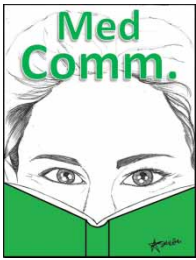


Dear all,



I must admit to feeling very strongly about information that is written for patients – both about the quality and the appropriateness of the information itself, and about how it is communicated. Thankfully, this topic is now enjoying some

long overdue attention from the Regulatory Authorities and the Pharmaceutical Industry.

This has led to a plethora of research articles on communication strategies in healthcare, and one would imagine that the vocabulary used would be fairly crucial, and therefore the subject of intense discussion and research. However, as our contributor to this issue, Catherine Richards Golini, points out – very little is known about the influence of vocabulary in this area.

Catherine has taught English for 23 years, in the UK, France, Italy, and Switzerland. She specializes in English for Specific Purposes (ESP) and is currently at the *Scuola superiore medico tecnica* in

Locarno, Switzerland, where she teaches trainee medical radiographers and medical assistants. She is mid-way through an Applied Linguistics PhD at the University of Swansea, where she is investigating the nature of healthcare vocabulary and is also the co-founder of EALTHY, the European Association of Language Teachers for Healthcare. In her spare time (!), she is also a freelance writer.

Catherine's article makes for fascinating reading, although its implications are slightly depressing. I can only hope that the research being lavished on the ROI of using higher quality communication is extended to some of the more basic concepts such as the vocabulary and its use.

In the meantime, enjoy the spring, and do feel free to send in your thoughts or comments – I am always happy to hear from you, and you may well end up in print!

Bestest,
Lisa

How important is vocabulary in healthcare communication?

Healthcare communication is an increasingly important field of study – though it was certainly not always so. Much has changed from the days when medical schools failed to take communication seriously, let alone include the topic on the curriculum. Today, associations, organisations, journals, and specialist books proliferate; universities frequently have departments dedicated to the topic, and in 2010, there were more than 50 graduate schools in the USA alone offering a healthcare communication post-graduate degree.

In the light of this burgeoning interest in healthcare communication, then, it seems very odd that we know so very little about the nature of healthcare vocabulary.

A closer analysis reveals a couple of likely explanations for this peculiar absence: while research into communication has indeed mushroomed, the majority of the academic interest has come from the field of sociolinguistics, anthropology, or related fields – with much of the research concerned

with aspects of cross-cultural or intercultural communicative competence. Vocabulary seems to be of little interest in most of these studies.

Studies suggest that nurses and doctors use different communication styles and tend to use different proportions of vocabulary 'type'.¹⁻⁵ Nurses, often described as 'communication brokers', are able to switch between more technical vocabulary and the general vocabulary of their patients. Doctors, on the other hand, seem to be less successful at switching, and they are also less aware of their communicative limitations. Put another way, doctors can have a distorted view of their communication skills.

We also know something about the difficulties that an ever-growing number of non-native-speaking (NNS) professionals have with English. Many NNSs struggle with the vocabulary: having enough and knowing what to use and when to use it being particular problems. In fact, vocabulary is consistently cited as the primary barrier to successful communication for NNS healthcare professionals. What is particularly interesting is that it is frequently the vocabulary needed to interact

socially that is lacking, and not necessarily the 'technical' vocabulary of the job.

Nor are vocabulary problems the preserve of the NNS. Studies from both sides of the Atlantic have shown that, unbeknown to the professionals treating them, native-speaking patients often fail to fully understand common terms.^{1,6,7,8,9} Words that frequently cause problems include *fracture* and *break*; *sprain* and *sprained*; *tendon* and *ligament*. While it is the case that problems defining or explaining terms were magnified in those patients who had English as a second or other language, it cannot be assumed that native speakers fully understand the gravity or otherwise of their medical condition, even when apparently 'simple' terms are used.

There is a further imbalance in the literature when it comes to the type of medical profession that falls under the spotlight. As it currently stands, we know little about the communication styles or the vocabulary used by healthcare professionals other than doctors and nurses – and for many years even nurses failed to feature, a situation that was almost certainly a reflection of the traditional hierarchy in medicine.

For professionals involved in second language education for healthcare – course writers, course developers, and teachers – the lack of knowledge is compounded by (and results in) a lack of teaching materials for professionals. The commercial materials that do exist are generally aimed at medicine or nursing, pre- or post-training, and often show a disparate range of approaches and methodology. None seem to be focused on English as a *lingua franca*. This seems to be a curious omission, given the number of NNS professionals globally who use English to communicate with other NNSs. The vocabulary needs of a Filipino nurse in a British hospital are not always going to be the same as her Swiss counterpart in Geneva using English to communicate with a Turkish patient, or the Austrian doctor communicating with a Japanese tourist.

The ESP teacher is very often required to write a course from scratch or to adapt an existing course to suit the needs of her students. The vocabulary content of that course is vitally important.

Studies have consistently shown that vocabulary is the strongest predictor of success for language students.¹⁰⁻¹⁴ The more words you know, the easier it becomes to acquire more, particularly through reading. The opposite is, sadly, also true. Coverage, i.e. the percentage of words a student needs to know in order to comfortably read a text, is estimated at between 95 and 98%. Put another

way, in a text of 1000 words the student needs to know between 950 and 980 words in order to understand the text without too many hours spent in the dictionary and to stand any chance of guessing the meanings of new words from the context. Too many unknown words can mean little or nothing is understood.

Luckily for the student, the first 2000 words in English should provide more than 85% coverage of most texts, including medical and other specialist texts. What this also means is that the students need to know the first 2000 words before they start to tackle the more complex technical and semi-technical items found in specialist English. In the past, it was assumed that students studying specialist English of any discipline were tertiary level students who had already achieved a reasonable level in the language. These days, for a variety of reasons (including the growth of medical tourism and consequent demand for English speakers and the seemingly unstoppable influence of English on the education systems), students can begin their ESP studies at secondary level with little more than basic competency in English. If students are lacking core vocabulary – the first 2000 words – it is essential that teachers tackle this deficit immediately before the so-called 'technical' vocabulary is introduced.

Medical and healthcare vocabulary has much in common with many other types of 'technical' English: it seems that there are different degrees of 'technical'. It is becoming increasingly apparent that two or even three categories of 'technical' exist, a fact which has significant implications for materials writers, teachers, and students.

Although the vast majority of studies to date have used research articles and academic and medical course-books as the source data – it seems reasonable to assume that the spoken data might reveal a different lexical picture – the information is nonetheless highly useful.

Thanks to the development of corpus linguistics it has become increasingly easy to analyse vast amounts of text, including websites, at the click of a mouse. Running a key word analysis, i.e. comparing the vocabulary in one text type with that of a different genre, can be of great help with teaching and materials development. Investigating word behaviour such as collocation and categorising words according to their degree of technicality is precisely the kind of research from the field of Applied Linguistics that helps us to understand more about the nature of specialist language.

The few studies that exist agree that medical and healthcare vocabulary can be categorised into various types: from the general and the non-specific,

to the lay or the semi-technical, through to the fully technical.^{15,16} Lay or semi-technical vocabulary refers to the words that are related to the field of medicine but are likely to be known by the non-professional. Examples include *influenza; fracture; period; migraine*. As we have seen, however, the non-professional may not always fully understand the word. General and non-subject specific vocabulary is likely to be from the first 2000 words, while fully technical vocabulary contains those items that would be impenetrable for the non-professional – this is the category, incidentally, that is usually meant by the reference to ‘medical English’.

Some researchers have added another category: hidden technical. These items are particularly interesting in that the students initially believe that they know the word but, in fact, the item in question possesses more than one technical meaning. An example of this is *protocol* which means one thing in IT, another in pharmacology, and yet another in business English.

Simon Fraser’s work on technical vocabulary^{17,18,19} suggests that not only is pharmacology particularly rich in hidden technical words, but also that the proportion of words that fall into the lexical categories referred to above are not consistent across disciplines. Fraser¹⁷ found that anatomy text books had a greater proportion of fully technical words than did pharmacology textbooks, which in turn had more lay technical and more hidden technical items.

Polysemy is well-known to be a source of great difficulty for the language student and certainly knowledge of a word’s multiple meanings is part of what it means to ‘know’ a word. The form/meaning mapping, that is, the encoding and the subsequent assignment of meaning to a word, is just the tip of the iceberg – and sadly all too many teachers and students forget this. Collocation – word partnership – is one aspect, as is connotation. Not all similar sounding or similar looking words are equivalent in either meaning or connotation across languages. *Compassionate*, for example, does not have a positive connotation for the Italian medical professional, suggesting an inability to keep emotions in check. The same is quite probably true of the word in other Romance languages.

A student also needs to be made aware of a word’s morphology; its appearance in formulaic language, i.e. expressions and idioms; restrictions on its use – restrictions which may be a question of register and appropriacy or culture – and of course its pronunciation.

And just because a word exists does not mean it must be taught. A healthcare professional with a

Romance language as their mother tongue is already very familiar with a sizeable number of the fully technical terms he or she will meet during their English course. It seems to be a far better use of time to focus on the hidden technical terms and the semi- or lay technical terms, for these are the ones their patients are more likely to understand.

The dearth of research into ESP vocabulary and the current paucity of specialist healthcare English teaching material seems all the more surprising given what we know about the effect of poor vocabulary on healthcare communication, its role in the acquisition of a second language, and the difficulty involved in learning vocabulary for the student. Over 30 years ago, the Applied Linguist Paul Meara said that vocabulary was a neglected aspect of second language acquisition research;²⁰ I cannot help thinking that today, vocabulary has a new role as the neglected aspect of healthcare communication studies.

Catherine Richards Golini
crichards.golini@gmail.com

References

1. Bourhis RY, Roth S, MacQueen G. Communication in the hospital setting: a survey of medical and everyday language use amongst patients, nurses and doctors. *Soc Sci Med* 1989;28(4):339–46.
2. Hydén L, Mishler EG. Language and medicine. *Annu Rev Appl Linguist* 2003;19:174–92.
3. Holmes J. How do nurses describe health care procedures? Analysing nurse – patient interaction in a hospital. *Aust J Adv Nurs* 2008;25(4):58–70.
4. Holmes J, Major G. Janet Holmes and George Major. Communication on the wards: a pilot study. *Language in the Workplace Occasional Papers No. 7* (March 2002), 2002;7(7).
5. Slade D, Scheeres H, Manidis M, Iedema R, Dunston R, Stein-Parbury J, *et al.* Emergency communication: the discursive challenges facing emergency clinicians and patients in hospital emergency departments. *Discourse Commun* 2008;2(3):271–98.
6. Azam N, Harrison M. Patients’ perspectives on injuries. *Emerg Med J* 2011;28(7):601–3.
7. Bagley CHM, Hunter AR, Bacarese-Hamilton IA. Patients’ misunderstanding of common orthopaedic terminology: the need for clarity. *Ann R Coll Surg Engl* 2011;93(5):401–4.
8. Dahm MR. Exploring perception and use of everyday language and medical terminology among international medical graduates in a medical ESP course in Australia. *ESP* 2011;30(3):186–97.
9. Lerner EB, Jehle DV, Janicke DM, Moscati RM. Medical communication: do our patients understand? *Am J Emerg Med* 2000;8(7):64–6.
10. Feldman K, Kinsella K. Narrowing the language gap in effective practice for adolescents with reading and literacy challenges. In Denti L, Gerin G editors. *Effective practices for adolescents with reading and literacy challenges*. New York: Routledge; 2008, 3–24.

11. Folse KS. Vocabulary myths. Ann Arbor, MI: The University of Michigan Press; 2004.
12. Hu M, Nation P. Unknown vocabulary density and reading comprehension. *Reading Foreign Lang* 2000; 13(1):403–430.
13. Kojic-Sabo I, Lightbown PM. Students' approaches to vocabulary learning and their relationship to success. *Mod Lang J* 1999;83:177–91.
14. Nation ISP. *Learning vocabulary in another language*. Cambridge: Cambridge University Press; 2001.
15. Wang J, Liang S, Ge G. Establishment of a medical academic word list. *ESP* 2008;27(4):442–58.
16. Chung TM, Nation P. Identifying Technical Vocabulary, *System* 32 2004;251–263.
17. Fraser S. The lexical characteristics of specialized texts. In Bradford-Watts K, Ikeguchi C, Swanson M editors. *JALT 2004 Conference Proceedings*. Tokyo: JALT; 2005.
18. Fraser S. The nature and role of specialized vocabulary: what do ESP teachers and learners need to know? *Hiroshima Stud Lang Lang Educ* 2006;9:63.
19. Fraser S. Breaking down the divisions between general, academic, and technical vocabulary: the establishment of a single, discipline-based word list for ESP learners. *Hiroshima Stud Lang Lang Educ* 2009;12:0151.
20. Meara P. Vocabulary Acquisition: a neglected acquisition. *Lang Teach Linguist Abstr* 1980;134:221–46.