

Addressing the English language needs of international nursing students

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This paper addresses the English language needs of the international nursing student, and outlines the factors requiring the most immediate attention. A strategic direction that could be taken for the implementation of an English language intervention will be suggested. The paper will begin by reviewing the research on the language needs of international nursing students, followed by an investigation of the academic demands on the international cohort, especially considering the students' lack of time for extra study. Drawing from the research, a focus on specialised vocabulary (in both spoken and written forms) is suggested as a preparatory strategy for students. This is because vocabulary learning is a core language activity that is key to the reception of knowledge, and essential to the preparation of the student for engagement in the classroom and the clinical placement setting. The paper provides further evidence that validates a focus on vocabulary, referring to how vocabulary breadth is a better predictor of academic success than IELTS (yet problematises any simple applications of this finding, both in terms of the important role of the IELTS test and the complicated processes underpinning vocabulary acquisition). Finally, some key recommendations are given at the end of the paper.

Key Words: international students, ESL, EAL, ESP, English language, nursing English, clinical English, medical terminology.

1. Introduction and background

The purpose of this paper is to conduct a needs assessment of the language capabilities of international nursing students undertaking a Bachelor of Nursing in the Flinders University School of Nursing & Midwifery. Since I am the English for Specific Purposes lecturer in this School, the topic coordinators, clinical coaches, and clinical facilitators refer international students to me in order to diagnose the areas in which they are having difficulties with language and to suggest how they can improve their skills. These students are generally failing assignments or being removed from clinical practice because they are considered to have inadequate language skills and may possibly be dangerous to patients.

A number of recurring problems have been uncovered during consultations with international nursing students. They complain about not knowing the meaning of particular words, wanting people to speak more slowly, their own need for more time to speak, not knowing the pronunciation of certain words, being unable to skim-read, and coping with their own, and others', frustrations when their communication breaks down. In light of these difficulties, I have conducted a needs assessment to ascertain what other educators have found to be the problems confronting international students. I also intend to make my own recommendations about how these needs may best be met. Finally, please note that the term English as an Additional

Language (EAL)¹ will be used in this paper to refer to the linguistic status of our international students, who predominantly come from the Asian region.

Before exploring the research, there are a number of contextual issues regarding the student population and their circumstances that need to be discussed in order to fully understand their communication needs. Flinders nursing students already have an intermediate to upper-intermediate knowledge of English as part of their entry requirements, so they are capable of functioning in everyday English language situations. In terms of language demands, the four language macro skills of reading, writing, listening, and speaking are all essential to the nursing student's weekly activities. Students are required to complete academic readings in advance of lessons and find references for their assignments. Indeed, they will need to be familiar with a variety of written genres to complete their assessment tasks, such as self-reflection pieces, reports, essays, and charts. The student will speak in a variety of genres, including oral presentations, verbal nursing shift handovers, interviews, and both formal and informal conversations. On placement, there are particular recurring communicative tasks: listening to instructions, informing others, asking questions, and "translating" technical information into simplified language for patients. Students also require good listening and reading skills, particularly upon hearing rapid verbal instructions and when dealing with complex written information. Later, as their competence develops, students will increasingly require good verbal production skills in order to converse with co-workers in a professional capacity, and to record official information concisely, as well as require the ability to use colloquial speaking skills to interact with patients.

What makes the international student's job more difficult is that the abovementioned communicative tasks are rarely conducted under stress-free conditions. Instead, they must be able to interact at the speed of language production equivalent to a native speaker of English if they are to survive both at university and, ultimately, in their future workplace. Indeed, the demands of the future workplace crucially impact on the student during their study. If the student wishes to work within Australia upon graduation, they will need to pass a test of their English language competency. To become registered as a nursing professional, the international student needs to obtain an International English Language Testing System (IELTS) score of 7, higher than was required for university entry. This is a source of considerable anxiety for international students. A review of the literature reveals the extent to which international students have a problem with language and how it affects their study, as discussed in the following paragraphs.

The academic research across a number of countries, particularly Australia, New Zealand, Canada, and the USA, indicates a persistent problem with the communication skills of EAL nursing students (see Gunn-Lewis & Smith, 1999; Shakya & Horsfall, 2000; Guhde, 2003; and Donnelly, McKiel & Hwang, 2009). Initially, students do not fully comprehend the enormity of the task of undertaking a nursing degree in another language. In Australia, a study revealed that most international students "experienced difficulties with various aspects of language" even though they had demonstrated adequate English for conversation and general reading (Shakya & Horsfall, 2000, p. 165). Moreover, higher level academic language skills were lacking in these participants (Shakya & Horsfall, 2000, p. 165). In another study, Starr points out that "many EAL students do not initially recognize that they have language problems, thinking that a conversational grasp of English will serve them well" (Starr, 2009, p. 485). Chiang and Crickmore (2009) make a similar point in an evaluation of a transition course when they discuss the problem that although nursing students "demonstrated the minimum English proficiency required, advanced English and communication skills related to clinical practice were urgently needed once they were placed in clinical settings at local hospitals" (p. 330). In light of these comments, it is unsurprising that a meta-synthesis of qualitative studies (Starr, 2009) found the

¹ For the purposes of this paper, the acronym EAL will be used to incorporate other common linguistic categories used in the university context, such as Non-English Speaking Background (NESB), English as a Second Language (ESL), English as a Foreign Language (EFL), English for Academic Purposes (EAP), and English for Specific Purposes (ESP).

lack of language skills of EAL students to be the primary challenge for nursing education. It was found that language difficulties in all skill areas was a common thread throughout all the qualitative and quantitative studies reviewed (Starr, 2009, pp. 482-3).

Even though it may happen only after their first clinical placement, students eventually become aware of the extent of their own individual language difficulties. Indeed, Chiang and Crickmore (2009, p. 330) found that most of the post-graduate EAL students acknowledged their lack of specific English communication skills only after they had started their clinical placement. Nursing researchers in the USA have documented how EAL students are often referred for special tuition because of a “difficulty in communicating in the English language, which negatively affects their clinical performance” (Guhde, 2003, p. 114). These EAL students recognise their dilemma, reporting “more difficulty in the clinical courses than non-ESL students” (Guhde, 2003, p. 113). English support appears to alleviate situations such as those outlined above. In feedback gathered after a programme conducted at the Australian Catholic University, it was found that “all students indicated that they needed additional assistance with English” (Seibold, Rolls, & Campbell, 2007, p. 67), and that language assistance was invaluable for their academic activities and clinical components. Other studies indicate that better language equates to better academic performance because the language difficulties have been found to affect all domains of learning (Starr, 2009, p. 483; Blackman, Hall, & Darmawan, 2007). Indeed, it has been observed that “many times the academic problems are directly related to language problems” (Guhde, 2003, p. 113). This situation poses a significant difficulty for international students because, if their language skills are insufficient, their ability to do well at university is affected. This demonstrates the need for language support, but it does not specify how or where this support might be provided. This will be addressed in the next section, which will further define this area of need.

2. Language skills: Reading and listening

The term “language” is a hypernym that encompasses a vast number of meanings. Saying that a person has a problem with language is a vague statement of what may be a well-defined problem with clear solutions. We can analogueise this to a medical condition. We can recognise that someone is in pain, but little can be done about it until we can specify exactly where it hurts, when the pain occurs, and the nature of the pain. Once the problem is well-defined, treatment can be started and a long-term prognosis can be made. When a language teacher seeks to remedy language problems, it needs to be made clear what the students’ linguistic problems are so that an appropriate action plan can be formulated. Just as a person suffering from the pain of a paper cut will not be given morphine, the language learner should not be asked to waste their time undergoing a series of unnecessary language tasks. Thus, while all the above researchers state that there are language problems, their level of analysis varies, with some more precise than others in identifying the cause of the problem. Some do not state the exact cause beyond mentioning one, or all, of the language skills of reading, writing, listening, and speaking, and others merely state the situations where difficulties occur. Nevertheless, some researchers have attempted to be more specific, as will be discussed below.

One of the most comprehensive studies of the situations in which language issues occur can be found in Blackman and Hall (2009). These authors identified the two main language skills of listening and reading as particularly requiring improvement (Blackman & Hall, 2009, pp. 167-9). In terms of listening skills, telephone communication is identified as being difficult for students to master, especially when it involves the comprehension of medical terms and test results. Blackman and Hall (2009) also found that students experience difficulty understanding what others are saying, such as during a spoken shift handover. This is worrying for the nurse educator because “nursing is highly dependent on accurate verbal communication, and much of the information and many orders are passed on verbally” (Guhde, 2003, p. 113). Listening skills are difficult to master, and a major problem identified among students is that they feel unprepared for “the kind of spoken English used in nursing” (Starr, 2009, p. 484). Moreover, other educators notice a similar deficit in listening skills. For example, Canadian instructors feel that students do not understand what is said in class (Donnelly, McKiel, & Hwang, 2009, pp.

205-6), and Shakya and Horsfall (2000, p. 165) similarly observe that most of the EAL students in their programme experienced particular difficulties in listening. Indeed, one transition nursing course concentrates two-thirds of its programme on listening skills (Chiang & Crickmore, 2009, p. 332).

Reading also emerges as a somewhat difficult skill for EAL students. Blackman and Hall (2009) found that the correct identification of medical terms is challenging for international students, for example, scanning for a particular medicine among others in a medicine cabinet. Some instructors feel that students only gain information through repeated readings – up to five times on one item, compared to a native speaker’s single reading of the same text (Donnelly, McKiel, & Hwang 2009, pp. 205-6). The rapid scanning and interpretive reading skills required for understanding charts is also identified as being problematic for students (Donnelly, McKiel, & Hwang, 2009, p. 204). Overall, while both speaking and writing sometimes emerge as being problematic for EAL students, the literature tends to point to the development of listening skills as a priority for educators, with reading skills as the next point of focus.

The next step in this needs paper is to explore the ways in which better listening and reading skills can be developed. The research indicates that this is likely to best be approached through improving the students’ knowledge of key vocabulary presented in both spoken and written formats. This notion will be examined in the next section.

3. Vocabulary size and its role in comprehension in listening and reading

It is important to have knowledge of the vocabulary used in a specialist area. The research supports the notion that once a person has these “words” they will better understand what is being discussed or written about. Schmitt (2008, p. 331) concludes, in his review of the second language learning literature, that the percentage of words that a learner must know in order to decipher a written text or spoken script is 98%. This means that 49 out of every 50 words must be known if good comprehension is to result, and even then understanding can still be impeded. Furthermore, about 6,000 to 7,000 word families, or a minimum of 28,015 individual words, need to be known in order to achieve good listening comprehension of general English. This figure is even greater for reading. Schmitt (2008, p. 331) found that about 8,000 to 9,000 word families, or a minimum of 34,660 individual words, must be known in order to read a wide variety of general English texts. Both of the estimates for listening and reading comprehension do not include the large number of specialist words essential to nursing and academic activities. In the area of academic study, Hazenberg and Hulstijn (1996) estimate that students need to know at least 10,000 word families. EAL students often have a vocabulary knowledge much lower than this; for example, Laufer (2000, cited in Schmitt, 2008, p. 332) estimates that Chinese English majors have a vocabulary of only 4,000 words.

The link between language and academic performance discussed earlier in this paper is borne out in a study by Daller and Xue (2009, p. 179) which examined the relationship between vocabulary knowledge, academic success, and the IELTS test. They found that lexical sophistication (vocabulary knowledge that extends beyond high frequency general English words) is more closely correlated to academic success than IELTS scores. Indeed, lexical sophistication accounted for 40% of the variance in the number of failed academic modules, whereas the IELTS score accounted for only 11%. While both the relationships are statistically significant, the number of low frequency “difficult” words at the disposal of a student correlates to academic success by -0.565 ($p = 0.004$). This is much greater than the IELTS score to academic success correlation of -0.382 ($p = 0.036$).

Vocabulary size affects student results on other language tests as well. For example, Milton and Alexiou (2009) found that vocabulary knowledge has a very strong relationship to, and can predict, performance on the Common European Framework of Reference for Languages (CEFRL). The CEFRL is a standardised evaluation of linguistic competency across different languages and allows a direct comparison of test results gained in one language in comparison to another. The CEFRL achieves this by concentrating on skills and a person’s functional linguistic knowledge. Milton and Alexiou (2009, pp. 203-4) found that vocabulary size, in

particular, has a statistically significant relationship to the CEFRL competency level gained in a language, regardless of whether that language is English, French, Greek, Spanish, or Hungarian. However, they also found that relatively higher amounts of vocabulary are needed for greater linguistic competence in the English, Spanish, and Greek languages.

Even though it is not the focal point of most research papers in nursing journals, it is commonly pointed out that there is a lack of vocabulary knowledge among EAL nursing students. However, there is not total agreement between researchers on the actual vocabulary that needs to be taught. Knowledge of medical terminology is commonly expected across the nursing discipline. For example, two Australian studies assert that students have particular difficulty with medical terminology (Shakya & Horsfall, 2000, p. 165; Seibold, Rolls, & Campbell, 2007, p. 65). Canadian researchers recommend that EAL students are actively taught medical terminology, including medication orders (Donnelly, McKiel, & Hwang, 2009, pp. 204, 208; Choi, 2005, p. 264). American nursing educators similarly recognise that EAL students “must learn medical terminology” in order to gain a higher level of textual and oral communication (Guhde, 2003, p. 14).

On the other hand, some researchers have different, even vaguer, expectations about which vocabulary needs to be taught. Guttman (2004, p. 268) recognises a general need for vocabulary lists to assist with linguistic competence among EAL nursing students. Shakya and Horsfall (2000, p. 165) mention general difficulties with vocabulary and unusual words which are long and complicated, while Seibold, Rolls, and Campbell (2007, p. 65) focus on colloquial English, abbreviations, and hospital jargon. Starr (2009, p. 485) asserts that students must acquire the language of healthcare, with Choi (2005, p. 264) similarly asserting that students need to learn the terminology of the health care system. Chiang and Crickmore (2009, p. 334) suggest the need for both nursing terminology and medical terminology, pointing to a deficit in slang, while Pardue and Haas (2003, pp. 74-5) only recognise the need for vocabulary lists that deal with both slang and jargon. Gunn-Lewis and Smith (1999) also focus on local slang words and mention terms which occur outside of written texts. Despite the wide range of possibilities for teaching vocabulary, the nursing context demands this type of knowledge; therefore, any of these types of vocabulary learning could legitimately become a major focal point for future nursing educators.

4. The role of experience in vocabulary learning

In educational terms, addressing the need for vocabulary is not as simple as providing lists or a glossary. The situation is much more complicated and acquiring the necessary vocabulary is highly problematic. Furthermore, the common strategy of encouraging students to read more books may not be useful either. Many educators believe that reading books will encourage vocabulary expansion, but, in reality, the rate of retention is very low for words acquired in this manner (Schmitt, 2008, p. 348). I argue that a lack of repeated exposure is an underlying contributor to poor vocabulary knowledge and fluent language reception and production. Indeed, exposure has also been flagged as an important factor in language acquisition in the nursing literature. For example, EAL students have reported difficulty with listening partly “because of the unusual words” (Shakya & Horsfall, 2000, p. 165). One can assume that the term “unusual” means that these words are uncommon or infrequent. The other reason cited for difficulties with listening is that it is “not always possible to have verbal information repeated” (Shakya & Horsfall, 2000, p. 165). Reading does allow for some repetition, and Canadian instructors have observed that, when given the opportunity, students may repeat-read up to five times for content (Donnelly, McKiel, & Hwang, 2009, p. 205). Similarly, one study found that when speech was recorded, students would listen to these recordings multiple times and practice their pronunciation in private (Guhde, 2003, p. 115). Furthermore, students benefit from repeated exposure; Koch, Andrew, Salamonson, Everett, & Davidson (2010, p. 599) found that students exposed to spoken medical terminology stated that it helped with their pronunciation. This kind of repeated exposure to the language of the discipline is necessary for students to progress.

The number of exposures required for vocabulary acquisition is sometimes surprisingly high. To promote incidental learning from reading, Webb's (2007, p. 62) research suggests that significant increases take place after three exposures, with continuous improvement from there. After three presentations, learners gained significantly more receptive knowledge of orthography than after one presentation. Chang and Read's (2006, p. 393) research found that hearing the word twice improved performance on a listening comprehension task better than being given instruction on the same word. Webb (2007, p. 62) found that after 10 encounters, recognition of written words was 88%, and 77% of students were able to write the words correctly. Thus, as Webb argues, "by ten meetings with a word, there is the possibility that learners will be able to recognize its spelling and words that it is associated with" (2007, p. 62). Schmitt's (2008, p. 348) review of the literature reveals similar results to those found by Webb. In another study, Pigada and Schmitt (2006) were less certain of when the acquisition of meaning took place, but they did find that the learning rate increased when a word had been read 10 times or more. Similarly, Brown, Waring, and Donkaewbua (2008, pp. 151-4) similarly found that reading or hearing a word about 10 times or more was most likely to result in vocabulary acquisition, with familiarity with the words needing to take place before meanings could be remembered consistently. Thus, for vocabulary which is used infrequently, good vocabulary learning needs to be an intentional activity – incidental learning is simply not as effective as explicit learning (Schmitt, 2008, pp. 333-4, 341). There needs to be a conscious focus on repeatedly exposing the student to the new language forms.

With repeated exposure, a second important aspect of communication is developed – that of automaticity. With increased automaticity, the speed of language processing increases and the cognitive load of communication decreases. The familiarity gained from repeated exposure means that the student has to spend less time recognising or recalling words, and this allows them to concentrate on other tasks, such as interpretation or performance of clinical activities. The linguistic argument is simple. Hulstijn (2006) argues that "the more the processing of information at the lower levels is automatized, the more attention language users are able to give to the higher levels of linguistic information, i.e., to meaning" (pp. 710-1). Thus, while a large vocabulary range is essential to language fluency, "acquiring a large vocabulary, however, is not enough. The recognition and retrieval of words needs to be automatized" (Hulstijn, 2006, p. 711). This is true for both listening and reading skills (Hulstijn, 2006, pp. 708-9). Hulstijn (2006) argues that: "Word recognition is the most important factor in fluent reading ... most deficiencies in literary skills are caused by problems at the lowest cognitive levels, in particular in the coding of acoustic, phonetic, and phonemic information" (p. 709).

Unfortunately, many students do not have ideal levels of language automaticity at their disposal and their performance suffers as a result. The research supports this point. For example, in one paper, students reported that their difficulties with listening lie mostly with the speed of delivery (Shakya & Horsfall, 2000, p. 165). Thus, as Donnelly, McKiel, and Hwang (2009) point out, students miss out on important educational input. Health care staff are too busy to deal with the communication needs of an EAL student because "there isn't the luxury of taking that time" (Donnelly, McKiel, & Hwang, 2009, p. 206). The result is seen in an observation by Benzie (2010, p. 447) that EAL students are frequently "unable to access adequate levels of language experience" that would allow them to gain better English language skills.

If the above information is true, it seems that the crux of the matter is that students lack a broad automatized vocabulary, which itself stems from a lack of repeated experience with the language. To put it another way, there is a lack of repeated encounters with particular types of language, or key words that are found in the nursing context, and the result is that EAL nursing students cannot develop the automaticity in processing the language required for good clinical communication and academic success.

5. Recommendations

Implementing a specialist English programme is quite a burden on a departmental budget. Nevertheless, Australian universities have an obligation to address the Australian Universities Quality Agency (AUQA) "Good Practice Principles for English Language Proficiency for

International Students in Australian Universities”. Principles 5 and 8 are of particular interest in this situation, which state that “English language proficiency and communication skills are important graduate attributes for all students” and recommend that “International students are supported from the outset to adapt to their academic, sociocultural and linguistic environments” (Australian Universities Quality Agency, 2008, p. 3). Additionally, the Australian Department of Education, Employment and Workplace Relations (DEEWR) National Code standard 2 in the Education Services for Overseas Students (ESOS) Act 2000 states that “registered providers ensure students’ qualifications, experience and English language proficiency are appropriate for the course for which enrolment is sought” (Australian Government Department of Education Employment and Workplace Relations, 2007, p. 12). Thus, legislative and good practice requirements compel universities to address the language issues common to EAL nursing students.

It can be argued that Australian universities have a further responsibility to ensure that the language needs of their international students are met, since they accept students with marginal language skills. The IELTS test makers state that, in health-related degrees, only at an entry score of 7.5 and higher will the student have “acceptable” levels of English for independent study (IELTS, 2009, p. 5). Despite this, Australian universities commonly accept a large number of international students who have an entry score of 6.5 or even 6.0. The IELTS test writers state that a student entering a health-related university degree with an IELTS band score of 6.0 or 6.5 will need to undertake further English study during their course. In reality, students undertaking a structured course of further English study are rare. It should be noted that an IELTS test score of 7.0 – the professional registration requirement – is considered “probably acceptable” to begin a health-related university degree. It might be argued that professional registration requirements could be raised to 7.5, where a level of certainty about English competence is gained. Regardless, the universities probably have a moral obligation to consider extra English support, in light of the method for allowing students entry into their courses.

A number of recommendations can be suggested to address the problems among EAL nursing students that this paper has identified. These recommendations are particularly focused on the type of English assistance which should be implemented in Australian schools of nursing:

- Vocabulary acquisition needs to become a major focus in university-level EAL assistance programmes. Students cannot be expected to learn all the new words incidentally through academic readings and classes.
- Specific types of vocabulary need to be selected: medical terminology, pharmacological names, nursing abbreviations, and colloquial words need to be among the vocabulary taught. The inclusion of common academic words would also be of great use.
- Vocabulary need to be taught primarily in a spoken format, accompanied by written lists, so that the listening and reading skills of the EAL students will be improved.
- Educators must find ways to repeatedly expose students to a wide range of vocabulary. There needs to be repeated opportunities for speech-based and writing-based interaction with these words if automaticity is to develop.

If the above issues are addressed, it should begin to alleviate the vocabulary problems and related language issues of the international nursing student and help them perform better, both academically and clinically, allowing them to transition from students to professionals.

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