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第16回 日本医学英語教育学会 学術集会 開催案内

日本医学英語教育学会は1988年に第1回医学英語教育研究会が開催され、その後、医学英語に関する研究を推進し、医学英語教育の向上を図る目的で学会として発展して参りました。現在では400名以上に及ぶ会員を有しております。

医学英語教育は卒前・卒後・生涯教育として重要であり、医療の国際化、医師国家試験の英語問題導入や医学英語検定試験など、専門職教育の限られた時間でどのように教育を行うかが課題です。学術集会では例年、医療系の英語教育に係わる教員・研究者が参加し研究・事例を報告します。平成25年度学術集会は下記により開催します。日本医学教育学会の委員会に起源をもつ本会に是非ご参加いただき、医学英語教育について情報を交換していただければと思います。

記

学会名：第16回医学英語教育学会学術集会
日 時：平成25年7月20日（土）～21日（日）
会 長：伊藤昌徳（順天堂大学医学部附属浦安病院 神経外科）
会 場：東京ベイ舞浜ホテルクラブリゾート（〒279-0031 千葉県浦安市舞浜1-7）
議題募集：平成25年2月1日正午～4月20日 正午
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First Announcement

The 16th Annual Conference of the Japan Society for Medical English Education

The Japan Society for Medical English Education (JASMEEEE) held its first meeting as a ‘study group’ in 1988. Since then, the society has continued to grow in promoting the development of medical English education, supported by over 400 members.

Medical English education has become a significant part of basic, postgraduate and continuing education. With the globalization of medicine and recent changes, such as the introduction of the Examination of Proficiency in English for Medical Purposes (EPEMP), JASMEEEE has become active not only within the society itself but has also extended its involvement and responsibilities in ways which contribute to society.

The 16th JASMEEEE academic meeting will include plenary lectures, oral presentations, poster presentations, symposia and workshops. We welcome submissions on various topics related to medical English education such as: educational methods, assessment, student evaluation, integration of language education and specialized education, medical English for nursing and other healthcare related fields, medical English editing, teaching of medical writing, EPEMP etc.)

Date: July 20 (Saturday) to July 21 (Sunday), 2013
Venue: Tokyo Bay Maihama Hotel Club Resort
1-7 Maihama, Urayasu City, Chiba
President: Masanori Ito
(Department of Neurosurgery, Juntendo University Urayasu Hospital)

Abstract submission: abstracts should be submitted online, in either English or Japanese.

Online abstract submission begins: February 1, 2013 (noon)
Deadline for abstract submission: April 20, 2013 (noon)
Registration: Please access the JASMEEEE homepage for details.
URL: http://www.medicalview.co.jp/JASMEE/gakujutu.shtml

For inquiries, please contact: The JASMEEEE Secretariat (c/o Medical View, Attn: Mr. Eguchi)
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巻頭言

国を超えて世界に発信する「言語」を目指して

日本をとり巻く国際政治が緊迫している。各国の研究者・教育者交流を通じて人と人間が異なっても理解し合えるが、国対国となると異なる次元の話となってしまう。同様な問題は、世界各地に生じている。教育は勿論国を超えて理解し合える場であるが、一方で国家間で教育が異なっているため、医学、歯学、薬学、看護学ではグローバルスタンダードが設けられたりしている。これにより、国を超えて教育について一つの「言語」で理解し合うための手段といえる。

本学会並びに本誌は、まさにグローバル化の中で高い意義を持つ学会として雑誌となるポテンシャルを持っている。英語を第1言語とする国は少ないが、英語で書かれた医学書をテキストとして教育を行っている国は数多い。日本は情報が比較的早く自国語化されるため医学教育における英語、医学英語の比重が高くないが、英語を日常で使用しない国を含めると医学英語の教育は世界中に需要があるといえる。世界の中では医学の共通言語は英語といえるが、その教育については英語を母国語しない国の方が需要が高く、教育が進んでいてもおかしくない。

この数年本誌の編集に携わる邦文編集の編集を担当しているが、最近あまり忙しくない状況で、邦文編集編集者がもっぱら活躍している。特に本誌のバックナンバーは世界から閲覧できるようになっており、グローバルなニーズがある領域にグローバルに情報発信できる環境となっている。むろん今後も日本の中には発信すべき情報も本誌としては掲載を継続するが、小規模ながらも本誌は世界に聞かれており、論文が国際的に活用されることもあることを意識していきたい。

毎回のお願いとなるが、学会と本誌が発展するためにも、医学英語教育向上させるための試みや成果が多く寄せられることを期待したい。そして、本誌が世界の医学教育の中で「言語」となることが夢である。

日本医学英語教育学会
副編集委員長（Japanese Editor）
吉岡 塚正
（東京女子医科大学医学部医学教育学）
1. Introduction

Tokyo Medical University, Department of International Medical Communications
Nihon University School of Medicine, Division of Medical Education Planning and Development;

Person Writing Uses the Structure "<

Corpus Analysis Demonstrates that Scientific Writing Uses the Structure "<

Background:

Keywords corpus research, medical English usage, was diagnosed, Bank of English

Methods:

Two collections of samples of medical writing were compiled; one of writing aimed at the scientific community and the other at healthcare professionals. The purpose of the study was to analyze the frequency of the phrase "was diagnosed" within various specifically defined contexts. Those involved in Medical English Education can make use of corpus methodologies to see how expressions are actually used.

Conclusion:

While 61% followed pattern 1, as in "was diagnosed as having epilepsy," 29% followed pattern 2, as in "she was diagnosed with breast cancer." This result highlights the importance of understanding the correct usage of "was diagnosed" in medical writing.

Two collections of samples of naturally occurring medical writing were analyzed. The first collection included 25,000 articles from 50 general medical journals, whereas the second collection contained 10,000 articles from 20,000 men are diagnosed with skin cancer every year. The frequencies of the various forms of "was diagnosed" were calculated, and the results were compared with the AMA Manual of Style and other medical dictionaries such as Oxford and Longman's. The study revealed that the phrase "was diagnosed" is a verb that describes what is done to someone or something, whereas "diagnose" is a verb that describes the correct and preferred usage of the phrase. Therefore, both usages of "was diagnosed" are used in medical writing, and it is important for instructors to understand the correct usage of the phrase when teaching English for Medical Purposes.
This corpus analysis will attempt to identify how the phrase *was diagnosed* is used in two different forms within two contexts. These forms and contexts will be specifically defined in the Methods section below. *Was diagnosed* is of particular interest because within medical writing there are inconsistencies in how this phrase is used depending on whether the target readers are specialists or not.

## 2. Purpose of This Study

When teaching English for Medical Purposes, it is important to ensure that learners understand how to use typical medical English expressions. An example is the word diagnosed. The American Medical Association’s (AMA) *Manual of Style* describes the correct and preferred usage of *diagnose* as follows:

11.1 Correct and Preferred Usage of Common Words and Phrases.

**Diagnose, […] appl[ies] to conditions, syndromes, and diseases. Patients themselves are not diagnosed but their conditions may be diagnosed.**

Incorrect: The patient *was diagnosed* as schizophrenic 4 years ago.

Correct: The patient’s schizophrenia *was diagnosed* 4 years ago.5

Thus, *to diagnose* is a verb that describes what is done by doctors to diseases and not to people. However, the Oxford dictionary defines the verb *diagnose* in the following way: “To identify the nature of (an illness or other problem) by examination of the symptoms; to identify the nature of the medical condition.” The three examples listed are, “Two doctors failed to diagnose a punctured lung,” “she was ... diagnosed as having epilepsy,” and “20,000 men are diagnosed with skin cancer every year.”6 Longman’s dictionary describes *diagnosis* in the following way.

To find out what illness someone has, or what the cause of a fault is, after doing tests, examinations etc: *diagnose sb as (having) sth* Joe struggled in school before *he was diagnosed as dyslexic.*  

*diagnose sth as sth* The illness was diagnosed as mumps.  

*diagnose sb with sth* She was diagnosed with breast cancer.7

As they are based on general English corpora, current dictionaries such as Oxford and Longman’s reflect real world general English usage. Therefore, both usages of *was diagnosed* identified above, can be said to be commonly accepted. In contrast, the AMA *Manual of Style* only recommends one usage pattern for professional medical writing (condition + *was diagnosed*). Corpus methodologies will be used to attempt to identify how the phrase *was diagnosed* is actually used and if there exist differences in writing for the general public versus writing for medical professionals.

## 3. Methods

The past form, *diagnosed* was chosen over its present form *diagnose* because of relative frequencies. Initially, frequency searches for the single word *diagnose* versus the single word *diagnosed* were performed. Frequencies were determined using a preliminary combined search of the Bank of English and the British National Corpus using the Corpus Hub at Birmingham’s concordancer for both words (diagnosed: 6359 vs. diagnose: 1113). The frequencies of the two words were alternatively determined using the online concordancer WebCorp nocton (diagnosed: 2226 vs. diagnose: 342) by including only domains of Impact Factor scientific journals. Impact Factor is an internationally recognized “measure of the frequency with which the average article in a journal has been cited in a particular year.”10 While many criticisms exist against the use of the Impact Factor,11 it remains widely accepted in many institutions as a way to evaluate relative journal importance on a field by field basis. For the purposes of this study, building a corpus of representative scientific English involved selecting articles from journals which are widely accepted by the scientific community. The assumption is made that journals with an Impact Factor tend to have more rigorous peer-review procedures12 thus presumably leading to English usage which is more likely to be widely acceptable to members of the greater scientific/medical community. To know how most researchers tend to use particular expressions, it helps to examine a large collection of representative samples of what researchers have written in widely accepted journals. More details regarding the sample selection methods and the journals included can be found below in section 3.1.

After examining the frequencies of the various forms of “diagnose” described above and determining the most frequently used expression using the past tense *diagnosed*, the phrase *was diagnosed* was selected as the key phrase for this study. (see section 4 for details).

The following are terms and conventions used in this corpus study. *<Disease>* refers to the pattern in which *was diagnosed* appears after a disease or medical condition. Examples include, *illness was diagnosed, cancer was diagnosed, and tuberculosis was diagnosed*. The basic *<Disease>* pattern is illustrated in the formula below:

*<Disease>* = medical condition + *was diagnosed*  

In the *<Disease>* pattern, as illustrated above, medical
condition may be either specific or general. The distinction is that in the <Disease> pattern, the expression was diagnosed is preceded by a medical condition and not a person.

The other pattern examined in this study is the <Person> pattern. In this pattern was diagnosed is used after a person or people. Examples include the following: She was diagnosed, Ted was diagnosed and the patient was diagnosed. The basic <Person> pattern is illustrated in the formula below:

\[<\text{Person}> = \text{person} + \text{was diagnosed}\]

In this formula, person represents people in either a general or a specific sense. The distinguishing feature between the two patterns is that in the <Disease> pattern, was diagnosed is preceded by a medical condition whereas in the <Person> pattern, was diagnosed is preceded by a person. This study is an examination of semantic preference, which is defined as the collocation of a lexical item [in this case, was diagnosed] with items from a specific semantic subset [in this case, <Disease> vs. <Person>].

3.1. The two corpora: 1) medical English corpus 2) general English corpus

The first corpus is a collection of sample sentences obtained from medical research articles from selected widely accepted scientific/medical journals. The journals included in this study with their recent approximate Impact Factor in parenthesis, are as follows: The New England Journal of Medicine (53), The Lancet (33), Cell (32), Nature (31), Science (31), The Journal of the American Medical Association (30), British Medical Journal (13), Canadian Medical Association Journal (9), and the Medical Journal of Australia (3). These journals were selected based on 1) their relatively high Impact Factors in their respective countries and on 2) the variety of English they represent. Because no standardized measure exists to evaluate the representativeness of the English used in a particular journal, it is assumed, for the purposes of this study, that journals with a higher Impact Factor can reasonably be assumed to have a more rigorous peer-review process and are more likely to be considered acceptable by the scientific community.

The second corpus is a collection of sample sentences from non-academic sources representing actual general English usage. The Corpus Hub at Birmingham was used to search The Bank of English, one of the largest general English corpora in existence. Efforts were made to exclude all research articles using the selection boxes available within the Corpus Hub at Birmingham framework. These were rejected to ensure that the extracted sample sentences were all of examples of general English. Among the excluded categories were: Life Sciences & Allied Applications and Medicine under Commonwealth Books, Academic under Academic American books, and the New Scientist magazine under British Magazines.

3.2. Analysis of both corpora compiled for this study

For the medical English corpus, Webcorp was used to obtain all of the sample sentences including was diagnosed within medical research articles from all the journals identified above and made into one text file. For the general English corpus the Corpus Hub at Birmingham was used to obtain all of the sample sentences of general English from the Bank of English corpus which included the phrase was diagnosed. These two text files (medical English corpus and general English corpus) were examined line by line to identify and remove duplicates resulting in the finalized versions of the two corpora analysed in this study. The two patterns <Disease> and <Person> were examined within both the medical English corpus and the general English corpus using AntConc 3.2.2w software toolkit. This a concordancing software program developed by Laurence Anthony (Faculty of Science and Engineering, Waseda University, Japan) was used to automate searching for and organizing the findings.

4. Results

Following the methodology described above, the analysis resulted in the following data. The phrase was diagnosed appeared 459 times in the medical English corpus and 325 times in the general English corpus for a total of 784 times. Each instance was identified as either falling into the <Disease> category or the <Person> category as determined by the answer to the question “What was diagnosed?” If the answer was a medical condition, the instance was assigned to the <Disease> category whereas if the answer was a person (including one instance of “dog” and one of “family”), the instance was assigned to the <Person> category (see Table 1). Note that one instance of “and was diagnosed” from the medical English corpus was unclear because it referred to a “case” which, is sometimes itself used to refer to both medical conditions and humans. Although the context in which the instance appeared was examined, the author’s intentions were unclear, therefore, that instance was excluded. In the medical English corpus, one instance of “and was diagnosed” was rejected because it referred to a car. See Appendix 1 for a table of all the words appearing
The Basic Plugin

The New England Journal of Medicine, October 2012

Research articles using the selection boxes available within the Bank of English were searched for and organized using AntConc 3.2.2w software toolkit. This corpus study attempted to identify how the phrase 'was diagnosed' is used in the context of scientific writing.

Within the sample sentences from the general English writing, both patterns were regularly used. However, in 64% of those people the 'Person' pattern was more common. This is substantiated by the following examination of the medical English corpus and the general English corpus.

The corpus analysis of the medical English corpus reliably and consistently make use of the 'Person' sense as described in the Methods section above. Furthermore, the top five words which are represented by person in the 'Person' category are: 'I', 'he', 'she', 'his' and 'her' respectively.

The variety of English they represent. Because no standardized measure exists to evaluate the scientific quality of English text, the selected research articles were reviewed by two independent raters.
have a greater number of inconsistencies in usage of the Person > pattern within the medical English corpus. That is to say, compared to the samples from articles which were not typical scientific research articles but commentary and perhaps even patient samples from articles which were not typical scientific research articles, it is possible that these were of the < pattern in the medical English corpus. Within this study were some notable weaknesses. First, it was found that 94% of the instances of was diagnosed with carcinoma of the gallbladder was diagnosed with schizophrenia, another British journal, revealed that among all journals, it can be said that research articles widely adhered to the standards, it is expected to make use of either pattern. This could be a like-reason for why there were some examples of the < pattern in the medical English corpus could be because the samples in that corpus were taken from for- which may lead to an Ameri-

In light of these findings, the pedagogical implications are as follows: when being taught the written usage of the English contexts.

The results, it is recommended that these differences in re-examined. In

The Lancet appears to normal. This is more evidence supporting the assertion that the < pattern. Assuming that standard corpus-based dictionaries such as Oxford and Longman's reflect the general public's real and practical usage.

It was found that 94% of the instances of was diagnosed was diagnosed in the top 100 hits, only 5% of the instances referred to medical conditions and not people. A similar search within the various categories within the Corpus Hub at Birmingham reveals that among all journals, as follows: when being taught the written usage of the medical writing such as case reports. Further evidence suggests that the < pattern as acceptable, appear to be because the samples in that corpus were taken from for-


That is to say, compared to the "Journal of the American Medical Association," the Lancet is a journal in particular. Among those were examples such as "a 32-year-old woman was diagnosed with schizophrenia." Although it could not be clearly determined by examining each of these sentences, it is possible that these were not be widely used. This could be a like-minded explanation for why there were some examples of sentences from the scientific journals included in this study adhered to the ham framework are not all clearly identifiable as academic English contexts.

Within this study were some notable weaknesses. First, while it was found that most instances of "Diagnosed with disease" were traditional research articles and thus could be expected to make use of either pattern. This could be a likely reason for why there were some examples of research articles but commentary and perhaps even patient diagnosis. It was found that 94% of the instances of "Diagnosis of disease" in the Introduction was used to refer to a person. The Longman's Medical English dictionary作风建设 literature suggests that the medical condition + was diagnosed <Person> pattern is more common in scientific medical research article writing regardless of the type of English. This is more evidence supporting the assertion that the <Disease> vs. <Person> in the scientific medical conditions and not people. Therefore, based on the results of this study also included a larger proportion of instances of the disease was diagnosed which state that the <Person> was used to refer to medical conditions when writing formal guidelines. This is more evidence supporting the idea that the disease was diagnosed which consider both the disease, not people. Therefore, based on the results, it is recommended that these differences in the original American English usage conventions, Google Scholar was used to perform an advanced search of the phrase which consider both the disease and the person. This is consistent with what was expected to make use of either pattern. This could be a like-minded explanation for why there were some examples of sentences from the scientific journals included in this study adhered to the ham framework are not all clearly identifiable as academic English contexts.

In light of these findings, the pedagogical implications are that when writing for the general public, using this expression to refer to both medical conditions and not people. A similar search within the top 100 hits, 100% of the instances of was diagnosed was used to refer to a person even in scientific journals. Not all the samples from academic sources were taken from the AMA Manual of Style sample sentences from non-academic sources included in this study also included a larger proportion of instances of was diagnosed. Among the top 100 hits, only 5\% of the instances of was diagnosed was used to refer to a person. The original American English bias. To address the issue of American versus British English usage conventions, Google Scholar was used to perform an advanced search of the phrase which consider both the disease and the person. In this study, it was found that 94% of the instances of "Diagnosis of disease" in the Introduction was used to refer to a person. The Longman's Medical English dictionary作风建设 literature suggests that the medical condition + was diagnosed <Person> pattern is more common in scientific medical research article writing regardless of the type of English. This is more evidence supporting the assertion that the <Person> was used to refer to medical conditions when writing formal guidelines. This is more evidence supporting the idea that the disease was diagnosed which consider both the disease, not people. Therefore, based on the results, it is recommended that these differences in the original American English usage conventions, Google Scholar was used to perform an advanced search of the phrase which consider both the disease and the person. This is consistent with what was expected to make use of either pattern. This could be a like-minded explanation for why there were some examples of sentences from the scientific journals included in this study adhered to the ham framework are not all clearly identifiable as academic English contexts.

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The first sample sentence was examined in the sample sentences in the medical English corpus. Note that Disease was undeterminable and thus left out because it did not fit into either pattern.
pus are shown below. Each sample sentence was examined in the sample sentences in the medical English cor-

7 asthma

25 cancer

1 glucosuria

1 epilepsy

10 tube

18 tuberculosis

19 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

12 tuberculosis

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Appendix 2
All the instances of was diagnosed found in The Lancet are listed below.

1  the first U.S. case of novel H1N1 disease was diagnosed in January 2002. Adenocarcinoma of the gallbladder was diagnosed seemed to be a mild upper-respiratory infection was diagnosed 2 weeks. A large bifrontal glioblastoma multiforme was diagnosed spot had been excised and a malignant blue nevus was diagnosed included three involving children. Acute sinusitis was diagnosed to the patients' clinical details. Lacunar stroke was diagnosed Ventriculomegaly was diagnosed lived for 24 years after his adrenoleukodystrophy was diagnosed.

Joanne Forshaw is 26, and was diagnosed Susanna Lohiniemi is 35 years old, and was diagnosed Jim Brock is 27 years old and was diagnosed mission to annoy you”. When, aged 4 years, Dylan was diagnosed is a journalist who works in Ireland. He was diagnosed Samantha Hillyard was diagnosed good blood glucose control. Personal account I was diagnosed the risk of amputation. Personal account When I was diagnosed Denise Drake was diagnosed process, and one of the remaining 563 was diagnosed reading material. Since her incarceration, she was diagnosed Melanie Pearson is 28 years old. She was diagnosed the title refers to the age at which she 18 years, then to Europe at 23 years. She was diagnosed A 61-year-old woman was diagnosed A 32-year-old woman was diagnosed In 1941, a woman aged 33 years was diagnosed has been a few weeks now since Mr Zomer was diagnosed.
Introduction: theoretical framework

Frequently recurring multi-word expressions are often referred to as clusters, chunks or bundles. These are a special type of word combination which seems to be prominent in academic prose and keys to efficiently understand academic texts such as research articles. Lexical bundles perform particular discourse functions and are both an important component of fluent linguistic production and essential factor in successful language learning.\(^1,2\)

The study of the prepatterned nature of language has attracted the attention of researchers in applied linguistics, which goes back to early nineteenth century; Jespersen studied collocations and fixed expressions\(^3\) and Firth developed the idea of polysystematism\(^4\), which is famous for the quotation 'you shall judge a word by the company it keeps'.\(^4\) Firth also used the terms 'collocation' and 'collocability'\(^4\) to describe the habitual occurrence of one word with one or more other words.\(^4\) From a perspective of language teaching and learning, Pawley and Syder argue that 'fluent and idiomatic control of a language rests to a considerable extent on knowledge of a body of sentence stems' which are institutionalized or lexicalized'\(^5\).

Natinger and DeCarrico gives definition what they call lexical phrases: These phrases are patterned sequences, usually consisting of a syntactic frame that contains slots for various fillers, such as 'a month ago' which is realized in 'a month ago' or 'a year ago', and run the gamut from completely fixed, unvarying phrases to phrases that are highly variable\(^6\). Natinger and DeCarrico also assert that such lexical phrases occupy a part of this paper was presented at the American Association for Corpus Linguistics\(^7\), Brigham Young University, Utah, March 13-15, 2008.
position between lexis and syntax, in the sense that: "They are similar to lexicon in being treated as a unit, yet most of them consist of more than one word, and many of them can at the same time be derived from the regular rules of syntax, just like other sentences" (p.118).7

These points are echoed by Sinclair who also mentions that language is organized in terms of lexico-grammar, asserting that meanings are made in chunks of language that are more-or-less predictable. Vocabulary items are not always single items or simply "content words." In other words, grammar is the output of repeated collocational groupings.

With these new theories, combined with corpus-based analysis, many studies have focused on the use of collocations in the academic genre. Gledhill explores the discourse function of collocation in research articles of pharmaceutical science, specifically targeting grammatical words such as been, has, have, is, and so on rather than lexical items.8 Analyzing the use of collocational frameworks, Marco has shown that the frameworks be of a of, and be to, when used in medical papers, enclose restricted sets of lexical items, and that the selection of specific collocates for these frameworks is conditioned by the linguistic conventions of the genre.9

Many researchers have referred to the importance of these fixed expressions in the written discourse produced by native and non-native speakers of English. Charles has investigated the phrasological patterning in reporting clauses produced by native speakers of English and discussed their rhetorical functions, suggesting that "working with patterns can be beneficial in raising students' language awareness."10

In the academic genre, combined with corpus-based studies, 'evaluation' or 'authorial stance' seems to be a central issue in analyzing language functions. Thompson and Hinton define evaluations as an "expression of the speaker or writer's attitude or stance towards viewpoint on, or feelings about the entities or propositions that he or she is talking about" (p. 308)11 and focus on academic discourse communities with their genres and their practice of knowledge construction. Despite the pervasiveness of recent studies on evaluation in academic discourse, both written and spoken, there exists a crucial problem for corpus researchers with respect to exploring and identifying such evaluative items in corpora. As Römer rightly points out, picking and listing up of a handful of words and phrases manually is not a difficult task, though '[1]identifying evaluation in corpora is far from straightforward, because 'the group of lexical items that indicate evaluative meaning is large and open' (p.116),12 which makes a fully systematic and comprehensive account of evaluation extremely difficult.

To cope with this problem, Römer proposes methods of tracing evaluative items in a corpus of academic writing, and used Collocate13, a program for finding collocations in a corpus in order to look at word combinations instead of single words, with the aim of extracting larger recurring patterns which would highlight evaluative bundles.14 The result reveals that the displays of 4-grams and 5-grams seem to have a strong tendency towards evaluative meaning and are typical of the academic genre as compared to BNC.15 Since this methodology seems to be highly beneficial and effective once we decide to use large corpora in order to obtain insights on rhetorical tendencies, for example, among the different disciplines automatically rather than manually, I have adopted this approach in the exploration of evaluative bundles in the present study, which will be further discussed in the next section.

2. Methodology: corpus data and n-gram analysis

At present, the study of corpus-based language use has become increasingly interdisciplinary or cross-disciplinary12,13,14 and in the field of science research writing much attention is paid to the phase of discourse functions that appears in different rhetorical sections: so-called IMRED (Introduction, Methods, Results and Discussion). Despite the relatively large number of works on corpus-based discourse analysis in medical research papers, few attempts have been made to uncover the rhetorical distinctiveness of sub-disciplines such as Genome Bio-science, Nursing, PH and Clinical surgery. I have compiled the corpus for each of these for this research. These corpora, the Medcorpus, consist of four subfields in medicine, the text data having been compiled from electronic on-line journals (http://www.pubmedcentral.nih.gov/). Each sub-corpus is a collection of research articles published from 2001 to 2006 (Table 2). Each sub-corpus of PubMed articles in these sub-disciplines was selected by the author based on his (and his students') specific interests.

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For retrieving lexical bundles from these integrated files, I carried out frequency counts of 3-, 4- and 5-grams using the "N-grams" command in AntConc.16 This function performs a full extract of any n-grams from the whole corpus once "n" is specified. Comparing the high frequency groups of these three n-grams patterns, the 4-word combinations seem to display a relatively satisfactory and revealing result semantically. As Cortes observes, "many four-word bundles hold three-word bundles in their structures" and four-word bundles are, in many cases, already included in five-word bundles such as 'it is likely to' and 'it is likely to', therefore, the present study focuses on four-word bundles. To illustrate the distinctiveness of Medcorpus against general corpus, F-LOB21/Frown22 were chosen for the reference corpus – those corpora are less specialized 2 million word corpus of English – and this study employed a conservative cut-off point of 20 times in a million words.

3. Results and Discussions: cross-discipline and cross-sectional

3.1. Quantitative analysis

Regarding the use of 4-grams bundles, the results indicate that items of evaluative bundles with a frequency of at least 20 times per million words occur much more frequently in medical corpora than F-LOB21/Frown22 corpus, and research-oriented – especially ‘procedure’ and ‘description-oriented’ bundles are prominent. (Table 3 & Figure 2). In the F-LOB/Frown corpus, only 5 evaluative bundles appear in the top 100. At the same time, however, there are certain discrepancies in regard to the preference of lexical bundles among the 4 sub-fields. While the Nursing and PH corpora employ fewer evaluative bundles and are dominated by research-oriented – especially ‘topic-oriented’ – and ‘text-oriented’ bundles, The Genome and Surgery corpora use evaluative bundles 4 or 5 times more often than the F-LOB/Frown corpus, and research-oriented – especially ‘procedure’ and ‘description-oriented’ bundles are prominent. (Table 3 & Figure 2). In analyzing bundles was taken from Hyland17

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Table 1. Lexicalized sentence stem (Pawley and Syder, 1983)

<table>
<thead>
<tr>
<th>Realization</th>
<th>Grammatical Frame (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm sorry to keep you waiting.</td>
<td>TENSE be of to keep you waiting</td>
</tr>
<tr>
<td>I'm so sorry to have kept you waiting.</td>
<td>TENSE be of to have kept you waiting</td>
</tr>
<tr>
<td>It is so sorry to keep you waiting all this time.</td>
<td>TENSE be of to</td>
</tr>
</tbody>
</table>

Table 2. Subfields and size of Medcorpus

<table>
<thead>
<tr>
<th>Sub-fields</th>
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3.2. Corpus size and sub-field

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The size of the corpus is conditioned by the number of articles and the number of words. In the case of the corpus size, it is noticeable that there is a difference among sub-disciplines. Nursing and PH corpora employ fewer evaluative bundles and are dominated by research-oriented – especially ‘topic-oriented’ – and ‘text-oriented’ bundles, The Genome and Surgery corpora use evaluative bundles 4 or 5 times more often than the F-LOB/Frown corpus, and research-oriented – especially procedure- and descriptive-oriented bundles are prominent. (Table 3 for analysing bundles was taken from Hyland). It is also noticeable that there are certain commonly-observed items and/or tendencies between Genome and Surgery in terms of the types of bundles used in each corpus, as compared to the Nursing and PH corpora. This affinity in evaluative bundles may be attributed to genre-specificity found in both disciplines. Genome Bio-science and Clinical Surgery are both experiment-based and analyze the function of the human body and, in many cases, perform lab experiments both at the macro and micro level. Nursing and Public Health, on the other hand, primarily treat patients as intact individuals or groups of individuals, usually by conducting statistical surveys or tests. Thus the topics of research articles in the Nursing and PH are often associated with real-world social phenomena such as economic status.
educational level, and the socio-cultural problems of particular countries. This genre-specificity of Nursing and PH tends towards the inferential arguments, and "knowledge is typically constructed as plausible reasoning rather than as nature speaking directly through experimental finding" (p.16). Some results in Table 3 appear to be anomalies such as 'symptoms of chronic bronchitis', 'fruit and vegetable intake', 'oral hypoglycemic agents', 'cilobhej mice' and 'American Indian n-o'. This may be due to the limited corpus or a focus upon specialized volumes or issues, but the vast majority of results clearly indicate that evaluative bundles are widespread in medical research articles, and each sub-discipline has its own preference of the bundles. In the future, we hope that the size of the corpus analyzed will increase so that anomalous results can be avoided. In order to display the contrast between evaluative bundles in the Medcorpus and general language use, the frequency of higher ranking evaluative bundles from Genome and F-LOB/Proem™ are compared (Figure 3). A marked difference in frequency can clearly be observed between the two corpora, the exception being on the other hand. Since this lexical bundle frequently occurs in evaluative expressions with previous or subsequent direct context, it is likely more apt to call it as a stance 'marker' than an 'item'. In other words, it "may not always be readily visible, but becomes apparent when we look at the wider lexical context" (p.122). It is worth noting that, if we carefully examine concordances of on the other hand, there are far fewer instances of evaluative context found in the F-LOB/Proem™ corpus. This point will be discussed in a later section.

Research articles have a highly conventionalized structure, and are typically organized into abstract, introduction, methods, results and discussion. Thus, according to its own function, each section reveals its own rhetorical convention by means of lexico-grammatical features. Evaluative expressions are one of particular feature that reinforces this claim. Vihla provides a solid illustration with the inter-textual variation of epistemic modals frequency, and suggests that evaluative expressions are more prominent in the introduction and discussion than in the methods and results sections. In an attempt to examine the evaluative bundles from a cross-sectional and cross-disciplinary perspective, frequency of a hedging or epistemic bundle, is possible that, and a booster bundle, an important role in, were indicated in Figure 4 and Figure 5. The results presented in both figures suggest that evaluative bundles are especially widespread in the Discussion sections, regardless of the sub-fields. In contrast to the hedging bundle, however, the booster bundle an important role in shows a relatively high frequency in Introduction sections. Introductions appear to have a primarily rhetorical purpose, often linked with the need to provide academic validity to the article as well as a useful background for non-specialist readers. This thematic structure is reflected in the high frequency of the booster bundle an important role in, the function of which, in the Introduction and the Discussions, is to persuade the reader to accept academic validity. This is also supported by the fact that, in the Genome and the Nursing corpora, this booster bundle also occurs in the Abstract section, which obviously has the rhetorical function of highlighting research outcomes.

3.2. Concordance analysis

As pointed out in the previous section, on the other hand is a stance marker, and in many cases is incorporated in an evocative context in research articles. It is clear that this lexical bundle is likely to be associated with argumentation by highlighting two different claims or findings. Therefore, as Figure 6 shows, this bundle occurs in the Results sections. It is relatively frequent, but less significant than the above-mentioned evaluative bundles. Turning now to the evaluative context that appears with on the other hand, I did a concordance search of the bundle in the Genome corpus. A few selected lines are presented as follows:

1. On the other hand, a purine-rich diet and climatic factors have an equally important role in the etiology of the disease. Because UAN is a very common disorder, it must result from many different combinations of ...

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6. different results obtained for the neurons may be explained by the fact that we previously used frozen tissue sections or that they were derived from patients suffering from temporal lobe epilepsy. On the other hand the actual human brain tissue used was from aged patients and did not correspond to the age of the mice included in this study.

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7) This could contribute some variance of betweenness values of a protein with a particular (high) connectivity. On the other hand, the existence of high-betweenness nodes specifically with low connectivity suggests that there are proteins outside such clusters that connect those clusters.

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9) Interestingly, both inactivated and attenuated SPPV showed significant increase in the IL-10 production from peritoneal macrophages. On the other hand, decreased in vitro 93D activity of cultured peritoneal macrophages noticed in SPPV treated groups may also enhance in vivo survival in, and in the presence of phagocytes.

Without detailed disciplinary knowledge it is not possible to be precise, but concordance examination suggests that in Medcorpus most instances are related to explanation, argumentation or reasoning characterized by reporting verbs (e.g., suggest, show), modal hedges (e.g., may, could, must), adverbs or adjectives (e.g., interestingly, significant) and so on.

In contrast to the abundance of evaluative comments with on the other hand in Medcorpus, it is not necessarily the case with F-LOB21/Frown22 corpus.

10) ... watching British companies, as I can testify, playing Shakespeare to large, attentive, hard-thronged throngs in places as diverse as Athens and Tbilisi. But, on the other hand, there is the infinitely more mysterious Shakespeare: the dramatist of no fixed abode whose work takes new resonances in different cultures. In Europe he seems European.

11) ... power bloc drawn from a restricted and highly uniform social background and so is able to achieve a high level of solidarity. Rule by an inclusive power elite, on the other hand, exists where a solidaristic power bloc...

12) Natural disasters like the Bangladesh flooding cannot be prevented, but their consequences can be alleviated by forward planning as well as aid afterwards. Famine,
This paper has shown that the n-gram tracking methodology, which is still the honest truth, can be applied to local logistics, corrupt human race. We all know the problems - inefficient management, though an increasing divergence in the principle of order. Despite an increasing divergence in the management offered, we should not rely upon it to the exclusion of the possibility that production could eventually be transferred to other factories elsewhere. A somber screen career has proved so durable. It boils down to the importance of taking into account the narrative and hard science.

Regardless of the genre, the ability to use such devices appropriately can be conveyed by a wide variety of lexical items and syntactic structures. But at least, as Römer notes, the suggestion of this methodology is extremely useful for retrieving the differences among the 4 sub-fields of the corpora. Recognizing the clear advantages of this methodology, geometry suggested by Römer is extremely useful for retrieving modals, one type of evaluative expression, are prominent in the narrative and hard science. For example, students should learn how to tone down or hedge their assertions. Expressing evaluation is described as 'metadiscourse' or 'conversation'.

A cross-sectional analysis of lexical bundles: a cross-disciplinary study of theses. 5. Pedagogical implications

Acknowledgement

5. Frown (http://www.lancs.ac.uk/frown/).
6. AntConc

REFERENCES

perspective of collocation. In the light of these outcomes, we can duly assume that these highly standardized and formulaic recurring phraseological patterns are fundamental in constructing academic discourse.

5. Pedagogical implications

With regard to L2 writing, the linguistic choices made by academic writers to express their attitudes in a text (usually described as ‘stance’, ‘evaluation’ or ‘metadiscourse’) are indispensable for creating credible and meaningful written discourse. For examples, students should learn how to tone down or hedge their assertions. Expressing evaluation is one of the most salient characteristics of scientific writing, though L2 learners are well known for using far fewer modal verbs or evaluative bundles than L1 speakers, which indicates that L2 learners use the stylistic or rhetorical devices needed for appropriate politeness strategies inadequately. In this respect, the ability to use such devices appropriately is of great importance in academic writing. In this sense, Eriksson rightly points out "the importance of taking into account the field in which the students work when selecting bundles" (p.195). 23

The findings of this study should encourage students to raise their awareness of rhetorical conventions, and help them use this knowledge to make more informed linguistic choices in their own writing. In light of this, future research should concentrate on learner corpora to identify the salient characteristics of written discourse of Japanese medical students.

Acknowledgement

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References

Analysis of Number and Length of Reading Passages and Questions in the Examination of Proficiency in English for Medical Purposes

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To determine the appropriate number and length of passages in the reading section of the Examination of Proficiency in English for Medical Purposes (EPEMP), we examined the relationship among subjective evaluations by the candidates, the number of passages, and the word count in each passage. The dataset for analysis comprised the questions in the reading sections of the second pilot EPEMP and second official EPEMP for levels three and four. In each examination, the number of passages, the word count in each passage, and the average word count per passage were investigated. To examine the occurrence rate of long passages in the reading section, the occurrence rate of passages with >120 words was also calculated. Also, the subjective evaluation scale scores for both the number of questions and the difficulty of the questions were examined. We found that the length (as defined by word count) of a passage and the rate of long passages in the reading section strongly contributed to the candidates’ subjective evaluation of the number of questions. The candidate score and subjective scale score for the difficulty of the questions did not differ significantly between the second pilot and second official examinations in comparing both levels 3 and 4. Our research may be useful not only to improve the quality of the EPEMP but also to inform educators who design reading examinations in which candidates are required to read passages and then answer questions about them.

1. Introduction

With the globalization of the medical field, there is a need to evaluate medical English proficiency for practical use. Since 2008, the Examination of Proficiency in English for Medical Purposes (EPEMP) has been used for this purpose in Japan. The examination has two levels: level four (L4) competence certifies a candidate as having medical English ability equivalent to a graduate of a medical university or college in Japan; level three (L3) competence certifies fluent English for practical purposes in basic interactions with patients. The examination includes various kinds of questions, idioms, fill-in, synonyms, reading, written conversations, and questions about the text or figures related to practical situations. All examination questions are multiple-choice questions (MCQs), offering four answer options with a single correct answer. In each examination, candidates must answer all questions within 90 minutes. Before the current EPEMP was adopted, two pilot examinations were performed in 2007 to assess the quality of the examination. Because the ability to read quickly and comprehend is necessary in various medical situations, the examination must include a sufficient number of questions involving reading passages (termed the ‘reading section’). After the first pilot examination, the number of problem-solving questions (i.e., reading short and long passages and answering the related questions; answering the questions about written conversations or practical situations) was increased to a total accounting for half of all questions. Including an appropriate number of questions is an important part of ensuring the overall quality of questions in the reading section. We have previously reported the importance of basing examination analysis on both the candidates’ subjective evaluations and the item analyses (analyses of scores and discrimination indices). However, especially for the reading section of the examination, there is little evidence concerning the total number and length of the passages and the difficulty of the related questions, i.e., how many words are adequate for one passage, and how many passages should be included in order for most candidates to be able to answer all questions within the available time.

Therefore, we examined the relationship between the candidate’s subjective evaluation of the total number of reading questions and the number of words in the passages. We emphasize the importance of considering the length and number of passages in analyzing the scientific data for the English examination.

2. Materials and Methods

2.1. The dataset

The dataset comprised the questions in the reading section of the second pilot EPEMP and second official EPEMP for L3 and L4. The same examination was used for both L3 and L4 of the second pilot EPEMP. For the reading section in each examination, the number of passages and the word count of each passage were examined. The average word count per passage was then calculated. For the purposes of this research, we defined long passages as those with a word count >120 words. To examine the occurrence rate of long passages in the reading section, the occurrence rate of sentences with >120 words was also calculated.

2.2. Candidate score and subjective evaluation

We investigated each candidate’s average score on the reading section for each examination. The candidate’s subjective evaluation was also measured for each question. Using a five-point scale, the candidates evaluated the difficulty (1, too difficult; 2, difficult; 3, moderate; 4, easy; 5, too easy) and the quality (1, excessive; 2, too many; 3, enough; 4, too few; 5, minimal) of the questions in the reading section.

2.3. Statistical analysis

We compared the two groups in terms of average word count per passage using the Mann-Whitney test. To compare the occurrence rate of long passages in the reading section, the chi-square test was used. When comparing the score or subjective scale of the candidates, the Pearson test was performed first to examine the equality of variance. For equal variances, we then used Student’s t test to compare the values. For the comparison of groups with unequal variances, Welch’s t test was used. Calculations were performed using the statistical software package Stata5 (OMS Publishing, Saitama, Japan). Differences with a p value <0.05 were considered statistically significant.

3. Results

3.1. Background of the examinations

Table 1 shows the number of candidates and the total number of questions on the examinations. In the second pilot examination, the same written examination was used for L3 and L4. The numbers of questions and passages in the reading sections alone are also shown. In each examination, the questions in the reading section accounted for 30.0% to 33.3% of all questions.

3.2. Comparison of L3 examinations

For the L3 examinations, the word counts of reading passages, the average score, and the results of subjective evaluations for both number of questions and difficulty were compared between the second pilot examination and the second official examination (Table 2). Results are reported as number or mean ± standard deviation. Although the number of passages was lower in the second official examination (11) than in the second pilot examination (16), the total word counts of all passages were not markedly different (1930 vs 1867, respectively). Therefore, average word count per passage was significantly higher in the second official examination than in the second pilot examination (175.5 ± 39.1 vs 116.7 ± 55.8, p<0.001). The rate of long passages in the reading section of the second official examination was significantly higher than in the second pilot examination (58.9% vs 43.4%, p=0.013).

Comparing the subjective evaluations for the number of questions, the average scale score was significantly lower (the candidates evaluated the number of questions as ‘too
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Comparing the subjective evaluations for the number of questions, the average scale score was significantly lower (the candidates evaluated the number of questions as “too
3.3. Comparison of L4 examinations

Similar comparisons were performed for the L4 examinations (Table 3). In accordance with the changes made to the number of passages, total word count of all passages was lower in the second official examination than in the second pilot examination (1474 vs 1867). However, average word count per passage and the rate of long passages in the reading section were not significantly different between the two examinations (p=0.05). Average subjective scale scores for the number of questions also showed similar values in the two examinations (2.2 and 2.1), without statistical significance, (p=0.06). With respect to the difficulty of the questions, there were no significant differences in the subjective scale scores and average scores between the two examinations (p=0.05).

4. Discussion

When using English as a second language for academic purposes, reading tends to be the single most important language development. During the reading test, knowledge, sufficient cognitive skills, and problem-solving strategies are needed. The examinees must hold previous information in working memory, integrate the

Table 2. Comparison in Level 3 examinations

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Table 3. Comparison in Level 4 examinations

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</tbody>
</table>

Acknowledgment

The authors are grateful to Professor Shigeru Nishizawa for his helpful suggestions.

References


With respect to the L4 examinations in which the average word count per passage and the rate of long passages were not significantly different between the two examinations, the subjective evaluations of the number of questions were similar. Although the total word counts decreased from 1867 to 1467, this change did not impact the subjective evaluations. We found that the length (word count) of one passage and the rate of long passages in the reading section strongly contributed to the candidates’ subjective evaluation of the number of questions. These findings contribute new insights concerning the perceived difficulty of reading questions. Because the comparison must be performed among candidates with similar medical English ability, we compared L3 and L4 separately. In our analysis, because the average score and subjective scale score for the difficulty of the questions did not differ significantly between the two examinations when comparing both L3 and L4, the obtained result demonstrated higher reliability.

In this analysis, we also calculated the occurrence rate of long passages, using a word count of >120 as the index for long passages. We propose that this is a useful index for determining the appropriate length of reading passages, although there is a lack of strong evidence for defining long or short passages as having more or less than 120 words, respectively. Further research is needed to determine the most valuable threshold for discriminating between long and short passages.

There are some limitations in this study. First, the difficulty of reading questions is evaluated based on the length and content of the passages. Although the length of passages was analyzed in this study, we did not examine the examinees’ familiarity with the topics of the passages. Second, although the comparisons were performed among the L3 and L4 candidates separately, the candidates’ backgrounds reflecting their English abilities were not compared. These limitations may be addressed in future research.

Medical staff must acquire the ability to process comparatively long and complex texts within a limited time. This analysis demonstrates the importance of calculating the average word count per passage and the rate of longer passages in an examination. To our knowledge, no scientific evidence has been published with respect to determining the appropriate number and length of reading examination questions. Our research may be useful not only to improve the quality of the EPMP but also to inform educators who design reading examinations in which candidates are required to answer questions after reading passages.

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many) for the second official examination than for the second pilot examination (2.0 vs 2.3; p<0.005). However, there were no significant differences between the two groups with respect to average score and average subjective scale score for difficulty of questions (p>0.05).

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Tokyo Medical and Dental University

1. English for Medicine (as of March 2012)

Tokyo Medical and Dental University has two campuses. At the Ichikawa Campus, students have liberal arts education, which includes compulsory English courses for General Academic Purposes. After which they receive professional education at the Yushima Campus which is adjacent to the university hospitals. As a part of this education, the students are required to take the courses of English for Medicine, from their first through fourth year.

1.1. Aim.

English for Medicine courses were established in order that TMDU may fulfill its educational mission by nurturing future international leaders or front-runners in healthcare and science. To achieve this goal, we have designed our English for Medicine courses not just for developing the students’ English competence but also aiming at fostering their global perspective and communicative attitude, indispensable assets of doctors and scientists in the global era. As a part of the courses, the students are also expected to acquire critical thinking skills and to understand as well as learn how to apply the concept of evidence-based medicine.

1.2. Contents

1.2.1. Topical Issues

We do not use a set textbook for the English for Medicine courses, but rather, pick up topical issues from science magazines, newspapers, or TV news programs, and edit them as teaching materials. Selected topical issues, which are often complex and controversial, familiarize the students with current problems in medicine and healthcare and help them understand roles of medical professionals in solving them.

We think that dealing with these health- or medicine-related topical issues, rather than practicing English usages at specific clinical contexts, can more effectively motivate the students who have a very limited knowledge of medicine before they start their clinical training in the fifth year. Besides, many of the students do not understand the immediate necessity to use non-Japanese languages in clinical settings in their future. In addressing these controversial issues, the students learn to understand the importance of global communication as they see that current medicine and science, closely intertwined with politics and economics, have posed many problems which cannot be locally resolved but need to be tackled through international cooperation.

1.2.2. Student-centered Learning

Discussion and presentations are the main activities in our English for medicine courses. The students read articles and/or watch video clips which are assigned as homework before class. In class, the students, in small groups of four or five, discuss the issues presented in the article/video.

When the students have difficulties in comprehension, the instructors assist them. However, the instructors’ role in class is limited to facilitating the discussion so that the students can explore the issues and get to the crucial points by themselves. During the discussion, each group chooses one focused topic for their research, and in the following class, each group makes a short oral presentation based on their research. This scheme of discussion-research presentation makes it possible for the students to learn and think by themselves, and through this self-learning process the students are expected to improve their language competence to get information, form and exchange opinions, and express ideas in English.

1.2.3. Evidence-based Medicine

For the fourth year students, the main goal of our English for Medicine course is for the students to understand and learn to apply the concept of evidence-based medicine. Here again, we have applied self-learning and learning by doing principles. Along with a short lecture series about the concept of evidence-based medicine, the students in small groups have topics assigned for research. They are expected to work together to systematically review and identify the optimal literature, to critically evaluate the validity, the statistical and clinical significance, and the applicability of a study and its results. Working for topics by tackling literature in the English language, students improve their scientific English literacy as well.

1.2.4. Vocabularies

The students’ vocabularies are limited when they enter the university. Lacking the experience of using English in daily life, most of the students do not know laymen’s terms for body parts or health conditions. Therefore, in the first and second years, the students learn these basic vocabularies, and then in the third year, they start to learn medical terminology, with the structured combinations of prefix, suffix, and word roots as a basis. A vocabulary quiz is given at the beginning of every session. An e-learning system (ALC Network, http://www.alc.co.jp/english) is also available for the students’ vocabulary building use.

1.3. Class Size and Frequency

We have tried to downsize the class sizes by increasing the number of instructors, and now the average number of students in each class is 25 for the first through third year students. The fourth year course is run by a single instructor who holds a medical degree. Sessions are held in a large lecture hall that also accommodates interactive as well as small group learning which are utilized frequently.

The total number of sessions of the English for Medicine courses and the terms when they are open are as follows:

First year students:
7 sessions in the Fall term only

Second year students:
17 sessions in the Spring and Fall terms

Third year students:
21 sessions in the Spring and Fall terms

Fourth year students:
9 sessions in the Spring term only

1.4. Grading

English for Medicine courses are divided into two parts: “English for Medicine I” for the first and second year students and “English for Medicine II” for the third and fourth year students. At the end of each part, the students are given final exams. We have put an emphasis on the importance of class participation. Accordingly, we calculate the final grade based on the class participation (35%), vocabulary quizzes (30%), and final exam (35%).

2. Study-abroad Programs

TMDU offers several opportunities to study abroad. Especially, the exchange programs with the Imperial College, London, and the Harvard Medical School clerkship give excellent chances for the students to expose themselves to the world’s most lively and inspiring environments for studying medicine and science. The students need to have a sufficient command of
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English in order to maximize the effect of these valuable experiences. English for Medicine courses are regarded as a part of preparatory training for participating in these exchange programs, and the students are required to have shown satisfactory performance in English for Medicine courses in order to qualify to apply for these programs. Apart from mandatory English for Medicine courses, the students who are selected for these programs take preparatory training sessions offered by our English department.

2.1. Exchange Program with Imperial College, London

All the fourth-year medical students spend the fall term engaging in individual research projects in laboratories. Every year four students are given a chance to carry out this research at Imperial College, London. The selection of the students is made in April, based on essays and interviews in English and Japanese. Individual or group lessons are available on a voluntary basis to the selected students upon request.

2.2. Clinical Clerkship at Harvard

TMDU students can transfer the credits they take as a participant in the Exchange Clerkship program at Harvard Medical School. From 2004 through 2011, Harvard Medical School had accepted up to 8 TMDU final year students as part of an educational exchange between TMDU and Partners Harvard Medical International, Inc. Following this pioneering stage, TMDU has decided to continue to send qualified students of a similar volume every year to Harvard Medical School for clerkship experiences. Student selection is through essays, group discussions in English, and individual interviews in English and Japanese. Selected students are required to take mandatory intensive training sessions for eight months. These sessions offer the opportunities for the students to acquire the practical knowledge and linguistic competence that are required in clinical settings in English speaking environments. Under the supervision of English speaking medical professionals, the students develop their skills in history taking, physical examination, oral presentation, and clinical reasoning.

3. Further Renovation

We are making changes in our curricula in order to help the students adapt to rapid changes in society. In 2011, TMDU embarked on a new framework of interdisciplinary education that integrates medical and dental education. This is to achieve our mission to foster leaders/ front-runners in healthcare and research in Japan’s future society, the society where ever-shrinking working generations must support the elderly population that is already approaching 25%. It has been repeatedly pointed out that preventive and primary care would play an increasingly important role in our quickly aging society, so the close cooperation and coordination between doctors and dentists would be essential in order to provide effective and efficient patient-centered care. Starting April 2012, English for Medicine courses are a part of the integrative curriculum and are now offered to and attended by both medical and dental students. The total number of students enrolled has increased to one hundred fifty, who are streamed into seven classes according to their TOEFL scores. We retain the overall educational schemes that we have run in our old curricula, but plan to make English for Medicine courses more effective, efficient and coordinated with other courses offered in the integrative curriculum. Biostatistics, bioethics, and English for Medicine are the core courses of the “foundation module” of the curriculum and we are redesigning the English for Medicine courses so that they serve as a hub connecting all three courses. For example, the students discuss in English news articles on end-of-life decision-making or refusing treatment on religious basis while they learn these issues in the bioethics course in Japanese.

4. Faculty

Dr. Kazuki Takada, an associate professor, is the course director of English for Medicine courses, and is supported by two part-time course coordinators, and one full-time secretary. The course director assumes full responsibility in managing and designing the whole program, while the course coordinators’ main job is to choose topics and to prepare teaching materials according to the director’s guidance. Four part-time teachers join them in teaching classes.

5. Evaluation

When TMDU launched a program to send students to Harvard Medical School for clerkship experience in 2004, the number of applicants was fifteen and the number of students accepted was four. Since then these numbers have steadily increased and, in 2011, twenty-three students applied for the program with eight of them qualifying in the final selection. We also have had a steady increase in the number of students who join overseas laboratories during their research semester in the fourth year. Their destinations include Chile, Ghana, Thailand, Switzerland, the USA and the UK. The number of students who take part in international conferences to present their research achievements has also increased. These increases show that the students are not only more enthusiastic about the opportunities to go overseas for their academic activities, but also more confident about their communication skills. We believe that our English for Medicine courses have substantially contributed to this more positive attitude and linguistic competence.

Kazuki Takada
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English in order to maximize the effect of these valuable experiences. English for Medicine courses are regarded as a part of preparatory training for participating in these exchange programs, and the students are required to have shown satisfactory performance in English for Medicine courses in order to qualify to apply for these programs. Apart from mandatory English for Medicine courses, the students who are selected for these programs take preparatory training sessions offered by our English department.

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The purpose of college English education is to improve students' proficiency in the four English skills. The university aims to not only improve language skills but to also foster critical thinking, encourage real-life communication, and provide a variety of materials related to the students' academic and professional backgrounds.

2.1. First Year English Education

1.2. English A I, English A II

In order to allow students to develop proficiency in English, four classes are prepared for the freshmen. The students are divided into three classes according to their level of English proficiency. The classes are titled Understanding Health Care, Medical Terminology and Disease, Understanding Nursing, and Understanding Medicine. These step-by-step assignments constitute an academic literacy education at the College of Kitasato University. The textbook used is "Proficiency in English for Medical Purposes". The first 15 sessions are conducted for a semester, and 1 credit is obtained. Sessions are held once a week for 90 minutes. The focus of the three instructors is on the mandatory courses, the topics of which are related to the students' future role as a healthcare professional. Also, they stress the importance of the ethical aspects of their medical practice, for example, when a patient refuses a kidney transplantation or severe kidney trouble. The students are encouraged to deeply reflect on the ethical implications of those topics.

The textbook "Understanding Health Care" is predominantly used for this course. It is a first-year English course for nursing, aiming to develop students' reading comprehension skills of medical texts and knowledge of medical vocabulary and expressions. Since listening is the basis for all spoken communication, students are asked to watch English radio and TV programs in order to improve their listening skills. The reading and listening materials are divided into four parts: Body Care and Drugs, Terms and expressions of the renal system, Understanding Nursing, and Understanding Medicine. The reading activities are associated with the above topics, and the reading and listening comprehension tasks are conducted in an academic literacy way. The listening activities require students to use CALL software, in which they answer the questions for the Examination for Essential Medical Terminology. In this multi-material method, students are asked to study questions for the Examination for Essential Medical Terminology, watch an English animation on kidney transplantation, listen to a radio program on kidney trouble, and read an abstract of a medical journal. They are also told to write about the difference between nurses and patients for improving listening and speaking skill development. Another teacher makes use of popular music and a movie in English for encouraging the students to become adept at one topic, and another teacher employs teacher-made CALL software for encouraging the students to develop their listening and speaking skills.

The professor who teaches English A I uses the CALL software designed by one of the authors. The CALL software is prepared to learn medical terms and expressions and diseases. The CALL software is designed to promote students' interest in the medical field. The CALL software includes English songs, articles, television programs, radio programs, and audio recordings. The CALL software also includes English songs, articles, television programs, radio programs, and audio recordings. The CALL software is designed to promote students' interest in the medical field. The CALL software includes English songs, articles, television programs, radio programs, and audio recordings. The CALL software is designed to promote students' interest in the medical field.

3. Medical Terminology and Disease

This course mainly aims to enhance students' understanding of medical terminology and diseases. The course is divided into four parts: Body Care and Drugs, Terms and expressions of the renal system, Understanding Nursing, and Understanding Medicine. The reading activities are associated with the above topics, and the reading and listening comprehension tasks are conducted in an academic literacy way. The listening activities require students to use CALL software, in which they answer the questions for the Examination for Essential Medical Terminology. In this multi-material method, students are asked to study questions for the Examination for Essential Medical Terminology, watch an English animation on kidney transplantation, listen to a radio program on kidney trouble, and read an abstract of a medical journal. They are also told to write about the difference between nurses and patients for improving listening and speaking skill development. Another teacher makes use of popular music and a movie in English for encouraging the students to become adept at one topic, and another teacher employs teacher-made CALL software for encouraging the students to develop their listening and speaking skills.

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The purpose of college English education is to prepare students for academic and professional success in a globalized world. It is essential for them to acquire the necessary language proficiency in order to communicate effectively in English. EPEMP courses at Kitasato University are designed to achieve this goal by focusing on practical skills and real-world applications.

At Kitasato University, instructional activities are centered around CALL (Computer-Assisted Language Learning). The university offers two kinds of English courses: one for freshmen and another for medication students. The courses aim to improve language efficiency in the four English skills: reading, writing, listening, and speaking.

In order to allow students to develop proficiency in English, the university has implemented instructional activities in various CALL courses. These activities include reading of a passage on basic information and terms and expressions of the renal system, which is associated with the reading activities. Teachers select one topic related to health care and provide a variety of materials related to the topic, such as textbooks, dialogues, and articles. Students are divided into 3 classes by student preference, and each class has a teacher who employs CALL software.

The focus of the three instructors is somewhat different so that a student's choice of syllabi taught by one teacher is different from the choices of syllabi taught by another teacher. Students are divided into 3 classes by student preference, and each teacher makes use of popular instructional resources on the Internet. One teacher employs teacher-made CALL software, while another teacher uses popular instructional resources on the Internet.

Although at an early stage, these step-by-step assignments constitute a multi-material method. Students gain confidence in communicating in English, and they not only improve language skills but also deepen their knowledge of their future roles as healthcare professionals.
Principles to guide nursing students in learning to communicate in English: Using English for communication in medical settings requires listening and speaking as essential skills above and beyond reading and writing. Therefore, students need to rethink how to go about learning English and often need to acquire new learning strategies. Gaining self-confidence, the desire to stretch one's potential, the willingness to make guesses, to be flexible, and to make mistakes are important in learning to communicate effectively. Being a good medical professional requires good communication skills. Students can also learn these through how they learn to communicate in English.

2.2. English for Nursing: Second year course

- Elective, 90 minutes/week, 15 sessions/fall semester, native speaker teacher, 1 credit, 24 students

Aims:
1. To introduce students to nursing methods in foreign countries
2. To expand on their medical vocabulary
3. To use that knowledge in a practical sense using role plays in a hospital or emergency situation

Teaching Method:
Listening tasks followed by explanation and grammar check, and then speaking practice in pairs.

Material:
A textbook of English for Nursing published in the UK (Oxford English for Careers: Nursing) supplemented by the teacher's original material. Students learn 1) dialogues in various hospital settings such as doctor-nurse & nurse-patient dialogues, 2) useful expressions for healthcare professionals including communication necessary in an emergency situation such as an AED use, and 3) reading and listening of healthcare-related material.

3. Interchange Program with UCLA

- Pre-visit program: Global Health Nursing Research, elective, 90 minutes/week, 15 sessions/spring semester, 2 credits, Japanese teacher of International Nursing, 3rd and 4th year students plus some graduate students

Since 1986, the School of Nursing has had an interchange program with UCLA in the USA. Every other year, about 25 nursing students study at UCLA for two weeks. They attend lectures on nursing, participate in a tour of the UCLA Medical Center, communicate with UCLA nursing students, and present their group work at the end of the stay. This year, two students gave a talk about disaster nursing during their volunteer work in Tohoku following the March 11th earthquake and tsunami in 2011.

4. Conclusion

With high motivation to acquire English, Nursing students at Kitasato University actively participate in their work to make progress in their comprehension and communication skills. They are evaluated based on their class participation, assignments and oral or written exams. Since the goals of English education here are three-fold, i.e., English for general, academic, and nursing purposes, further exchange of ideas and cooperation between nursing specialists of the School of Nursing and English teachers of the College of Liberal Arts and Sciences is essential in the planning of aims, content, and methods to improve Kitasato's English education programs.

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Journal of Medical English Education
Like living, and not so living, language elsewhere, medical writing does make adjustments and changes to stay with the times and, like language elsewhere, these can not always be explained. Hence the popularity of the perfect form, ‘we have discovered’, instead of, ‘discovered’ and ‘have we found?’ instead of ‘did we find?’

In the same way, the article has become unfashionable, with authors leaving it out of their sentences with vengeance. Thus, instead of the authors say, it is authors say and, instead of the cells turned red, it is cells turned red. All this is, of course, a form of ellipsis and, whenever misinterpretations can occur, they probably will. Ironically enough, the danger is much more portent for people whose everyday language is not English. Writers who are not familiar with the article as well as writers whose language uses the article in a different manner, may find its use in English baffling. They are likely to misinterpret sentences without articles much more than people who are well versed in English.

Like most parts of speech, the article does serve a purpose and provides a means with which we can pinpoint the nouns. Thus, when it is a heart it is just any good, old heart that happens to be tickling around, whereas the heart will refer to a particular specimen. If the authors talk about cells, they are generally referring to cells in the body, and writing that cells tend to divide more quickly under these conditions states a general truth. On the other hand (and not in ‘contrast’ as so many medical papers tend to say), (we discovered that) the cells divide more rapidly under these conditions, means that the particular cells in this study did so.

Postoperatively, patients were treated with a topical corticosteroid-antibiotic combination 4 times a day for 3 months — depending on the context, could mean any patients whereas, Postoperatively, the patients were treated with a topical corticosteroid-antibiotic combination 4 times a day for 3 months clearly refers to the patients in this study.

In the following example, Groups did not differ with regard to mean age (p=0.934) and gender distribution (p=0.905), the article can be left out as the meaning is quite clear, but, change the tense Groups do not differ with regard to mean age (p=0.934) and gender distribution (p=0.905), and the difference between that and The groups do not differ with regard to mean age (p=0.934) and gender distribution (p=0.905), can be meaningful.

Kruskal-Wallis test was used to compare parameters between patients with SSOH, NTG and control subjects, can survive without the article, as will be the case with most things related to instruments (we used the newest version of Solar Shoulder or, we used newest version of the Solar Shoulder).

At times, it may be possible to rewrite in such a way that the article can disappear. The term a huge amount of, for example, can be re-written as much, which is, of course, much easier to understand.

The following sentences may illustrate some possibilities of dealing with the article.

At high burdens, the number of AM produced appears finite: some free particles remain in the alveoli and may be translocated across the type I epithelium to the interstitial macrophages.

Examined OCT images were scanned horizontally at a 5 mm diameter area with its center on the fovea, might be construed as referring to any scanned images whereas adding a three letter word (The examined OCT images were scanned horizontally at a 5 mm diameter area with its center on the fovea) will pin it down as referring to the images in the present study.

Sometimes, questions can be asked (and no one home to answer them) that, to the specialist, may be of critical importance.

Twelve normal subjects had lower levels of blood pressure: were there more than twelve, some of whom had normal blood pressure and some, perchance, higher?

Whereas, the twelve normal subjects had lower levels of blood pressure, tells us that all the normal subjects in this study did, indeed have lower blood pressure.

Abscess in the cavity was caused by Staphylococcus aureus, leaves us asking whether there were other abscesses, which, for some inexplicable reasons the researchers decided to ignore, whereas the abscess in the cavity was caused by Staphylococcus aureus indicates that only one such collection of pus was found and the cause for it.

We checked the directory and sent the forms to Gerald Obama Reagan, means that there was only one such creature in the listings, whereas, We checked the directory and sent the forms to the Gerald Obama Reagan, means that there were many, and we sent the forms to all. If, however, we pick only one of those and send it, then We checked the directory and sent the forms to a Gerald Obama Reagan, will be the best construction.

Whereas smaller languages tend to be corrupted by too many terms imported from English, English tends to have problems because it needs to be adopted for too many uses. However, to violate the language as a matter of fashion can only lead to misunderstandings and help no one. Surely, the best way is to observe the rudiments of usage in order to preserve clarity and increase comprehension. The article in English is, in many ways, different from its distant relatives in other languages and should be used to advantage, to enable readers to understand the language and the subject at hand.
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Editor’s Perspectives

Whither do we wander?

A knock on the door and, when answered, the face of a former student. A cup of tea and stories of life as a young doctor in the wards. Full of bubble and enthusiasm and confidence in treading the chosen path.

‘And your English?’ A blank face, followed by an embarrassed look and admission that, yes, it would have been nice to know some English, but.

As we not only try to teach but, through research and the introduction of new methods, try to make a difference, shouldn’t we also beg for some results? Collect all the graduates you taught ten years ago and see how well they perform in English. Well, maybe better not.

Medical faculty push for results in the English curriculum since they are at the receiving end of the six years’ efforts. They do complain that the students are not up to the mark, but do they understand the process leading to the results, or lack thereof?

How many schools have, among their lists of outcomes, clear, achievable goals for the EMP programme? How many of those that conjured up outcomes, have the manpower to realize their programme? How many clinicians go to the English teachers and ask what the students are actually supposed to learn and, following that, try to find out whether the upper class students they work with have actually learned much (or anything)?

Whether we use the best methods and do all we can, or not, we may wish to establish simple, achievable outcomes and work to reinforce them. At the same time, wherever possible, we may wish to try and recruit the grandees in the clinical departments and establish a dialogue that will start to have them understand the workings of the EMP programme and help them know what to expect.

Reuben M Gerling

How to submit papers to the Journal of Medical English Education

The Journal of Medical English Education welcomes well written, innovative papers on a wide range of subjects that relate to medical English and its teaching.

Prospective authors should consult first the Guidelines for Authors, which appears on every 1st issue and are available online at <http://www.medicalview.co.jp/jmee/index.shtml> to ascertain that their work conforms to the format approved by the journal. The complete papers can be sent to the editorial offices at <jasmee@medicalview.co.jp>. A submission consent form, available at the end of each issue of the journal, should be completed and signed by the authors and sent by mail to the editorial offices at <The Journal of Medical English Education, Medical View, 2-30 Ichigaya-hommuracho, Shinjuku-ku, Tokyo 162-0845, Japan>. No submission will be published without the receipt of a completed and signed consent form.
We are submitting our manuscript entitled as undermentioned for your consideration of its suitability for publication in the *Journal of Medical English Education*. The undersigned authors agree to transfer, assign, or otherwise convey all copyright ownership to the Japan Society for Medical English Education in the event that this work is published in the *Journal of Medical English Education*.

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入会のご案内

1. 下記のホームページで入会申し込みが可能です。
   (http://www.medicalview.co.jp/JASMEE/nyukai.shtml)

2. ゆうちょ銀行の振替口座（旧・郵便振替口座）に年会費を振り込んでください。

   [平成24年度年会費]
   - 個人会員 ¥9,000
   - 学生会員 ¥1,000
   - 賛助会員 ¥35,000

3. ご不明な点がございましたら、下記の事務局までお問い合わせください。

[問い合わせ先]
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1. Prospective members can fill the forms and submit them online at:
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