

A scoping study of academic language and learning in the health sciences at Australian universities

Ben Fenton-Smith

School of Languages and Linguistics, Griffith University, Brisbane, QLD, 4111, Australia

Email: benfento@gmail.com

Rena Frohman

International Student Services, Queensland University of Technology, Brisbane, QLD, 4059, Australia

Email: r.frohman@qut.edu.au

(Received 30 May, 2013; Published online 24 November, 2013)

This paper investigates academic language and learning (ALL) activities within faculties of health sciences in Australian universities, based on responses to an online questionnaire by 25 ALL educators working in this area. The paper responds to growing calls for a deeper understanding of current ALL practices in higher education (Chanock, 2011; Dunworth, 2013; James & Maxwell, 2012) and specifically aims to fill the knowledge gap in relation to ALL and health sciences, an area that has never previously been the subject of a comprehensive overview. The scoping study addresses three research questions: 1) Which areas of health sciences are most active in addressing students' ALL needs? 2) What are the most common strategies for addressing students' ALL needs in health sciences? and 3) What is the professional profile of ALL practitioners in health sciences? Principal findings include the following: nursing and medicine were the disciplines most actively engaged with ALL; the most common pedagogical ALL strategies were those that did not encroach on credit-bearing class time (e.g. voluntary one-to-one consultations); writing was privileged over other language skills in ALL curricula; few ALL professionals have previous experience in the health sciences; and the coordination of working relationships with discipline academics was the greatest challenge for ALL professionals.

Key Words: academic language and learning, health sciences, CALD students.

1. Introduction

Universities in Australia are under growing pressure from different stakeholders to focus on how best to accommodate increasing numbers of culturally and linguistically diverse (CALD) students within degree programs. As stated in the Department of Education, Employment and Workplace Relations (DEEWR) 2009 report *Good Practice Principles for English Language Proficiency for International Students in Australian Universities*:

No university can guarantee that each and every student will participate effectively in their academic studies but every university should take responsibility for ensuring that the students it admits do not face unreasonable expectations of English language proficiency. (2009a, p. 4)

With the rising participation of CALD students in the health sciences, the call for language enhancement from industry partners who facilitate clinical practicum, as well as from academic staff and students themselves, has focussed on three inter-related domains: academic literacy, clinical communication and socio-cultural development (Hamilton & Woodward-Kron, 2010; Jeong et al., 2011; Kokkinn & Stupans, 2011; Wang, Singh, Bird & Ives, 2008; Woodward-Kron, 2007).

Supporting the called for language enhancement, ALL practitioners work in diverse contexts under a range of position titles and funding schemes (Barthel, 2011). This diversity can be viewed as a strength in that the job – improving student learning experiences – is approached through many different initiatives. However, the diversity of roles and activities also means that it is not easy to find out what other ALL practitioners are doing, how new ideas have been implemented, and more importantly, what have been the outcomes of collaborations between ALL practitioners and discipline academics. This is a longstanding problem, as in reviewing the literature on ALL from the 1980s, Chanock (2011) argues that the poor visibility of ALL practices has altered little in 30 years:

Discernible in this literature is a sense of ALL practitioners being on the periphery, believing that neither the students, nor their needs, nor the nature of ALL work, were understood by the institutions within which they worked. These concerns are the ones that we struggle with still [...] (p. 37)

This lack of knowledge of current practices has been identified in two recent large-scale database development projects. The Association for Academic Language and Learning (AALL) *ALL Practice and Research Database* was created so that ALL educators would “be able to respond to the questions: ‘What do ALL educators do and what research is produced by and informs ALL practices?’” and to allow “ALL educators involved in Higher and Further Education in Australia and internationally to share practice and research beyond the boundaries of our institutions” (James & Maxwell, 2013). In addition, the Australian government’s Office of Learning and Teaching funded the *Degrees of Proficiency* project (which includes a database of ALL practices) with a similar purpose in mind, that is:

to advance the current body of knowledge on English language development in a tertiary context, and map existing institutional approaches to and practices in post-entry student English language assessment and development across the entire university sector in Australia. (Dunworth, 2013, p. 5)

It was in the pressing context of this information vacuum that the current study was born. The research had its beginnings in a cross-institutional dialogue between the two authors, employed at neighbouring universities in Brisbane, Australia, concerning how best to improve the academic language and learning outcomes of CALD students in the health sciences. (One strength of this paper is that the co-authors represent the two major employment groups from which ALL practitioners are drawn: the “academic” and the “professional”.) Finding only fragmentary direction in the published literature, the authors convened a roundtable discussion on the issue for ALL health sciences educators across Australia at the 2011 national AALL Conference in Adelaide. Participants from fifteen universities agreed that ALL educators did not have a clear picture of how other institutions approach support for their CALD health sciences students and expressed a desire for the dissemination of knowledge and strategies in use across the sector. In response to this discussion, the authors initiated a scoping survey to begin identifying the contexts and issues that ALL practitioners working with the health sciences are facing. More specifically, the purpose of this paper is to better understand how universities in Australia support their CALD health sciences students through the academic journey and to shed light on the roles and activities of specialist ALL practitioners in that process. The intended benefit is to initiate more discussion amongst ALL practitioners in the health sciences so as to create a stronger body of literature about how to approach students’ learning needs.

In conducting this fact finding survey, the authors recognised the inherent limitations of research of this sort that make generalisations fraught. These limitations were identified at the 2011 AALL roundtable as: identifying practitioners explicitly allocated to or hired by health

sciences faculties, taking a snapshot of an ever-changing dynamic work context, and trying to find commonalities amongst different working conditions and health sciences parameters. Nevertheless, the research is necessary because we know that ALL practitioners are active players in the health sciences – the interest in the Adelaide roundtable showed that – but we lack knowledge about what they do.

A reason for this knowledge gap is that the work of ALL educators has been poorly promoted due to their peripheral status in higher education (Chanock, 2011). They are often employed on a teaching-only or sessional basis, typically as learning advisers, which curtails their opportunity and motivation to theorise, research and document their work in published form. Consequently, practices often remain unknown outside of individual institutions, departments or units. In addition, ALL educators may have little or no background in the health sciences, further marginalizing their voice and status in the eyes of policy-makers and discipline academics. Despite these challenges, ALL educators play a vital role in the development and implementation of discipline-specific curricula because of their expertise in analysing academic discourses and developing cross-cultural pedagogies.

2. Literature review

International and Australian literature on ALL in the health sciences can be categorised into two key areas. The first is the identification of the learning needs of CALD students, with the majority of studies focussing on nursing (Bosher & Smalkoski, 2002; Brown, 2008; Jalili-Grenier & Chase, 1997; Jeong et al., 2011; Mazdayasna & Tahririan, 2008; Rogan, San Miguel, Brown & Kilstoff, 2006; San Miguel & Rogan, 2009; Shakya & Horsfall, 2000; Wang et al., 2008). This attention to one area of health sciences is to be expected since nurses are the largest group of professionals in the delivery of health care (Candlin & Candlin, 2003), and this in turn reflects the need, in multicultural societies, for a nursing workforce that is ethnically diverse (Boughton, Halliday, & Brown, 2010; Hamilton & Woodward-Kron, 2010; Jeong et al., 2011; Yoder, Abriam-Yago, & Kataoka-Yahiro, 1999). Nursing students in fact represent the largest group of health sciences students in most Australian higher education institutions (DEEWR, 2009b) and consequently attract more research interest. Nevertheless, some of the literature also deals with CALD medical students (Chia, Chia, Johnson & Olive, 1999; Eggly, Musial, & Smulowitz, 1999; Hamilton & Woodward-Kron, 2010) and CALD pharmacy students (Kokkinn & Stupans, 2011).

The above studies are mostly restricted to single institutions and involve a small number of participants. The work by Mazdayasna and Tahririan (2008), however, is exceptional in that the researchers surveyed the English language requirements of over 680 nursing and midwifery students across three universities in Iran. Overall, the studies have identified recurring barriers to learning for CALD students. These include differing expectations about learning and teaching styles, a lack of confidence in dynamic interactional environments, feelings of isolation, difficulty in establishing peer relationships, and inadequate institutional support. While it is well-recognised that lectures and tutorials present difficulties for CALD students in all tertiary disciplines, the additional dimension of labs and clinical placement environments are highlighted as challenging sites of communication.

The second focus of the literature is the description of institutional strategies to address the needs of CALD learners. These publications range across descriptions of ALL-focused strategies, English preparation programs (EAP-ELICOS, bridging programs) and ALL-faculty initiatives at a curricular design level. One survey (Barthel, 2011) across all university disciplines in Australia indicated that one-to-one consultation services were the most commonly applied strategy. While it is not known if this holds true for health sciences, discipline-specific studies in this space include Guhde (2003), who describes a template for advising nursing students, and Woodward-Kron (2007), who examines one consultation between a language adviser and a postgraduate public health student.

A more interventionist, institutional approach is to integrate “English language development strategies, opportunities, activities and material into discipline-based courses/units of study”

(Dunworth, Drury, Kralik, Moore, & Mulligan, 2013). This is commonly referred to as “embedding in the disciplines”. Examples of embedded projects include Salamonson, Koch, Weaver, Everett, and Jackson (2010), who evaluated a workshop provided by both content and writing experts as a strategy for improving the academic writing skills of first-year nursing students with low English language proficiency, and Ford, Foxlee, and Green (2009), who describe the embedding of information literacy (a sub-skill of academic literacy) into an undergraduate oral health program. In addition, Frohman (2012) describes a collaborative ALL/Faculty of Health project, including the range of strategies that can be initiated under such an arrangement and the factors that contribute to the success of it.

Where embedding is not possible, adjunct tutorials or workshops are still possible. In this case, students typically attend – voluntarily – an additional class to address the ALL issues related to their credit-bearing courses (e.g. Boughton et al., 2010; Chur-Hansen, 1999; Frohman, 2012; Murray, 2011; Rose, Rose, Farrington, & Page, 2008). Another strategy is to implement bridging programs. For example, Wood and Head (2004) describe the application of problem-based learning in an EAP preparation course for students aspiring to biomedicine at university, while Dahm (2011) describes a bridging course for international medical graduates seeking accreditation in Australia.

A key sphere of activity that distinguishes health sciences from most other areas of the academy is clinical practice. In this environment, communicative competence becomes truly high stakes, as students are required to engage with “real” clients and patients as well as clinical facilitators. Poor communication by students during clinical practice has a direct, negative impact on the reputation of schools and faculties. The urgency to prepare students well for external assignments has therefore provided language specialists with opportunities to emerge from the periphery (Channock, 2011) and adopt roles as bona fide co-creators and convenors of units of study. Several papers outline a diverse range of language-based strategies for helping CALD students deal with the clinical environment, from providing extra-curricular ESP workshops and/or individual consultations to writing, and implementing curricula with and for faculty, and/or providing professional development to discipline instructors (Bosher & Smalkoski, 2002; Glew, 2013; Harvey, Robinson & Frohman, 2013; Hussin, 1999; Kokkinn & Stupans, 2011; Rogan et al, 2006; San Miguel, Rogan, Kilstoff & Brown, 2006; San Miguel & Rogan, 2009; Yoder et al., 1999).

One area of relative neglect is research on the types of academic texts and tasks the students encounter in their studies. Although language needs in the clinical practice environment are reasonably well-documented, other forms of academic discourse in health sciences remain under-explored. Leki’s (2003) case study of one CALD nursing student negotiating the disparate demands of academic writing in an American university demonstrates the complexity of the challenge for both students and instructors. Gimenez’s (2008, 2011) taxonomy of written genres in nursing and midwifery is a significant step forward in redressing the knowledge gap in this area. In addition, Fenton-Smith (2012) describes a health-focussed ALL course that harnessed authentic literature from psychology to teach students the benefits of self-efficacy in both health sciences and academic study.

In summary, there are numerous reports of needs analysis and pedagogical interventions, however most are institution-specific and weighted towards nursing and clinical communication. The present paper, on the other hand, presents a snapshot from a scoping survey of current practice for ALL educators in the health sciences across a range of Australian universities. It is an initial step towards a more comprehensive picture of several aspects of this work: the workplace roles of ALL educators, the pedagogical approaches they implement, and the disciplines with which they collaborate.

3. Research questions

This paper presents findings in relation to three research questions, limited to the Australian university sector:

1. Which areas of health sciences are most active in addressing students’ ALL needs?

2. What are the most common strategies for addressing students' ALL needs in health sciences?
3. What is the professional profile of ALL practitioners in health sciences?

4. Data collection and methodology

4.1. Instrument

A ten-point online questionnaire (see Appendix), with a combination of quantitative items (multiple choice questions with open-ended follow-up options) and qualitative items (open-ended questions), was designed to gather data. Ethical approval was granted by the offices for research ethics at both authors' universities. The instrument was piloted by six ALL professionals and changes were made in accordance with their feedback. One of the questions (Q.8) presents a checklist of ALL activities in a multiple choice list. This was adapted from a survey instrument reported in Barthel (2011) which was used to document activities carried out by ALL units across Australian universities.

4.2. Analysis

For quantitative items, we report both "response count" and "response percentage" findings. For the two items on the questionnaire that requested open-ended, discursive responses (Q.9 and Q.10), we have coded the resultant texts for common themes using the qualitative research software tool NVivo 9. Some pieces of text were coded multiple times because they incorporated more than one theme. For example, a participant's comment about interaction in clinical settings could be coded as both "clinical communication" in relation to its context and "oral communication" in relation to its language skill focus.

4.3. Participants

Participants were sought on the basis of their experience as ALL professionals within faculties of health sciences at Australian universities. Some participants received a direct invitation to take part due to the following: they had attended the Adelaide conference roundtable and volunteered to participate in future research, or they had published papers on ALL in health sciences, or their work was otherwise known to the authors. In addition, an invitation was distributed via an email bulletin service run by a professional ALL organisation in Australia. As a result of these recruitment initiatives, 25 respondents completed the survey, representing at least 15 universities across Australia (two participants did not wish to identify their institution). As there are 39 universities in Australia (Barthel, 2011), the sample includes representation from at least 38% of the sector. Universities in regional areas and urban centres were represented, as were universities of varying status levels according to national rankings. Of the fifteen identified institutions, five had student enrolments below 25,000, eight had student enrolments in the 32-46,000 range and two were over 54,000. The Barthel (2011) reported ratios for ALL educators ranged from 1:1,429 students to 1:4,617. The data presented in this paper is drawn from a relatively small number of participating individuals, which limits the ability to generalise from the findings. However, it is large and diverse enough to suggest issues of importance in the profession. For this reason the paper is titled a "scoping study".

The researchers did not impose any criteria on what constitutes the "health sciences". Rather, we accepted that universities use this label as a faculty descriptor in varying ways. Indeed, one of the aims of the research was to better understand what "health sciences" means, and what it can include, so that ALL staff who come under its umbrella can better understand the nature and scope of their professional community. Table 1 presents a breakdown of the disciplines that exist in the health sciences faculties of the participating universities.

No further identifying information can be provided about these universities, as participants were assured that personal and institutional anonymity would be preserved in order to allow them to speak freely where necessary. The table shows that although there are many common disciplines such as nursing/midwifery and exercise/nutrition, a characteristic of health sciences is disciplinary diversity. In addition to the fields of study shown in Table 1, some universities

incorporated content areas such as brewing, suicide research and prevention, dermal science, and veterinary science under the banner of health sciences.

Table 1. Major disciplines in health sciences among sample group universities (n=15).

Health sciences discipline	No. of participant universities
Nursing/Midwifery	13
Exercise/Exercise and Nutrition	13
Biomedical Science	10
Psychology	10
Clinical Sciences (i.e. optometry, podiatry, pharmacy)	10
Allied Health (speech pathology, occupational therapy, etc.)	9
Medicine	8
Public Health	8
Health Science	7
Social Work/Human Services	6
Dentistry	4

5. Findings and discussion

5.1. Research Question 1: Which areas of health sciences are most active in addressing students' ALL needs?

In order to understand how ALL educators function within health sciences in Australia, it was necessary to first identify the disciplines within which they operate. With this in mind, we asked in the survey, "Which discipline(s) within the health sciences does your work support (e.g. nursing, dentistry, social work etc.)?" Participants' responses can be seen in Table 2. It was common for respondents to list three or more discipline areas, indicating they work with multiple schools within a health sciences faculty.

Table 2. Disciplines in which participants work.

Health sciences discipline	No. of mentions	Health sciences discipline	No. of mentions
Nursing/Midwifery	14	Public Health	2
Medicine	8	Emergency Health	1
Social Work	5	Adolescent Health	1
Physiotherapy	4	Dermatology	1
Nutrition/Dietetics	4	Dentistry	1
Biomedical Science	3	Population Health	1
Occupational Therapy	3	Ophthalmology	1
Radiography	3	Psychiatry	1
Paramedicine	3	Community Development	1
Speech Pathology	2	Chinese Medicine	1
Pharmacy	2		

As can be seen in an overview of Table 2, ALL practitioners are involved in a diverse range of health sciences disciplines that mirror the diversity of subject areas offered by the universities in Table 1. It is not surprising that nursing was the most mentioned with 14 of 59 responses (24%), which corresponds to the prevalence of nursing schools (Table 1) and its dominance in the literature review. The case of medicine is less clear cut. Although it ranks second in Table 2 with 8 responses (13.5%) and was highly visible in the literature review, it is less commonly offered in the university sample group (Table 1). A plausible reason for this discrepancy is that although medicine is offered by fewer universities (perhaps because of its expense), there is a necessity for students to have advanced communication skills for clinical practice, as observed in the literature.

It is worth noting that a large number of ALL educators work in health disciplines other than nursing and medicine which we know little about from the ALL research literature. To the authors' knowledge, disciplines such as exercise and nutrition, biomedical science, social work, physiotherapy and clinical sciences have received little or no research attention from English language perspectives. For example, what kinds of effective ALL activities are conducted within these less conspicuous arenas of health care (and for what reasons)? What types of discursive genres, pedagogical tasks, oral communication foci, and assessment items require scaffolding for CALD students?

5.2. Research Question 2: What are the most common strategies for addressing students' ALL needs in health sciences?

The aim of the second research question was to obtain a perspective on how ALL issues are addressed in health sciences. This includes the types of students that receive ALL attention; the activities, strategies, and pedagogical approaches that are implemented; and the curriculum content that ALL educators have created.

Two items in the questionnaire focussed on students. The first was, "Which type(s) of health sciences students do you work with?" The results are shown in Table 3.

Table 3. Types of students that ALL practitioners work with.

Student type	Response %	Response count
International and domestic	68%	17
International only	24%	6
Domestic only	8%	2

The results indicate that more support is provided to international students than domestic students, given that one-quarter of respondents work only with internationals, compared to 8% working with domestics only. However 76% of respondents do indicate that they also work with domestic students. A more nuanced inquiry into the cultural and linguistic sub-divisions within the generic "international" and "domestic" groupings would be worthwhile. For example, in a follow-up comment, one respondent mentioned that her program attends to "low SES" (low socio-economic status) domestic students. In Australia at least, this group will be a growing focus for ALL educators given the recommendation to government in the 2008 *Review of Higher Education* that "national targets for attainment of degree qualifications and for participation of low socio-economic status students [...] be set and institution-specific targets for participation and performance established and monitored" (Bradley, Noonan, Nugent, & Scales, 2008, p. xiii). The term "domestic" also masks the number of local students from non-English speaking and indigenous backgrounds (two other groups commonly requiring ALL assistance) just as the term "international" may have been used to refer to domestic students for whom English is an additional language.

The second question focussing on students was: "Which level(s) of health sciences students do you work with?" The purpose was to determine if ALL work was carried out at both the undergraduate and postgraduate level. The results are displayed in Table 4.

Table 4. Levels of students that ALL practitioners work with.

Student level	Response %	Response count
Undergraduate	88%	22
Postgraduate coursework	56%	14
Postgraduate research	28%	7

The figures reflect the size of the three groups (i.e. there are more undergraduates than postgraduates doing coursework, and fewer postgraduates doing research than either of the other two) and suggests that all levels are catered for in health sciences. However, it would be worthwhile to investigate other university student cohorts not mentioned in the question. One is pre-entry students enrolled in preparation programs. Other groups, referred to in respondents' follow-up comments, belong to specific disciplines. For example, one respondent's work was with international medical graduate GPs participating in a bridging course prior to the Australian Medical Council examination, while another focused on professional development for post-registration nurses. This shows that the work of ALL educators in the health sciences is not limited to the traditional undergraduate/postgraduate demarcation.

To obtain information about the variety of operations with which ALL practitioners are engaged in the health sciences, participants were given a checklist of strategies and asked, "In your current role, which activities do you carry out?" This question was prompted in part by the Adelaide roundtable discussion in which conference participants stated that they lacked information – and were curious about – the variable make-up of ALL practitioner roles at different universities. In effect they wanted to know, "Do you do the kinds of things I do?" The results are displayed in Table 5, in order of most to least selected (participants could choose as many options as they liked).

Table 5. Checklist of ALL activities.

Activity	Response %	Response count
Conduct consultations (i.e. formal student appointment service) with health sciences students.	84%	21
Conduct discipline-specific workshops for health sciences students.	72%	18
Develop learning & teaching resources (instructional and/or assessment-related) for health sciences.	72%	18
Teach an adjunct (i.e. supplementary) tutorial for a health sciences course.	60%	15
Conduct generic skills workshops specifically for health sciences students.	60%	15
Conduct research on academic language/learning in health sciences.	48%	12
Provide writing support for health sciences research students.	44%	11
Conduct diagnostic assessment of health sciences students.	44%	11
Offer transition to university program(s) for health sciences students.	44%	11
Team-teach with health sciences academics.	36%	9
Conduct staff development related to health sciences.	32%	8
Teach a non-credit-bearing course within health sciences.	28%	7
Teach a credit-bearing course within health sciences.	20%	5

These results indicate that the closer an activity comes to consuming credit-bearing teaching time, the less common it is. Thus, student consultations (84%) were the most common activity, as they were in Barthel's (2011) non-discipline-specific survey of ALL activities (at 95%). Having students consult with a language specialist makes the least imposition on an academic, program or school. All the activities towards the top of Table 5 share this characteristic – they tend to be the least embedded (i.e. least imposing) activities, such as offering workshops, supplementary classes and writing support, and the development of resources. The adjunct tutorial model (60%) appears to be a popular compromise methodology for addressing ALL issues in courses over an extended period of time. Regarding workshops, both discipline-specific and generic types are reasonably common (72% and 60% respectively). The activities towards the bottom of the table require either collaboration (team-teaching – 32%) or significant investment by faculty (stand-alone courses was the least common strategy). As the call for closer collaboration and embedding of ALL practices into the curricula grow stronger (DEEWR, 2009a; Harper, Prentice, & Wilson, 2011), it is important to note that a significant number of ALL practitioners may not yet be participating in this practice (Barthel, 2011; Kift, Nelson, & Clarke, 2010).

Turning to ALL activities outside the classroom, it is interesting that 44% of respondents were involved in diagnostic assessment. While it is difficult to generalise from a study of this size, several institutions seem to have mechanisms in place to determine how well-equipped their students are for academic learning. As regards research, 48% of participants reported that they were actively pursuing research in relation to ALL for health sciences, a positive indicator that the field may become more visible in coming years. Barthel (2011) estimates that more than half of ALL staff across all disciplines at Australian universities are employed as academics, so this result is comparable. The fact that one half either conduct no research or do not research this area similarly reflects the professional (so-called “non-academic”) employment status of many ALL practitioners. In the Australian higher education sector, academics are expected to publish and are given time to pursue research whereas professional staff are expected to focus on students and teaching. This is a contributing factor to one conundrum addressed in this paper: how to increase the sharing and dissemination of ALL practices in the health sciences given many of the practitioners are not employed to publish.

Shifting the focus to pedagogical content, the questionnaire asked participants to “describe the curriculum content of the course/workshop/tutorial/program you teach for health sciences”. The purpose of this question was to develop a better understanding of the types of content that ALL instructors focus on – the “what” as opposed to the “how”. The following four major themes emerged from the open-ended responses:

Table 6. Major types of curriculum content.

Theme	Number of comments
Macro language skills	34
Study skills	11
Academic support	10
Clinical communication	8

The first theme, “macro language skills”, refers to the traditional four skills of language proficiency: writing, speaking, reading and listening. This was the dominant response, indicating that developing language skills is the focus of most ALL instruction in health sciences. However, when coded more specifically, one skill took precedence, as shown in Table 7.

Table 7. How macro language skills feature in curriculum content.

Macro language skills	Number of comments
Writing	25
Speaking	8
Reading	1
Listening	1

Writing was by far the major focus, followed by speaking, with virtually no mention of reading or listening. For writing, respondents either described the curriculum in general terms (e.g. as “academic writing”) or listed specific genres (which were: literature reviews, essays, theses, and reports) or mentioned referencing as a focus. Comments about speaking generally linked it to the professional demands of healthcare, for example:

Focus is on oral communication skills in health settings, getting accustomed to Australian accents & idioms as well as pragmatics e.g. showing empathy, building rapport.

... professional communication for patient counselling in pharmacy and occupational therapy ...

... professional speaking (e.g. diet history; presenting) ...

As evidenced in the third quote, the skill of delivering an oral presentation was mentioned on several occasions, but more in relation to the professional presentation of case histories than to traditional academic oral presentations (though the latter also featured).

Returning to Table 6, the second major theme, “study skills”, refers to the set of generic abilities that enable learning at university, more or less irrespective of the discipline. These were mainly mentioned in general terms (e.g. as “academic study skills”) but some specific competencies were also listed, that is, preparing for exams, time management, team work, and finding research materials.

The third theme, “academic support”, refers to the role of ALL instruction in supplementing health sciences courses. Several participants described their curriculum as performing a scaffolding or shadowing role with the purpose of assisting both the students’ learning (or performance on assessment) and the teaching of the discipline instructors. The content, therefore, was largely determined by whatever the core course contained or assessed. For example:

All teaching is designed to support communication for student performance of course objectives, assessments and / or professional practice in the medical and other health professional disciplines.

For the Frameworks for Nursing and Intro to Biomed which are both first year core subjects for different courses, we co-develop materials for the tutorial program which are sometimes taught by ALL staff and sometimes by discipline staff.

The final theme, “clinical communication”, refers to curriculum focussed on issues of language and culture in clinical environments. As observed in the literature review, a significant proportion of ALL instruction is devoted to preparing students to handle the range of professional interactions and tasks they will face in this setting:

Clinical communications skills development. A key feature is the on-site delivery of specialised support at clinical sites ... lecturers address the linguistic and cultural elements of examination and history taking, while the medical staff deliver material on the clinical skill to be mastered.

Workshops relate to clinical reasoning and application of communication skills to particular clinical tasks (e.g. history taking, procedural skills, writing tasks, case presentation, etc.).

These results provide an overview of pedagogical strategies currently in place. While further research would ideally evaluate the efficacy of these activities as a way of identifying best practice models, the *Degrees of Proficiency* project team provide the following note of caution:

Because of the complex nature of English language assessment and development, no single evaluation is likely to provide a sufficiently detailed picture of any given approach or strategy. Institutions are likely to require an overarching evaluation strategy which will incorporate a number of different evaluation instruments. (Dunworth, Drury, Kralik, Moore, & Mulligan, 2013)

Therefore, it may be more appropriate to speak of dissemination and critical discussion of current practices rather than evaluation. In the conclusion to this paper we make proposals for advancing this task.

5.3. Research Question 3: What is the professional profile of ALL practitioners in health sciences?

The third research question shifts the focus to ALL practitioners, with the aim of sketching a picture of their professional profile: specifically, their grounding in health sciences, their location within university structures, and the challenges that their role presents.

In relation to the first of these issues, participants were asked, “Do you have a background in the health sciences?” They responded as follows:

Table 8. ALL practitioners’ background in health sciences.

Response	Response %	Response count*
No	87.5%	21
Yes	12.5%	3

* One person skipped the question.

This finding highlights that the vast majority of the ALL specialists in this survey who were working in health sciences have no background in health sciences. A separate question is whether this actually matters – a debate that has continued for the life of ALL as a profession/discipline. For example, back in 1986, Maher’s review of the literature on English for medical purposes (EMP) cautioned that a “sense of insecurity and uncertainty can sometimes be observed amongst EMP teachers regarding their effective role as lay persons teaching ‘medical English’ among medical professionals” (p. 138). Spack (1988) has argued that only content instructors are sufficiently qualified to teach writing within disciplines. It can be argued, however, that the necessity of a discipline background depends on what it is the ALL educator is asked to do. As Table 5 shows, many ALL activities probably do not require training as a health professional.

Moving to the issue of organisational structure, then, participants were asked, “Which department/division of the university do you belong to (e.g. Academic Skills Unit, School of Nursing, English Language Institute, etc.)?” By including this item, we were cognizant of Tiernan’s (2001) point that the location of learning support staff within the university hierarchy has a crucial impact on their role. It affects the relationships the instructors have with their students and discipline staff, the possibilities for research, and the type(s) of pedagogical strategies than can be implemented. The findings are shown in Table 9.

Table 9. The location of ALL practitioners within the university structure.

Response	Response %	Response count*
Academic support unit – external to health sciences faculty	58.33%	14
Academic support unit – within health sciences faculty	33.33%	8
School of applied linguistics	4.17%	1
External consultant	4.17%	1

* One person skipped the question.

These figures indicate that in most cases, ALL instruction is supplied by an academic skills unit which is not part of a health sciences faculty. This is to be expected, since the capacity to maintain an academic support unit within a school or faculty is generally financially prohibitive. Barthel's (2011) research indicates that only half of Australian universities have a faculty that deploys its own ALL unit (typically the largest faculty, such as Business/Economics). A breakdown of institutions in our findings suggests that approximately one-quarter of health sciences faculties at Australian universities directly employ their own ALL staff.

Although the faculty-based model is likely to remain less common, it has several advantages. As Tiernan (2001, pp. 93-4) suggests, learning support staff within this framework can plan a more logical syllabus; have increased access to faculty decision-makers; have a better understanding of discipline-specific assessment and performance requirements; have higher professional credibility; and are more likely to conduct research on the content-learning nexus.

There is a third, albeit very rare, model represented in Table 9: collaboration between two academic schools, one of applied linguistics and one of health sciences. The effectiveness and feasibility of this novel approach is worthy of further investigation.

The final item on the questionnaire examined problematic aspects of working in ALL for health sciences. Participants were asked, "What is the most challenging aspect of your role?" The open ended responses were coded for common themes, presented in Table 10.

Table 10. Challenges faced by ALL practitioners in health sciences.

Challenge	Number of comments
Dealing with health sciences faculty	15
Dealing with students	14
Lack of time	7
Lack of resources	5
Managing staff	3
Developing materials	3
Lack of recognition	2
Lack of discipline-specific knowledge	2
Too many locations to cover	2

The most commonly mentioned challenge was dealing with the health sciences faculty (or school, department, etc.). When the 15 comments about this issue were coded more finely, several further themes surfaced, as shown in Table 11.

Table 11. Challenges in dealing with health sciences faculty.

Challenge	Number of comments
Coordinating with academics	7
Academics' expectations	4
Staff turnover	3
Negotiating faculty administration systems	1

The issue of “coordinating with academics” refers to difficulties in establishing a smooth collaborative process, as illustrated by these representative quotes:

Making academics aware of our existence, and of the variety of ways we can support their students.

In general, time to develop appropriate materials that have been checked by lecturer.

The timing of the workshops is often well before assessments are due, by which time students are then crying out for assistance.

Developing an understanding of the academic/communicative requirements of the course.

Several respondents also expressed frustration at “faculty expectations and misconceptions”. For example, one participant stated, “one nursing cohort is all internationals and expectations from academic staff about their transition into Australian university culture are extraordinarily high”. Another issue was staff turnover: co-creation and administration of curricula was disrupted because discipline academics often changed.

These comments about working with faculty can be usefully considered within Dudley-Evans and St John’s (1998, pp. 42-8) framework for “engaging with the disciplines” in ALL. Three levels of engagement are proposed in this model: cooperation (a language specialist takes the initiative in developing an ALL application for a disciplinary purpose), collaboration (the language and subject specialists work together to produce a limited ALL application, such as a targeted workshop), and team-teaching (the language and subject specialists work together as equals in the curriculum design and implementation process). The comments above suggest varying levels of dissatisfaction with situations that can be categorised as “cooperation” or, at best, “collaboration”. This is partly a product of the question: participants were asked about “challenges” they faced in their job. On the flip side, several projects are described in the literature that would qualify as successful “team-teaching” (e.g. Harvey, Robinson, & Frohman, 2013; San Miguel & Rogan, 2009). It may even be the case that although engagement with faculties is problematic in many cases, as is often the case in ALL ventures, the high stakes of communication in the health sciences – the fact that miscommunication on the job can cause injury or even death – has actually fostered a culture of exemplary team-teaching, that is not observed to the same extent in other fields.

The second-most commonly mentioned challenge was dealing with students. Table 12 details the specific problems faced.

Table 12. Challenges in dealing with students.

Challenge	Number of comments
Large numbers	5
Poor attendance	2
Varying needs	2
Miscellaneous	5

The biggest issue was the number of students. Several participants stated that cohorts were already large, but were continually growing, and therefore hampering quality teaching and learning. Poor attendance was linked to the non-compulsory nature of the majority of ALL instruction (i.e. students did not attend if not forced to). It was also pointed out that the job of ALL instructors was made difficult by the varying needs of students (e.g. teaching both domestic and international students, and low and high proficiency students in the same class).

Returning to Table 10, another significant challenge of the job was lack of time. This included time to: “develop appropriate materials”, “plan for and do all the requested teaching hours”, “allow for individual attention to language needs”, “provide appropriate feedback on written work”, and “meet with academics”. Several respondents also mentioned the lack of monetary and personnel resources.

Other issues that arose were managing staff given the unstable nature of the ALL profession; developing materials that are engaging, up-to-date and discipline-specific; receiving little or no recognition for work; lacking sufficient discipline-specific knowledge; and having to teach at too many locations.

It is difficult to judge which of the above challenges, if any, are specific to health sciences. One issue that may be is student motivation. Although poor attendance was mentioned, motivation was not a major complaint. A possible explanation is that health sciences students are more vocationally motivated (e.g. to be a nurse) than, say, business students. As regards the great number of comments about dealing with health faculty, this may be due to the small number of institutions with the capacity to employ their own ALL staff (for example, well-resourced business/economics faculties may have fewer problems of this sort because ALL staff work full-time in the faculty). Finally, lack of discipline-specific knowledge and the difficulty of developing materials are potentially greater problems for scientifically-oriented disciplines, such as biomedical science, since ALL educators typically come from humanities backgrounds.

6. Conclusion

In summarising the findings of this paper we are aware that generalizability is limited by the number of participants (25) and the setting (Australia only). The aim of the project was to develop conversations with shared understandings regarding the issues that ALL practitioners in the health sciences face. From the scoping survey several key points can be inferred:

- nursing received the most attention from ALL educators, with medicine a strong second;
- international students received more focus than domestic students, although the latter were not neglected;
- undergraduates and postgraduates (coursework and research) were appropriately represented in student cohorts;
- the closer an ALL pedagogical strategy came to consuming credit-bearing teaching time, the less common it was, with one-to-one consultations being the most utilized approach, and credit-bearing ALL courses the least utilized;
- language skills – specifically writing – received the greatest focus from ALL instruction in health sciences, with generic study skills, academic support and clinical communication the three other main foci;
- the vast majority of ALL specialists working in health sciences had no background in health sciences;
- in most cases, ALL instruction was provided by an academic skills unit which was not part of a health sciences faculty (approximately one-quarter of health sciences faculties at Australian universities directly employed their own ALL staff);
- the most commonly mentioned professional challenge of the ALL educators was dealing with the health sciences faculty – particularly coordinating with academics.

The findings also raised several questions worthy of further investigation:

- What kinds of academic texts, communication practices, and pedagogical conventions characterize health sciences disciplines other than nursing and medicine? What are the challenges for CALD students in these disciplines and what solutions have ALL educators already devised?
- Other than “international/domestic” and “undergraduate/postgraduate”, what student demographics (socioeconomic, cultural and professional) characterize tailored ALL instruction in health sciences (e.g. doctors seeking accreditation)?
- How do (or should) language skills other than writing feature in ALL curricula for health sciences?
- Which pedagogical strategies are the most effective in improving students’ ALL abilities?
- How can ALL staff be best accommodated within university structures so that their contributions are maximized and recognised?

There are a number of ways that this “further investigation” could take place. In the online space, the AALL’s growing repository of ALL practices is freely available as a searchable database (<http://www.aall.org.au/aalldb>), as is the *Degrees of Proficiency* website (<http://www.degreesofproficiency.aall.org.au/>). The enthusiasm shown by participants at the health sciences roundtable at the 2011 AALL Conference also suggests that there is a thirst for more cross-institutional discipline-specific face-to-face engagement. A symposium devoted to ALL practices in health sciences would be a logical way to build on this interest. A common characteristic of all these endeavours, worthy though they are, is their initiation by ALL practitioners. An idea that is yet to be fully exploited is the production in a single place (e.g. book or journal special edition) of a series of papers that are all co-authored by language and discipline specialists. The focus of the papers could vary from the description/evaluation of practices, to the reporting of research projects, to the offering of proposals for, and theorizations of, the emerging field. The balance of content and ALL perspectives would promote inter-disciplinary cross-fertilization and encourage health science academics to consider the discursive implications of their teaching. Such opportunities are particularly pressing in light of the finding that cooperative working relationships are a challenge for many ALL practitioners. By these and other methods, we can not only come to appreciate what the state-of-the-art for ALL in the health sciences is, but how to make it happen.

Acknowledgements

We would like to thank Pamela Humphreys, Martin Reese, Alice Lee, and two anonymous reviewers for providing feedback on earlier drafts of this paper. We would also like to thank all the participants who kindly took our survey.

Appendix A. Participant Questionnaire

1. What is your name? (Feel free to ignore if you would prefer to remain anonymous.)
2. Which university do you work at?
3. Which department/division of the university do you belong to (e.g. Academic Skills Unit, School of Nursing, English Language Institute, etc.)?
4. Which discipline(s) within health sciences does your work support (e.g. nursing, dentistry, social work etc.)?
5. Which type(s) of health sciences students do you work with?
 - International Students
 - Domestic students
 - Both
 - Other (please specify)
6. Which level(s) of health sciences students do you work with? (Select as many as you like.)
 - Undergraduate students
 - Postgraduate coursework students
 - Postgraduate research students
 - Other (please specify)
7. Do you have a background in health sciences?
 - Yes
 - No
8. In your current role, which activities do you carry out? Select as many as you like.
 - Teach a credit-bearing course within health sciences.
 - Teach a non-credit-bearing course within health sciences.
 - Team-teach with health sciences academics.
 - Teach an adjunct (i.e. supplementary) tutorial for a health sciences course.
 - Conduct consultations (i.e. formal student appointment service) with health sciences students.
 - Conduct generic skills workshops specifically for health sciences students.
 - Conduct discipline-specific workshops for health sciences students
 - Provide writing support for health sciences research students
 - Develop learning & teaching resources (instructional and/or assessment-related) for health sciences
 - Conduct research on academic language/learning in the health sciences
 - Conduct diagnostic assessment of health sciences students
 - Conduct staff development related to health sciences
 - Offer transition to university program(s) for health sciences students
9. Please describe the curriculum content of the course/workshop/tutorial/program you teach for health sciences. (Ignore if you don't do any teaching.)
10. What is the most challenging aspect of your role?

References

- Barthel, A. (2011). Table 2 - Academic language and learning activities. Retrieved December 22, 2011, from http://www.aall.org.au/sites/default/files/table2-ALLservicesTypesNov2011-2_0.pdf.
- Bosher, S., & Smalkoski, K. (2002). From needs analysis to curriculum development: Designing a course in health-care communication for immigrant students in the USA. *English for Specific Purposes*, 21, 59-79.
- Boughton, M. A., Halliday, L. E., & Brown, L. (2010). A tailored program of support for culturally and linguistically diverse (CALD) nursing students in a graduate entry Masters of Nursing course: A qualitative evaluation of outcomes. *Nurse Education in Practice*, 10(6), 355-360.
- Bradley, D., Noonan, P., Nugent, H., & Scales, B. (2008). *Review of Australian higher education*. Canberra: Commonwealth of Australia. Retrieved February 26, 2011, from http://www.deewr.gov.au/HigherEducation/Review/Documents/PDF/Higher%20Education%20Review_one%20document_02.pdf.
- Brown, J. F. (2008). Developing an English-as-a-second-language program for foreign-born nursing students at an historically black university in the United States. *Journal of Transcultural Nursing*, 19(2), 184-191.
- Candlin, C., & Candlin, S. (2003). Health care communication: A problematic site for applied linguistics research. *Annual Review of Applied Linguistics*, 23, 134-154.
- Chanock, K. (2011). A historical literature review of Australian publications in the field of Academic Language and Learning in the 1980s: Themes, schemes and schisms: Part Two. *Journal of Academic Language and Learning*, 5(1), A59-A87.
- Chia, H.L., Chia, H. U., Johnson, R., & Olive, F. (1999). English for college students in Taiwan: A study of perceptions of English needs in a medical context. *English for Specific Purposes*, 18(2), 107-119.
- Chur-Hansen, A. (1999). Teaching support in the behavioural sciences for non-English speaking background medical undergraduates. *Medical Education*, 33, 404-410.
- Dahm, M. R. (2011). Exploring perception and use of everyday language and medical terminology among international medical graduates in a medical ESP course in Australia. *English for Specific Purposes*, 30(3), 186-197.
- Department of Education, Employment and Workplace Relations (DEEWR). (2009a). *Good practice principles for English language proficiency for international students in higher education*. Canberra: Department of Education, Employment and Workplace Relations. Retrieved March 19, 2011, from <http://www.deewr.gov.au/HigherEducation/Publications/Pages/GoodPracticePrinciples.aspx>.
- Department of Education, Employment and Workplace Relations (DEEWR). (2009b). *Undergraduate applications, offers and acceptances 2009*. Retrieved September 30, 2011, from <http://www.deewr.gov.au/HigherEducation/Publications/HEReports/Documents/FINALAppsandOffers2009.pdf>.
- Dudley-Evans, T., & St John, M. (1998). *Developments in English for specific purposes*. Cambridge: Cambridge University Press.
- Dunworth, K. (2013). *Degrees of Proficiency: Building a strategic approach to university students' English language assessment and development*. Sydney: Office for Learning and Teaching. Retrieved October 1, 2013, from <http://www.olt.gov.au/project-degrees-proficiency-building-strategic-approach-university-studentsapos-english-language-ass>.
- Dunworth, K., Drury, H., Kralik, C., Moore, T., & Mulligan, D. (2013). *Degrees of Proficiency*. Retrieved October 31, 2013, from <http://www.degreesofproficiency.aall.org.au/>

- Eggy, S., Musial, J., & Smulowitz, J. (1999). The relationship between English language proficiency and success as a medical resident. *English for Specific Purposes*, 18(2), 201-208.
- Fenton-Smith, B. (2012). Facilitating self-directed learning amongst international students of health sciences: The dual discourse of self-efficacy. *Journal of Academic Language and Learning*, 6(1), 64-76.
- Ford, P. J., Foxlee, N., & Green, W. (2009). Developing information literacy with first year oral health students. *European Journal of Dental Education*, 13(1), 46-51.
- Frohman, R. (2012). Collaborative efforts work! Reflections on a two-year relationship between Faculty of Health and International Student Services – Language and Learning Unit. *Journal of Academic Language and Learning*, 6(3), 47-58.
- Gimenez, J. (2008). Beyond the academic essay: Discipline-specific writing in nursing and midwifery. *Journal of English for Academic Purposes*, 7(3), 151-164.
- Gimenez, J. (2011). *Writing for nursing and midwifery students*. New York: Palgrave Macmillan.
- Glew, P.J. (2013). Embedding international benchmarks of proficiency in English in undergraduate nursing programmes: Challenges and strategies in equipping culturally and linguistically diverse students with English as an additional language for nursing in Australia. *Collegian*, 20(2), 101-108.
- Guhde, J. A. (2003). English-as-a-second language (ESL) nursing students: Strategies for building verbal and written language skills. *Journal of Cultural Diversity*, 10(4), 113-117.
- Hamilton, J., & Woodward-Kron, R. (2010). Developing cultural awareness and intercultural communication through multimedia: A case study from medicine and the Health Sciences. *System*, 38(4), 560-568.
- Harper, R., Prentice, S., & Wilson, K. (2011). English language perplexity: Articulating the tensions in the DEEWR “Good Practice Principles”. *The International Journal of the First Year in Higher Education*, 2(1), 36–48.
- Harvey, T., Robinson, C., & Frohman, R. (2013). Preparing culturally and linguistically diverse nursing students for clinical practice in the health care setting. *Journal of Nursing Education*, 52(7), 365-370.
- Hussin, V. (1999). From classroom to clinic: Towards a model of learning support for NESB nursing students in clinical placements. Paper presented at the *HERDSA Annual International Conference*, Melbourne, Australia, 12-15 July, 1999. Retrieved April 16, 2012, from <http://www.herdsa.org.au/wp-content/uploads/conference/1999/pdf/Hussin.PDF>
- Jalili-Grenier, F., & Chase, M. M. (1997). Retention of nursing students with English as a second language. *Journal of Advanced Nursing*, 25, 199-203.
- James, B., & Maxwell, J. (2012). *ALL practice and research database: Sharing practice and research beyond the boundaries of our institutions*. The Association for Academic Language and Learning. Retrieved October 1, 2013, from <http://www.aall.org.au/aalldb>.
- Jeong, S. Y. S., Hickey, N., Levett-Jones, T., Pitt, V., Hoffman, K., Norton, C. A., & Ohr, S. O. (2011). Understanding and enhancing the learning experiences of culturally and linguistically diverse nursing students in an Australian bachelor of nursing program. *Nursing Education Today*, 31(3), 238 - 244.
- Kift, S., Nelson, K., & Clarke, J. (2010). Transition Pedagogy: A third-generation approach to FYE – A case study of policy and practice for the higher education sector. *The International Journal of the First Year in Higher Education*, 1(1), 1-20.
- Kokkinn, B., & Stupans, I. (2011). Identifying the needs of students with English-as-an-additional-language for pharmacist-patient counselling: An interdisciplinary research approach. *Journal of Academic Language and Learning*, 5(1), 129-138.

- Leki, I. (2003). Living through college literacy: Nursing in a second language. *Written Communication, 20*(1), 81-98.
- Maher, J. (1986). English for medical purposes. *Language Teaching, 19*(2), 112-145.
- Mazdayasna, G., & Tahririan, M. (2008). Developing a profile of the ESP needs of Iranian students: The case of students of nursing and midwifery. *Journal of English for Academic Purposes, 7*(4), 277-289.
- Murray, N. (2011). A report on a pilot English language intervention model for undergraduate trainee nurses. *Journal of Academic Language and Learning, 6*(1), 48-63.
- Rogan, F., San Miguel, C., Brown, D., & Kilstoff, K. (2006). 'You find yourself.' Perceptions of nursing students from non-English speaking backgrounds of the effect of an intensive language support program on their oral clinical communication skills. *Contemporary Nurse, 23*, 72-86.
- Rose, D., Rose, M., Farrington, S., & Page, S. (2008). Scaffolding academic literacy with indigenous Health Sciences students: An evaluative study. *Journal of English for Academic Purposes, 7*(3), 165-179.
- Salamonson, Y., Koch, J., Weaver, R., Everett, B., & Jackson, D. (2010). Embedded academic writing support for nursing students with English as a second language. *Journal of Advanced Nursing, 66*(2), 413-421.
- San Miguel, C., & Rogan, F. (2009). A good beginning: The long-term effects of a clinical communication program. *Contemporary Nurse, 33*(2), 179-190.
- San Miguel, C., Rogan, F., Kilstoff, K., & Brown, D. (2006). Clinically speaking: A communication skills program for students from non-English speaking backgrounds. *Nurse Education in Practice, 6*, 268-274.
- Shakya, A., & Horsfall, J. (2000). ESL undergraduate nursing students in Australia: Some experiences. *Nursing and Health Sciences, 2*, 163-171.
- Spack, R. (1988). Initiating ESL students into the academic discourse community: How far should we go? *TESOL Quarterly, 22*(1), 29-51.
- Tiernan, J. (2001). Location! Location! Location! How does this affect the operations of Learning Centres? Some personal reflections from the position of an ex-head. *Journal of the Australian and New Zealand Student Services Association, 18*, 88-98
- Wang, C. W., Singh, C., Bird, B., & Ives, G. (2008). The learning experiences of Taiwanese nursing students studying in Australia. *Journal of Transcultural Nursing, 19*(2), 140-150.
- Wood, A., & Head, M. (2004). 'Just what the doctor ordered': the application of problem-based learning to EAP. *English for Specific Purposes, 23*(1), 3-17.
- Woodward-Kron, R. (2007). Negotiating meanings and scaffolding learning: writing support for non-English speaking background postgraduate students. *Higher Education Research & Development, 26*(3), 253-268.
- Yoder, M., Abriam-Yago, K., & Kataoka-Yahiro, M. (1999). The Cummins Model: A framework for teaching nursing students for whom English is a second language. *Journal of Transcultural Nursing, 10*(2), 143-149.