neill, Buckendahl, Plake and Taylor (2007) set standards for nurses on the IELTS test. The panel arrived at the following passing scores: Reading 6.5, Listening, 6.5, Speaking 5.5, Writing 5.3 but then recommended the following scores: IELTS 6.5 overall with a minimum of 6 in each module.

In further studies relating to nursing, but not only applicable to the United States, Woo, Dickison, and de Jong (2010) set passing standards with a panel of nursing experts on the Pearson Test of Academic English (recommending a score of 50 on each sub-skill with an overall score of 55, which translates into IELTS scores of 6 across the board), and Qian et al. (2014) conducted a similar study to set standards on the Michigan English Language Assessment Battery (overall passing standard of 81, with a score of 3 on speaking). Finally, the Occupational English Test Centre recently conducted a standard-setting study for nursing on the writing test (Seguis & Lopes, 2019) as evidence for the Nursing and Midwifery Council in the UK and found that panellists supported a Grade C (score of 250 or 280 depending on standard-setting method) as adequate. The authors recommended that a score of 300 (Grade C+) is accepted for writing for nurses. The nursing standards in place in Canada were also set empirically (Cumming, personal communication, July 2019), but the report on the standard-setting is not public.

More recently, Berry, O'Sullivan and Rugea (2013) established passing English language standards for international medical graduates (IMGs) immigrating to the UK. Unlike previous studies, Berry et al. (2013) not only involved doctors as panellists, but also recruited nurse participants, allied health practitioners and patients to help with this decision-making. The standards set in this panel were much higher than those for the nurses presented above: IELTS overall: 8, Listening: 8.5, Speaking: 8, Reading 7.5 and Writing 7.5.

As part of the research conducted for this report, we were also provided with confidential reports from standard-setting studies conducted for medical laboratory technologists (less relevant to this report), and medical radiation practitioners conducted in Canada. Unfortunately, we are not able to share the findings in terms of minimum scores but would like to mention that these are lower than the minimum scores currently in place in Australia. We were also provided with a confidential report based on a standard-setting study conducted for pharmacists in Canada. Interestingly, the standards differ for IELTS and TOEFL iBT quite substantially, with requirements seemingly higher on the TOEFL iBT than on the IELTS when compared directly through the TOEFL iBT-IELTS comparison

table (https://www.ets.org/toefl/institutions/scores/compare/). This standard-setting study directly informed the current standards used in Canada for pharmacists.

We note the authors of a recent report commissioned by the General Medical Council (GMC) recommend the use of formal standard-setting studies in the context of the English language requirements for IMG registration and licensure in the UK. Taylor and Chan (2015) describe the processes of firstly, identifying a range of English language tests that might be suitable alternatives to IELTS for this purpose and, secondly, attempting to establish minimum scores on these tests in line with the GMC requirements for IELTS. On the basis of available data on CEFR alignment and comparability of scores on different tests, the authors suggest tentative scores that could be considered as alternatives to the IELTS requirement, with the important caveat that existing data aren't sufficient to support claims of 'true' score equivalence. Ultimately, the authors advocate the establishment of empirically-based cut scores by conducting "a separate standard setting study" for each test being accepted for professional registration purposes (p.98).

The following table (Table 35) summarizes some basic methodological decisions the authors of the standard-setting studies made that we had access to.

Study	**Test**	**Imagined candidate for standard setting**	**Panellists**	**Methodology**
O'Neill (2004); O'Neill et al (2005)	TOEFL	Entry level US-based nurse; includes both RN and PN candidates	25 nurses	Took TOEFL test and answered as entry-level nurse; reviewed writing samples (N-size not provided)
O'Neill et al (2007)	IELTS	Entry level US-based nurse; includes both RN and PN candidates	17 nurses; 6 clinical supervisors; 3 regulators; 1 educator; 1 public member	Angoff method for listening and reading; analytical judgement method for speaking and writing (N-size not provided)
Woo et al (2010)	Pearson PTE	Entry level US-based nurse; includes both RN and PN candidates	19 panel members, all RN & LPN/VN	Angoff method for listening and reading; performance profile method for writing and speaking (N-size not provided)
Qian et al (2014)	MELAB	Entry level US-based nurse; includes both RN and PN candidates	11 panel members, all RN & LPN/VN	Modified and extended Angoff method (N-size not provided)
Seguis & Lopes (2019)	OET writing	Minimally competent RN – UK context	12 senior nurses and educators	Bookmark method; 25 test papers (N-size not provided)
Berry et al (2013)	IELTS	Minimally competent medical practitioners – UK context	15 doctors; 15 nurses; 20 public/patients; 5 Allied Health prof; 7 medical directors	Writing and Speaking: specific method not clear (12 Task 2 writing performances; 16 speaking performances); Reading and listening: Angoff method; two full listening and reading tests.

Table 35: Summary of standard-setting methodologies chosen in previous studies

Summary

In summary, evidence from the small number of empirical standard-setting studies available shows that the minimum standards differ for different professions (with medicine requiring higher minimum standards than other professions). There is also evidence that some sub-skills are deemed more important. Speaking and (in some cases) listening seem to require higher minimum standards than other skills. In the case of nursing, the writing minimum scores needed are generally found to be lower. Interestingly, however, where multiple standard-setting studies are available for the same profession, the trend in cut-scores is not always the same, with a study conducted on TOEFL suggesting a much higher speaking standard than another study conducted for the IELTS test. Different panel composition, test items and standard-setting methodologies may have an impact on these results. However, based on these findings, there is little evidence that the current standards in Australia, which are the same across professions and sub-skills, are based on sufficient empirical evidence. Unfortunately, we were not able to find empirical studies for all professions, with dentistry being a noticeable exclusion, and because of the costs involved, it is usually not feasible to conduct more than one study per test and profession within one country. We will discuss standard-setting in our recommendations later in this report.

2.2.3 REVIEW OF STANDARDS USED BY OTHER REGULATORY BODIES

In this section, we briefly review English language standards adopted by non-health regulatory bodies in Australia, focussing on statutory authorities and professional associations servicing high stakes professions in teaching, law, aviation and engineering.

Teaching

Teacher registration is regulated by state- and territory-based authorities across Australia. The full list of regulatory authorities, with links to the relevant websites can be found in Appendix 3. While statutory regulation occurs at state and territory level, there is also a framework for nationally consistent registration processes, which arose from a 2018 review conducted by the Australian Institute for Teaching and School Leadership (AITSL). The framework includes provision for implementing English language proficiency requirements for teachers seeking registration and, as a result, there is a degree of national uniformity to these requirements. The tests accepted as evidence for meeting the English language requirements for teacher registration, and the minimum standards currently accepted, are set out in Table 35, below.

	Minimum score	Sittings	Shelf life
IELTS (Academic) All states and territories	Minimum overall score of 7.5 with the following minimum on each test section: Listening: 8.0 Speaking: 8.0 Reading: 7.0 Writing: 7.0	Single (not specified: NSW, ACT, Tas, NT)	Test results from within 2 years before the date of application for registration
ISLPR All states and territories	Listening: 4 Speaking: 4 Reading: 4 Writing: 4	Single (not specified: NSW,	Test results from within 2 years before the date of application for registration

	Minimum score	Sittings	Shelf life
except Western Australia		ACT, Tas, NT)	

Table 35: Language standards for teacher registration in Australian states and territories

As shown in the table, IELTS (Academic) test scores are accepted by the regulatory authorities in all Australian states and territories, and test scores on the ISLPR (International Second Language Proficiency Ratings) are accepted everywhere except for Western Australia. As also shown in the table, for IELTS, higher minimum standards are set for the listening and speaking components. For the ISLPR, the minimum standards are uniform across all four skills. Different versions of the ISLPR test are offered for specified purposes: academic, professional (for teacher registration), and vocational (vocations other than teaching). Most authorities accepting ISLPR test scores for teacher registration purposes specify they will only accept results from the professional, i.e. teacher focused, version of the test; only for South Australia were we unable to find any information about which version of the ISLPR test applicants are required to take. As indicated in the table, the authorities in NSW, ACT, Tasmania and the Northern Territory do not specify whether or not they will accept test scores from more than one sitting; in all other states, test results must have been obtained in a single sitting. Except where special circumstances allow it (in Western Australia, as outlined below), all authorities specify that test results older than two years will not be accepted.

In addition to IELTS and ISLPR, scores on a now discontinued test, the Professional English Assessment for Teachers (PEAT), were previously accepted by some state/territory authorities. PEAT was designed specifically to measure English language skills for teaching. As PEAT was discontinued in May 2017 and all test results are therefore now more than two years old, any authorities still accepting PEAT scores as valid evidence of English language proficiency would only be able to do so under provisions for exceptional circumstances, where these exist. We were only able to identify such provisions in the English language policy of the Teacher Registration Board of Western Australia, which allows for test results older than two years to be accepted in cases where the applicant is considered to be highly proficient ("native, near native or fluent") in English. At the time of writing, PEAT scores (together with IELTS and ISLPR) are still listed by the Victorian Institute of Teaching and the Teachers Registration Board of Tasmania as valid evidence of English language proficiency. We note, however, that policy in these two states does not include provision for recognising test scores any older than two years. We cannot be certain whether this apparent conflict with policy reflects out of date documentation in the public domain, but we do note that the published date of the most recent policy reviews is 2013, in the case of Victoria, and 2017, in the case of Tasmania.

Law

Admitting authorities for the legal profession operate in each Australian state and territory. These authorities, and links to the relevant websites, are listed in Appendix 3. With the exception of NSW, all admitting authorities have adopted English language proficiency guidelines developed by the Law Admissions Consultative Committee (LACC) of the Law Council of Australia (https://www.lawcouncil.asn.au/). Under the LACC guidelines, where applicants for admission are subject to English proficiency test requirements, scores from two test are accepted, as shown in Table 36, below.

	Minimum score	Sittings	Shelf life
IELTS (Academic)	Writing: 8.0 Speaking: 7.5 Listening: 7.0 Reading: 7.0	Single (usually)	Test results from within 2 years before the date of application for admission
TOEFL iBT	Writing: 27 Speaking: 24 Listening: 24 Reading: 24	Single (usually)	Test results from within 2 years before the date of application for admission

Table 36: Language standards for admission to law (all Australian jurisdictions except NSW)

As shown in the table, for IELTS, higher minimum standards are set for writing and speaking, with the highest requirement of all for writing. For TOEFL iBT, the standard is also set the highest for writing. As also indicated in the table, test scores are only considered valid if no more than two years old and, usually, only test scores obtained in a single sitting are accepted. However, the LACC guidelines allow scores obtained from two sittings (within six months) to be considered as evidence for meeting English language proficiency requirements in circumstances where an applicant has minimally missed the required test score on one skill component i.e. writing, speaking, listening or reading. Typically, scores from two sitting are only considered if the score is below the minimum requirement by no more than 0.5 for IELTS, or 1 for TOEFL iBT.

Note, in such cases where an applicant has narrowly missed the required test score, in addition, or as an alternative to accepting scores from two sittings as outlined above, one or more of the following may be taken into consideration under the LACC guidelines: completion of all years of secondary education and a tertiary legal qualification, in English, in Malaysia or Singapore; at least 12 months continuous full-time law-related employment in Australia, Canada (excluding Quebec), New Zealand, the Republic of Ireland, UK, USA, South Africa, Hong Kong, Malaysia or Singapore; completion of a tertiary qualification required for entry to a non-law profession, in English, in Australia, Canada, the Republic of Ireland, New Zealand, USA, UK or South Africa.

The admitting authority in NSW, the Legal Profession Admission Board, follows separate guidelines. The key difference from the LACC guidelines followed in all other states and territories is that scores from the TOEFL iBT are not accepted for the purposes of admission in NSW. However, just as in the other states and territories, in NSW, the same minimum scores on IELTS (Academic) are accepted as given in Table 36 (above), and the scores must be no more than two years old. Similar to the other states and territories, the NSW authority also accepts test scores (in this case, IELTS) obtained from multiple sittings (all scores still required to be no more than two years old) in circumstances where the required minimum score has been narrowly missed (by not more than IELTS 0.5) on a single skill component. Alternatively, in such circumstances, a range of other types of evidence (similar to that accepted under LACC guidelines in the same circumstances) may be taken into consideration by the NSW authority: at least 12 months continuous full-time employment in Australia, Canada, New Zealand, the Republic of Ireland, UK, USA, or South Africa with supporting documentation (references) of proficiency in written and spoken English for legal practice; completion of a tertiary qualification needed for entry to a non-law profession, in English, in Australia, Canada, the Republic of Ireland, New Zealand, USA, UK or South Africa; completion of secondary school and a tertiary legal qualification, in

English, in Hong Kong, Malaysia, Singapore, Fiji (University of South Pacific only) or the Philippines; completion of all years of secondary school in Australia with "excellent marks in English".

Aviation

Aviation licensing in Australia is regulated by the Civil Aviation Safety Authority (see Appendix 3 for the CASA website). Since 2008, CASA licensing for flight crew (pilots, flight engineers) and air traffic controllers has been compliant with the International Civil Aviation Organization (ICAO) standards for aviation language proficiency (see https://www.icao.int/Pages/default.aspx). In the Australian context, the standard is for aviation English, this being the standard international aviation language, as well as the language of aviation in Australia. Aviation English language proficiency (aviation ELP) encompasses competence in radiotelephony communications and proficiency in ICAO standardised phraseology. The aviation ELP requirement applies universally to all applicants for flight crew and air traffic controller licenses in Australia, including those seeking to convert an overseas license or to obtain short-term licensing for Australia. Holders of an existing Australian license granted before 2008 are not required to comply with the ICAO language standard, provided they are flying within Australia only. Other types of CASA licensing are subject to a different language standard – general English language proficiency (general ELP). The general ELP standard applies to student pilots undertaking solo fights and, in certain categories of licensing and certification, to recreational pilots and radio operators (unless they are already endorsed for aviation ELP). The tests accepted by CASA as evidence of aviation ELP and general ELP, respectively, are shown in Table 37, below.

Language standard		Minimum score
Aviation English: pilots, flight engineers, air traffic controllers	ICAO ELP assessment	Level 4: retesting required every 3 years Level 5: retesting required every 6 years Level 6: does not expire
General English: student pilots	IELTS (Academic or General)	Minimum overall score of 5.5, with no test section lower than 5.0
	TOEIC	Listening: 350 Reading: 300 Speaking: 160 Writing: 140
	TOEFL iBT	71 (total score)
	TOEFL PBT	530 (total score)

Table 37: Language standards for licencing of flight crew, air traffic controllers, and student pilots

The ICAO ELP assessment (for aviation ELP) assesses two-way oral communication and uses a six-level proficiency scale; only results at the three highest levels of the scale – levels 4, 5, 6 – meet the standard. As shown in the table, scores of level 4 and level 5 meet the aviation ELP requirement, although these results expire after three and six years, respectively. A result at the highest level of the scale, level 6, does not expire. CASA only accepts ICAO ELP assessment results from approved assessors based in Australia.

However, it may, at its own discretion, recognise aviation ELP ratings obtained overseas, provided the issuing authority is fully compliant with ICAO standards.

For student pilots, who must meet the general ELP standard, there are two options. The first option has two parts: (i) an interview with an examiner/instructor or other CASA-authorised person; (ii) background evidence of general ELP in the form of one of the following: recognised secondary education in English; 3-5 years of employment in Australia, New Zealand or other specified country; completion of an approved general English language course with a minimum grade of 75%; CASA-approved general ELP assessment; scores from one of the tests shown in Table 37, above. As can be seen in the table, CASA accepts the minimum scores (as indicated) on IELTS (Academic or General), TOEFL (iBT or PBT) or TOEIC (Test of English for International Communication). The TOEIC is a computer-delivered test of general language proficiency for the workplace, but not geared to any specific occupations. In the case of TOEIC, higher minimum scores are specified for listening and reading (with the highest standard overall for listening, and the lowest overall for writing). The second option for meeting the requirements for general ELP is a formal general ELP assessment. This is an oral assessment conducted by an endorsed GELP assessor.

Engineering

The only statutory regulatory scheme in place for engineers in Australia is in Queensland, where engineering services can only be provided by individuals registered with the Board of Professional Engineers Queensland (https://www.bpeq.qld.gov.au/BPEQ/). Eligibility for professional registration in Queensland is determined on the basis of qualifications and competency assessment. There are various accredited entities that conduct these assessments, including the Association of Professional Engineers Australia (APEA) and Engineers Australia (see Appendix 3 for websites). Overseas qualifications are recognised in this process if they are from countries listed under international agreements and mutual recognition schemes (for example, the Washington Accord). Elsewhere in Australia, the engineering profession is subject to non-mandatory regulatory practices, including voluntary memberships and national/international registers. Examples include the National Engineering Register (operated by Engineers Australia), or the Registered Professional Engineer of Professionals Australia framework, both of which are subject to qualifications and competency assessments similar to those required on a mandatory basis in Queensland. At the time of writing, however, the introduction of mandatory registration schemes, similar to that in Queensland, was imminent in Victoria and the ACT, and other states and territories are anticipated to follow.

It is only in the context of assessments for skilled migration required by the Department of Home Affairs that overseas-qualified engineers wishing to practise in Australia, or to become registered to practise in Queensland, are subject to English language proficiency requirements. The body authorised to carry out these assessments is Engineers Australia. The tests and minimum standards accepted by Engineers Australia as evidence of English language proficiency are set out in Table 38, below.

	Minimum score	Sittings	Shelf life
IELTS (General or Academic)	Listening: 6.0 Reading: 6.0 Writing: 6.0 Speaking: 6.0	Single (multiple considered on	Test results from within 2 years before the date of application for assessment

	Minimum score	Sittings	Shelf life
		case-by-case basis)	
TOEFL iBT	Listening: 12 Reading: 13 Writing: 21 Speaking: 18	Single (multiple considered on case-by-case basis)	Test results from within 2 years before the date of application for assessment
PTE Academic	Listening: 50 Reading: 50 Writing: 50 Speaking: 50	Single (multiple considered on case-by-case basis)	Test results from within 2 years before the date of application for assessment

Table 38: Language standards for migration skills assessment by Engineers Australia

As shown in the table, for the TOEFL iBT, different minimum standards are set for each skill component, standards for writing and speaking set the highest. For the other tests, IELTS and PTE, the minimum standards are uniform across all four skill components. As also indicated in the table, test scores from multiple sittings may be considered on a case-by-case basis. We could find little information about circumstances allowing scores from multiple sittings, except that all results still must be no more than two years old at the time of application for assessment.

Our survey of the English language standards used by Australian regulatory bodies for selected high stakes professions in domains other than health shows that general academic language tests are accepted as evidence of English language proficiency by regulators of professions in law, teaching, and engineering: for law, IELTS is accepted, as is TOEFL (with the exception of NSW); for teaching, IELTS is accepted, as well as the ISLPR (with the exception of WA); and for engineering (QLD only), IELTS, TOEFL and PTE are all accepted. In aviation, for pilots and air traffic controllers, the national regulator only accepts results on the occupation-specific ICAO test of aviation English. In the case the ICAO test, candidates receive a single, overall rating on the ICAO proficiency rating scale. For the other three professions, accepting tests with a four-skills approach, the standards are set differently for certain skills, although this is not always consistent across all of the tests accepted (for example, for engineering, as shown in Table 38 above, standards are uniform across skills for IELTS and PTE but are differentiated by skill in the case of TOEFL). For both law and engineering, standards tend to be set higher for writing and speaking, while for teaching, higher standards tend to be set for listening and speaking. These standards suggest that there is a greater emphasis on the importance of productive skills for professional communication in law and engineering, and an emphasis on speaking and listening as complementary skills for classroom communication.

It is worth noting that some of the regulatory bodies have adopted policy provisions for exceptional circumstances within a language testing pathway. For teaching (WA only), older test scores may be accepted in cases where the applicant is considered to be highly fluent in English. In law, national guidelines allow for test scores from multiple sittings to be accepted, and/or additional evidence of language proficiency (such as from relevant employment experience), if the minimum score on a single component was narrowly missed. In engineering (QLD), test scores from multiple sittings may be considered on a case by case basis.

2.2.4 REVIEW OF RECOGNIZED TESTS

This section responds to the following question posed by Ahpra:

Is there anything in the research base to indicate any of the tests currently recognised by National Boards are not reliable tests of English language for the purposes of professional registration in a health profession?

To answer this question, we draw on validation research published in technical reports or peer-reviewed journal articles, and we also draw on our experience and knowledge of the field of English language testing. From the available materials, we consider the evidence for the reliability of the tests currently recognised by National Boards for the purposes of professional registration in a health profession. These tests are the academic language tests, and the occupation-specific language tests listed below. We begin by considering the extent and credibility of research programs supporting the development and ongoing validation of the tests listed below, before surveying each test for a range of specific test quality measures.

General academic language tests:

- IELTS
- TOEFL iBT, TOEFL PBT
- From the Cambridge English suite: CAE (now known as C1 Advanced), CPE (now known as C2 Proficiency), BEC Higher (now known as C1 Business Higher)
- Pearson PTE
- CAEL
- MELAB (retired)
- CanTEST (Canada only)

Occupation-specific language tests:

- OET
- CELBAN (Canada only) for nurses

Of the general academic language tests, the TOEFL, IELTS, and Cambridge tests all have established and ongoing programs of external validation research, the findings of which are publicly disseminated on their websites and, often, in peer-reviewed research journals, book chapters, monographs and, conference proceedings. Reports from the TOEFL research program (supported by ETS and the TOEFL Committee of Examiners, which incorporates a panel of external academic experts), are published on the TOEFL website (https://www.ets.org/toefl/research). These reports include a research summary series for a broad readership (‘Research Insight Series’), as well as peer-reviewed research reports and a monograph series. Similarly, reports on IELTS-related research (funded by the joint owners, British Council, IDP: IELTS Australia, and Cambridge Assessment English) are available from the IELTS website (https://www.ielts.org/teaching-and-research/research-reports). Research conducted by Cambridge Assessment English, including research on the existing suite of Cambridge tests, appears in two main outlets, ‘Research Notes’, and a monograph

series, both available from the Cambridge website (https://www.cambridgeenglish.org/research-and-validation/). Pearson also funds external validation research on the PTE. An extensive list of external research projects is to be found on their website (https://pearsonpte.com/organizations/researchers/), although we note that only selected reports on these projects are published on the website. The developer of CAEL, Paragon Testing Enterprises, operates an internal research program, as well as funding external research through awards and grants. The CAEL website contains a listing of publicly disseminated research, including conference presentations and peer reviewed articles, and a working papers series (https://www.cael.ca/). The MELAB, retired in June 2018, was backed by an extensive body of research supported by Michigan Language Assessments (CaMLA). This includes internal validation studies, and external research funded by a grant program (Spaan Research Grant Program). As mentioned, CaMLA produce the Michigan English Test (MET), which is very similar to the retired MELAB and which may serve as a replacement. The MET is supported by the same research program at CaMLA as was the case for the MELAB (https://michiganassessment.org/about-us/research/). Finally, the CanTEST is developed at the University of Ottawa Official Languages and Bilingualism Institute (OLBI), which supports a program of independent test validation studies. Details of current CanTEST-related studies, led by research academics in language assessment, are listed on the OLBI website (https://olbi.uottawa.ca/Language-Assessment/research/research-projects).

For the occupation-specific language tests, we identified a substantial body of published independent research on the OET. The findings of this research are used to inform the ongoing development of the test, and are often disseminated in outlets including academic conferences, and the peer-reviewed literature. A list of research publications appears on the OET website (https://www.occupationalenglishtest.org/research/). For the CELBAN, as far as we are aware, there is not a great deal of published independent research. This test was developed by the Centre for Canadian Language Benchmarks, who produced a series of reports between 2000 and 2004 tracing the processes of scoping, consultation, trialling, and implementation of the test, which are published on the CELBAN Centre website (http://www.celbancentre.ca/). In 2014, the CELBAN was revised in partnership with an independent evaluator (Touchstone, http://www.touchstoneinstitute.ca/). Since that time, the CELBAN Centre has published on its website a series of reports documenting the revision process, including ongoing quality measures.

On the basis of published research, it is evident that relevant and ongoing validation activities are conducted for all of the tests listed above. As we noted, however, for some of the tests, fewer external research studies have been conducted and research reports are not always publicly available. Next in this section, we consider evidence relevant to specific test quality measures.

From a survey of technical reports (where available), and our own knowledge and experience, we identified a range of test quality measures for all the above tests. We considered the following key measures: estimates of statistical reliability, robustness of scoring mechanisms (including quality of rater training and monitoring), the existence of parallel test forms, mechanisms for equating multiple forms to ensure their equivalence, and test security. In Table 39 below, we summarise this information for each test. (Note, the CanTEST has been excluded from the table, as we were unable to find any technical information or test reports for this test.)

	Reliability estimates	Rating quality	Parallel forms	Security
IELTS	Objectively scored components (2016 test data): average item reliabilities range from 0.86 to 0.94 Writing and speaking: (examiner certification data): 0.83–0.86 for Speaking; 0.81–0.89 for Writing	Speaking examiners are qualified language-trained professionals who undergo extensive training before certification; retrained annually. Writing and speaking: single-rated only; therefore, score profiles across all skills are examined for anomalies.	No published information; however, we are aware that there are a large number of parallel forms	Authorised test centres only Biometric verification of test-taker identity
TOEFL	2007 iBT test data: Reading: 0.85 Listening: 0.85 Speaking: 0.88 Writing: 0.71 Overall: 0.94	For writing, a combination of human raters and automated scoring is used to maximise the quality of scoring: content and meaning are judged by human raters, while linguistic features are scored automatically. Human raters undergo extensive training before certification. They are also are calibrated on each day of rating, and are monitored continuously for accuracy.	Multiple forms; statistically equated	Authorised test centres only Various methods for verification of test-taker identity; may include: biometric options
Cambridge tests	Reliability estimates using 2014 test data: CAE Reading: 0.80 Writing: 0.79 Use of English: 0.83 Listening: 0.73 Speaking: 0.82 Overall: 0.93 CPE: Reading: 0.79 Writing: 0.73 Use of English: 0.84 Listening: 0.74 Speaking: 0.85 Overall: 0.92 BEC Higher: Reading: 0.85 Writing: 0.71	Raters are qualified language-trained professionals. They undergo extensive training before certification. Rater performance is monitored by a principal examiner.	Multiple parallel forms; statistically equated	Authorised test centres only Photo ID verification of test-taker identity

	Reliability estimates	Rating quality	Parallel forms	Security
	Listening: 0.83 Speaking: 0.81 Overall: 0.93			
PTE	Pearson report the following reliabilities: Overall: 0.97 Reading: 0.92 Listening: 0.91 Writing: 0.91 Speaking 0.91 (https://pearsonpte.com/wp-content/uploads/2014/07/ObjectiveFactsheet.pdf) We note that it is not clear whether these statistics are based on data from trials or operational administrations.	Exclusively automated scoring. Pearson research has established a high correlation between human scores and machine scores: Speaking: 0.96 Writing: 0.89 (https://pearsonpte.com/organizations/researchers/score-comparison-vs-competitors/) However, we note that machine scoring may have limitations when it comes to capturing the range of meaningful features of performance in relation to the test construct	Test items are drawn from a bank of statistically calibrated items; no test is the same	Authorised test centres only Passport verification of test-taker identity
CAEL	2018 reliability estimates: Reading: 0.84 Listening: 0.82 Speaking: 0.87 Writing: 0.77	Writing and speaking: independently rated twice; third rating for disagreements (we were unable to find information about the magnitude of disagreement triggering a third rating). Writing and speaking raters are trained, certified, and monitored for consistency.	Multiple forms; statistically equated	Authorised test centres only
MELAB	2011-2014 test data: Objectively scored components: annual average reliabilities from 0.85 to 0.89 Writing: inter-rater agreement 0.80 to 0.90	Writing: examiners trained and certified; all performances independently rated twice; third independent rating for disagreements of more than one score point. Speaking: examiners trained and certified. One examiner only, but performances are recorded	Multiple forms; statistically equated	Authorised test centres only

	Reliability estimates	Rating quality	Parallel forms	Security
		and reviewed for rater quality.		
OET	Average reliabilities (2009 data): Reading: 0.80 Listening: 0.93 Speaking: 0.95 Writing: 0.95	Writing and speaking are rated twice, independently. Assessors are trained and certified; must be qualified language-trained professionals Assessment is conducted at the OET Centre, where standardisation training occurs for each administration of the test.	Multiple forms; statistically equated	Authorised test centres only Passport verification of test-taker identity
CELBAN	Minimum reliability estimates based on trial data (2014-2018): Reading: 0.80 Listening: 0.91	All skills components are doubled-rated by trained assessors Speaking assessors are language-qualified professionals. After training and certification, assessors are re-calibrated regularly (we were not able to find any information about frequency of recalibration).	Multiple forms Linked to levels of the Canadian Language Benchmarks	Authorised test centres only Verification of test-taker identity: variety of identification documents

Table 39: Summary of selected measures test quality

As can be seen in the table, all test providers publish estimates of test reliability. The majority of the reliability estimates shown in the table are close to, or above 0.80, which just meets the acceptable minimum for high stakes tests. It should be noted that most of the published statistics are drawn from annual reports on operational testing, which provides the more valid data for understanding the quality of live tests. On the other hand, for the PTE, the data source for the reliability estimates is unverified, and for the CELBAN, estimates are based on trial data. Based on the information summarised in the table, we can find no evidence of any specific weaknesses in the quality of rater training and monitoring. However, we note that there may be limitations associated with the scoring mechanism used for the PTE. While machine scoring is reliable and has been found to correlate well with human raters, it may not be able to capture the full range of features that are meaningful in complex language performance, such as are required for speaking and writing tasks. As also shown for the tests included in the table, all have mechanisms for ensuring that parallel test forms are equivalent, either through statistical equating methods or item calibration, and/or linking to a standards framework, as in the case of the CELBAN. Test security measures seem to be comparable for all the tests.

From the above review, we can find no evidence to suggest that the validity and reliability of any of the tests may be compromised. Firstly, our review found evidence that all the tests are supported by a body of reputable research although, as noted, there is a larger body of research for some tests than others. For the more ubiquitous international tests in particular, including IELTS, TOEFL and the Cambridge suite, there is a large program of ongoing validation research, while in comparison, there are fewer published studies available on the CAEL, CanTEST, and CELBAN. Secondly, for all the tests reviewed in this section (with one exception), we were able to find evidence of satisfactory reliability and technical performance on measures relating to robustness of scoring mechanisms, test fairness (equivalence of parallel test forms), and soundness of test administration. The exception to this was the CanTEST, for which we were unable to locate relevant technical reporting. In the case of the PTE, as mentioned, there are potential limitations associated with the automated scoring mechanism.

2.2.5 OTHER ENGLISH LANGUAGE TESTS AND FRAMEWORKS

Are there any other English language tests that may be valid as a tests of English language for the purposes of professional registration in a health profession?

In this section, we answer a number of specific questions posted in the call for tenders by AHPRA about particular language tests, or qualification frameworks which AHPRA may wish to consider for registration processes, if there is sufficient evidence about validity and reliability. More specifically, we comment on the suitability of the NAATI qualifications, and the ISLPR test. The information presented in this section draws on a review of available published research and technical reviews, as well as our knowledge of the field.

NAATI exams https://www.naati.com.au

The National Accreditation Authority for Translators and Interpreters (NAATI) offers certification exams for translators and interpreters who want to practise in Australia. The NAATI certification tests themselves are not assessments of language proficiency but rather assess an individual's capacity to transfer messages from one language to another for the purpose of communication between people who do not share the same language. The specific competencies that NAATI exams assess can be found at https://www.naati.com.au/media/1917/descriptors-i-draft-v1155-february-2018pdf.pdf.

NAATI has English-language requirements which need to be met before an application for a certification exam can be lodged. For this purpose, NAATI accepts a range of recognised English language exams, including IELTS, OET, TOEFL iBT, PTE Academic, Cambridge English: Advanced (CAE), Cambridge Certificate of Proficiency in English (CPE) and the International Second Language Proficiency Ratings (ISLPR) English Test (see https://www.naati.com.au/media/2410/english-proficiency-requirements.pdf). The requirements needed on these language tests differ depending on the credential type an applicant is applying to. For example, a certified interpreter is required to show evidence of an IELTS 7 (or equivalent) for Listening, Speaking and Reading and an IELTS 6 (or equivalent) for Writing. None of the NAATI Credential types require an IELTS 7 or higher across the four skill types, and therefore holding a NAATI qualification is not sufficient evidence of language proficiency in our eyes.

International Second Language Proficiency Ratings (ISLPR) https://www.islpr.org/

The ISLPR is a language standards framework which was developed in Australia (Ingram & Wylie 1979) as a means of placing adult immigrant learners in appropriate classes within the Adult Migrant Education Program. While the ISLPR is a set of proficiency levels represented in a scale, a test is offered by the owners of the ISLPR to test takers. This test is advertised as being a personalised language test which is adapted according to the interests of the candidates. The ISLPR is used for a range of purposes such as professional registration (e.g. of teachers in Kiribati) and for placement testing into the competency-based Certificates of Spoken and Written English (CSWE).

The ISLPR is, in essence, an adaptation of the FSI scales in the US, which also inspired the ACTFL Guidelines still commonly being used in the US. Like the ACTFL Guidelines, it is used to map learning in a range of languages. It consists of four subscales for the macro-skills of speaking, listening, reading and writing. Within each subscale progress is measured from 0 to 5, each of which contains intermediate "plus" or "minus" levels, giving a total of 12 levels in each subscale. There are two models of the ISLPR, the *specified purpose* (for particular domains such as academic, engineering and business) and the *general proficiency* "master" version. Scrutiny of the occupation-specific versions reveals that they are simply elaborations of the master version, with mention of tasks and abilities relevant to particular professions, such as, in the case of language teachers, the ability to explain the formal properties of language to learners. Specific validation research for the ILLPR specified purpose versions does not seem to be available.

We were not able to locate an official concordance table of the ISLPR levels to IELTS or other proficiency tests and we are concerned about the 'personalised' nature of this test as this means that the test will be different depending on the examiner who administers it. Test versions are therefore not standardised as they are in other testing contexts. There is also not concordance to the Common European Framework of Reference (CEFR) which would make scrutiny of test levels more transparent. The ACTFL guidelines in the US, for example, have been linked to the CEFR (https://www.actfl.org/sites/default/files/reports/Assigning_CEFR_Ratings_To_ACTFL_Assessments.pdf). Based on the potential problems we outline above, we do not recommend that this testing system is accepted for the registration of health professionals.

3 SUMMARY AND RECOMMENDATIONS – TEST PATHWAY

We first summarise our findings in relation to tests accepted by other regulatory bodies, and the reliability of these tests and offer our recommendations about tests the National Boards of Australia may wish to accept for registration purposes. We then turn to the summary of our findings about the standards required on these tests for registration and our associated recommendation.

3.1.1 TESTS

Our review of the English language tests accepted by overseas regulatory bodies for health professions showed that the following general academic tests are accepted: IELTS, TOEFL (iBT, PBT), Pearson PTE, Cambridge (C1 Advanced, C2 Proficiency, C1 Business Higher), CanTEST, and MELAB (although retired in 2018, we may see a similar test, the MET,

come to serve as its replacement). Another test, the CAEL is accepted in Canada for admission to tertiary qualifying/completion programs. Our review also identified the following occupation-specific language tests which are accepted by overseas regulatory bodies: the OET, and CELBAN (nursing only). Our review showed that it is most common for regulators to accept just one or two tests: if one, IELTS or TOEFL; if two, typically IELTS and TOEFL or OET. At the same time, it is not uncommon for regulators to accept three tests, in which case, one of the tests accepted is either occupation-specific (i.e. OET) or a test that is only available locally (CanTEST). We found that it is unusual for a regulator to accept more than three tests.

Of these tests that are accepted by regulators overseas, the following are not accepted by the National Boards: the Cambridge tests, MELAB (or MET), CAEL, CanTEST, and CELBAN (nursing). Of the Cambridge tests, since C1 Business Higher targets the language of general communication with a business focus, it is the least relevant to language proficiency for healthcare professionals. Otherwise, these tests are secure, reliable standardised tests backed by reputable research programs. We therefore see no reason for not accepting scores on these tests, provided scores are within an acceptable shelf-life period; typically, this means obtained within the two years prior to application.

On the basis of the findings of our review, we make the following recommendations in relation to the English language test pathway.

Recommendation 1: We recommend that the National Boards continue accepting the tests currently accepted for registration purposes.

Recommendation 2: *We recommend that the National Boards also consider accepting scores on the following tests as demonstration of meeting the English Language Standard:*

- Cambridge C1 Advanced
- Cambridge C2 Proficiency
- MELAB (MET)
- CAEL

We make our second recommendation from the combined perspectives of international precedent, and test quality and relevance. Having observed above, that is not common amongst overseas regulators for more than three tests to be accepted, we highlight the need for National Boards to consider the operational requirements of recognition of additional tests.

Recommendation 3: We recommend that the National Boards also consider accepting scores on the following tests, which can only be taken in Canada:

- CanTEST
- CELBAN (nursing only)

Our third recommendation above, is made specifically in relation to the CanTEST and CELBAN because we would anticipate that these two tests would be unlikely to have much impact in the Australian context since their availability is limited to Canada.

3.1.2 STANDARDS

The standards currently accepted by the National Boards for registration are uniform across all skills and professions and set at IELTS 7 (and equivalent). We compared this standard to practices by other regulatory bodies abroad and drew on empirical evidence from standard-setting studies conducted in health contexts abroad. We reviewed published studies and confidential reports provided by colleagues abroad.

Our findings showed that the standard of IELTS 7 required in Australia is broadly in the middle when compared to other regulatory bodies abroad. New Zealand requires higher standards and some other countries/professional bodies require lower standards. For example, the UK accepts lower passing scores for paramedicine, podiatry and dentistry, the UK and the Republic of Ireland accept lower standards for occupational therapy, optometry, and physiotherapy, and the UK, the Republic of Ireland and the US, for nursing. Canada and South Africa have lower standards for pharmacy and the UK and South Africa, for psychology. Due to the small number of empirical standard-setting studies, and the costs involved with convening such panels, we have not found more than one study on the same test for the same profession within the same country.

Careful scrutiny of the empirical standard-setting studies collected does not support the standard to be the same across all professions and skills. For example, studies conducted for nursing suggest that lower standards may be acceptable on reading, listening and particularly writing. These studies generally did not differentiate between different nursing levels, and generally recommended lower standards for nurses. The only study we identified for medicine recommends higher passing standards across all skill levels and the only studies for medical radiation and pharmacy we found also suggest lower standards.

Of course, regulators may draw on their own experience as well as empirical studies when setting standards.

Our recommendation in relation to the test standards can be found below.

Recommendation 4: We recommend that consideration be given to conducting an empirical standard-setting session in the Australian context.

This could either focus on one key profession or draw on a varied panel from a number of professions. If a standard-setting workshop is conducted on one test, then these standards can be mapped across to other tests drawing on the Common European Framework of Reference. Due to the paucity of research on standards for allied health professions, National Boards/Ahpra may want to convene one panel for all these professions, unless there is evidence that the language requirements differ.

Panel composition is important to consider. Most studies have included panel members from only the same profession. However, our discussion of the communicative requirements of health professionals shows that communication is required both within the same profession, across health professions and with lay people, such as patients, family and other non-health professionals. For this reason, it may be valuable to include panel members from a range of backgrounds, as was the case in the study conducted by Berry et al. (2013).

Recommendation 5: We recommend that, if any changes to the standards are adopted, that the impact of these changes are modelled prior to policy implementation and tracked following the implementation of the change.

This could involve modelling possible changes in workforce migration, and its associated impact on both workplace risk, workforce shortages and workforce integration. Following implementation it would be important to (a) check whether any changes in standard have positive or negative consequences for the workplaces as well as the overseas-trained health professionals, and (b) conduct tracking studies to see how overseas-trained health professionals are coping once in the workforce. It is important to ensure that any change in standards does not increase the risk to the public. Ahpra-internal data on notifications may be the most objective data source, but it may be difficult attributing difficulties reported to English language skills as these may be difficult to separate from other issues experienced by overseas-qualified health professionals.

4 NON-TEST PATHWAYS

In this section of the report we focus on the non-test pathway (or Stream 2 of the project, as set out in the RFQ). We attempt to provide evidence, and answer the questions posed in the RFQ in order.

What indications are there (e.g. from the literature about second language acquisition, Australian or international language or educational standards such as the Common European Framework of Reference or Australia Qualifications Framework, or professional standards of other health practitioner regulators) that an extended and continuous period of post-secondary education in English, within specific parameters, would develop English language skills either (a) comparable to or a reasonable approximation of the level of English language proficiency of an IELTS 7 and, or (b) provide reasonable assurance of competency in communicating in English sufficient to practise a highly skilled health profession? If so, what are the minimum parameters that should apply?

To answer this question, we report on two aspects: (1) the English language requirements for entry for post-secondary education in English in various countries and (2) a review of the literature on the progression of English language learners following entry into English-medium post-secondary education. Understanding entry level English language requirements provides a picture of how far off from an IELTS Level 7 students are able to enter in different higher education contexts, and this evidence is then used to discuss the literature on the English language development of students in various higher education sectors. Conclusions will be drawn based on these two types of evidence.

In our discussion below, we do not consider the following aspects set out in the RFQ question above:

- Language standards (e.g. Common European Framework of Reference): Such standards documents set out increasing levels of language proficiency, but they do not provide any indication of time needed to progress from one level to another. In fact, they misleadingly provide a sense that the steps within such a framework are equidistant, while they have been shown not to be in reality. It takes much longer to

progress from one level to the next at higher levels, than it does at lower, for example.

- Australian Qualifications Framework: The Australian Qualifications Framework sets out the levels of qualifications that can be achieved in Australian education, ranging from Level 1 (Certificate 1) to Level 10 (Doctoral degree). While language proficiency levels to enter these different levels are likely to be loosely aligned to the levels, they are no clear indications of language proficiency. One thing to note is, however, that qualifications at lower levels are likely to require a shorter time studying, and as our review of the literature in the following sections shows, time studying is one factor that influences language proficiency development.

- Professional standards of other regulators: Professional standards of regulators list competencies that professionals are able to achieve once qualified for a profession. This often includes generic statements about the professional communication skills of health professionals, but these cannot be related directly to language proficiency levels, such as those expressed by tests like the IELTS.

4.1 Review of qualification entry requirements

This section first reviews the different English language test scores required by institutions in various countries for entry into entry-level qualifications for each profession. These countries cover jurisdictions where qualifications are currently accepted (New Zealand, the United Kingdom, the United States, Canada, the Republic of Ireland and South Africa), as well as the potential additions of Singapore, Malaysia and Hong Kong. Next, we present examples of other accepted evidence of English language proficiency.Information about test score requirements and other types of accepted English language proficiency evidence was obtained from course admissions information published on the websites of institutions offering accredited programs in the relevant health professions. In some countries, where programs for a given profession are offered at multiple institutions, we reviewed the requirements for a sample of programs. Details of the sampling method are given under 4.1.1, below. Gaining a good understanding of the entry requirements in various contexts is important to make predictions about possible English language developmental progressions of students.

4.1.1 English language test score entry requirements

In this section, we present and compare the test score requirements for the entry-level qualifications accredited by international and Australian regulatory bodies. We found that a variety of language tests are accepted (a wider range than those accepted for registration for the health professions), though for simplicity and comparability we only present IELTS scores below. The other test scores are theoretically equivalent; the full list of all test score requirements can be found in Appendix 5. These requirements are for international students only. Note that many institutions also accept other evidence of English language proficiency, most of which are discussed in the following section (4.1.2), which means that students accepted into these institutions could potentially have lower IELTS scores if tested.

For each profession, we compare the minimum standards set by institutions in each country, including Australia. We later compare these requirements to those currently in place in Australia for registration, to answer the question about possible changes to recognized countries (4.3). Differences in the accepted language test scores are expected to translate into differences in the students' language proficiency level upon program completion, such that programs with low entry requirements are likely to produce graduates with lower English proficiency.

In some cases, a country may have no accreditation body for a profession, meaning that there are no accredited programs. In other cases, there are no accredited programs within the country, with recognition given to overseas programs only. For countries with more than six institutions offering accredited programs, we only reviewed six currently running programs accepting international students. We sampled from the entire list and made sure to cover top-tier and non-top-tier universities, as the top-tier ones are more likely to have higher entry requirements due to their competitiveness. Note that countries differ in entry-level qualifications. In one country, the qualification may be at an undergraduate level while at another, it may be at a postgraduate level, which may affect entry requirements.

Chinese Medicine

Chinese medicine is not regulated in many countries and there are very few accredited programs. Australia has the highest English language requirements for entry into Chinese medicine programs.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
UK	*no officially accredited programs					
Canada	1	6	6	6	6	6
	2	*accepted on individual basis				
Rep of Ireland	*no officially accredited programs					
South Africa	*the only institution does not provide information on English language requirements					
Singapore	*all courses taught in Chinese					
US	3	6	--	--	--	--
	1	6.5	--	--	--	8
Malaysia	1	5	--	--	--	--
	2	5.5	--	--	--	--
Hong Kong	*no accredited programs within Hong Kong					
Australia	4	6.5	6	6	6	6
	1	7	6.5	6.5	6.5	6.5

Table 40: IELTS entry-level qualification score requirements - Chinese medicine

Chiropractic

Relevant qualifications are not available in the Republic of Ireland, Singapore and Hong Kong. Institutions in New Zealand, Canada and Malaysia seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 6 overall and every subtest). Most institutions in the UK do as well. Some institutions in the UK and South Africa have

the same overall IELTS minimum requirement of 6, but accept lower sub-scores. The US has institutions with requirements as low as IELTS 5.5 overall.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	7	6.5	6.5	6.5	6.5
UK	1	6	5.5	5.5	5.5	5.5
	1	6	--	--	6	--
	1	7	6	6	6	6
	1	7	6.5	6.5	7	6.5
Canada	1	7	--	--	--	--
Rep of Ireland	*no programs available in Ireland					
South Africa	1	6	--	--	--	--
Singapore	*no accredited programs within Singapore					
US	1	5.5	--	--	--	--
	1	6	--	--	--	--
	1	6.5	--	--	--	--
	1	6.5	6.5	6.5	6.5	6.5
	1	8	--	--	--	--
Malaysia	1	7	--	--	--	--
Hong Kong	*no accredited programs within Hong Kong					
Australia	2	6	6	6	6	6
	1	6.5	6	6	6	6
	1	7	7	7	7	7

Table 41: IELTS entry-level qualification score requirements - Chiropractic

Dentistry

Only institutions in the UK and Singapore seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 6.5 overall, 6 for sub-scores). Some institutions in Canada and the Republic of Ireland have the same overall IELTS minimum requirement of 6.5, but accept lower sub-scores. New Zealand, South Africa, the US and Hong Kong have institutions with requirements as low as IELTS 6 overall and Malaysia has an institution with requirements as low as IELTS 5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
UK	2	7	6.5	6.5	6.5	6.5
	1	7	5.5	5.5	6.5	5.5
	1	7	6.5	6.5	6.5	7
	1	7	7	7	7	7
	1	7.5	7	7	7	7
Canada	1	6.5	--	--	--	--
	1	6.5	5.5	5.5	5.5	5.5
	3	6.5	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
Rep of Ireland	1	6.5	5.5	5.5	5.5	5.5

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
	1	7	6.5	6.5	6.5	6.5
South Africa	1	6	--	--	--	--
	2	6.5	6	6	6	6
	1	7	--	--	--	--
Singapore	1	6.5	6.5	6.5	6.5	6.5
US	1	6 – 7	--	--	--	--
	3	7	--	--	--	--
Malaysia	1	5	--	--	--	--
	4	6	--	--	--	--
	1	6.5	--	--	--	--
Hong Kong	1	6	5.5	5.5	5.5	5.5
Australia	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	4	7	7	7	7	7

Table 42: IELTS entry-level qualification score requirements - Dentistry

Medicine

No country has institutions that have all set their requirements at or above Australia's institutions' lowest requirements (IELTS 7 overall and every subtest), though the UK and the US have the same IELTS overall score minimum and accept lower sub-scores. Canada and the Republic of Ireland have institutions with requirements as low as IELTS 6.5 overall, New Zealand, South Africa and Hong Kong have institutions with requirements as low as IELTS 6, while Singapore and Malaysia go as low as IELTS 5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
	1	6	6	6	6	6
UK	2	7	6.5	6.5	6.5	6.5
	1	7.5	6.5	6.5	6.5	6.5
	2	7.5	7	7	7	7
	1	7.5	7.5	7.5	7.5	7.5
Canada	1	6.5	5.5	5.5	5.5	5.5
	2	6.5	6	6	6	6
	1	7	7	7	7	7
	1	7.5	--	--	--	--
Rep of Ireland	1	6.5	5.5	5.5	5.5	5.5
	4	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
South Africa	2	6	--	--	--	--
	1	6.5	6	6	6	6
	2	7	--	--	--	--
	1	7	6	6	6	6
Singapore	1	--	--	--	6	--
	1	5 – 6.5	--	--	--	--
	1	6.5	6.5	6.5	6.5	6.5

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
	1	7	6.5	6.5	6.5	6.5
US	3	7	--	--	--	--
	1	7	7	7	7	7
Malaysia	1	5	--	--	--	--
	1	5 – 6.5	--	--	--	--
	2	5.5	--	--	--	--
	1	6	--	--	--	--
	1	7	--	--	--	--
Hong Kong	1	6	--	--	--	--
	1	6.5	--	--	--	--
Australia	6	7	7	7	7	7

Table 43: IELTS entry-level qualification score requirements - Medicine

Medical radiation practice

Institutions in New Zealand and the Republic of Ireland seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 6.5 overall, 6 for sub-scores). Most institutions in the UK do as well. The UK, Canada, South Africa, Singapore and Hong Kong have institutions with requirements as low as IELTS 6 overall, the US have institutions with requirements as low as IELTS 5.5, while Malaysia goes as low as IELTS 5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
UK	1	6	6	6	6	6
	3	7	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	7
	1	7	7	7	7	7
Canada	1	6	--	--	--	--
	2	6	6	6	6	6
	1	6.5	6	6	6	6
	1	7	--	--	--	--
	1	7	7	7	7	7
Rep of Ireland	1	6.5	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
South Africa	3	6	--	--	--	--
Singapore	1	6	6	6	6	6
US	3	5.5	--	--	--	--
	1	6.5	6.5	6.5	6	7
Malaysia	1	5	--	--	--	--
Hong Kong	1	6	--	--	--	--
Australia	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	6.5
	3	7	7	7	7	7

Table 44: IELTS entry-level qualification score requirements - Medical radiation practice

Nursing and midwifery

For nursing, some institutions in the UK and Canada have requirements at the same level as Australia's institutions' requirements (IELTS 7.0 overall, 7 for sub-scores). Some institutions in the UK, the Republic of Ireland, and the US have the same overall IELTS minimum requirement of 7.0, but accept lower sub-scores. New Zealand, South Africa and Singapore have institutions with requirements as low as IELTS 6 overall, the US and Hong Kong have institutions with requirements as low as IELTS 5.5, while Malaysia goes as low as IELTS 5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
	5	6.5	6.5	6.5	6.5	6.5
UK	2	7	6.5	6.5	6.5	6.5
	3	7	7	7	6.5	7
	1	7	7	7	7	7
Canada	1	6.5	5.5	5.5	5.5	5.5
	2	6.5	6	6	6	6
	1	7	--	--	--	--
	1	7	--	--	--	7
	1	7	7	7	7	7
Rep of Ireland	1	6.5	5.5	5.5	5.5	5.5
	3	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	6.5
South Africa	3	6	--	--	--	--
	1	6	5.5	5.5	5.5	5.5
	2	6.5	6	6	6	6
Singapore	2	6	--	--	--	--
	1	6.5	6.5	6.5	6.5	6.5
US	1	5.5	--	--	--	--
	2	6	--	--	--	--
	1	7	6	6	6	6
Malaysia	2	5	--	--	--	--
	2	5.5	--	--	--	--
	2	6	--	--	--	--
Hong Kong	1	5.5	--	--	--	--
	2	6	--	--	--	--
	1	6.5	--	--	--	--
	1	6.5	5.5	5.5	5.5	5.5
Australia	6	7	7	7	7	7

Table 45: IELTS entry-level qualification score requirements - Nursing

For midwifery, no country has institutions that have all set their requirements at or above Australia's institutions' requirements (IELTS 7.0 overall, 7 for sub-scores), but one institution in the US has a higher requirement of IELTS 7.5 overall. In the UK, some institutions have the same minimum requirements as Australia's, while others have the same overall score requirement of IELTS 7.0 but will accept lower sub-scores, as is also the case

in New Zealand, and the Republic of Ireland. In New Zealand, the UK, the Republic of Ireland, South Africa and Malaysia there are institutions with requirements as low as IELTS 6 overall. Applicants to midwifery programs in Singapore must already be a registered nurse; the entry requirement for nursing programs is as low as IELTS 6 overall. Relevant qualifications are not available in Hong Kong.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
	1	7	6.5	6.5	6.5	7
	1	7	7	6.5	6.5	7
UK	1	6	5.5	5.5	5.5	5.5
	2	7	6.5	6.5	6.5	6.5
	3	7	7	7	7	7
Canada	2	6.5	--	--	--	--
	1	6.5	5		5	5
	2	6.5	6	6	6	6
Rep of Ireland	1	6	--	--	--	--
	1	6.5	5.5	5.5	5.5	5.5
	3	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	6.5
South Africa	1	6	--	--	--	--
	2	6.5	6	6	6	6
Singapore	*applicant must already be a registered nurse (unable to find language requirements for registration; see above table for nursing program entry requirements)					
US	1	6.5	--	--	--	--
	1	6.5	6.5	6.5	6.5	6.5
	1	7	--	--	--	--
	1	7.5	--	--	--	--
Malaysia	1	6	--	--	--	--
	*for other programs, either no website is available or does not list requirements					
Hong Kong	*no accredited programs were found					
Australia	4	7	7	7	7	7

Table 46: IELTS entry-level qualification score requirements - Midwifery

Occupational therapy

Only the institution in Singapore seems to have requirements at or above Australia's institutions' lowest requirements (IELTS 6.5 overall, listening and reading 6.5, writing and speaking 6). Most institutions in the UK do as well. Some institutions in Canada and the Republic of Ireland have the same overall IELTS overall score minimum and accept lower sub-scores. New Zealand, the UK, South Africa and Hong Kong have institutions with requirements as low as IELTS 6 overall, and the US and Malaysia have institutions with requirements as low as IELTS 5.5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
	1	6.5	6.5	6.5	6.5	6.5
UK	1	6	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	3	7	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	7
Canada	1	6.5	--	--	--	--
	1	6.5	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
	1	7.5	7	7	7	7
Rep of Ireland	1	6.5	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	6.5
South Africa	1	6	--	--	--	--
	1	6.5	6	6	6	6
	2	7	--	--	--	--
	1	7	6	6	6	6
Singapore	1	7	7	7	7	7
US	1	5.5	--	--	--	--
	2	6	--	--	--	--
	2	6.5	--	--	--	--
Malaysia	1	5.5	--	--	--	--
	2	6	--	--	--	--
Hong Kong	1	6	--	--	--	--
Australia	1	6.5	6.5	6.5	6	6
	5	7	7	7	7	7

Table 47: IELTS entry-level qualification score requirements - Occupational therapy

Optometry

Only institutions in Canada and the Republic of Ireland seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 7 overall, 6 for sub-scores), though the UK and the US have the same IELTS overall score minimum and accept lower sub-scores. New Zealand, South Africa, Singapore and Hong Kong have institutions with requirements as low as IELTS 6 overall, and Malaysia has an institution with requirements as low as IELTS 5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	6	6	6	6
UK	2	7	--	--	--	--
	1	7	6	6	5	6
	1	7	6	6	6	6
	1	7	6	7	7	6
	1	7	7	7	7	7
Canada	1	7	6	6	7	7

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
Rep of Ireland	1	--	7	7	7	7
South Africa	2	6	--	--	--	--
Singapore	1	6	--	--	--	--
US	5	7	--	--	--	--
	1	8	--	--	--	--
Malaysia	2	5	--	--	--	--
	3	6	--	--	--	--
Hong Kong	1	6	--	--	--	--
Australia	1	7	6	6	6	6
	3	7	7	7	7	7

Table 48: IELTS entry-level qualification score requirements - Optometry

Osteopathy

Relevant qualifications are not available in Canada, the Republic of Ireland, South Africa, Singapore, Malaysia and Hong Kong. Institutions in New Zealand and the US seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 6 overall, 5.5 for sub-scores). Most institutions in the UK do as well, though one accepts the same overall IELTS score but with lower sub-scores.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
UK	1	6	--	--	--	--
	1	6	6	6	6	6
	1	6.5	--	--	--	--
	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
Canada	*no accredited programs within Canada					
Rep of Ireland	*the only approved program in Ireland does not seem to accept international students					
South Africa	no accredited programs within South Africa					
Singapore	*no official accreditation body for osteopathy					
US	2	6	--	--	--	--
	1	6	5.5	5.5	5	5.5
	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	--	--	--	--
Malaysia	*no programs are listed by the Malaysian Qualification Authority					
Hong Kong	*osteopathy is not a HK Department of Health approved medical profession					
Australia	1	6	5.5	5.5	5.5	5.5
	2	6.5	6	6	6	6

Table 49: IELTS entry-level qualification score requirements - Osteopathy

Paramedicine

Relevant qualifications are not available in Hong Kong and Singapore, and requirements were not found for the Republic of Ireland and Malaysia. Institutions in New Zealand, the UK and Canada seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 6 overall, 5.5 for sub-scores). Some institutions in South Africa have the same overall IELTS minimum requirement of 6, but accept lower sub-scores. The US has an institution with requirements as low as IELTS 5.5 overall.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	5.5	5.5	5.5	5.5
	1	7	6.5	6.5	6.5	6.5
UK	1	6.5	5.5	5.5	5.5	5.5
	1	6.5	6.5	6.5	6.5	6.5
	3	7	6.5	6.5	6.5	6.5
	1	7	7	7	7	7
Canada	1	6	5.5	5.5	5.5	5.5
	1	--	6	6	6	6.5
	1	6.5	6	6	6	6
	1	--	7	7	7	7
	1	7	7	7	7	7
	1	7	7	7	7	7.5
Rep of Ireland	*language requirements not listed & unclear if international students are accepted					
South Africa	3	6	--	--	--	--
Singapore	*no official accreditation body for paramedicine					
US	1	5.5	--	--	--	--
	2	6	--	--	--	--
	3	6.5	--	--	--	--
Malaysia	*4 institutions with different issues (not listed, in Malay, listed for other courses but missing for paramedicine, website does not work)					
Hong Kong	*paramedicine is not a HK Department of Health approved medical profession					
Australia	1	6	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	2	7	7	7	7	7

Table 50: IELTS entry-level qualification score requirements - Paramedicine

Pharmacy

Only institutions in the UK and Singapore seem to have requirements at or above Australia's institutions' lowest requirements (IELTS 6.5 overall, 6 for sub-scores). Some institutions in New Zealand, Canada and the Republic of Ireland have the same overall IELTS minimum requirement of 6.5, but accept lower sub-scores. The US, South Africa, Malaysia and Hong Kong have institutions with requirements as low as IELTS 6 overall.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6.5	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
UK	3	7	6	6	6	6
	2	7	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	7
Canada	1	6.5	--	--	--	--
	1	6.5	5.5	5.5	5.5	5.5
	3	6.5	6	6	6	6
	1	6.5	6	6	6.5	6.5
Rep of Ireland	2	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
South Africa	2	6	--	--	--	--
	1	6	5.5	5.5	5.5	5.5
	1	6.5	6	6	6	6
	1	7	--	--	--	--
	1	7	6	6	6	6
Singapore	1	6.5	6.5	6.5	6.5	6.5
US	1	6	--	--	--	--
	2	6.5	--	--	--	--
	1	6.5	6	6	6	6
	1	7	--	--	--	--
	1	7	7	7	7	7
Malaysia	2	6	--	--	--	--
	2	6	5.5	5.5	5.5	5.5
	1	6	6	6	6	6
Hong Kong	1	6	--	--	--	--
	1	6.5	--	--	--	--
Australia	2	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
	1	7	7	7	7	7

Table 51: IELTS entry-level qualification score requirements - Pharmacy

Physiotherapy

Only the institution in Singapore seems to have requirements at or above Australia's institutions' lowest requirements (IELTS 6.5 overall and every subtest), though most institutions in the UK do. The UK, Canada and the Republic of Ireland have the same IELTS overall score minimum and accept lower sub-scores. New Zealand, South Africa and Hong Kong have institutions with requirements as low as IELTS 6 overall, the US has institutions with requirements as low as IELTS 5.5, while Malaysia goes as low as IELTS 5.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	6	6	6	6	6
	2	7	6.5	6.5	6.5	6.5

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
UK	1	6.5	6	6	6	6
	2	6.5	6.5	6.5	6.5	6.5
	2	7	6.5	6.5	6.5	6.5
	1	7	7	7	7	7
Canada	1	6.5	--	--	--	--
	1	6.5	6	6	6	6
	2	7.5	7	7	7	7
Republic of Ireland	3	6.5	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
South Africa	2	6	--	--	--	--
	2	6.5	6	6	6	6
	1	7	--	--	--	--
	1	7	6	6	6	6
Singapore	1	7	--	--	--	--
US	1	5.5	--	--	--	--
	3	6.5	--	--	--	--
	1	7.5	--	--	--	--
Malaysia	1	5	--	--	--	--
	2	5.5	--	--	--	--
	2	6	--	--	--	--
Hong Kong	1	6	--	--	--	--
Australia	1	6.5	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	6.5
	4	7	7	7	7	7

Table 52: IELTS entry-level qualification score requirements - Physiotherapy

Podiatry

Relevant qualifications are not available in Canada, Singapore, Malaysia and Hong Kong. Only the New Zealand institution has requirements above Australia's institutions' lowest requirements (IELTS 6.5 overall, 6 for sub-scores), though the Republic of Ireland the same IELTS overall score minimum and accepts lower sub-scores. The UK, South Africa and the US has institutions with requirements as low as IELTS 6 overall.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	1	7	6.5	6.5	6.5	6.5
UK	2	6	5.5	5.5	5.5	5.5
	1	6.5	6.5	6.5	6.5	6.5
	2	7	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	7
Canada	*the only program in Canada is in Quebec (i.e., taught in French)					
Rep of Ireland	1	6.5	5.5	5.5	5.5	5.5
South Africa	1	6	--	--	--	--
Singapore	*no accredited programs within Singapore					
US	1	6	--	--	--	--
	1	7	--	--	--	--

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
Malaysia	*no programs are listed by the Malaysian Qualification Authority					
Hong Kong	*podiatry is not a HK Department of Health approved medical profession					
Australia	1	6.5	6	6	6	6
	1	6.5	6.5	6.5	6.5	6.5
	1	7	6.5	6.5	6.5	6.5
	3	7	7	7	7	7

Table 53: IELTS entry-level qualification score requirements - Podiatry

Psychology

Relevant qualifications are not available in Singapore and Hong Kong. Institutions in New Zealand, the UK, Canada, Republic of Ireland and the US seem to all have requirements at or above Australia's institutions' lowest requirements (IELTS 6 overall, 5.5 for sub-scores). Some institutions in South Africa have the same overall IELTS minimum requirement of 6, but accept lower sub-scores than 5.5. Malaysia has institutions with requirements as low as IELTS 5 overall.

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
New Zealand	3	6	5.5	5.5	5.5	5.5
	1	6	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
UK	1	7	6	6	6	6
	3	7	6.5	6.5	6.5	6.5
	1	7	7	7	7	7
	1	7.5	6.5	6.5	6.5	6.5
Canada	1	6.5	5.5	5.5	5.5	5.5
	1	6.5	--	--	6	--
	1	6.5	6	6	6	6
	1	7	--	--	--	--
	1	7	--	--	--	--
	1	7.5	--	--	6.5	6.5
Rep of Ireland	2	6.5	5.5	5.5	5.5	5.5
	4	6.5	6	6	6	6
South Africa	3	6	--	--	--	--
	1	6.5	6	6	6	6
	1	7	--	--	--	--
Singapore	*no official accreditation for psychologists					
US	2	7	--	--	--	--
	1	7	6	6	6	6
	1	7	7	7	7	7
	1	7.5	--	--	--	--
Malaysia	2	5	--	--	--	--
	1	5.5	--	--	--	--
	3	6	--	--	--	--
Hong Kong	*psychology is not a HK Department of Health approved medical profession					

IELTS	Number of institutions	Overall	Min Listening	Min Reading	Min Writing	Min Speaking
Australia	2	6	5.5	5.5	5.5	5.5
	2	6.5	6	6	6	6
	1	7	6.5	6.5	6.5	6.5
	1	7	7	7	7	7

Table 54: IELTS entry-level qualification score requirements - Psychology

4.1.2 Other evidence of English Language Proficiency for entry

In this section, we present examples of other evidence of English language proficiency accepted by institutions for entry into health programs. The examples below come from requirements for the Bachelor of Medicine/Bachelor of Surgery at accredited UK institutions: University College London (UCL, https://www.ucl.ac.uk/prospective-students/undergraduate/application/entry-requirements/english-language-requirements) and the University of Edinburgh (UE, https://www.ed.ac.uk/studying/undergraduate/entry-requirements/english-language).

- Pre-sessional English course: UCL accepts applicants who have achieved an "overall mark of 75%, with at least 65% in each of the sub-tests", whereas the UE only offers EAP courses for arts humanities and social sciences programs and not for the health sciences.

- Education in an English-speaking country: UCL accepts applicants who have "completed a minimum of 12 months' education in a country that UCL considers to be 'majority English speaking', no more than the summer two years prior to the proposed date of enrolment". The UE does not seem to have this option.

- Work experience in an English-speaking country: UCL accepts applicants who have "completed a minimum of 18 months of work experience in a country that UCL considers to be 'majority English speaking', no more than two years prior to the proposed date of enrolment". The UE does not seem to have this option.

- School leaving qualification containing English: UCL accepts applicants who have "completed a school leaving qualification containing English, which UCL considers to meet the CEFR B2 level in all 4 skills, no more than the summer 2 years prior to the proposed date of enrolment". The UE has similar though often slightly lower requirements, and accepts a different range of qualifications. Examples include:

    - GCSE/IGCSE English language: Pass at 6 (or grade B) for UCL; Grade C / Grade 4 for the UE

    - Hong Kong Diploma of Secondary Education (HKDSE): English Language is accepted by the UE but not UCL

    - International Baccalaureate (IB)

        - for native/near-native speakers (UCL), IB English Language A: Literature of Language and Literature at higher or standard level: grade 5

        - for non-native speakers (UCL), IB English Language B at higher level: grade 5; at standard level: grade 7
        - for the UE, IB standard level grade 5
    - O Level English Language: not accepted by UCL, but accepted by the UE (Botswana; Brunei; Cameroon; Mauritius; Pakistan; Rwanda; Singapore; Zimbabwe)
    - Austria's Matura/Reifeprufung: 2 (gut) in English when both written and oral examinations have been taken for both UCL and the UE
    - France's Baccalaureat General: 13 (assez bien) in English, where the co-efficient applied to the subject is greater than 1 for UCL; grade 12 for UE
    - Iceland's Studentsprof matriculation examination, 8 in English when taken as a compulsory modern language for UCL only; UE requires other evidence of English proficiency
    - Uganda's Certificate of Education: grade 2 English for the UE; UCL requires other evidence of English proficiency

It is important to note that none of the evidence above is guaranteed to be equivalent to the minimum IELTS (or other test) scores listed by the institutions, as they have not been benchmarked to test scores such as IELTS. For this reason, it is hard to make any definite claims about the language capabilities of students at entry of study, and by extension at exit. Higher education institutions generally accept high school leaving certificates or English language tests, whereas regulators accept English language tests and also alternative pathways to prove English language proficiency.

4.1.3 Literature Review on English language development of students studying in English-medium higher education settings

In this section, we present a summary of the literature on students' English language proficiency development while studying in English-medium higher education.

Students often choose to study in English-medium higher education settings because they anticipate that this environment will provide them with a rich immersion experience with exposure to English input and associated incidental development of their English language proficiency. Such an environment has also been hypothesized by leading experts in second language acquisition to be conducive to language development (DeKeyser, 2007; Gass, 2003; Swain, 1995). Despite this wide-held belief (which is also commonly held by university administrators, parents and other stakeholders), there is surprisingly little research investigating the effects of English-medium courses of instruction on language proficiency. In the following section, we summarize the findings of studies focussing on language gains of students in focussed English language programs (a context less relevant to this context), and then detailing results of research looking into score gains of students studying in English-medium higher education institutions where (a) English is not spoken in the country and primary language (English as a foreign language environment, EFL), and (b) where English is the common language (English as a second language environment, ESL). We then

also detail some specific factors that have been shown to influence English-language development in these contexts.

Due to the small number of studies available in this area, conducting a data base search was not feasible or helpful. We relied on the first authors' knowledge of the available literature and sampled other studies based on references listed by the authors.

English language development while taking English language intensive courses

A number of studies have investigated students' language improvements when taking intensive pre-university English language programs (Elder & O'Loughlin, 2003; Green, 2004; Read & Hayes, 2003).The findings generally show that the average improvement after about 200 to 240 hours of instruction varied (with an average of a .5 increase on the overall band of the IELTS), with the biggest predictor being the students' English language proficiency at the start of the program. Students who entered with lower IELTS scores (around 4), improved the most, while those who entered with a score of 7 were more likely to not improve, or even receive a lower IELTS score when tested again. Students entering at a score of 6 typically did not improve. While these studies are not directly applicable to the context of studying in an English-medium university while pursuing a degree (e.g., in health), the research shows that the English language proficiency at entry is a strong predictor of improvement. It also shows that even despite intensive English language instruction, score gains are not always guaranteed, nor do they occur quickly. More directly relevant to the question posed by Ahpra, are studies examining English language development of students enrolled in degree programs in both EFL and ESL environments, to which we will turn next.

English language development while studying at a higher education institution in an EFL environment

In many countries, students are able to study in English-medium of instruction programs, despite the national language of the country and society they live in being a language other than English. Such programs are becoming increasingly popular, as they provide students with regular access to English without the costs associated with studying overseas. These programs differ in their delivery as well as the teaching staff and methodology and therefore findings on language development in one institution are difficult to generalize to other contexts, however, it is still important to mention a few examples of the types of studies that have been undertaken.

Rogier (2012), for example, examined the English language development of students enrolled in an English-medium of instruction (EMI) program in the United Arab Emirates. She compared IELTS test scores at exit with those students used to enter the institution and found that students increased marginally in scores across the four skills, with speaking showing the most improvement (about one half of a band score), followed by reading after four years of study. A further study (Ament & Perez-Vidal, 2015) examined English language gains over a 1-year period of students enrolled in an economics degree in a Spanish university. They did not draw on any standardized test materials, which makes it difficult to compare results to other studies. The improvements they found were fairly minimal and mostly limited to improvement on the lexico-grammatical tasks they administered.

Some of the reasons for the limited development found in the studies focussing on EFL environments can be that the input they receive in their classes is less rich than in ESL environments. Studies by, for example, Airey & Linder (2004) have shown that students interact less and ask less questions in EMI contexts. Lecturers working in these environments are also often lecturing in their second language and do not have any additional training in working with English language learners.

The findings of these studies are relevant to this current work, as students from certain countries applying for registration may be classified into having studied in an EFL environment.

English language development while studying at a higher education institution in an ESL environment

The most relevant group of studies to answer the question about the comparability of the education pathways has focussed on language development of students who have studied for their degrees in English-speaking countries, including Australia. We present these studies first describing those that have investigated language development of students over the duration of up to one year, and then describe studies looking at longer study durations, including full undergraduate degrees.

We identified four studies that investigated score gains after up to one year of study. Storch and Hill (2008) investigated the impact of one semester of study on the English language proficiency of 39 international students at an Australian university, using a test re-test design for both reading and writing. Their results indicated that students improved in both skills, although the higher the score at the pre-test stage, the smaller the increase, mirroring the findings of other studies. More recently, Humphreys, Haugh, Fenton-Smith, Lobo, Michael and Walkinshaw (2012) examined the change in language proficiency of 51 international undergraduates after one semester of study (again at an Australian university) using IELTS gain scores. The study found that increases in listening, reading and writing were limited, and not statistically significant. The only significant increase was found for speaking. Knoch, Rouhshad, and Storch (2014) investigated improvements in the writing proficiency of students after one year of study at an Australian university and found that there were no improvements on the scores of the assessments, but that students wrote significantly longer essays after one year. Finally, in a study conducted in Hong Kong (Gan, Stapleton, & Yang, 2015) examined the language development of undergraduate students after one year of study at a Hong Kong university, and found that for the 33 student participants (who were all enrolled in a B.Ed. program), there were only very slight improvements, with none of the four skills improving significantly.

One of the first studies examining language development of students over their entire university degree was conducted by O'Loughlin and Arkoudis (2009) at an Australian university. The researchers used a test re-test design comparing IELTS scores at entry and exit of 63 students. The study found that the students improved on listening, reading, and writing, but not on speaking. The improvements on listening and reading were the greatest, although all improvements were fairly minimal (the improvement on listening and reading was half a score point on average, and the improvement on writing 0.2 score points on average). The authors also noted, that students with lower initial results on listening, reading and writing tended to improve more (in line with the findings in other studies), and that undergraduate students improved more than postgraduate students. The degree of English language support students sought as well as the degree of contact they had with English

outside of the university were significant predictors of development. More recently, Humphreys (2016) examined improvement of IELTS scores of 564 Australian undergraduate students who were participating in a subsidized IELTS exit testing scheme. She found that gains over the undergraduate degree were minimal, with only an improvement of 0.38 of a band score. Knoch, Rouhshad, Oon and Storch (2015) only focussed on writing and found no improvement on writing scores over the period of three years of study.

4.1.4 Summary and Discussion

Summarizing the research findings on language development above, it can be shown that documented improvements in language proficiency of students studying in English-medium higher education contexts are surprisingly small. Even for students who have completed a four-year undergraduate degree at an English-speaking university in an English-speaking country, the IELTS gains are on average below half a band score. Research has pointed to variation in the gains, with students who enter at lower levels improving more. A critical threshold seems to be IELTS 6 or 6.5 at entry, where improvements seem to either not occur or are very small. These are the IELTS levels most commonly set for entry into health degrees. The literature on improvements over shorter study durations is also relevant, as this can be transferred onto shorter certificate courses, taking into consideration that these often also have lower English-language entry requirements.

Returning now to our review of the English language entry requirements for health degrees in various countries, it is clear that it is difficult to make the claim that the education pathway will definitely lead to an equivalent English language proficiency of IELTS 7, noting that many programs admit students at IELTS 6, or even lower in the case of certain countries (e.g., Hong Kong, Malaysia) and certain degrees.

The research reported above only provides one piece of the puzzle. While students might not improve considerably on the English language proficiency skills measured by general academic tests such as the IELTS, they may well gain in their profession-specific communication skills. Literature on such gains is however, to our knowledge, not available.

It is also important to consider the impact on English language proficiency of online degrees and courses. Such courses are becoming increasingly popular as they provide access to students in many more places and make studying less expensive. However, we were not able to locate any studies that have investigated the impact of such courses on English-language proficiency. We expect that such courses (although the design may vary), provide less English input than a face-to-face course would, and therefore suspect that language development would be even slower.

A further consideration is whether there is a differential impact on language development if a degree is completed part-time or full-time. There is no literature available on this question, partly because part-time study is rare, in particular for international students where visa requirements often don’t allow for part-time study. We cannot think of any arguments why part-time study may lead to a reduced rate of language development, especially if the student is spending time in an English-speaking country while studying.

Similarly, whether students have failed subjects during their degree study, and therefore extending the time of the degree, should also not directly impact on language development

(although failed subjects may be an indication of low levels of language proficiency). If the degree has been completed, then failed subjects should not be considered any further.

In summary, while the literature cannot directly validate that the extended or continuous education pathways would lead to a language proficiency level equivalent of IELTS 7, or alternatively be sufficient to meet the communication demands of the health profession, this does not provide sufficient justification to abandon these pathways. We recommend, that further research is conducted, as described in the following section.

For the three education pathways, is there any data that Ahpra could collect or research that could be commissioned in order to inform the extent to which the alternative pathways are equivalent to the English language test pathway or otherwise provide reasonable assurance of competency in communicating in English sufficient to practise a highly skilled health profession, noting that National Boards have had extensive regulatory experience with pathway 2 in particular and have drawn on this in maintaining this pathway?

In this section, we propose a number of possible research projects that Ahpra could undertake or commission to investigate whether internationally-qualified health professionals who have registered under the three education pathways are sufficiently competent to cope with the linguistic demands of their respective workplaces. We also discuss the advantages and disadvantages of each of these studies.

Study 1: Interviews with employers/supervisors and overseas-trained health professionals

This study involves following health professionals who registered through one of the three education pathways into their workplaces, and interviewing their employers, or supervisors (and possibly also the health professionals themselves). The interviews would explore with the employers how well the health professionals are coping with the communicative demands of their workplaces, and whether they felt that the health professionals were sufficiently competent when they commenced their roles. Health professionals could be targeted by their registration pathway to ensure sampling for this study is thorough.

The advantage of this study is that specific individuals can be targeted directly, and that a direct insight into their domain of work is provided. The disadvantage is that due to the resource-intensive nature of interviewing individuals, only a smaller number of health professionals can be targeted. As an alternative, employers could be asked to provide written feedback on targeted individuals. This should allow for wider sampling across the various pathways but would result in less rich data on possible strengths and weaknesses in the health professionals' communication skills.

Study 2: Survey of professional boards

Professional boards could be surveyed to ascertain whether there has been feedback on or any complaints about the language proficiency of recently registered health professionals, and if any of these have registered through the three alternative pathways in question. Such a survey has the advantage that it would provide direct evidence about individuals which can be linked to their registration pathway, however, it is likely that the number of complaints reaching professional boards is not representative of actual cases of health professionals not meeting the language proficiency expectations of colleagues or employers. An advantage is, however, that it may be less difficult to access such data, then collecting information directly in workplaces.

Study 3: Administering a language test to a sample of health professionals

A more direct way of establishing equivalence of the alternative pathways to the IELTS 7 or OET B standard is to administer a language test to a group of health professionals registering through the three pathways in question. This would have the advantage that a more direct link to the language test scores could be established, but also has a number of disadvantages. Firstly, this study would be costly, as APHRA would have to cover the costs of the tests, as well as participant incentives. Secondly, the health professionals would be less likely to prepare for the test, or at the very least familiarize themselves with the format, which may mean they may not achieve the same results as the comparison group registering through the test pathway. Finally, to have meaningful results a relatively large group of health professionals would have to take a test.

Study 4: Interviews with educators

To gain a less direct picture of health professionals registering through the alternative pathways, it may also be possible to discuss their language proficiency with educators involved in the final education year, which is likely to include a clinical component. This study may be more difficult to achieve as individuals registering through these pathways may be harder to identify at the point of study, and the evidence collected from educations is less direct. Nevertheless, educators are experienced, and have a good insight into how students may perform in their future workplaces.

Can you identify any professional regulatory bodies in English speaking countries that use any non-EL test approaches (alone, or in conjunction with a test option) to verify EL skills of practitioners for professional registration? Of the different non-test pathways identified, is there any way to benchmark these against the level of EL skills required by an IELTS 7? If so, are the alternative pathways identified of a lower, equal, or higher standard than an IELTS 7 or has the regulatory body made a separate determination that the pathway provides reasonable assurance of competency in speaking and communicating in English sufficient to practise a highly skilled health profession?

To answer this question, we present a review of the various non-test pathways used by other regulatory bodies, and in light of this, discuss the question posed above. Information about non-test pathways accepted by international health regulatory bodies was obtained from information published on their websites and any English-language-related requirements were extracted and grouped by similarity. Other government and academic institutional websites were referenced in the rare cases where there are no formalized registration or registration standards for two health professions in a few countries.

4.2 Review of current non-test pathways used by other regulatory bodies

In this section, we review the non-test pathways accepted by international health regulatory bodies. Below, they have been grouped by pathway type. (See Appendix 4 for the full list of non-test pathways by profession, each with (a) a summary of the pathway types available across all countries and (b) the pathways listed by country.) The pathways to be discussed are as follows:

- No alternative pathway
- No formalized standards

- No English language requirements (some with certification exams)
- In-country study
- English as the first/main language (some with certification exams)
    - English as the first language and qualification in English
    - English as the first language, qualification in English and registration in an English-speaking jurisdiction
- Nationality
- Other education in English (primary, secondary, tertiary other than relevant qualification)
- Qualification obtained in an English-speaking country
    - Qualification obtained in an English-speaking country and qualification specified as having been taught in English
    - Qualification obtained in an English-speaking country and registration in an English-speaking jurisdiction
- Other country of qualification (includes non-English-speaking countries)
    - Other country of qualification and how recently that qualification had been obtained
- Qualification with English as the medium of instruction
- Registration in an English-speaking country
    - Registration and practice in an English-speaking country
- Other pathway types (the remaining unclassified pathways)

4.2.1 NO ALTERNATIVE PATHWAYS

Before covering all the non-test pathways, it is important to note the possibility of no alternative pathway. In two instances, all applicants must provide a language test score for registration: pharmacy in the US and psychology in South Africa.

4.2.2 NO FORMALIZED STANDARDS

Broadly, there are no formalized registration or registration standards for some countries for Chinese medicine and paramedicine. For Chinese medicine, this covers New Zealand, the UK, parts of Canada (regulated only in Ontario and British Columbia), and the Republic of Ireland. For paramedicine, this covers New Zealand and Singapore. This lack of formalized standards means that there are also no English language requirements.

4.2.3 NO ENGLISH LANGUAGE REQUIREMENTS

In some instances, there seem to be no English language requirements for registration (see Table 55), though in many instances, applicants must or may be required to pass competency exams/assessments that are in English but do not specifically test language. Note that for nursing and midwifery, Singapore also requires an offer of employment before registration. Singapore is also an odd case for Chinese medicine, as registration requires qualifications from programs where the language of instruction is solely or primarily in Mandarin.

	UK	Canada	Rep of Ireland	South Africa	Singapore	US
Chinese medicine				√	√	√
Chiropractic	√	√		√		√
Medical radiation						√
Nursing & midwifery					√	
Occupational therapy				√		
Optometry				√	√	√
Osteopathy			√	√	√	
Paramedicine				√		
Physiotherapy				√		
Podiatry				√		
Psychology					√	

Table 55: No English language requirements for registration

There are two instances where, although there do not seem to be any English language requirements, the exams required for certification do serve as an indication of English proficiency: (a) Chinese medicine in Canada (only regulated in Ontario and British Columbia) and (b) medicine in the US. In Ontario and British Columbia, it is explicitly stated that the test required is enough evidence of English language skills. During the medical certification process in the US, applicants must take the United States Medical Licensing Examination, which includes a Clinical Skills test that covers communication skills (three components: Integrated Clinical Encounter, Communication and Interpersonal Skills, and Spoken English Proficiency).

4.2.4 IN-COUNTRY STUDY

Another limited pathway type is when it is compulsory for applicants to study in the country in which they intend to register, as a control measure to ensure that they have reached minimum requirements. In the US and Canada, applicants are unable to register without studying again in their country, whether it be the entire degree or a bridging program, entrance for which usually requires either the applicant to be a native speaker of English or to provide a language test score. This is true for six US occupations: dental, midwifery, osteopathy, paramedicine, podiatry and psychology.

As for Canada, it requires graduates of non-approved dental programs to do a qualifying/degree completion program. In Ontario, entrance into the required International Midwifery Pre-Registration Program includes an assessment of the applicant's language proficiency through the Ontario Midwifery Language Proficiency Test, while in British

Columbia, there are three non-test pathways for applicants to demonstrate their English proficiency before they can apply for the Internationally Educated Midwives Bridging Program, all of which require applicants to have received extensive education in English (see Table 56).

<table>
<tr><th colspan="2">Requirement type</th><th>Pathway A</th><th>Pathway B</th><th>Pathway C</th></tr>
<tr><td rowspan="2">extensive education</td><td>qualification</td><td>successfully completed a minimum of 10 years of primary and secondary schooling, including English Examination and achieved a minimum score of 70% in non-ESL Grade 12</td><td>at least four years in a secondary and/or post-secondary English-only institution</td><td rowspan="2">--</td></tr>
<tr><td>country</td><td>Canada only</td><td>lived and studied where English is the first language</td></tr>
<tr><td rowspan="2">lived in an English-speaking country</td><td>length of residence</td><td rowspan="2">--</td><td colspan="2">at least four out of the last six years</td></tr>
<tr><td>country</td><td colspan="2">an approved country*</td></tr>
<tr><td rowspan="3">midwifery qualification</td><td>length</td><td rowspan="3">--</td><td rowspan="3">--</td><td>at least 24 months in duration</td></tr>
<tr><td>country</td><td>where English is the first language</td></tr>
<tr><td>language use</td><td>(a) language of instruction and examination was English and (b) where a minimum of 80% of clinical experience (including patient interactions) took place in English</td></tr>
</table>

**Approved countries: Anguilla, Antigua & Barbuda, Australia, Barbados, Bermuda, British Virgin Islands, Canada (except Quebec), Dominica, Grenada, Grenadines, Republic of Ireland, Jamaica, New Zealand, Singapore, South Africa, St. Kitts & Nevis, St. Lucia, St. Vincent, Trinidad & Tobago, United Kingdom, United States of America, and US Virgin Islands*

Table 56: Non-test pathways for dentistry bridging program in British Columbia, Canada

4.2.5 FIRST/MAIN LANGUAGE

Applicants are sometimes exempt from language test requirements if they speak English as their first or main language. This section covers all instances where this is one or the only requirement for exemption. Table 57 shows cases where this is the only requirement, though they differ somewhat in their wording. The UK has either limited the citizenship of the applicant to a few English-speaking countries or specified that the applicant must still be using (mainly) English (though it is unclear if this would be self-reporting or evidence of work experience) and that having studied or studied in English is not sufficient.

To address the question about non-EL test approaches in conjunction with a test option, note that for occupational therapy in Canada, applicants also need to pass an examination for registration with a language component. Other certification exams have been omitted from this summary, as they were not directly used to assess English proficiency.

4.2.6 FIRST LANGUAGE & QUALIFICATION

New Zealand accepts applicants with English as their first language and a relevant qualification taught in English. For medicine and medical radiation applicants must have studied in Australia, the UK, the Republic of Ireland, the US, Canada or South Africa. For dentistry and physiotherapy, applicants' courses must have been instructed and assessed in English.

			Applicant background			Exam(s) for registration with language component
			Language is English	From an English-speaking country	Current use of English	
first/ main language is English	Canada	Occupational Therapy	first	--	--	SEAS > 'Language Assessment'
	New Zealand	Chiropractic	main	--	--	--
		Midwifery	first	--	--	--
		Occupational Therapy				
		Optometry				
		Osteopathy				
		Podiatry				
	Singapore	Dental	first	--	--	--
	UK	Osteopathy	first	Au, Ca, NZ, US	--	--
		Medical Radiation	first	--	main/only language used on a day-to-day basis*	--
		Occupational Therapy				
		Paramedicine				
		Physiotherapy				
		Podiatry				
		Psychology				

**having studied English or taken higher education that was taught in English is not sufficient*

Table 57: First/main language as language test exemption

4.2.7 FIRST LANGUAGE, QUALIFICATION & REGISTRATION

A more stringent set of criteria for registration covers (a) English as the first language, (b) English being the language of instruction and (c) registration and practice in English. For nursing, Canada specifies (a) English being the first language and the main language where the applicant lives and works; (b) English as the nursing education program's language of instruction (most likely also assuming assessments are in English) and specifying that online/distance education programs are excluded; and (c) evidence of safe practice within the last two years where the main language used was English. Similarly, for pharmacy, New Zealand specifies (a) English being an official language of the applicant's country, (b) completion of "an undergraduate pharmacy degree where English was the sole language of instruction and assessment" and (c) evidence of continuous work (at least two within the last five years) in a pharmacy where English is the first language. This evidence consists of a written testimony by an employer and written testimonies of two pharmacists "who speak English as a first language, about the applicant's English language ability".

4.2.8 NATIONALITY

Notably, the UK allows English language exemptions for applicants whose countries are not majority-English-speaking. For the six occupations of medical radiation, occupational therapy, paramedicine, physiotherapy, podiatry and psychology, applicants are exempt if they are "[a] national of a relevant European state other than the UK" or "[a] person who is not a national of a relevant European state but who is, by virtue of an enforceable community right, entitled to be treated no less favourably than a national of a relevant European state".

4.2.9 OTHER EDUCATION IN ENGLISH

Applicants are sometimes exempt if they can provide evidence of extensive education in English. This may mean education in primary and/or secondary school (see Table 58), or it can mean tertiary education that is not the primary qualification for the profession that the applicant would like to register for.

		Applicant background		
		From an English-speaking country	Primary school	Secondary school
Canada (parts)	Medical	--	√	√
Canada	Physiotherapy	--	entire primary & secondary schooling in Canada	
Canada (parts)	Psychology	--	--	high school diploma
South Africa	Pharmacy	SA citizen	--	holds SA qualification
	Dental*	--	--	holds high school qualification
New Zealand	Midwifery**	--	≥ 4 yrs	--

**Applicants must also pass the Board's Examination for competence*

***Midwifery qualification also taught in English*

Table 58: Primary and/or secondary education in English as language test exemption

There are four instances of other tertiary education taught in English, some with more stringent and more occupation-related requirements than others:

- Psychology in Alberta (Canada) only requires a minimum of two years of undergraduate education in any field and

- Physiotherapy in the US requires obtaining a minimum of a bachelor's degree from a restricted set of English-speaking countries: the US, the UK, the Republic of Ireland, Australia, New Zealand, and Canada (except Quebec).

The other two cases stipulate a related postgraduate qualification for medical registration.

- In Canada, pre-screening language requirements (before a competency exam) include applicants being currently in a postgraduate medical education program in an English-speaking country (i.e., Australia, Bahamas, Bermuda, British Virgin Islands, Canada, Republic of Ireland, New Zealand, Singapore, South Africa, United Kingdom, United States of America, US Virgin Islands, Caribbean Islands [Anguilla, Antigua and Barbuda, Barbados, Dominica, Grenada, Grenadines, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad and Tobago]).

- In New Zealand, applicants must have completed "at least 24 months full time equivalent of a health-related postgraduate qualification (diploma, masters or PhD) at an accredited New Zealand university within 5 years immediately prior to application". "References from two professors from an accredited New Zealand university who are registered as doctors in New Zealand and who speak as a first language" are also required.

4.2.10 ENGLISH-SPEAKING COUNTRY OF QUALIFICATION

In quite a few cases, the country in which the applicant attained their relevant qualification is sufficient evidence of proficiency if that the country is English-speaking (see Table 59). This suggests the assumption that English was also the language of instruction, assessment, clinical practice, and the system of course accreditation. Sometimes the countries are specified, while others are not, and sometimes degree requirements are specified. Although some occupations require applicants to go through a certification process that may include an exam, these have been omitted, as they are not directly used to assess English proficiency.

		Country		Degree requirements
		English-speaking	Limited to	
Rep of Ireland	Pharmacy	official	.	.

		Country		Degree requirements
		English-speaking	Limited to	
New Zealand	Chiropractic	√	Au	.
	Dental			
Singapore	Medical Radiation	√	Au, Ca (ex. Quebec), NZ, Ie, SA, UK, US	basic professional qualification
	Occupational Therapy			
	Physiotherapy			
	Podiatry			
	Pharmacy	√	UK, US, Ca, Au, NZ	entire degree
South Africa	Dental	√	.	.
US	Physiotherapy	√	only 1 UK institution	.
	Nursing	√	UK, Au, NZ, Ca (ex. Quebec), Ie	.
	Occupational Therapy			
Canada	Osteopathy	√	US	.
	Pharmacy			
	Dental		US, Au, NZ, Ie	
Canada (parts)	Paramedicine	first/ native	.	.
	Podiatry	√	US	Doctor of Podiatric Medicine
			Au, SA, UK, US	post-secondary podiatric program
	Psychology	√	US, UK, Ie, Au, NZ	highest level psychology degree
		x	**NOT** US, UK, Ie, Au, NZ	supervision & clinical practice entirely in English

Table 59: English-speaking country of qualification as language test exemption

Note that for psychology in Ontario (Canada), it is specified that if the applicant's degree had not been obtained in one of the five accepted English-speaking countries, as long as the supervision and clinical practice aspect of their qualification had been entirely in English, this would satisfy the English language requirements.

4.2.11 ENGLISH-SPEAKING COUNTRY OF QUALIFICATION & QUALIFICATION

There are a few instances where it is specified that the applicant's qualification must have been taught in English, in addition to the qualification having been undertaking in an English-speaking country (see Table 60). This avoids the assumption made in the pathway type above.

		Country			Degree information				
		English-speaking	Limited to		Obtained	Instruction in English	Assessment in English	Clinical interaction in English	Other degree requirements
New Zealand	Psychology	√	Au, Ca, SA, US, UK		.	√	.	.	.
Canada	Medical	first & native	*		.	√	.	.	undergrad
	Physiotherapy	√	Au, US, NZ, Ie, SA, UK		.	√	.	√	entry-to-practice
Rep of Ireland	Nursing Midwifery	.	Ca, Au, NZ, US, UK		.	√	√	.	.
UK	Paramedicine	majority speaking	**		within the last 2 years	√	√	≥ 75%	≥ 3 yrs long

** Australia, Bahamas, Bermuda, British Virgin Islands, Canada, Republic of Ireland, New Zealand, Singapore, South Africa, United Kingdom, United States of America, US Virgin Islands, Caribbean Islands (Anguilla, Antigua and Barbuda, Barbados, Dominica, Grenada, Grenadines, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad and Tobago)*

*** Antigua and Barbuda, Australia, The Bahamas, Barbados, Belize, Canada, Dominica, Grenada, Guyana, Jamaica, New Zealand, Republic of Ireland, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, USA*

Table 60: English-speaking country of qualification and qualification in English as language test exemption

4.2.12 ENGLISH-SPEAKING COUNTRY OF QUALIFICATION & REGISTRATION

There was only one case where registration in an English-speaking country (probably also assuming practice in that country) is required in addition to holding a qualification from an English-speaking country: nursing in New Zealand.

4.2.13 OTHER COUNTRY OF QUALIFICATION

In four instances, the country of qualification covers more than only English-speaking countries, so it is not a good reflection of English language proficiency. In the Republic of Ireland and Singapore, graduates of the European Council of Chiropractic Education, Council on Chiropractic Education, Council on Chiropractic Education International and Australasian Council on Chiropractic Education are all accepted. This covers non-English-speaking countries like Korea, Japan, Spain, France, and Denmark.

Similarly, for osteopathy in Ontario (Canada), applicants can be graduates from Europe (Switzerland, Germany, Belgium, France, Finland) in addition to Canada, the UK, Australia, and New Zealand. For optometry in the UK, applicants can be graduates from the European Economic Area or Switzerland.

4.2.14 OTHER COUNTRY OF QUALIFICATION & QUALIFICATION

The UK has a more complex set of requirements for dentistry and medicine, that depends on both the country in which the applicant obtained their qualification as well as how recently that qualification had been obtained (see Table 61 for degrees obtained within the past two years and Table 62 for degrees obtained more than two years before application). Applicants not qualified in the UK/EU/European Economic Area (EEA)/Switzerland are required to take a certification exam; the medical one includes a linguistic component.

	Country of qualification	Instruction in English	Assessment in English	Clinical interaction in English	Extra exams
dental	UK/EU/EEA/ Switzerland	√	√	≥ 75%	.
	NOT UK/EU/EEA/ Switzerland				Overseas registration exam
medical	UK/EU/EEA/ Switzerland				.
	NOT UK/EU/EEA/ Switzerland				Professional and Linguistic Assessments Board test

Table 61: UK alternative pathways for dentistry and medicine, depending on country of qualification obtained within the past two years.

<table>
<tr><th></th><th>Country of qualification</th><th>Registration & practice</th><th>Offer of employment</th><th>Extra exams</th></tr>
<tr><td rowspan="2">dental</td><td>UK/EU/EEA/ Switzerland</td><td rowspan="2">country where English is the first language & within the last 2 yrs</td><td rowspan="2">.</td><td>.</td></tr>
<tr><td>NOT UK/EU/EEA/ Switzerland</td><td>Overseas registration exam</td></tr>
<tr><td rowspan="2">medical</td><td>UK/EU/EEA/ Switzerland</td><td rowspan="2">.</td><td rowspan="2">.</td><td rowspan="2">.</td></tr>
<tr><td>NOT UK/EU/EEA/ Switzerland</td><td>√</td></tr>
<tr><td></td><td></td><td></td><td>√ from a UK healthcare organization (must be a designated body)</td><td>Professional and Linguistic Assessments Board test</td></tr>
</table>

Table 62: UK alternative pathways for dentistry and medicine, depending on country of qualification obtained more than two years before application.

4.2.15 ENGLISH AS LANGUAGE OF QUALIFICATION

There are many instances where applicants whose relevant qualifications had been taught in English were exempt from the language testing requirements (see Table 63). It is interesting to note that while most of these only specified that the qualification had to have been (taught) in English, Republic of Ireland's regulatory bodies for medical radiation, occupational therapy, optometry, physiotherapy, podiatry and psychology have also specified that the clinical interaction must also have been in English, and nursing in the US also specified that the textbooks had to have been in English. (Also see above for a few instances where assessment was specified as being in English, such as pharmacy in New Zealand.)

4.2.16 REGISTRATION IN ENGLISH-SPEAKING COUNTRY

There are three instances where registration in an English-speaking country is accepted as evidence of English language skills, only one of which specifies a minimum length of registration. Two of these cover pharmacy: in New Zealand, applicants must have been registered in Australia, Canada, Republic of Ireland, the UK or the US; while in Singapore, applicants must have been registered in Australia, New Zealand, Canada, the UK (except EEA pharmacists registered via the treaty agreement), or the US. For psychology, in Ontario (Canada), applicants must show proof

		Degree information			Exam(s) for registration with language component
		Instruction in English	Clinical interaction in English	Other degree requirements	
New Zealand	Chiropractic	√	.	.	.
	Optometry				
	Osteopathy				
Canada	Medical Radiation	√	.	.	.
	Optometry				
Canada (parts)	Psychology	√	.	highest level psychology degree	.
	Midwifery			.	
South Africa	Medical	√	.	.	.
	Medical Radiation				
	Nursing				
	Midwifery				
Singapore	Medical	√	.	.	.
US	Nursing	√	.	textbooks in English	.
Canada	Occupational Therapy	√	.	.	SEAS > 'Language Assessment'
South Africa	Dental	√	.	.	.
Rep of Ireland	Medical Radiation	√	√	.	.
	Occupational Therapy				
	Optometry				
	Physiotherapy				
	Podiatry				
	Psychology				

Table 63: Qualification completed in English as language test exemption.

of registration in an English-speaking environment for a minimum of two years. It is likely that this pathway assumes practice as well as registration.

4.2.17 REGISTRATION & PRACTICE IN ENGLISH-SPEAKING COUNTRY

Most regulatory bodies that accept work experience in lieu of an English language test score specify registration and practice in an English-speaking country, rather than registration only. Most also specify the minimum period of registration and practice, as well as how recent this work experience must have been. Table 64 covers these in more detail.

		Registration requirements	Other notes	(details of accepted countries/ institutions/ environments)
Canada	Medical	currently	.	*
Canada (parts)	Psychology	≥ 2 yrs	.	an English practice environment
New Zealand	Chiropractic	≥ 2 / last 5 yrs	.	.
	Medical			in an institution where English was the first and prime language
	Medical Radiation			one of the recognised countries where English was the first and prime language
	Nursing	√	where applicant had to have completed an English language test	UK, Ie, Ca, US
UK	Nursing	recent & ≥ 1 yr	completed an English language assessment/ examination as part of registration	**
	Midwifery			
	Paramedicine	≥ 2 yrs (w/in 2 yrs)	.	***
Rep of Ireland	Nursing	≥ 3 / last 5 yrs	.	Au, Ca, NZ, US, UK
	Midwifery			

		Registration requirements	Other notes	(details of accepted countries/ institutions/ environments)
	Dental		.	EU member state whose official language is listed as English; Countries outside of the EU may be considered if English is listed as an official language
	Pharmacy		lived in the country	in a country that has English recognised as the official language
	Medical Radiation	≥ 2 / last 5 yrs	lived in the country	in a country that has English recognised as the official language
	Occupational Therapy			
	Optometry			
	Physiotherapy			
	Podiatry			
	Psychology			

** Australia, Bahamas, Bermuda, British Virgin Islands, Canada, Republic of Ireland, New Zealand, Singapore, South Africa, United Kingdom, United States of America, US Virgin Islands, Caribbean Islands (Anguilla, Antigua and Barbuda, Barbados, Dominica, Grenada, Grenadines, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad and Tobago)*

*** Antigua and Barbuda, Australia, The Bahamas, Barbados, Belize, Canada, Dominica, Grenada, Guyana, Jamaica, New Zealand, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, The United States of America, British Antarctic Territory (BAT), British Indian Ocean Territory (BIOT), Falkland Islands, Republic of Ireland, Isle of Man, Jersey, Guernsey, Gibraltar, Sovereign Base Areas of Akrotiri and Dhekelia on Cyprus, United Kingdom, US Virgin Islands*

**** Antigua and Barbuda, Australia, The Bahamas, Barbados, Belize, Canada, Dominica, Grenada, Guyana, Jamaica, New Zealand, Republic of Ireland, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, USA*

Table 64: Work experience in English as language test exemption.

4.2.18 Other pathway types

Some countries have a more general alternative pathway for more complex cases that does not specify exactly what type of evidence is sufficient and can potentially include evidence covered in the pathways above, as well as other evidence not reviewed. This general pathway is accepted by midwifery in New Zealand, psychology in British Columbia and Ontario (Canada), paramedicine in Alberta (Canada), and paramedicine in the Republic of Ireland.

There are two cases of non-accredited or non-approved qualifications other than those mentioned above in terms of degrees earned from the non-recognized countries. Canada provides the option for dental applicants to go through an equivalency process including "more extensive education documentation" and an examination (Assessment of Fundamental Knowledge). The UK provides a non-testing option for nursing and midwifery applicants who completed a non-approved program (including those in an "English-speaking majority country") within the last five years. Their course must have been "composed of at least 50 percent clinical interaction and that 75 percent of that was with patients, service users, their families and other healthcare professionals and must have taken place in English". This therefore means that graduates from programs in non-English-speaking countries are unlikely to be able to provide this evidence and would thus be forced to take a language test.

Three other cases remain:

- Evidence of registration by another regulatory body: British Columbia (Canada) accepts an "equivalent standard for English language proficiency in [the applicant's] home jurisdiction" for psychology applicants, which may mean that they do not need to re-sit a language test or it may mean that their home jurisdiction's alternative pathway would be sufficient.

- References from native-speaking supervisors: With New Zealand and osteopathy, applicants can provide evidence through references, such that they must be "clinical placement supervisors who have observed and are familiar with their English language competency" and that these referees "speak English as a first language and have adequately addressed the applicant's competence in reading, writing, speaking, speaking and listening in a clinical setting".

- Teaching experience: Medical pre-screening language requirements (before a competency exam) in certain jurisdictions within Canada refer to the specific case when an applicant has been teaching, such that the applicant must have held "continuously, for the four years immediately preceding application a senior teaching appointment at an accredited medical school in which the language of instruction and patient care is in English".

4.2.19 Summary and Discussion

In this section, we discuss our findings in relation to the various alternative pathways we discovered in our desk research and relate these to those currently available for registration in Australia.

Current pathways

Australia's pathway of ensuring English as a primary language through the applicant having undertaken their primary, secondary, and relevant tertiary education in English is quite stringent in comparison with the pathways available in other countries. Although it is similar to New Zealand's pathways for medicine, medical radiation, dentistry and physiotherapy, there is no explicit requirement of primary and secondary education being taught and assessed in English. There is a similar issue with Canada's nursing and New Zealand's pharmacy pathways, though they have the additional requirement for evidence of registration and practice (at least the last two years or two out of the last five years, respectively).

Australia's requirement of at least two years of secondary education taught and assessed in English is less stringent than the only other similar pathway (New Zealand's for midwifery), which requires a minimum of four years of secondary school. Note that this does not mean that the requirement for this pathway is considered lax in general, as there are other regulatory bodies that only require a high school qualification or a combination of primary and secondary schooling, and do not require the applicant to have undertaken a relevant qualification in English.

No issues were found for these two pathways. With the third pathway, however, Australia's requirement of at least six years' continuous education taught and assessed in English can be exploited by applicants who complete the relevant qualification and make up the remaining years by cobbling together short courses with much lower entry levels (e.g., Certificate III courses from a TAFE). Some possible additions to this requirement can be found from other regulatory bodies where tertiary evidence other than a relevant qualification is accepted. The following range from most general to most relevant to the relevant profession.

- The US's physiotherapy pathway: "a minimum of a Bachelor's degree from any of the following countries: United States, United Kingdom, Republic of Ireland, Australia, New Zealand, and Canada (except Quebec)" and Alberta's (Canada) psychology pathway: "a minimum of two years of undergraduate education (in any field) in English". For the Australian context, this may be tweaked to be a minimum of two years' tertiary study in any field.

- New Zealand's medical pathway: "at least 24 months full time equivalent of a health-related postgraduate qualification (diploma, masters or PhD) at an accredited New Zealand university". This specifies that (a) the education is continuous (i.e., not multiple shorter courses), (b) the qualification is relevant (health-related) and that (c) it is at a reasonable level (postgraduate qualification rather than a certificate at a TAFE, for instance).

- Canada's medical pathway: "currently in a postgraduate medical education program in a country or jurisdiction where English is a first and native language". The program requirement is even more specific/relevant than 'health-related'.

To reach the right balance, it would be important to consider entry level requirements, length of qualifications and level of qualification, which we elaborate on in our recommendations.

Also, note that for six occupations in the UK (medical radiation, occupational therapy, paramedicine, physiotherapy, podiatry, psychology), regulators have offered only two alternative pathways that exclude extended education. One is that the applicant is "[a] national of a relevant European state other than the UK OR A person who is not a national of a relevant European state but who is, by virtue of an enforceable community right, entitled to be treated no less favourably than a national of a relevant European state". Of more relevance is the other, 'first language' pathway, where "English is the main or only language that you use on a day-to-day basis". It clearly states that "having studied English or taken higher education that was taught in English is not sufficient" for English to be considered a 'first language'. Taken together, it may be implied that these regulators do not find extended study in English as sufficient evidence of language proficiency.

Work experience pathway

Work experience is not a pathway currently available for registration in Australia. Out of the many pathways reviewed above, only this pathway is recommended for consideration, albeit in a careful and limited way. The other pathways would require a major reduction in requirements. There are three points to note in the wording of work experience pathways:

- A few regulatory bodies have only asked for evidence of registration, which assumes that the applicant has also been practicing. It is more common for pathways to specify both registration and practice in English.

- Some regulatory bodies have only required evidence of registration and practise, which assumes that the applicant has also been living in the said country. Republic of Ireland (for medical radiation, occupational therapy, optometry, pharmacy, physiotherapy, podiatry, psychology) also specifies that the applicant must have also lived in a country that has English recognized as the official language.

- Not all regulatory bodies have specified that the work experience must have been continuous, which means that applicants with multiple short periods of experience may be accepted.

The time requirements vary across work experience pathways, with limits on the length of practise and/or the recentness of practise, the most common being a total of at least two years within five years of application:

- Canada's medical pathway: currently

- UK's nursing and midwifery pathway: recent practice of a minimum of one year

- Ontario's (Canada) psychology pathway: a minimum of two years

- UK's paramedic pathway: a minimum of two years within two years of application

- New Zealand's chiropractic, medical and medical radiation pathways and the Republic of Ireland's medical radiation, occupational therapy, optometry, physiotherapy, podiatry and psychology pathways: a minimum of two years in the last five years

- The Republic of Ireland's dental, nursing and midwifery and pharmacy pathways: a minimum of three years in the last five years

A more conservative alternative pathway is one that accepts work experience after a language test, meaning that applicants not need to retake a test, as the continued use of English at work is assumed to ensure that the applicant's English proficiency has not decreased since. Two pathways (New Zealand's nursing pathway, the UK's nursing and midwifery pathway) are limited to those applicants who have already taken an English language test as part of registration in the past.

As it can be difficult to verify work experience and references, we do not recommend adding a work experience pathway. Nonetheless, it is worth considering a language test exemption if an applicant has already taken an English language test, whether that was for entry into a qualification or as part of registration and they can sufficiently demonstrate work experience. The subsequent work experience should be sufficient evidence of continued use of English.

Other considerations

For those special cases that are not covered by the usual pathways, there are two options: (a) have a more general pathway that gives suggestions of possible accepted evidence or (b) come up with very specific pathways for each possibility. With the former option (see 4.2.18), it is possible to be vague and provide one or two examples of potentially accepted evidence or to be a little more specific and list some minimum requirements (e.g., references). The drawback of this option is that more applicants may select it and thus create more work for assessors.

With the latter option, the issue is coverage of different cases and how this may lead to a large number of pathways that may become difficult to keep track of, unless clearly labelled or differentiated. One example of a very specific pathway is the teaching pathway for medical registration in Canada, where the applicant must have held a senior teaching position in the four preceding years at an accredited medical school where the medium of instruction and clinical interaction had been in English.

There are also a few points to note in terms of the specification of requirements that might be of use to include in the wording of the pathways. These have been addressed in the pathways reviewed above:

- Current use of English: English must be the main or only language used on a day-to-day basis or where the applicant lives and works. This is presumably evidenced through self-report by the applicant.

- Type of program: not an online/distance education program. (This issue has been addressed in the literature review above.)

- Unlike some countries which assumes that a program taught in English is also assessed in English, Australia has specified that the programs must have been "taught and assessed solely in English". However, there is no mention of clinical interaction/practice placements/in-service training, which some regulatory bodies have also specified to have been either solely in English or at least 75% in English.

The nursing pathway of the US also specifies that the textbooks must have been in English.

- Time qualification was obtained: The UK has specified that for dentistry, medicine and paramedicine, the applicant's relevant qualification must have been obtained within two years of the time of application. Otherwise, the applicant would need to provide evidence of registration and practice in an English-speaking country. This serves to make sure that the applicant has not stopped using English for an extended period of time.

- References as partial evidence of English proficiency: While professional references attesting to the applicant's practice in English is accepted by the UK for dentistry and New Zealand for midwifery, other health professions in New Zealand (pharmacy, osteopathy, medicine) require these testimonies to be written by those (employers, senior practitioners, or clinical placement supervisors) who speak English as a first language. Note that native-speakers are not a good judge of language proficiency.

4.3 POSSIBLE CHANGES TO RECOGNIZED COUNTRIES

Further to question 7, is there any evidence from the review of approaches of other regulators, or review of information published by the DHA in relation to its English language assessment processes, to support any of the following changes to the list of recognised countries at this time: (a) South Africa to be removed as a recognized country, and/or (b) Singapore, Hong Kong or Malaysia be added as a recognized country?

Finally in this section, we discuss potential responses to the above question concerning the current status of South Africa as a recognised country and the status of Singapore, Malaysia, and Hong Kong, respectively, as countries that are not recognised in the English language skills pathways stipulated by AHPRA. We draw on data presented in our review under 4.1.1, above, of the non-test pathways accepted by international health regulatory bodies. Specifically, we consider the status of each of the above countries in view of the minimum language requirements for entry to qualifying degrees in each country, respectively. These entry requirements are a key consideration for the combined education and extended education pathways, which hinge upon applicants having obtained the relevant professional qualification in a recognised country. As discussed under 4.1.3, above, the research findings on language development show that improvements in English language proficiency are surprisingly small for higher degree students in EFL or ESL settings. Most studies, where improvements were found, identified scores gains on IELTS of less than half a band. Therefore, it is important to consider how the entry requirements for qualifying degrees in the countries of interest compare with Australian entry requirements. Where the standards for entry are set lower, we may not expect graduating students (who entered with lower proficiency) to have made sufficient gains to have reached a level of proficiency equivalent to that expected of students graduating from Australian degrees where the requirements for entry are higher.

As indicated throughout section 4.1.1 above, for most professions where qualifying degrees are available at multiple institutions in the same country, entry requirements may vary

depending on the institution. In Australia, the typical entry requirements are a minimum of IELTS overall 6.5 or 7.0, which allows a reasonable expectation that, by the time of graduation, students may be close to the minimum IELTS overall 7.0 (or equivalent) needed to meet the English Language Standard. However, we also identified in our review (4.1.1) a small number of qualifying degrees in Osteopathy, Paramedicine, and Psychology that are offered in Australia with entry requirements as low as IELTS overall 6.0. For the sake of consistency with Australian standards, for each profession, we consider the question of recognition of South Africa, Singapore, Malaysia, and Hong Kong from the perspective of whether language requirements for entry to qualifying degrees in these countries are on a par with the lowest minimum requirements in Australia. However, we wish to note the concern that, with a lower entry standard (IELTS overall 6.0), it may not be reasonable to expect that students will necessarily graduate with a level of proficiency high enough to meet the English Language Standard.

We first discuss South Africa, and then the above three countries that are not recognised, Singapore, Malaysia, and Hong Kong.

South Africa

The minimum IELTS score requirements for entry to qualifying degrees in institutions in South Africa and Australia are shown side by side for the different professions. Where entry requirements at different institutions are not the same, the range of score requirements is indicated, including any specific skill component scores.

Qualifying degree	**South Africa** **Minimum IELTS entry requirements**	**Australia** **Minimum IELTS entry requirements**
Chinese medicine	None identified	overall 6.5 (all skills min. 6.0) overall 7.0 (all skills min. 6.5)
Chiropractic	overall 6.0	overall 6.0 overall 6.5 (all skills min. 6.0) all skills 7.0
Dentistry	overall 6.0 overall 6.5 (all skills min. 6.0) overall 7.0	overall 6.5 (all skills min. 6.0) all skills 6.5 all skills 7.0
Medicine	overall 6.0 overall 6.5 (all skills min. 6.0) overall 7.0 overall 7.0 (all skills min. 6.0)	all skills 7.0
Medical radiation practice	overall 6.0	overall 6.5 (all skills min. 6.0) all skills 6.5 overall 7.0 (all skills min. 6.5) all skills 7.0
Nursing	overall 6.0 overall 6.0 (all skills min. 5.5) overall 6.5 (all skills min. 6.0)	overall 6.5 (all skills min. 6.0) overall 7.0 (all skills min. 6.5) all skills 7.0

Qualifying degree	**South Africa** **Minimum IELTS entry requirements**	**Australia** **Minimum IELTS entry requirements**
Occupational therapy	overall 6.0 overall 6.5 (all skills min. 6.0) overall 7.0 overall 7.0 (all skills min. 6.0)	overall 6.5 (reading and listening min. 6.5; writing, speaking min. 6.0) all skills 7.0
Optometry	overall 6.0	overall 7.0 (all skills min. 6.0) all skills 7.0
Osteopathy	no accredited program	overall 6.0 (all skills min. 5.5) overall 6.5 (all skills min. 6.0)
Paramedicine	overall 6.0	overall 6.0 (all skills min. 5.5) overall 6.5 (all skills min. 6.0) all skills 6.5 all skills 7.0
Pharmacy	overall 6.0 overall 6.0 (all skills min. 5.5) overall 6.5 (all skills min. 6.0) overall 7.0 overall 7.0 (all skills min. 6.0)	overall 6.5 (all skills min. 6.0) all skills 6.5 overall 7.0 (all skills min. 6.0) overall 7.0 (all skills min. 6.5) all skills 7.0
Physiotherapy	overall 6.0 overall 6.5 (all skills min. 6.0) overall 7.0 overall 7.0 (all skills min. 6.0)	all skills 6.5 overall 7.0 (all skills min. 6.5) all skills 7.0
Podiatry	overall 6.0	overall 6.5 (all skills min. 6.0) all skills 6.5 overall 7.0 (all skills min. 6.5) all skills 7.0
Psychology	overall 6.0 overall 6.5 (all skills min. 6.0) overall 7.0	overall 6.0 (all skills min. 5.5) overall 6.5 (all skills min. 6.0) overall 7.0 (all skills min. 6.5) all skills 7.0

Table 65: Minimum IELTS score requirements for entry to qualifying degrees in South Africa and Australia

On the basis of a comparison of the minimum language requirements for entry to qualifying degrees in South Africa and Australia, we suggest that continued recognition is warranted in the cases of the following professions; given that some qualifications are offered at multiple institutions which in some cases have different entry requirements, we add the caveat that recognition should apply if the qualification was obtained from a recognised institution i.e. where the minimum English language standards for entry are on a par with Australian standards:

- Dentistry, Medicine, Nursing, Occupational therapy, Pharmacy, Physiotherapy, Chiropractic, Paramedicine, Psychology

As already noted, the last three professions listed (Chiropractic, Paramedicine, Psychology) are somewhat anomalous because, in each case, the minimum requirement for entry to qualifying degrees in South Africa is only IELTS overall 6.0 (and therefore we would not expect sufficient proficiency gains for students to exit at a level equivalent to IELTS 7.0). However, as we have also noted, a minimum of IELTS 6.0 is also set for some qualifying degrees Chiropractic, Paramedicine, and Psychology in Australia, thus making continued recognition justifiable on this basis.

We also identified qualifying degrees for professions that either did not have any English language requirements for entry (Chinese medicine), or else had requirements below the lowest entry requirements for the equivalent qualifications in Australia (Medical radiation, Optometry, Podiatry). In the case of Osteopathy, there are no accredited programs in South Africa. These findings suggest that recognition of South Africa is not warranted in the case of these professions:

- Chinese medicine, Medical radiation, Optometry, Podiatry, Osteopathy,

Singapore

On the basis of our comparison of the minimum language requirements for entry to qualifying degrees in Singapore and Australia, we suggest that recognition of Singapore may be warranted in the cases of the following professions; for professions where entry requirements for qualifying degrees vary across different institutions in Singapore, we add the same caveat as for South Africa, that the relevant qualification was obtained from a recognised institution i.e. where the minimum English language standards for entry are on a par with Australian standards:

- Dentistry, Occupational therapy, Pharmacy, Physiotherapy, Medicine, Nursing

We also identified qualifying degrees in Singapore for professions for which language requirements for entry are lower than Australian standards (Medical radiation, Optometry) or are set for Mandarin, not English (Chinese medicine). In the case of Chiropractic, Osteopathy, Paramedicine, Podiatry, and Psychology, there are no accredited programs in Singapore. These findings suggest that recognition of Singapore is not warranted in the case of these professions:

- Medical radiation, Optometry, Chinese medicine, Chiropractic, Osteopathy, Paramedicine, Podiatry, Psychology

Malaysia

On the same basis, for Malaysia, we suggest that recognition of Malaysia may be warranted for the following professions, with the caveat that where the qualifying degree is available at multiple institutions in Malaysia, the relevant qualification was obtained from a recognised institution i.e. where the minimum English language standards for entry are on a par with Australian standards:

- Chiropractic, Dentistry, Medicine, Psychology. For Psychology, although the highest entry requirement is only IELTS 6.0, we note this is on a par with the lowest requirements in Australia.

We identified qualifying degrees in Malaysia for professions for which the minimum requirement for entry is lower than Australian standards (Chinese medicine, Medical radiation, Nursing, Occupational therapy, Optometry, Pharmacy, Physiotherapy), and for which reliable information about entry requirements is not available (Paramedicine). For Osteopathy and Podiatry, there are no accredited programs in Malaysia. From these findings, we suggest that recognition of Malaysia is not warranted in the case of:

- Chinese medicine, Medical radiation, Nursing, Occupational therapy, Optometry, Pharmacy, Physiotherapy, Paramedicine, Osteopathy, Podiatry

Hong Kong

Finally, for Hong Kong, we suggest that recognition may be warranted in the cases of the following professions, provided the relevant qualification was obtained from a recognised institution i.e. where the minimum English language standards for entry are on a par with Australian standards:

- Nursing, Pharmacy

We identified qualifying degrees in Hong Kong for professions for which the minimum requirement for entry is lower than Australian standards (Dentistry, Medicine, Medical radiation, Occupational therapy, Optometry, Physiotherapy), while for Chinese medicine, Chiropractic, Osteopathy, Paramedicine, Podiatry, Psychology, there are no accredited programs in Hong Kong. We therefore suggest that recognition of Hong Kong is not warranted in the case of:

- Dentistry, Medicine, Medical radiation, Occupational therapy, Optometry, Physiotherapy, Chinese medicine, Chiropractic, Osteopathy, Paramedicine, Podiatry, Psychology

Summary

In sum, recognition of South Africa does not appear to be equally applicable across all of the health professions because entry requirements for qualifying degrees vary for the different professions. For some, these are lower than the minimum entry requirements for the relevant qualifying degree in Australia, and this tends to diminish the case for recognition. Likewise, for any given profession with a qualifying degree available at multiple institutions in South Africa, where entry requirements at any institution are lower than the minimum requirement for entry to the degree in Australia, it may be appropriate to limit recognition to qualifications from recognised institutions where minimum entry requirements are on a par with Australian standards.

For Singapore, Malaysia and Hong Kong, we have observed the same variations in English language standards for entry to qualifying degrees, according to profession and institution, as described above for South Africa. Our findings suggest that any proposal to add Singapore, Malaysia or Hong Kong to the list of recognised countries would need to take

into consideration the possibility of limiting recognition to certain professions and specified institutions to ensure that country recognition would not compromise standards.

As AHPRA is a multi-profession regulator, we are aware that limited recognition would add a level of regulatory complexity, as well as being in conflict with the current uniformity. In view of this, it is worth noting that the number of professions contributing to the cases for recognition of Malaysia and Hong Kong are limited to only four for Malaysia and two for Hong Kong and, as such, the case for recognition is probably the weakest for these two countries. On the other hand, the arguments for recognition of Singapore, and continued recognition of South Africa, may be more complex because uniform, rather than limited country recognition in each case leads to a large number of inconsistencies across professions.

5 Summary and Recommendations – Non-Test Pathways

In this section, we first summarize our results relating to the various non-test pathway questions posed in the RFQ, and set out our recommendations.

5.1 Indication that extended and continuous education pathways are similar to IELTS Level 7

Our discussion of the findings of our literature review on language development in higher education in relation to the entry levels required into higher education courses indicate that there is no guarantee that health professionals registering through the non-test pathways are at the same level of English language proficiency (as measured by IELTS) as someone entering through the test pathways. At the same time, however, it could be argued that IELTS may be an impoverished measure of ability to communicate in a health professional context. Evidence of the communication skills acquired during courses is missing in the literature, and for this reason it is difficult to make any firm claims about what someone may be able to do better or worse if entering through the education pathway, as opposed to someone providing evidence of a test score. We do have two recommendations however, that relate to this.

Recommendation 6: We recommend that online education as the main evidence of education is not accepted as an alternative to the English language pathway

We recommend that online education is not accepted as the basis for any qualification that forms evidence for an alternative to the English language pathway. We recommend this because we expect online courses to provide impoverished English language input in terms of time and exposure when compared to face-to-face courses. We were not able to find any research studies that examined language development in such contexts, but based on discussions in second language acquisition research (Lantolf et al., 2015; Long, 1996), we feel that online courses are unlikely to provide sufficient opportunity for students to practice in particular spoken communication during their studies.

Recommendation 7: We recommend that consideration be given to conducting or funding one of the research studies we have recommended to investigate whether health

professionals registering through the non-test pathways are coping linguistically in their workplaces.

We make this recommendation because such an investigation would shed much more direct light on health professionals entering through the pathways in question, and therefore provide AHPRA with much more direct data than what our literature review may be able to provide. At the same time, it may be worth also investigating how a comparison group of test-pathway health professionals is coping in their workplaces. Some recent research conducted at the Language Testing Research Centre may be of interest in this context.

5.2 PATHWAY TYPES

Our review of the non-test pathways accepted by overseas regulatory bodies for health professions showed that the first two pathways currently available for registration in Australia are relatively stringent and no changes are necessary. As for the third pathway, which has been flagged due to the issue of applicants being able to combine a number of short courses with low entry levels, the addition of requirements for the acceptable courses would remedy the problem.

Recommendation 8: We recommend that requirements for course(s) other than the qualification in the relevant professional discipline be set at a minimum level to ensure similar English language requirements, such that it/they:

- have a minimum IELTS 6.5 entry requirement or equivalent
- are a bachelor's degree or higher
- are continuous (i.e., at least 12 months full time equivalent)

Recommendation 9: We recommend clarifying that the definition of 'continuous' excludes recognition of prior learning.

We recommend this because recognition of prior learning does not ensure the same amount of time spent using English.

Many jurisdictions were found to accept work experience as a pathway for registration. Although it can be difficult to verify work experience and references for a pathway based solely on experience, we recommend being cautious but open to accepting work experience in conjunction with a previous language test.

Recommendation 10: We recommend that consideration be given to accepting work experience in an English-speaking environment (similarly to that accepted by other countries) as evidence of continued use of English after an applicant has reached the minimum English language test score in the past for entry into a qualification or as part of registration in another English-speaking country.

This leads to our next recommendation, regarding special cases, of which work experience may be a part.

Recommendation 11: We recommend that consideration be given to collecting further evidence from special cases before deciding whether there should be a more general pathway for them, accepting other types of evidence.

We make this recommendation because although there are deserving special cases, there is the possibility of receiving too many special-case applications if a dedicated pathway were to be created. It is also unknown if applicants accepted through this type of pathway in other countries have indeed performed satisfactorily in the workplace.

5.3 POSSIBLE CHANGES TO RECOGNIZED COUNTRIES

In Section 4.3 above, we considered the case for continued recognition of South Africa in the English language skills pathways identified by AHPRA, as well as the case for possible recognition of Singapore, Malaysia, and Hong Kong. To do this, we surveyed the English language requirements for entry to qualifying degrees in each of these countries and compared them with Australian standards. Based on the expectation that where students are able to enter the relevant degree program with a lower level of proficiency, they may not make sufficient proficiency gains by the time they graduate to be considered at a level equivalent to IELTS 7.0, we drew two conclusions: firstly, country recognition should not necessarily apply to all professions as the entry requirements for qualifying degrees for some professions are too low; secondly, where qualifying programs for a given profession are offered at multiple institutions, recognition should be limited to institutions where the minimum entry standards are on a par with Australian standards.

We therefore offer the following recommendations in relation to the continued status of South Africa as a recognised country:

Recommendation 12: Recognition be limited to those professions for which minimum English language requirements for entry to qualifying degrees are not lower than standards for entry to Australian qualifying degrees for the same profession.

Recommendation 13: Where qualifying degrees for a given profession are available at more than one institution in South Africa, recognition be limited to those institutions with minimum English language entry requirements for the relevant degree that are not lower than standards for entry to Australian degrees for the same profession.

In Singapore, Malaysia, and Hong Kong, for professions where the entry standards for qualifying degrees are lower than Australian standards, there is no case for introducing recognition of these countries. However, there are also qualifying degrees for some professions in these countries with minimum entry requirements that are on a par with Australian standards. Therefore, in considering possible recognition of Singapore, Malaysia, and Hong Kong, we recommend that the same contingencies for limited recognition, as observed in relation to South Africa:

Recommendation 14: Recognition should only be considered if limited to those professions, and institutions, for which minimum English language requirements for entry to qualifying degrees are not lower than standards for entry to Australian qualifying degrees for the same profession.

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Appendix 1: English language registration standards by country

(see separate document)

Appendix 2: English language registration standards by profession

(see separate document)

Appendix 3. Australian regulatory authorities (professions other than health)

Teaching

Victorian Institute of Teaching: https://www.vit.vic.edu.au/

NSW Education Standards Authority: https://educationstandards.nsw.edu.au/wps/portal/nesa/home

Queensland College of Teachers: https://www.qct.edu.au/

ACT Teacher Quality Institute: https://www.tqi.act.edu.au/home

Teachers Registration Board of Tasmania: https://www.trb.tas.gov.au/Pages/Home.aspx

Teachers Registration Board of South Australia: https://www.trb.sa.edu.au/

Teacher Registration Board of Western Australia: https://www.trb.wa.gov.au/

Teacher Registration Board of the Northern Territory: https://www.trb.nt.gov.au/

Law

Victoria: Victorian Legal Admissions Board https://www.lawadmissions.vic.gov.au/

NSW: Legal Profession Admission Board http://www.lpab.justice.nsw.gov.au/

QLD: Legal Practitioners Admission Board (PLAB). Contact details and information about the roles and responsibilities of LPAB is available from the Queensland Law Society https://www.qls.com.au/Home

ACT: Legal Practitioners Admission Board. Admissions information about is published by the Supreme Court of the ACT: https://www.courts.act.gov.au/supreme

Tasmania: Board of Legal Education. Admissions information about is published by the Supreme Court of Tasmania: https://www.supremecourt.tas.gov.au

South Australia: Board of Examiners. Admissions information about is published by the Law Society of South Australia: https://www.lawsocietysa.asn.au/

Western Australia: Legal Practice Board https://www.lpbwa.org.au/Home.aspx

Northern Territory: The Legal Practitioners' Admission Board. Admissions information is published on the website of the Supreme Court of the Northern Territory http://www.supremecourt.nt.gov.au/index.htm

Law Council of Australia: https://www.lawcouncil.asn.au/

Engineering

Board of Professional Engineers Queensland: https://www.bpeq.qld.gov.au/BPEQ/

Engineers Australia: https://www.engineersaustralia.org.au/

Association of Professional Engineers of Australia:
http://www.professionalengineers.org.au/

Aviation

Civil Aviation Safety Authority: https://www.casa.gov.au/

Appendix 4: Non-test English language registration pathways by profession

(see separate document)

Appendix 5: English language requirements for entry into entry-level qualifications by profession

(see separate document)