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第19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1998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・医療関係者が参加し研究･事例を報告します。平成28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19回医学英語教育学会学術集会

日　時：平成28年7月16日（土）～17日（日）

会　長：Timothy D. Minton（慶應義塾大学医学部 英語教室）

会　場：慶應義塾大学 日吉キャンパス（〒223-8521　神奈川県横浜市港北区日吉4-1-1）

演題募集：平成28年2月1日正午～3月31日 正午

（医学英語教育の目標・教育方法・評価，学生評価，語学教育と専門教育の統合，実践力教育，グローバル人材育成，医学・看護学・医療系教育における医学英語教育，英語教員による医学英語教育，医学・看護学・医療系教育者による医学英語教育，医学英語教育におけるシミュレーション教育・ICT活用，教員教育能力開発，医学英語論文指導・校閲・編集，医学論文作成における倫理，国際学会でのスライド作成と発表法，USMLE受験指導，医療通訳，医学英語検定試験，その他の医学英語教育に関連する演題）

＊筆頭演者は本学会の会員に限ります。非会員の方は演題提出前に入会してください。
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First Announcement

The 19th Academic Meeting of the Japan Society for Medical English Education

The Japan Society for Medical English Education (JASMEE) held its first meeting as a study group in 1998. Since then, the society's main aims have been to promote research in fields related to medical English, and to support and encourage improvements in medical English education. JASMEE now has more than 400 members.

With the globalization of medicine and such recent developments as the introduction of questions in English in Japan's National Medical Practitioners Qualifying Examination, the challenge of how best to make use of the limited time available for medical English education in university curricula is ever more pressing. JASMEE's annual academic meetings seek to address this challenge with a wide variety of presentations, symposia, and workshops given by experts in the field.

Information about the 19th JASMEE academic meeting is presented below. We look forward to welcoming JASMEE members and non-members alike to this meeting, where they will be able to share their experiences and expertise with others in the field to the greater benefit of medical English education in Japan and beyond.

Dates: Saturday July 16 and Sunday July 17, 2016

Venue: Hiyoshi Campus, Keio University
4-1-1 Hiyoshi, Kohoku-ku, Yokohama

President: Timothy D. Minton
(English Department, Keio University School of Medicine)

Call for papers: Proposals for papers on the following subjects (or similar) should be submitted by March 31, 2016.

- goals, methods, and assessment of medical English education
- student evaluation
- integration of language education and specialized education
- global human resource development
- medical English for nursing and other healthcare-related fields
- the use of technology in EMP education
- faculty development
- teaching of medical writing
- medical English editing
- the art of presenting at international meetings
- USMLE preparation
- medical interpreting
- EPEMP

Submissions will only be accepted from JASMEE members in good standing. To submit a proposal, please access the JASMEE homepage (http://www.medicalview.co.jp/JASMEE/gakujutu.shtml).

Inquiries should be addressed to the JASMEE Secretariat (c/o Medical View, Attn: Mr. Eguchi)
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Journal of Medical English Education

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Editor's perspectives

Extracurricular activities

This is the first of what will be a regular biennial series of issues devoted to a single topic. The main purpose of these special issues is to share ideas that will be of practical use to JMEE readers in improving the medical English education programmes their institutions offer, which is, of course, JASMEE's main goal. Because we felt the emphasis should be on practicality rather than on academic rigour, we decided to leave style and format largely to the contributors; this decision has led to the refreshing diversity you will find in the 12 articles published herein.

The topic selected for the first special issue was extracurricular activities. Although the amount of classroom time allocated to regular English classes varies widely from institution to institution, it is probably fair to say that few of us are satisfied with our curricular ration, and that most of us try to make up for the perceived shortfall through extracurricular activities. The pages that follow contain a wealth of ideas, some of which will be familiar and some less so. The idea of having students make up for absences from regular classes by attending extracurricular sessions, for example, was not one that had ever occurred to me!

What perhaps struck me most as I read through the papers coming in was the importance of collaboration and cooperation in organising effective programmes – cooperation between institutions in accepting overseas students on electives, between academic institutions and international aid agencies in arranging opportunities for students to participate in volunteer activities, and of course between clinicians and English instructors in providing training in both medicine and English at the same time. The necessity of such cooperation is obvious, I suppose, but the benefits to both sides of the equation are sometimes easy to overlook.

We hope readers will find this special issue useful, and we invite you to submit suggestions for topics we might take up in future special issues (please feel free to send ideas to the JMEE Editorial Section at jasmee@medicalview.co.jp).

It would be remiss of me not to thank the members of JASMEE's Guidelines Committee (chaired by Professor Yoshitaka Fukuzawa of Aichi Medical University Hospital) for their hard work over the last two years in producing JASMEE's guidelines on the teaching of English for medical purposes, the final version of which is presented in this issue. These guidelines were produced in response to the 2010 announcement by the Educational Commission for Foreign Medical Graduates (ECFMG) that foreign physicians applying for ECFMG Certification will be required to have graduated from a medical school that has been appropriately accredited in accordance with the World Federation for Medical Education's Global Standard for Quality Improvement. The Guidelines Committee's aim is to ensure that Japanese medical schools meet global standards in the area of EMP.

T.D. Minton
Editor-in-Chief
Journal of Medical English Education

Extracurricular EMP activities at Tokyo Medical University

Jeremy Williams and Takako Kojima
Department of International Medical Communications, Tokyo Medical University

Here at Tokyo Medical University, we are planning to initiate a raft of extra-curricular activities aimed at encouraging the use of English as a medium of both doctor-patient communication and medical education. Three groups are to be targeted: students; clinicians; and medical technicians, nurses, and administrative staff. Some of the planned activities will require the participation of members of more than one group. An annual one-day English camp including instruction in English on basic diagnostic techniques by medical staff has been planned for 4th- and 5th-year students; twice-weekly workshops focused on teaching medicine, interviewing patients, and presenting in English for physicians; and courses on giving basic instructions to patients in English for technicians and nurses. Lunchtime courses in procedural English are scheduled for administrative staff. Participant response to these activities will be monitored and adjustments made where feasible.

J Med Eng Educ (2015) 14(3): 79–82

Keywords extra-curricular EMP, proactive engagement, lifelong learning, clinical English, medical education in English

1. Background

Recent years have seen a major shift in government policy on both how Japan's own population should be educated at the tertiary level and how that service might be opened up to students from overseas. The lack of the English language skills necessary to make this an immediate reality, however, are all too painfully clear. Despite this, the Ministry of Education, Culture, Sports, Science and Technology remains committed, with the promotion and incorporation of English as the medium of education at the college level a stated aim of its current policy.[1]

Here at the Department of International Medical Communications (DIMC) at Tokyo Medical University (TMU), we are working on ways to expand access to the English language for those either already professionally engaged in the field of medicine, or those who are about to be so.

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2. Groups targeted

Three groups have been targeted for expanded access to EMP: students; clinicians (particularly those involved in teaching); and technicians, nurses, and administrative staff.

The first group, students, is to be confined to those in their 4th and 5th years, as the planned activity can only take place a maximum of twice a year due to curriculum-related restrictions, and can only be implemented with limited numbers of participants due to its content.

The second group, clinicians, will be selected on the basis of desire to participate and evidence of some ability to communicate in English.

The third group—medical technicians, nurses, and administrative staff—will be openly recruited. No entry requirements are to be set for enrolment. Where the number of applicants is deemed too large for the resources available, additional sessions will be considered.

3. Reasons for selection

Each of the above groups was selected for a particular reason. One of the goals of medical education here at TMU is to promote the teaching of medicine in English with a view to producing medical professionals capable of working on the global stage. Therefore, we have been tasked with changing the way the students regard EMP and how they

are taught.

Key to bringing this about is providing our first group, students, with EMP courses that will enable them to interact verbally with patients and other medical professionals in a clinical setting. We want to offer them something that is not already being covered under the curriculum; something that will enable them to rise to the challenge of learning medicine through the medium of English.

The second group, clinicians, was selected as being key to making the teaching of medicine in English a reality. Many in this group are already involved in education, and therefore realize that the pressure to be able to teach in English will only increase. Moreover, whether primarily concerned with research or more interested in just treating patients, many of them fully understand the advantage of at least being able to understand medical English.

The third group—medical technicians, nurses, and administrative workers—was selected on the basis of the changing economics of Japan. The number of foreign tourists heading for Japan continues to increase.[2] Moreover, the 2020 Tokyo Olympic Games are certain to instigate a one-time surge in tourist numbers that will surely engender a sustained, longer-term rise in the average number of visitors.

This imposes a duty, from a humanitarian point of view, to provide easier access to health care for this potential market, while it also represents an opportunity from an economic standpoint. Unfortunately, it is still unusual to encounter English-speaking administrative staff at health care facilities in Japan. This is a major hurdle to obtaining this service, and represents a loss for both patient and health care professional.

Therefore, we believed that providing this group with some instruction on English for communicating the necessary procedures for accessing medical care will provide a health benefit to the patient, an economic benefit to the hospital, and an educational benefit to the students and staff, as an increase in the number of English-speaking patients will translate into direct experience of providing treatment through the medium of EMP.

4. Activities provided

4.1. The first group

The first group we had to consider was the 4th- and 5th-year students. In order to build a sense of camaraderie among the students regarding the use of English we will hold an on-campus English Day Camp once or twice annually, depending on demand.

It was clear that whatever we offered had to be quite different from that which was available through the EMP courses contained in the curriculum. Therefore, we decided to approach the medical staff for assistance. Our suggestion was that they work with us to provide a day of instruction in clinical medicine, in English, using the resources that would normally be used for such activities.

Uemura has noted that focusing on listening skills is indispensable if the brain is to develop an area dedicated to processing the target language.[3] Therefore, there will be no reading or writing component to this program; and the only non-verbal cues to meaning will be physical action.

Having the medical staff work with us in this way, we believe, should help us avoid the problems associated with the dividing line between teaching English per se and teaching medicine through English. Members of the DIMC will be there to provide linguistic support in the event of a complete communication breakdown; they will not, however, attempt to teach English. It should be noted here that the medical staff will be under strict instruction to refrain from adding a running commentary in Japanese.

Central to this whole approach is the idea that we want both the students and the staff to realize that they know more than they think they do. There is a tendency, especially among the students, to think of English as something special that only happens in a classroom setting. One of our aims, then, is to make them realize that 1) they know enough for basic communicative purposes; and 2) that by actually *using* those albeit limited language skills they can begin to really make progress and enjoy English as part of their everyday lives.

4.2. The next group

The next group to be considered was the physicians. Our activities with this group are scheduled to commence in the fall of 2015 and will consist of lunchtime workshops twice a week throughout the year. Content will be adjusted depending on consumer demand. Tentatively, we are planning to focus on the three main areas described below, with all material mainly presented orally.

First, English for medical interviews between physician and patient. For the reasons outlined above, we believe that this particular area is crucial to both foreigners visiting Japan and to our staff. Here, DIMC staff will sometimes be assisted by volunteer medical staff proficient in English.

In designing this activity we were mindful of difficulties

that can arise in dealing with patients in a real-life setting. Jego et al. noted how over-reliance on set patterns can lead to problems and a general disconnect between interviewer and interviewee.[4] Mayers describes how cultural differences can cause problems in communication not strictly related to the correct use of language.[5]

We will begin by focusing on any disease that the students (physicians) select. After confirming that they are able to cope with an ideal situation—that is, one in which the patient is willing and able to give clear answers to each question—we will familiarize them with strategies for handling the types of encounter described above: hostile patients, or those that are unwilling to go along with instructions because of cultural differences or some other reason.

The second area will cover teaching medicine in English, as these same physicians may one day be helping us teach at the English Day Camp for the students and/or giving instruction in clinical medicine in English.

We will begin by having have them take turns in teaching us clinical medicine in English. The doctors will be invited to challenge our understanding through questions or requested actions. Our strategy will be to make mistakes intentionally, with the aim of ascertaining whether they understand what we are saying. Our goal is to have them start actually using the language and teach them strategies for coping when in difficulty.

The third area will cover presenting in English. As the number of such opportunities is limited, however, the doctors will also be encouraged to make case presentations, as this involves similar skills.

There is, of course, also demand for instruction in English for chairing of conferences, inter-physician communication, and so on. All of these will be considered upon request.

4.3. The third and final group

The third and final group—medical technicians, nurses, and administrative staff—was considered to be of particular importance as, more often than not, they function as the gatekeepers of medical care. If a prospective patient cannot communicate with these people, there is a very good chance that the patient will go somewhere else, especially when no medical emergency as such is involved.

It was also surmised that the level of English might also be generally a little lower in this group, and the incentive to tackle any course matter considerably less. Our goal, then, is to offer something that will be strictly functional and only the minimum amount necessary.

Our solution is to offer twice yearly lunchtime courses, each spread over a few days, and each targeted at one of the group's constituent professions. This should allow those attending to participate in a way that will not necessitate giving up any extra time. The fact that it will be offered during the lunch break is intended to signal that the content will not require extreme effort to understand. It will, in other words, be user-friendly.

For the administrators, the focus of these classes will be on mastering the types of basic questions, instructions and commands that coincide with the paperwork entailed in processing a patient, from the moment they enter the door to paying the bill on completion of treatment.

For nurses and technicians, the focus will be on giving instructions to patients. This will cover everything from simple instructions in the interview room to the often more complicated ones given at medical examinations.

We will commence by covering the basic instruction patterns required for the most common types of test: X-rays, MRI scans, and so on. Here, our team will be giving linguistic support by acting as patients. We will have the students (physicians, technicians and nurses) learn by trial and error: their instructions will be followed to the letter, with the movements we make acting in lieu of verbal feedback.

Content will be further developed in response to specific requests, where possible. It is hoped that we will be able to use the actual hospital facilities for these activities to give the program as realistic a feel as possible.

5. TMU 200 Club

Next year, 2016, marks the 100th anniversary of the founding of TMU. To mark this occasion, we will launch the TMU 200 Club as of next year. Anyone participating in any of the activities described above will automatically become a member. The idea is that this will mark them as individuals willing to make a personal commitment to the next 100 years of development here at TMU.

The club will be managed by DIMC and centered on activities devised by our staff. However, we believe that it is crucial that other actors get involved in this process if it is ultimately to succeed. Therefore, we will encourage both staff and students to devise their own educational programs also. Our department will provide advice and help where needed.

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From insular to international: The expansion of the University of Miyazaki's medical English programs

Michael Guest
Faculty of Medicine, University of Miyazaki

Over the past 11 years, the English program in the Faculty of Medicine at the University of Miyazaki has expanded its scope far beyond that of merely offering standard classroom courses into far-reaching and rewarding extracurricular activities and programs that offer numerous opportunities for participants to further both their clinical English skills and general medical knowledge. In this report, I will outline and describe the establishment of the EMP and ENP programs, including decisive factors in contributing to their continued success, an international Lab Training Program for 3rd-year students, the fruitful relationship with the Japan International Cooperation Agency in maintaining and expanding these programs, and the exploitation of existing international academic connections in their establishment and expansion.

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Keywords University of Miyazaki, EMP, medical English, international exchange, study abroad

1. Introduction

This paper outlines the gradual expansion of opportunities that the Faculty of Medicine at the University of Miyazaki has provided to medical and nursing students hoping to develop both their English and international clinical skills. Over the past 11 years the number of programs, participants, and degree of recognition among faculty, administrators, office staff, and students has increased exponentially and has added a welcome sense of true internationalization to a geographically remote university. In this report, I will introduce not only the development of the programs but also the manner in which they are managed and maintained, as well as various fringe benefits extending from these programs. It is hoped that other institutions may note something of value in these developments and apply them to their own circumstances.

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2. Background

Prior to 2004, if a University of Miyazaki medical student wanted to develop their clinical English skills or gain both clinical and communicative experience training abroad they were largely left to their own devices. Despite lunchtime ESS club sessions with foreign teachers and a communicative focus on medical discourse in some of the required 1st- and 2nd-year classes, there was no way in which their classroom English learning could immediately be applied to a clinical setting. At that time, neither the role nor the utility of English courses within the basic medical curriculum was clear, separating from the more 'essential' clinical subjects in terms of practical value, as well as in status.

Not only did internationally-minded students generally have to foster their own international connections and make all their own travel and training arrangements, but the lack of a coordinated program also meant that such students would have to take a full semester or year off from the regular university program, have their valuable foreign experience go uncredited, and further forego essential summer in-service medical training and orientation in Japan in the process. As a result, even those who yearned to enhance their clinical skills abroad in English generally had to resist the impulse.

3. The development of a specialized EMP course

With newly installed members of the English Department noting this gap in the educational curriculum, the scenario changed with the introduction of an official English for Medical Purposes (EMP) program, funded initially by a Good Practice (GP) grant in April 2004, and subsequently developed by the English Department within the Faculty of Medicine.

In order to begin operations, the founders had to immediately establish two elements of groundwork. The first was to gain accreditation for the EMP course. Without the possibility of receiving credits, students would have little incentive to devote time or effort to what would otherwise become a hobby course. The second was to establish a feasible teaching period within students' crowded schedules. This demanded some finesse. Each of the 6 academic years had different schedules filled with various practica, special seminars, extracurricular duties, and, in later years, the national licensing exam to worry about.

After much discussion with students, clinical professors, and administrators, it was decided to offer EMP as an elective only to students in their 2nd, 4th, and 5th years. The 1st year was avoided because students would already be taking various English courses to serve as a foundation for possible future intensive study, the 3rd was simply too crowded with required courses, and the 6th was filled with graduation tests and preparation for the national licensing examination. To accommodate the schedule, it was decided that EMP would be added as a standard one-class-per-week elective in the spring semester for *2nd- and 4th-year students, but as an intensive 1-week, 15-class program in the late summer for 5th-year students, and in early February for both 4th- and 5th-year students.

(*2nd year medical students initially also practiced simple case studies and interactional medical discourse skills, but after 6 years of inclusion, EMP was dropped as an elective option for the 2nd year medical students as these skills and functions were now being covered in the standard, required courses.)

In order to attract participants, organizers recognized that there must also be both a sense of progression in terms of achievement or skill development in the course and an ultimate goal or reward for students' efforts. As a product of trial and error over the first few years of operation, a gradated pattern of skills development was developed. It stands as follows:

1. 4th year (spring/summer): Ability to discuss Japanese medical system and inquire about others, academic writing, ability to read, make, and discuss clinical case studies.
2. 4th year (February): Intensive sessions creating and leading a medical tutorial; intensive participatory seminars with visiting medical professionals.
3. 5th year (late summer): Intensive presentation skills and practice; intensive participatory seminars with visiting medical professionals.
4. 5th year (February): Poster session skills and practice; intensive participatory seminars with visiting medical professionals.

To add incentive and color to the program, experts both from abroad and within Japan are invited to lead seminars. These include representatives of the Japan International Cooperation Agency (JICA), the International Red Cross and various other international aid agencies, plus in-service graduates fluent in English who had practiced abroad or within an international setting in Japan. Clinical experts from various departments in our sister universities, Prince of Songkla University (Thailand, hereafter PSU) and University of California at Irvine (U.S., hereafter UCI)), are also regularly invited to lead specialized EMP seminars in English. All sessions within the EMP program are designed to be of the seminar/tutorial variety, requiring active participation from, and among, the student participants.

The ultimate goal of the program is to have all EMP student participants eventually train abroad in one of our 2 sister universities, participating with both local doctors and students in specialized clinical observation settings while living on campus. These programs last from a minimum of 2 weeks to a maximum of 6 weeks. In the case of UCI, the students may also take the U.S. Objective Structured Clinical Examination (OSCE). In order to participate in the UCI program, a TOEFL score of at least 80 is required, which provides candidates with another learning incentive. Thus far, 61 medical students have carried out clinical observation training at PSU, while 19 have taken the clinical practicum at UCI. Over the entire first three years of the program a total of only 16 students participated, but with a current average of 16 students enrolled in each year of the EMP program we can see that its growth has been exponential.

4. The establishment of English for Nursing Purposes (ENP)

In 2008, the EMP program was extended to include English for Nursing Purposes (ENP) , with nursing students

participating in the program as an elective during their 2nd and 3rd years. Course content and logistics were altered to meet the abilities, needs, and expectations of the nursing faculty and students, who are generally not as proficient in English as their medical peers. This demanded less of a focus on specialized English skills, such as presentations, posters, or leading a tutorial, and instead placed more of an emphasis on the ability to communicate basic clinical data, manage a patient handover checklist, and complete patient admission forms in English. Similar to the EMP program however, administrators and teachers of the ENP program also often invite foreign experts in the field of nursing (particularly JICA delegates) to lead discussions, seminars, and interactive presentations, which culminates in a month-long clinical observation practicum at PSU for 4th-year students. Thus far, 28 nursing students have participated in this training.

5. Grading

Grades are given for EMP/ENP, as they are fully credited courses, but there is no final or formal testing of any sort. Students were initially required to write class reports in English, which were then collated and logged into a final magazine publication, as well as being required to perform a promotional presentation as a means of informing and recruiting 1st- and 2nd-year students. The focus upon class reports has since been shifted to the development of a year-long individual learning portfolio covering what students have found of clinical or linguistic significance in various sessions, as well as reflections upon how their English and clinical skills have developed in the interactive and skills-based classes.

6. The international lab-training course for 3rd-year medical students

Even with the establishment of the EMP and ENP programs, a gap remained in the holistic medical English education process. 3rd-year medical students, often busy with lab training, could not previously receive any international clinical or specialized English training during that year of study. But with the establishment of a new international lab-training option, students who wish to gain experience abroad but for various reasons do not plan to enter the EMP program, now have the chance to participate in a one-month lab-training course at PSU, Shanghai (China), or Cagliari (Italy) Universities. This fully-credited course stands independently from the EMP program. These connections are a result of exploiting existing international relations held by professors, under the Memorandum of Understanding (MOU). (It should be emphasized that such existing connections readily serve as the most viable basis for the development or expansion of new programs.)

This month-long lab training is considered a part of the students' overall lab training. While most students choose to stay in Japan for this training, beginning in 2012, a total of 38 students have opted (after applying and passing an interview) for the international experience. The actual training period abroad is preceded by intensive English practice with English Department faculty members, who focus upon discourse connected to lab training within the particular field the student will be trained in, while at the same time honing the students' ability to discuss the Japanese medical and education system.

7. Exploiting the JICA Connection

The active involvement of the university hospital with the medical wing of JICA dovetails with the aims of the university's various international programs. Every year, groups of visiting JICA delegates from countries throughout the world visit the university hospital for up to 3 weeks. During that time they are often escorted by EMP and ENP students, engage in semi-formalized thematic medical discussions with them, and actively participate in social and educational events together.

In the past year, JICA delegates from Bhutan, Mozambique, Sao Tome Principe, the Philippines, Macedonia, Kosovo, and Georgia made up one such group. Interacting with medical representatives from several so-called 'minor' countries enables the students to develop a more global perspective, providing them with an increased awareness of societies and cultures they may know little about. It also helps to confirm among students the reality that most English speakers in the world are not so-called 'native speakers' but rather speakers of English as a second language using English as a professional lingua franca, like themselves. There is also an additional advantage in that although most JICA delegates speak English as a second language, thus 'imperfectly' and 'accented', they nonetheless display practical and professional English competence. This serves as a realistic role model for our own students, who might otherwise be intimidated or cowered if dealing in English only with native English speakers.

8. Results and conclusions

It is now far from rare to see Thai, Chinese and other Asian students participating in similar clinical exchange programs on the University of Miyazaki's Faculty of Medicine campus or within the affiliated University Hospital. Some of these students remain to study in Japan as graduate students or as researchers. Furthermore, full-time graduate students from numerous countries are now actively recruited by senior professors to carry out research in the university's medical labs. Compared to just 3 such students 15 years ago, there are now 47 foreign students undertaking graduate or post-graduate study within the Faculty of Medicine, the bureaucratic process for accepting foreign students and trainees having become more relaxed and streamlined over the years. As a result, not only do our medical students now have more opportunities to extend their clinical and linguistic training abroad, but opportunities for international clinical interactions within the university itself have also increased with the ever-rising number of exchange researchers and students, as well as foreign in-service clinicians on sabbatical.

Over time, the viability of both the EMP and ENP programs from educational, experiential, and financial viewpoints has become solidified and they are now a well-established part of the University of Miyazaki's learning curriculum, attracting more participants every year. The benefits of this gradual increase in international clinical and linguistic opportunities for medical and nursing students have been multiple. Although we have not carried out any comprehensive statistical survey of its efficacy in terms of student clinical English performance, word of mouth from our collaborating universities abroad indicates a rapid improvement in both English and clinical skills.

While the number of collaborative research efforts between affiliated universities is increasing, so is the degree of interdepartmental cooperation (for example, the PSU connection was once limited to the Physiology Department but now involves seven different academic or clinical departments). International goodwill and local revenue from visiting or full-time graduate students are further benefits of developing more comprehensive international relations. There are now 3 full-time specialized office staff members managing the administrative aspects of the program and the increase in the number of participants has necessitated in the hiring of both full-time and part-time English instructors.

However, the greatest development has without question been the wholesale change in the university's vision, from that of a somewhat provincial, insular institution to that of being an international player.

Teaching science and learning English: an introduction to the Molecular Biology Course in Vietnam

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In this report we introduce the University of Tsukuba's Molecular Biology Course, which is held annually in Vietnam, as an example of one of our most successful extracurricular overseas activities. We describe the course objectives and give details of the program as it was held in 2015 to illustrate the typical course structure and its scientific and English content. We focus upon the role of University of Tsukuba graduate students (both Japanese and international students) in planning and teaching the course as teaching assistants (TAs) and teaching fellows (TFs) and pay particular attention to its outcomes with regard to its impact on their English language skills. The report includes the results and feedback collected from 2 questionnaires, 1 completed by Vietnamese participants and the other by the TAs and TFs after the course.

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Keywords Overseas extracurricular activity, molecular biology, medical science, Vietnam

1. Introduction

In 2008, the University of Tsukuba held its first Molecular Biology Course at the Institute of Tropical Biology in Ho Chi Minh City, Vietnam, and it has become one of the university's most successful overseas programs. It is a bridge via which the university has been able to establish links with universities and research institutes in Vietnam, and has become a model for a number of subsequent overseas programs. The course offers training to Vietnamese students in areas of molecular biology that are pertinent for those students in their research contexts. It is taught primarily by University of Tsukuba graduate school students and is conducted entirely in English. Alongside instruction in science, the Vietnamese students also receive instruction in English and scientific presentation. The strong emphasis on the English component of this course, hand-in-hand with the scientific component, is one of its important features.

The sources of financing for this program vary from year-to-year, but the Japan Student Services Organization (JASSO), an organization established under the Ministry of Education, Culture, Sports, Science and Technology (*Monbukagakusho*), has been instrumental in supporting this activity.

In this report, we introduce the course in detail as it was held in 2015, outlining its objectives, and details of the scientific and English content. On the final day of the program, a questionnaire prepared by the Tsukuba graduate students was completed by each of the Vietnamese participants. Results of this questionnaire form the basis for the assertions made later about the success of the course from the Vietnamese students' perspective. After the course, the University of Tsukuba graduate students also completed a questionnaire, which was used to evaluate the course from their perspective (**Tables 1 and 2**).

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2. Course objectives

The Molecular Biology Course is usually held over a 6-day period, with students spending a total of approximately 40 hours in lectures, laboratory experiments, and group discussions. On the final day of the course students give group presentations to share the results of their experiments, and these are followed by a banquet and award ceremony. Awards are presented for best presentation, best questioner, and best young scientist. In 2015 the winner of this last award received a trip to Japan to join our annual Summer Research Program in Tsukuba.

The course has three major objectives. The first is to offer training to Vietnamese students and researchers in practical areas of molecular biology. Past topics have included: Mechanisms of activation and dysregulation in cancer; Keap1/Nrf2 system; Analysis of transforming growth factor beta (TGF-β) signaling pathway; and in 2015 the topic was Effects on gene expression in influenza virus-infected cells and virus serotype analysis (**Table 3**). During the course students receive hands-on training in laboratory techniques and experimental methods. Although the course participants are studying or working in the fields of biotechnology, pharmacy, medical science, etc. many of them have never performed the laboratory experiments that are taught in this course.

The second, and perhaps most important, objective of the Molecular Biology Course is the education and training of Japanese and international University of Tsukuba graduate students, who act as teaching assistants (TAs) and teaching fellows (TFs) throughout the course. It gives them a unique opportunity to deepen their knowledge of molecular biology, improve their social skills and English ability, and gain confidence, through planning, teaching, and supervising the experiments and group work. With support from faculty, the students are intimately involved in planning almost every detail of the course.

The third objective of the course is to further the University of Tsukuba's ongoing push towards internationalization. In 2009, the university was selected as an elite university for internationalization as part of the government's Global 30 Program. In 2014, it was further selected for the Top Global University Project. The Molecular Biology Course is an effective and practical way to introduce the university to students and researchers in Vietnam who may be thinking of pursuing their graduate studies overseas. Many former participants of the course have gone on to advanced degrees at the University of Tsukuba. The course has also been a vehicle to build effective partnerships with universities and research facilities in Vietnam, which now number 18 agreements, including university-level agreements with Vietnam

Table 1. Questionnaire to Vietnamese participants

Q1.	Did you understand the contents of this training program? If not, what didn't you understand?
Q2.	Prior to this course, were you able to extract RNA by yourself? If you could not before, how well do you think you have mastered it now?
Q3.	Prior to this course, did you perform RT-PCR by yourself? If no, how well do you think you mastered it?
Q4.	What do you think about the timing and progress of this course?
Q5.	What do you think about the contents of the lectures?
Q6.	What do you think about training by the students?
Q7.	If you had an opportunity, would you join this program again?
Q8.	Were you satisfied with this program?
Q9.	What were the good points of this program?
Q10.	What are the points to be improved in this program?

Table 2. Questionnaire to TAs/TFs

Q1.	How was the Molecular Biology Course for you in general?
Q2.	Did you enjoy being a TA/TF?
Q2a.	If "Yes," what was the best part for you?
Q3.	What was the most difficult part of being a TA/TF?
Q4.	Do you think that by teaching other students you learned something yourself?
Q4a.	If "Yes," can you explain what things you learned?
Q5.	Did the course expand your scientific knowledge?
Q5a.	If "Yes," can you explain how?
Q6.	Did the Molecular Biology Course help to improve your English?
Q6a.	If "Yes," what area(s) of English do you feel improved?
Q7.	Do you think that the Molecular Biology Course has made you more confident to communicate in English?
Q7a.	If "Yes," how would you rate your increase in confidence?
Q8.	Would you recommend other students at the University of Tsukuba to participate in the Molecular Biology Course?
Q8a.	Why? Please explain your answer to question 8.
Q9.	What were the good points of the program?
Q10.	What are the points to be improved in this program?

Table 3. Molecular Biology Course topics and experiments 2011 to 2015

Year	Topic	Methods
2011	Detection of cellular responses: protein purification and Western blotting	Western blotting
2012	Mechanisms of activation and dysregulation in cancer: Keap1/Nrf2 system	RNA isolation, RT-PCR, electrophoresis
2013	Mechanisms of activation and dysregulation in cancer: Keap1/Nrf2 system	RNA isolation, RT-PCR, electrophoresis
2014	Analysis of transforming growth factor beta (TGF- β) signaling pathway	RT-PCR, RNA interference (RNAi)
2015	Effects on gene expression in influenza virus-infected cells and virus serotype analysis	RNA isolation, RT-PCR

National University, Hanoi and Vietnam National University, Ho Chi Minh City.

3. Course participants

In 2015, 23 students from different parts of Vietnam joined the program. The participants were mostly fourth-year undergraduate or first-year graduate students majoring in pharmacy, medical science, biotechnology, or medicine. The Vietnamese participants were selected from over 120 applicants. The number of applicants grows each year as the reputation and word-of-mouth recommendation of the course spreads. Advertising for the course is done through the University of Tsukuba office in Ho Chi Minh City, the university's homepage, and through our Facebook page. Participants are selected on the basis of their application materials, specifically their grade point average, English proficiency (TOEFL or IELTS score), resume, and a 1-page composition describing their motivations for joining the course.

Seven University of Tsukuba graduate students conducted the bulk of the course as TAs and TFs. They were selected from 12 applicants who had responded to an e-mail sent to all medical science graduate students and faculty. Many graduate students are very deeply involved in conducting research and therefore must have permission from the principle investigator of their laboratory to apply. Selection priority was given to PhD students over Master's students, and we tried to maintain an equal balance of Japanese and foreign students.

Seven faculty members from the University of Tsukuba's Faculty of Medicine, including 2 members of the Medical English Communications Center, were involved in the course, giving lectures, leading group discussions, overseeing the laboratory experiments, and directing the course in general. The faculty members from Tsukuba also have the support of Vietnamese researchers from the Institute of Tropical Biology, whose involvement in the course includes providing the lecture hall, laboratory space, reagents and equipment for the experiments, and encouraging and supporting all the participants.

4. Venue

The Institute of Tropical Biology (ITB), part of the Vietnam Academy of Sciences, functions as a place for carrying out basic research, developing and applying technology in various scientific fields including physiology, biochemistry, biotechnology, and bioactive compounds. To this end, it is well equipped with a number of labs and conference rooms, making it ideal as a venue for this course. ITB is surrounded by banana plants and other tropical flora and is home to a collection of orchids. For our students from Tsukuba, this change of environment to one very different from Japan helps them to focus on cross-cultural English communication.

5. Experiments

Over the first 5 days, students were divided into 4 groups to carry out specific experiments in the laboratory with a TA and a TF working as instructors for each group, and with faculty members overseeing the laboratory. All instruction from TAs, TFs and faculty was carried out in English only. On the first day students were given a booklet containing information regarding the background to the experiments and detailed protocols for each experiment. Experiment 1 was divided into 2 parts: 1-A and 1B. In Experiment 1-A students learned how to use immunochromatography to identify the type of influenza virus. In Experiment 1-B students learned how to identify the subtype of influenza A virus (H1, H3, or H5) using the polymerase chain reaction (PCR) method with specific oligonucleotide primers for each subtype, and gel electrophoresis. In Experiment 2, students learned techniques to isolate RNA from cells and reverse transcription (RT)-PCR to evaluate how influenza virus infection alters gene expression. Experiments 3 and 4 made further use of RT-PCR to examine the effects of antiviral drugs on virus growth and virion amplification.

Of the 23 students, 14 had never performed RNA extraction and 18 had never performed RT-PCR prior to the course. These students reported that after the course they had mastered the technique of RNA extraction to an aver-

age level (8 students), good level (4), or very good level (2); and the technique of RT-PCR to an average level (11 students), good level (6), or very good level (1). None of the students reported a poor or very poor level of mastery. In the context of a 6-day intensive course, we consider these to be very positive results.

6. Lectures and discussions

On each of the first 5 days students received lectures from faculty members on a number of different topics. In 2015 the topics were molecular biology, infectious disease, environmental biology, and cancer biology. The lectures were given in English, and each lecture was followed by a question and answer session. On the fourth day of the course, Brian Purdue from the University of Tsukuba's Medical English Communications Center delivered a practical lecture on scientific English presentation. The questionnaire showed that most students found the lectures to be either "good" (13 students) or "very good" (9). Beside the lectures and experiments, significant time was given for students to discuss their experiments with faculty, TAs, and TFs. These group discussions are important for giving the students opportunities to ask questions, for the faculty to assess the students' comprehension of the science, and for students and TAs to deepen their knowledge of the subject. In answer to Question 9 of the questionnaire (What were the good points of this program?), 10 students mentioned the "interaction," "guidance," "enthusiasm," or "kindness" of the faculty as being among the good points of the program. In answer to Question 10 (What are the points to be improved in this program?), 2 students specifically requested more time for discussion with TAs and faculty, which underlines the importance of discussion as part of the learning process.

7. English component

The English component of the Molecular Biology Course is a fundamental part of the program. During the course the English instructors interact with students, answering questions, chatting informally, instructing, checking pronunciation and grammar, etc., working to support and encourage the students and assisting the TAs, TFs, and faculty when and where appropriate. Doing the lab experiments necessarily includes periods of waiting, which are ideal times for students to chat with the EMP instructors.

After the lecture on scientific presentation in English, students began preparation for the group presentation session held on the final day. TAs, TFs, and faculty guided each group regarding the scientific content of the presentation, while the English instructors guided the English content, working with groups or individuals to check presentation slides, scripts, and pronunciation. Students were provided with a 4-page handout (prepared by Brian Purdue) of useful English words and phrases for scientific presentation as an aid for preparing their presentation. On the penultimate day, each group rehearsed their presentation in the venue. The English instructors watched the presentations and gave comments, encouragement, and advice for improvement. One student specifically mentioned that the training on "how to give an English presentation" was one of the good points of this program.

8. The role of TAs and TFs as instructors

The TA and TF system is unique to the University of Tsukuba. Its main objectives are to encourage detailed peer-to-peer instruction for undergraduate and master's degree students, to provide opportunities to graduate students to gain experience in teaching, and to offer financial reward for their teaching activity. It is a two-tier system, whereby advanced doctoral students who have previous experience working as TAs can be promoted to the rank of teaching fellow and take greater responsibility for the planning and teaching of a particular course. Some former TFs from the Molecular Biology Course have already been employed as faculty members of the University of Tsukuba after completion of their doctoral studies.

The role of the TAs and TFs in planning and teaching is one of the most important features of the program. Because the students take significant responsibility for the course, they are put in a position where they have to take the initiative as group leaders and, furthermore, to do so in English. From an educational perspective, the TAs' and TFs' knowledge of the experimental methodology is reinforced and clarified by the process of teaching. The famous "Learning Pyramid" in its various forms highlights "teaching others" as the strongest way to retain information. Mazur's famous "Peer Instruction" teaching method also makes use of this idea of students discussing, thinking over problems together, and teaching one another, as an effective way to increase student retention of knowledge.

In the questionnaire, the TAs and TFs were asked a number of questions specifically addressing this point. In answer to Question 2 (Did you enjoy being a TA/TF?), all of the students answered in the affirmative; and in answer to Question 2a (If "Yes," what was the best part for you?), 6 of the 7

students said that communicating with the Vietnamese students, both in teaching and in socializing, was the best part. Question 4 asked students whether they themselves had learned through the teaching process (Do you think that by teaching other students you learned something yourself?), and they all answered in the affirmative. In answer to Question 4a (If "Yes," can you explain what things you learned?), 4 of the 7 students answered that they had learned how to express themselves in a clear, simple, understandable way; in the words of one student: "I learned how to explain the experimental method and to answer the scientific questions in an easy-to-understand manner." In answer to the same question, the remaining 3 students stated that their scientific knowledge or way of thinking about science had developed.

The Molecular Biology Course also gives our graduate students the opportunity to study a new area of molecular biology that is different from their own research. In 2015, for example, while all the students were familiar with the experimental techniques, none were involved in virology research. Before leaving Japan, the students were given 2 lectures by a professor from the university's Department of Infection Biology to give them the necessary background knowledge. In answer to Question 5 of the questionnaire (Did the course expand your scientific knowledge?), 6 students confirmed that it did and said that it was a good opportunity to study a research field different from their own. For example, one student wrote: "It was my first time performing the experiments related to virus study. During the preparation, I learned some knowledge about virus and immunology. Also, as the students asked me many basic questions about molecular biology, it was really a good chance to review those basics."

Perhaps the most striking revelation of the Vietnamese students' questionnaire was how successful the Tsukuba students' teaching and supervision of the Vietnamese students had been. In response to Question 6 (What do you think about training by the students?), 12 Vietnamese students answered that the TAs'/TFs' training was "very good," 10 answered "good," and only 1 student answered "average." Moreover, of the 23 students, 16 especially mentioned the TAs/TFs in identifying the good points of the course, using adjectives such as "kind," "friendly," "inspirational," and "enthusiastic" to describe them. Instruction given by their peers, therefore, seems to have been highly effective, not just from an educational perspective, but also from a social one.

Another notable feature of our TA and TF group is that it is deliberately comprised of both Japanese and overseas students. In 2015, the TA/TF group included 4 Japanese students, a Chinese student, a Korean student, and a Vietnamese student. This collaboration between Japanese and international students as a teaching group further encourages internationalization of our students and forces them to use English as their lingua franca. It also represents an accurate cross section of our graduate-student body, where approximately 1 in 4 of our Masters' students and 1 in 3 of our doctoral students are from overseas.

9. Course outcomes

9.1. Students' perspective

The results of the questionnaire revealed that, from the Vietnamese students' perspective, the course was successful. With regard to the experimental techniques and scientific aspects of the course, all the students felt they had mastered the RNA extraction and RT-PCR to a level of average or above. The questionnaire also revealed that the Vietnamese students were satisfied with the course; in answer to Question 8 (Were you satisfied with this program?) 15 students answered "very satisfied" and 8 "satisfied." All the students said that if they had another opportunity to join the course they would strongly like to do so.

From the perspective of the TAs/TFs, the 2015 course was also successful. In answer to question 1 of the questionnaire to TAs and TFs (How was the Molecular Biology course for you in general?), 6 students answered "very good" while only one selected "good." When asked in Question 8 if they would recommend fellow students to participate in the course, all of the students answered in the affirmative, and when asked to give reasons why they would, 5 students mentioned the opportunity to improve their English skills, 3 students also mentioned expanding their scientific ability, 3 mentioned learning how to teach, and 3 mentioned the good experience of being in Vietnam.

9.2. English education perspective

With regards to English language education, the course appears to have a very positive effect on various aspects of the TAs'/TFs' English language ability. During the course the TAs/TFs carried out all of their instruction in English, and for the Japanese students it was a good opportunity to improve their English pronunciation and confidence. The TAs/TFs faced the challenge of explaining and discussing complex scientific ideas, experimental methodology, and engaging in daily conversation in English intensively over a 6-day period, not only with the Vietnamese participants but also amongst themselves. One Vietnamese TF said, "Even

though I was in my home country, I felt like I was in another country because I could not speak a word of Vietnamese and had to use English all the time." The Japanese students and faculty had very little opportunity to use Japanese, as most of their interactions were necessarily in English.

The participants encountered a number of communication problems throughout the course, but most of these occurred in the first few days. Both the Japanese and Vietnamese participants were at first a little shocked by how differently their counterparts pronounced English, so they appreciated discussing with the English instructors how the respective native languages' sound systems affected the pronunciation of English; they expressed satisfaction when they were able to tune into the different accent. Also, from our experience, they had to be cautioned to avoid using filler words, such as "er," "umm," "aah," or Japanese "eeto" as the unfamiliar sounds often confused the listeners. By the end of the course, the respective groups had become accustomed to the others' pronunciation and style of English, and both groups' English skills had benefitted from their time together.

Question 6 of the questionnaire for TAs/TFs (Did the Molecular Biology Course help to improve your English?) revealed that all students believed that their English had improved as a result of the course. Question 6a (If "Yes," what area(s) of English do you feel improved?) showed that the students recognized improvement in the following areas of English: speaking (6 students), communication (5), listening (3), scientific vocabulary (3), pronunciation (2), writing (1), and discussion (1). The students' self-perception of their improvement in speaking and communication is particularly significant.

Although we have not tried to quantitatively measure the level of improvement in the Japanese students' English ability before and after the course, they all testify to an increase in confidence or motivation to communicate in English. In answer to Question 7 (Do you think that the Molecular Biology Course has made you more confident to communicate in English?), 6 of the students answered "yes" while 1 student made a note that her motivation to communicate in English had increased. When asked in Question 7a to rate their increase in confidence on a scale of 1 (small increase) to 5 (big increase), the average score was 3.3. As English educators, we consider this increase in confidence to be very significant. In out teaching experience we have found that for many Japanese students, their lack of confidence as English speakers is a big obstacle to them actually using and improving their language skills.

Regarding the English of the Vietnamese participants, by selecting them partially on the basis of their English skills we can usually ensure that most of them are reasonably competent. Unfortunately we have not yet had them evaluate the English component of the course or assessed its impact on their language ability. However, in comments from participants after the course, many testify that it is a great opportunity to use English and also to gain one-on-one tuition with native speakers. One Vietnamese student said, "The Molecular Biology Course really helped me to improve my English skills, especially in speaking. Firstly, we had many chances to discuss with other students, TAs, and teachers in English about scientific issues. That helped us gain more academic vocabulary and phrases. Secondly, we learned how to make a presentation; we do not have many lessons about this at school. And we also learned to correctly pronounce many words."

10. Conclusion

In this report we have given details of the Molecular Biology Course at ITB and offered reflections on the course from a number of perspectives. From the results of the questionnaires and from our own experience of the course, we can attest to its success in fulfilling its most important objectives. The course affords the participants an opportunity to form international friendships and to experience life in another culture, which is an important aspect of such international exchange programs. But the course goes beyond that to offer all the participants an opportunity to deepen their scientific knowledge in a highly specialized and useful area of molecular biology, and also helps them to improve their scientific and communicative English skills. Perhaps it is best summed up in the words of one of the TFs given in the questionnaire: "I had a lot of opportunities to communicate with foreign students face-to-face. It inspired me to be more passionate with my research and studying English." What really makes the course a success from the perspective of the University of Tsukuba graduate students is that by working together as an international body of TAs and TFs, they gain invaluable experience in teaching science, in cross-cultural communication in English, and in international teamwork. This helps not only to prepare them for their future careers as active members of the international medical science research community, but also to equip them with the technical and leadership skills to address global issues.

Extracurricular classes of English for medical purposes promote confidence in undergraduate medical students

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This study evaluated the effectiveness of our extracurricular EMP classes, which focus on discussing medical cases in English, on medical students' interest and confidence in using medical English. We conducted a questionnaire survey with responses on a scale of 1 (not at all interested or confident) to 5 (very interested or confident) for the following items: interest or confidence in studying in English-speaking countries; attending international conferences; gathering information from English-language articles; writing articles in English; acquiring an international medical license; communicating with English-speaking patients, physicians, or students; and making presentations in English. We also asked participants how many classes they attended. We divided the students into three groups according to the number of times they attended classes (0–1 time, 2–5 times, over 6 times), and we analyzed the relationship between the level of attendance and degree of interest or confidence in using the Jonckheere-Terpstra trend test. Students with greater class attendance were more interested in communicating with English-speaking patients (p = 0.048) and students (p = 0.049). Greater class attendance was also correlated with increased confidence in acquiring an international medical license (p = 0.017), communicating with English-speaking patients (p = 0.007), physicians (p = 0.015), and students (p = 0.001), and making presentations in English (p = 0.018). These results suggest that our EMP classes could be a useful tool to increase interest and confidence in communicating and making presentations in English.

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Keywords English for medical purposes, extracurricular classes, discussing medical cases in English, undergraduate medical English education

1. Introduction

1.1. Medical English needs among physicians

English ability is an essential skill for physicians of all countries in studying global-level medical science and in sharing information in medical meetings and journals. Over half of all physicians in Japan use English daily to read and write articles, regardless of their professional duties.[1] Teaching staff at Japan's undergraduate medical institutions require that students improve their skills in English reading and listening.[2] However, some medical students wish to improve their English communication ability further, such as in developing conversation skills.[3] In particular, students who have undergone training in English-speaking countries are often keen to have more opportunities to speak English.[4]

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1.2. English education in Japan

In step with the rapid growth of globalization, the Japan Society for Medical Education and Japan Society for Medical English Education have been developing programs and guidance related to the teaching of English for medical purposes (EMP).[5] These societies have reported on the problems that overseas students and residents face in taking the

United States Medical Licensing Examination and on various approaches adopted by some Japanese universities. Most of those studies reported only about trial programs toward enhancing English skills and increasing ability in EMP among students wishing to study or practice medicine abroad; the studies did not make an appropriate evaluation of the effects of such programs.[6-12] Few reports have assessed the current situation regarding students' motivation, confidence in English, or the effectiveness of EMP programs.

1.3. Medical English education at Saga University

Prior to 2012, compulsory first- and second-year English classes in the Faculty of Medicine, Saga University were taught by teachers who were not physicians. In the absence of an EMP class, the learning of medical English was left to the individual student. In 2013, compulsory EMP classes were added to the curriculum for third- and fourth-year students, who were beginning to learn clinical medicine. The faculty responsible for teaching those classes possessed appropriate skills in both EMP and clinical medicine; however, the tuition mainly involved reading medical articles in English, which made it difficult for the students to learn and practice other language skills like discussion.

1.4. EMP taught by the Department of General Medicine

In addition to the compulsory EMP curriculum, the Department of General Medicine at Saga University Hospital initiated an EMP class as an extracurricular activity in October 2011. The participants discuss a case taken from an English-language textbook presented by the tutor, and only English is used in the class. The tutor instructs not in a didactic, but an interactive manner, so participants can improve their skills in both interpreting written English and communicating with other participants in English. The goal of our EMP class is, of course, to improve students' English abilities. As their abilities vary widely, we require the students with higher competence to strive to fully express their opinions about the clinical cases, and the ones with lower competence to at least become more accustomed to using English in discussion.

In the present study, we investigated the outcomes of our EMP classes by analyzing the relationship between the rate of attendance and the interest and confidence in English shown by the class students.

2. Methods

2.1. Summary of our EMP class

The Department of General Medicine of Saga University Hospital introduced the EMP class in October 2011; one of the authors had organized a similar class at the Miyazaki University School of Medicine since 2007. The Saga University Hospital class takes place after school once a week as an extracurricular activity. The class tutor is a professor in the department and a general practitioner with sufficient ability in EMP. Participants discuss a clinical case of general medicine taken from an English-language textbook,[13] and only English is used in the class. The class is open to all students, residents, and young doctors at Saga University Hospital. The decision to attend is entirely left to the individual. The majority of participants are fifth- and sixth-year students of Saga University, School of Medicine. In addition, students of Miyazaki University School of Medicine have participated via the Internet. Usually, 10–20 people physically attend each session. The tutor takes the chair, and the participants take turns reading parts of a case presentation. At the end of each part (clinical history, physical examination and laboratory investigation), we pause to discuss problems associated with making a diagnosis. Sometimes the tutor asks the students questions, which can be challenging when the content is beyond the level of Japan's National Medical Practitioners Qualifying Examination. In such cases, other members of our department provide clues, which avoids periods of silence. The class is publicized by direct announcements to students and residents, posters on school bulletin boards, and notifications on the department web site.

2.2. Subjects of investigation and the methods

We conducted a self-completed questionnaire survey in December 2014 among 168 fifth- and sixth-year medical students who had completed their clinical training as student doctors in our department and were eligible to attend the EMP class. The questionnaire included items related to the following: sex; academic year; experience of having lived in English-speaking countries for more than 1 month; whether English was a subject they liked or disliked at high school, and whether they were good or bad at English as high school students; whether they knew about the EMP class and how they found out about it; and the number of times they had attended the class. The questionnaire also asked students to rate their interest and confidence (on a scale of 1 [not at all interested or confident] to 5 [very interested and confident]) in: studying in English-speaking coun-

tries; attending international conferences; gathering information from English-language articles; writing articles in English; acquiring an international medical license; communicating with English-speaking patients, physicians, or students; and making presentations in English.

We divided the subjects into three groups according to the number of times they had taken part in the EMP classes (0–1, 2–5, and over 6 times). We analyzed the relationship between the number of times they had attended and degree of interest and confidence using the Jonckheere-Terpstra trend test. $p < 0.05$ was considered statistically significant. We used IBM SPSS version 21 for the statistical analysis.

3. Results

The response rate was 70% (118 of 168 students). The backgrounds of the subjects appear in Table 1. Sixty-eight subjects (58%) were male, and 57 (48%) were fifth-year students. Eleven students (9%) had lived in English-speaking countries; 30 (25%) disliked English at high school; and 32 (47%) stated that they were not good at English at high school. Six students (5%) had first learned of the EMP class when asked to fill out this questionnaire. The main sources of information about the EMP class were teachers (65 students, multiple answers), followed by schoolmates (23 students, multiple answers). Fifty-seven students (48%) had not attended the EMP class, 20 (17%) had attended once, 33 (28%) 2–5 times, five students (4%) 6–10 times, none 11–15 times, and three (3%) over 16 times.

Interest in using medical English appears in **Figure 1**. The average interest in acquiring an international medical license was 2.4 points on our five-point scale, that in gathering information from English-language articles was 4.2 points, and the other interest levels were 3.0–4.0 points. The results of the Jonckheere-Terpstra trend test showed that the more times the student had attended the EMP

Table 1. Backgrounds of the subjects (n=118)

Sex	male	68 (58%)
	female	50 (42%)
Academic year	fifth year	57 (48%)
	sixth year	61 (52%)
Experience of living in an English-speaking country more than 1 month	have experience	11 (9%)
	no experience	106 (91%)
"Like or dislike" rating of English as high school students (five-grade evaluation)	strongly dislike	20 (17%)
	dislike	49 (25%)
	neutral	19 (16%)
	like	22 (19%)
	strongly like	8 (7%)
"Good or bad" rating at English as high school students (five-grade evaluation)	very bad	16 (14%)
	bad	53 (45%)
	normal	16 (14%)
	good	18 (15%)
	very good	14 (12%)
Knowledge of our EMP class	no previous knowledge	6 (5%)
	some knowledge	48 (41%)
	full knowledge or had attended	64 (54%)
Sources of information about our EMP class (multiple question) †	teachers	65
	schoolmates	23
	clinical training	11
	posters	8
	websites	2
Number of times students had attended our EMP class	0 time	57 (48%)
	1 time	20 (17%)
	2 to 5 times	33 (28%)
	6 to 10 times	5 (4%)
	11 to 15 times	0 (0%)
	over 16 times	3 (3%)

† n=112

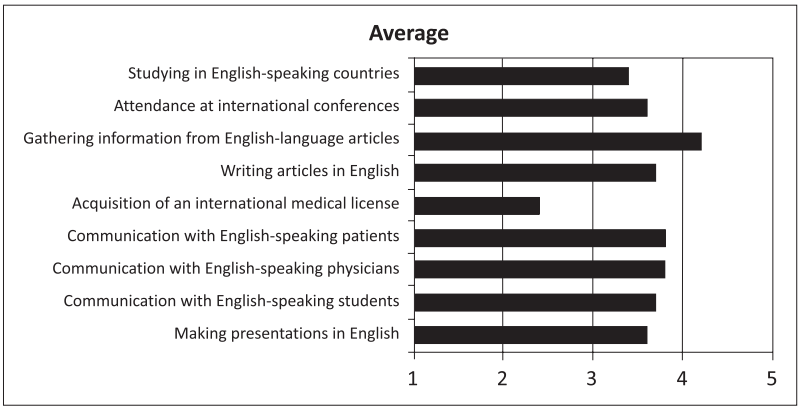

Figure 1. Degree of interest in using medical English (nine items)

Possible responses were on a scale of 1 (not at all interested) to 5 (very interested). The points on the horizontal axis show the average level of interest. The average interest in acquiring an international medical license was 2.4 points, gathering information from English-language articles 4.2 points, and others 3.0–4.0 points.

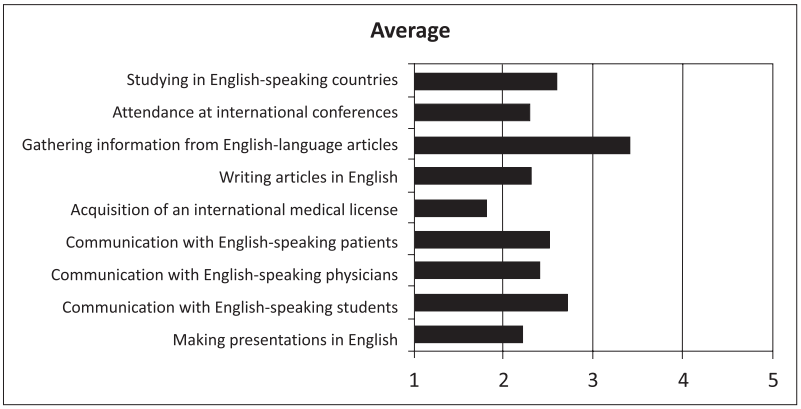

Figure 2. Degree of confidence in using medical English (nine items)

Possible responses were on a scale of 1 (not at all confident) to 5 (very confident). The points on the horizontal axis show the average level of confidence. The average confidence in acquiring an international medical license was 1.8 points, gathering information from English-language articles 3.4 points, and others 2.0–3.0 points.

Table 2. Jonckheere-Terpstra trend test between the number of times the students had attended the EMP class and interest or confidence in using medical English (n=118).

items	*p*-value	
	interest	confidence
Studying in English-speaking countries	0.500	0.238
Attendance at international conferences	0.081	0.657
Gathering information from English-language articles	0.209	0.314
Writing articles in English	0.953	0.343
Acquisition of an international medical license	0.062	0.017*
Communication with English-speaking patients	0.048*	0.007*
Communication with English-speaking physicians	0.261	0.015*
Communication with English-speaking students	0.049*	0.001*
Making presentations in English	0.197	0.018*

We divided the subjects into three groups according to the number of times they had attended the EMP class (0–1, 2–5 times, over 6 times).

* $p < 0.05$ indicates that the more frequent the attendance, the greater the interest or confidence in using English.

class, the greater was the interest in communicating with English-speaking patients (average 3.6 / 3.9 / 4.4, $p = 0.048$) or students (average 3.6 / 3.9 / 4.3, $p = 0.049$; **Table 2**).

The degree of confidence in using medical English appears in Figure 2. The average confidence in being able to acquire an international medical license was 1.8 points, that in gathering information from English-language articles was 3.4 points, and the other confidence levels were 2.0–3.0 points. The results of the Jonckheere-Terpstra trend test indicated that the more times the student had attended the EMP class, the more confident they were in acquiring an international medical license (average 1.7 / 1.9 / 2.3, $p = 0.017$); communicating with English-speaking patients (average 2.3 / 2.7 / 3.3, $p = 0.007$), physicians (average 2.3 / 2.6 / 3.0, $p = 0.015$), and students (average 2.5 / 2.9 / 3.5, $p = 0.001$); and also making presentations in English (average 2.1 / 2.4 / 2.8, $p = 0.018$; **Table 2**).

4. Discussion

4.1. Items that correlated with EMP class attendance

This study found that students who had attended the EMP classes more often were more confident in acquiring an international medical license as well as communicating and making presentations in English. Adopting a study method of small-group discussions,[3] choosing common materials and avoiding overspecialized ones, and learning through visual stimulation, such as writing on a whiteboard, have been recommended as effective methods in education.[14] Our EMP class employed these methods and had a positive impact on the participants' English communication skills, an outcome that is highly appreciated among medical students. Whereas interest in acquiring an international medical license as well as communicating with physicians and making presentations in English showed no correlation with the number of times the students had attended the EMP class, confidence in these areas showed a statistically significant relationship. This would suggest that the

attendance at our EMP class increased the students' confidence in English irrespective of their interest in the language.

4.2. Items not correlated with EMP class attendance

Confidence in studying abroad, attending international conferences, gathering information from English-language articles, and writing articles in English showed no correlation with the number of times the students had attended our EMP class. As the class is an extracurricular activity, students are free to attend or not as they wish; however, the class is held only once a week, which is probably not often enough to improve the students' confidence in the areas mentioned above. This result points to the importance of adopting other ways of enhancing English-language ability. Lack of confidence in their English ability has been reported to be the main factor dissuading Japanese physicians from making more frequent presentations at international conferences.[15] The EMP class did not augment confidence in attending international conferences; however, we hope that it may exert a positive influence on the students' confidence once they become medical practitioners and gain more experience. The present study focused on fifth- and sixth-year medical students; the results could have differed if the subjects had been residents or young doctors.

4.3. EMP efforts at other universities and colleges

Many universities and colleges in Japan are reportedly making attempts to teach EMP. One study of 64 national, public, and private universities and colleges in 1994 showed that 50%–75% had EMP courses; however, the current situation remains unknown.[16] In Germany, 71% of medical universities are reported to have an EMP course; however, in the absence of a national standard, the style, scheduling, quality, and quantity of study are at the arbitrary discretion of each facility.[17]

Trials of teaching English medical terms[7,8,11] or using e-learning systems[7,8,12] have been reported in Japan as intracurricular activities in both compulsory and selective classes. Although medical clinicians are usually too busy to attend such activities, some universities have implemented EMP education in the form of a collaboration between English teachers and physicians.[8] Some universities have introduced extracurricular activities, such as the following: giving students the opportunity to study in English-speaking countries[6,7,12]; holding an intensive EMP course in conjunction with language teachers and physicians[6,17]; organizing seminars for medical English conversation and English classes with role play in medical interviews[10]; providing lessons in reading English-language articles[12]; holding discussions that include the use of medical English[11]; and providing regular training in making presentations related to clinical cases.[9] Certainly, as noted above, the methods of EMP education differ among Japanese universities and colleges. However, the present study would appear to have particular merit as it has found that EMP education using interactive discussion may improve the confidence of Japanese medical students in English communication.

4.4. Study limitations

This investigation was conducted at a particular time point. The subjects may have included students with prior interest or confidence in medical English. It would thus be appropriate to conduct the survey over a longer period of time. In addition, this study took the form of a self-evaluating questionnaire, which is a subjective means of investigation. Although it may be difficult to make an objective evaluation of communication skills, it would be beneficial to adopt some objective methods, such as vocabulary examinations, as part of future investigations.

5. Conclusion

Our extracurricular EMP class—involving interactive education and discussions of clinical cases in general medicine among participants in relatively small groups—improved students' interest and confidence in using medical English.

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International service-learning in Nicaragua

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Service-learning is an active learning strategy that matches subject content with social need to give practical meaning to student learning. This international service-learning trip to Nicaragua pairs medical English and other medical skills students are learning with the social need for medical care by underserved people in San Ramón, Nicaragua. One purpose of the trip is to provide a venue for the use of medical English learned in the classroom. In addition, this active learning strategy "wakes up" students and helps them to recognize that language is a living thing meant to be used in communicating. Students join US based NPO Corner of Love on medical missions to provide services to impoverished Nicaraguans while at the same time being given the opportunity to use English learned in university courses. This program began as an extracurricular activity, but has evolved into an important part of the curriculum at Hamamatsu University School of Medicine.

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Keywords service-learning, transdisciplinary education, active learning

1. Introduction

Service-learning is defined by the National Youth Leadership Council as a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.[1] The service-learning program described here started in 2009 as an extracurricular activity for medical students at Kyushu University. One of the main goals was to provide an opportunity for them to work alongside English speaking healthcare workers. In the early stages of the Nicaragua service-learning program, there were no programs available through the university that connected medical-English classroom learning with actual use of the language outside of class.

After much searching and many refusals we were able to form an alliance with an NPO in Washington State. The NPO, called Corner of Love, is an organization that brings medical care to the underserved area of San Ramón in Nicaragua.[2] Corner of Love welcomes volunteers from around the world and was willing to welcome our Japanese students.

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2. Why service-learning?

Some of the medical English course students were bored in their large classes with little or no opportunity to speak. There were also some students who wanted to use the medical and language skills they were learning in many of their courses in the real world. We wanted to find a way to help those students who really wanted to use what they learned in class.

Studies on the impact of service-learning (SL) showed that SL is useful to develop self-esteem in students and instill a sense of responsibility from an early age.[3-6] We hoped that offering SL to our students, even from the early years of their medical education, would be meaningful. Stephens reported that students who participated in service-learning developed a greater sense of civic responsibility and ethics towards service.[3] Kinsley (cited in Wade, 1997[4]) stated that community SL enlivened learning and involved students in a way that made learning relevant, and meaningful.[7]

The impoverished people of San Ramón live on less than 1 US dollar a day, even less than the World Health Organiza-

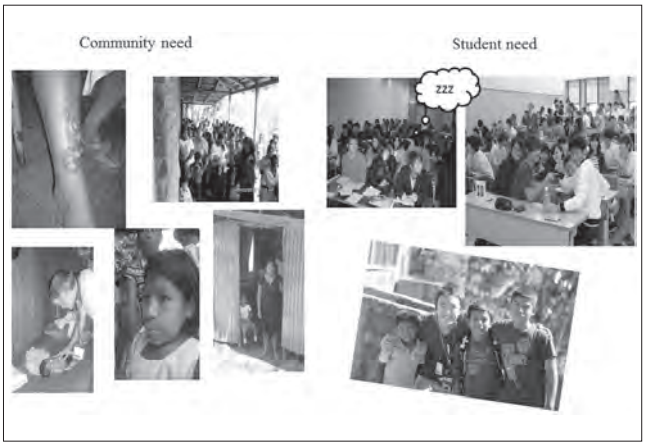

Figure 1. Why service-learning?

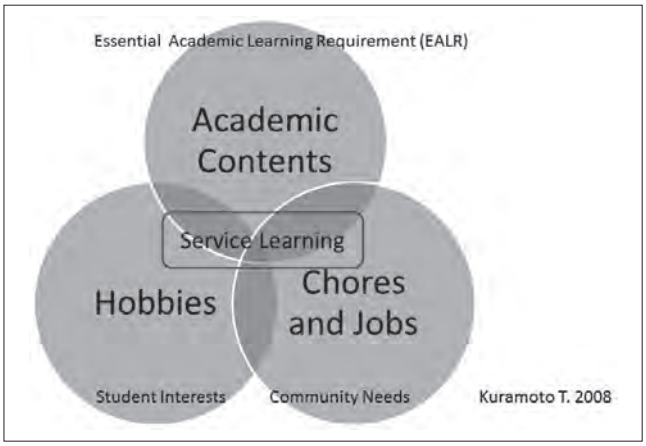

Figure 2. Theoretical structure of service learning

Figure 3. Signs in the COL pharmacy in San Ramón

tion's definition of poverty, which is living on 2 US dollars a day. The people of San Ramón have little or no access to medical care. Many of the villagers have parasite infections due to unclean water sources and lack of knowledge about maintaining healthy waste areas. Corner of Love focuses on three major areas of need: clean water sources, education, and healthcare.[2]

We decided that SL was an appropriate fit for the needs of both the medical English students and the underserved San Ramón community. It provided us with a way to let the students use their motivation and energy to positively impact a community in need (**Figure 1**).

3. Purpose

The main purpose of this SL program was to provide a venue for the use of medical English and other skills learned by Japanese medical students. In addition, students would learn about civic responsibility, poverty, parasite infections, different medical systems, the importance of clean water, and education needed in impoverished countries.[8] Along the way students also learn more about themselves and their abilities.[3] SL takes into account the interests of students, the academic content (medicine and English in the case of this program), and the needs of a community (**Figure 2**).[5,9]

4. Our Nicaragua service-learning program

We took our pilot trip to Nicaragua to join a healthcare team in 2009. During that trip we were able to confirm that the working and living conditions provided by Corner of Love were adequate to allow for the safe participation of our students. Students would have ample opportunities to communicate in English with the other volunteers on the team. Signs in the COL pharmacy displayed many of the words that students learned in medical English, further confirming our belief that this was a venue that would put their medical English knowledge to work (**Figure 3**). English/Spanish interpreters were provided for communicating with patients at the clinics.

In the following year, Kyushu University agreed to allow students to join a trip. From 2011 to 2013 Kyushu University offered elective credit to students who joined the SL course. In 2014, after the authors moved to Hamamatsu, the course was added to the HUSM curriculum and offered to both medical and nursing students for credit.[10] In addition, students from other universities have been welcomed to join the Japan team each year. So far students from nine universities in Japan have joined our teams.

The requirements for elective course credit have changed slightly over the years. Currently, students are required to attend two orientation lectures in English. In these lectures we discuss what the students need to bring along on the trip, go over rules for participants as set out by the NPO for our safety, and answer questions students have. In recent years we have also provided students with reference materi-

als such as academic papers on the treatment of parasite infections common to Nicaragua.[11]

While in Nicaragua, students are required to keep a journal in English, which is turned in after they return to Japan. Students are also asked to respond to an English questionnaire. Finally, one month after their return, students give presentations in English to their peers and faculty members. Since the course takes place in late March, students receive their elective credit for the first semester of the following academic year, which begins in April.

We find it significant that the program continued when we moved to Hamamatsu. HUSM was eager to add the course as an elective credit. The program is now considered an important stride in the HUSM move towards globalization. The Ministry of Education, Culture, Sports, Science and Technology-Japan includes this from the UNESCO World Conference on Education for Sustainable Development on its website:

> "Encourage youth to engage with and learn through real-life situations. Local communities should be positively impacted by ESD [Education for Sustainable Development] and provide a source of learning and inspiration. This requires *promoting social service-learning, transdisciplinary education* and research, living laboratories, learning centers and online education." (our italics)[12]

5. Student responsibilities in Nicaragua

On the first day after arriving in Nicaragua, the students work on packing and preparing the bins of medicine that will be taken to the village with us (**Table 1**). When medicines are dispersed to the patients, they are packed into brown paper bags that already contain various donated items (soap, toothbrushes, shampoo, etc.). Students prepare these "goodie bags" before our first village clinic.

At the village clinics, students unload the trucks and bus and set up the clinic in a designated location, usually a school building or church. Students are assigned to do different jobs each day. The jobs include: height and weight station, scribe (sitting with a doctor or nurse and recording medicines prescribed), pharmacy (putting together medicines prescribed by doctors for each patient), stats (counting and keeping a record of all medicines and donated items going out of the clinic), crowd control (guiding waiting patients to the next available doctor or nurse), clothing donation station, children's station (playing with and taking care of children waiting at the clinic) (**Figure 4**). Sometimes 5th or 6th year students will work as providers, actually doing physical examinations and prescribing medicines for patients under the supervision of the NPO (**Figure 5**). In these cases, students are placed near a veteran provider, where they can ask questions and get help when needed. All team members are licensed to practice medicine through the NPO and registered with the Nicaraguan government before entering the country.

Each evening after clinics, students meet with leaders to reflect on their day. This reflection and the journals that students keep are considered an important facet of the service-learning experience.[13] After the first day of clinic and learning how to do one job, the students will teach the students who are to do that job the next day.

6. Conclusion

This international service-learning project has provided students with an invaluable experience that successfully connects what they have learned in medical English and other classes to the needs of a community. We have found that students have shown increased motivation to expand

Table 1. A typical Nicaragua SL trip schedule for the Japan team.

Day	Mid or late March
1	Travel day: arrive at San Ramón dormitory in Nicaragua around midnight
2	Setup day (tour the building and clinic in San Ramón, unpack and organize pharmacy, make goodie bags, clinic and pharmacy training, lights out by 11pm)
3	Village clinic
4	Village clinic
5	Rest, pack supplies for next clinics, visit Matagalpa
6	Village clinic
7	Village clinic/Travel to Managua
8	Travel day: fly from Managua to Houston, Texas (one-night layover)
9	Travel day: fly from Houston to Japan
10	Arrive back in Japan
	April
	Student final presentations
Typical village clinic days:	
7:00	Breakfast
7:45	Meeting in chapel
8:00	Board bus for village
9:30	Village clinic opens
13:00	Lunch in the village
16:00	Village clinic closes
17:00	Board bus for San Ramón
18:30	Dinner at the quinta (dormitory)
Lights out by 11:00	

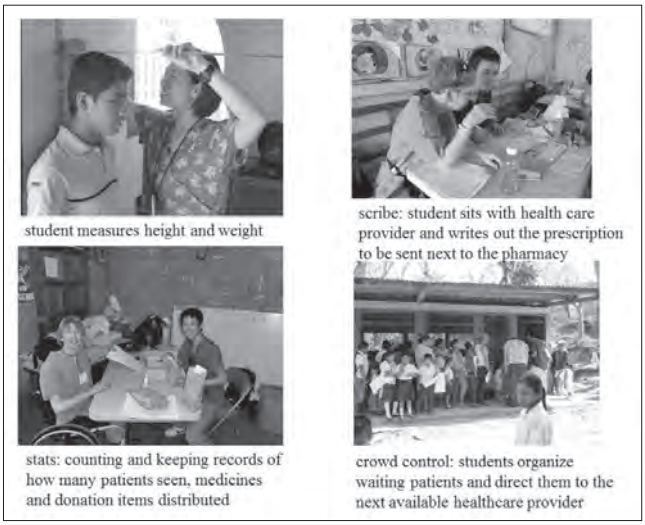

Figure 4. Student responsibilities

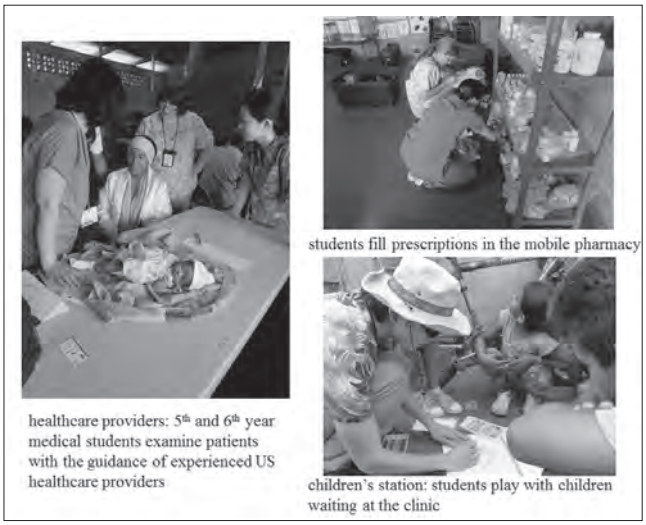

Figure 5. Student responsibilities as healthcare providers

their knowledge of both English and medicine, have become able to see their own English language weaknesses and strengths, and are capable of effectively serving in a rural clinic even as beginning medical students.

As teachers we have learned that it is important to think outside of the box when trying to provide educational opportunities for our students. The original extracurricular program eventually evolved into our current "International SL in Nicaragua" elective course for credit. We also welcome students from other universities to join our teams. In March of 2016 the 8th annual Japan team will depart for Nicaragua.

It has been a winding and sometimes frustrating road to create this SL trip, but it has brought about an opportunity for our students to use English and other skills as they work alongside medical care workers from the USA and other countries. The students are actually helping people in need in a way that we never would have imagined before. As we continue to travel with our students on this journey, we believe that it will provide them with a means to feel connected to the community, their own purpose in life, and the world.

Acknowledgments

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Extracurricular activities at the University of Tokyo Faculty of Medicine

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Attendance at all EMP classes is a strict requirement at the University of Tokyo Faculty of Medicine, with no possibility of makeup through exams. Absences, whatever their cause, must be made up through attendance at extracurricular Extra Medical English, ER Evening, and Oral Presentation Training; these irregularly scheduled events are announced by email to interested members of the medical community. Rather than a showcase or a testing ground for teaching technologies, extracurricular EMP is a bridge between medical students and foreign graduate students as well as interested hospital staff, enriching their communication experiences and offering language skill enhancement services needed by many members of the university community.

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Keywords EMP, extracurricular activities, Extra Medical English, ER Evening, Oral Presentation Training

1. Introduction

The University of Tokyo Faculty of Medicine's undergraduate English for Medical Purposes (EMP) curriculum is very spare, but gaps are filled whenever possible with extracurricular offerings to make a strict attendance requirement practicable and to provide more English-language training services to the underserved university community as a whole.

2. "Curricular" EMP

Unlike the system in other Japanese medical schools, all students admitted to the University of Tokyo first pass through a two-year liberal arts curriculum (aka humanities or general studies, including some "ordinary English" courses and foreign languages) at the Komaba campus; those students designated to become medical students then move to the Hongo campus, where, for four years, everything they do at the Faculty of Medicine (except sports and club activities and part-time jobs) is related to medicine. Total hours spent studying English for Medical Purposes (EMP) in Japan's medical schools vary widely, but the University of Tokyo Faculty of Medicine's EMP program is undoubtedly among the shortest: a total of about 50 hours of lecture hall and classroom teaching spread out over a period of twelve months, obviously insufficient for students destined to pursue competitive careers, but every element is directly related to medicine and it is all done solely in English: no translation or bilingual dictionaries.

After initial Medical English Orientation Week lectures totaling about six hours, the 110 students are divided into four "class day" groups of about 30 students in size, which meet two hours a week for about 10 weeks; all are taught by the sole full-time EMP instructor (the author). In the second semester, students in ten smaller classes are taught, again two hours at a time, for up to 14 weeks by either the full-time instructor or by part-time EMP teachers (without handoff or co-teaching). Attendance is required at all EMP classes: absences must be compensated through attendance at extracurricular English-language events, which are more than "makeup classes." As there is no EMP exam, "final" or otherwise, without these second chances strict attendance could not reasonably be required: illness, family emergen-

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cies, or other commitments do not exempt students, they simply defer the requirement, and students must attend as many extracurricular EMP events as they missed classes.

3. The extracurricular program in brief

When not teaching required classes to undergraduates in the Faculty of Medicine (in other words, during very roughly half of the year), the author offers "Extra Medical English," "ER Evening," and Oral Presentation Training at the rate of one or two or sometimes three events per week, all ad hoc and announced beforehand by email. (Announcements also inform interested parties of other extracurricular lectures and seminars in English, overseas study programs, interesting audio and video podcasts, etc.) The mailing list includes all medical students reported as absent from curricular EMP as well as some former students and both Japanese and non-Japanese graduate students and hospital staff who are interested in EMP. Attendance at extracurricular EMP events is recorded to certify compliance of medical students with the formal curriculum's attendance requirement. All participants sign a "Guest Book" and students identify themselves as needing to make up an EMP class absence, if that is the case. Usually the number of participants ranges from half a dozen to a dozen: this means one or two small groups can be formed for discussions, and all present have ample opportunities to take part actively in the proceedings.

Although the program was originally intended to supply makeup classes for absentee medical students, events are attended in roughly even proportions by medical students and other categories of participants (principally Japanese and non-Japanese graduate students and hospital medical staff, with very rare outside visitors). Because the medical students generally have had little or no experience using English to communicate with non-Japanese, the combination of non-Japanese "research students" from the Graduate School of Medicine and the small class size constitutes a valuable learning resource.

4. The menu

"Extra Medical English" (EME): for from 90 minutes to two hours, participants watch or listen to and then discuss in small groups a video or audio program on a single subject related to medicine (e.g. obesity or attention deficit hyperactivity disorder). Emphasis is on promoting active participation in small groups, correcting pronunciation and basic grammar, improving comprehension, and encouraging self-expression. Occasionally EME involves reading aloud in turns, with some discussion of terms, their meaning, and usage; the obstacles to mutual comprehension invarably encountered by both readers and listeners drive home the importance of interactive communication — as mutual assistance.

"ER Evening": participants watch and listen to very short segments of the American TV series "ER" on DVD, then are prompted to discuss in small groups (1) what they saw and heard, (2) what they understood or (3) didn't understand, and (4) what, after discussion, they still want to know. As in EME, the sessions last up to two hours and the focus is on inducing learners working in small groups to help each other to understand the material. Because "ER" portrays emergency room medicine and the lives of doctors, nurses, patients, and their families, the vocabulary is much more diverse in ER Evening than in EME and the mingled topics tend to stimulate more lively conversations. This activity is the most popular type of extracurricular EMP and is requested the most often. The organizer (the author) serves mainly as a projectionist, referee, and grammar consultant. Practicing MDs from the hospital are occasionally able to answer students' medical questions. The four related questions (1 through 4 above) are asked by the author whenever the DVD is paused to induce the participants to use the past, present, and future tenses as well as the conditional mood (something that Japanese students are weak in), as well as to encourage participants to help each other understand what they observed. As in EME and the entire EMP program, everything is conducted exclusively in English; translation is not allowed. English-only reference materials are available in the classroom; the use of bilingual electronic devices is forbidden.

Oral Presentation Training (OPT): sessions of variable duration (usually over an hour) are held ad hoc about ten times a year, that is, whenever someone volunteers to make a presentation. The speakers are often non-Japanese graduate students, but medical students also do presentations. The author checks the slides and corrects grammatical errors, etc., before the session is scheduled and announces the date and time to the mailing list. Speakers, one or two at each session, present short talks on subjects of interest to them, usually but not always related to a medical specialty. The program's dual goals are to train speakers to prepare and deliver acceptable oral presentations in English and to train listeners (the audience, usually five to ten people) to ask questions appropriately. Discussions following the presentations address both the content of the talk and the

organization and norms of oral presentations in English (making eye contact, avoiding overuse of abbreviations, etc.).

5. Surprises and limitations

Extracurricular EMP is ad hoc by necessity: it cannot be regularly scheduled, given the disparate nature of medical students' and foreign and Japanese graduate students' and other (e.g., hospital staff) participants' schedules, as there is no weekday or time of day when everyone — even, say, first-year medical students or second-year medical students — is able to attend.

Apart from its inherent organizational merits and demerits, however, the program's greatest weakness is principally psychological: some students feel guilty for missing a class, while others feel that they are entitled for whatever reason to miss a class occasionally, and both types therefore regard the makeup events as a sort of punishment, which it is not. There is therefore some reluctance among "virgin" participants to do even what is required. Given also that each event is somewhat unique, a student who attends once may mistakenly conclude that EME or ER Evening is always what s/he experienced the first time.

Curiously, though you might think (as the author does) that the very best students need it the least, they tend to attend the most often; and though the range of levels and ability and backgrounds among the participants is a valuable asset, the presence of very competent English speakers can be intimidating to a first-time attender and discourage repeat voluntary visits once a student's makeup quota has been met. This notwithstanding, some participants at both ends of the ability spectrum become bona fide "ER Fans" and attend whenever they can (including EME and OPT). Regrettably, however, the instructor can never know in advance exactly who and how many participants will attend (although average attendance varies from a half dozen to a dozen — enough for virtually any type of activity) or at what time a quorum will be reached and when some participants will have to leave; this calls for pedagogic agility, ingenuity, and sometimes quick acquiescence.

Principally for these reasons, the program can in no way be formalized or "programmed" in the strict sense or evaluated quantitatively. Homework and a textbook approach are impossible, as is objective measurement of the "outcomes." Life is like that... Nevertheless, it is certain that, without extracurricular EMP, students and healthcare workers on campus would have fewer chances to be exposed to real English and familiarize themselves with the real demands of intercultural communication.

6. Conclusion

Extracurricular EMP activities can serve a wider audience than the "student body," enriching the learning experience for all participants. By overcoming curricular, calendar, and scheduling rigidities, flexibly organized extracurricular offerings based on a realistic conception of the students' and other participants' needs, environment, and community resources can give willing students and medical personnel low-budget English language enrichment options. They're better than nothing.

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Toho University School of Medicine's overseas clinical clerkship program

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This paper introduces Toho University School of Medicine's overseas clinical clerkship program, which is an optional component of the standard clinical clerkship undertaken by all 6th-year students. The participating overseas universities, application requirements, and mandatory medical English skills class are described. This paper also reports the reactions of some of the students who recently participated in the program. The paper concludes that the overseas clinical clerkship program gives students valuable insights into how medicine is practiced in overseas hospitals.

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Keywords overseas clerkship, English interview test

1. Introduction

All students at Toho University School of Medicine are required to participate in an elective clinical clerkship (ECC) at the beginning of their 6th year. Students are given the option of doing their clinical clerkship at an overseas medical school, and each year a small number, about 6 or 7 per year, have taken advantage of this opportunity. Before going overseas, students must first go through an assessment process and take a special class in medical English.

2. Organization of the program

The overseas clinical clerkship is under the charge of the Toho University International Communication Center, which is responsible for assessing students' English abilities and helping them with the paperwork and applications necessary for going abroad. While the English department is not officially part of the overseas clerkship program, we provide support by taking part in student assessments and helping students prepare for going abroad.

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3. Associated universities

Students wanting to go overseas have a variety of universities to choose from. The easiest option is for students to go to universities with which Toho University has a special memorandum of understanding (MOU). At present, Toho University has MOUs with Chiang Mai University, Prince of Songkla University, and Wailailak University in Thailand, Kungming Medical University in China, the University of Hawaii, John A. Burnes School of Medicine in the US, and Barts and the London School of Medicine and Dentistry in the UK. Out of these, Chiang Mai University in Thailand is the most popular choice with Toho University students.

Students can also go to universities that do not have MOUs with Toho University if they can make their own arrangements or if a doctor there has a connection to Toho University. Other universities Toho University students have gone to include Baskent University in Turkey, Royal London Hospital for Integrated Medicine, University of Kentucky, University of Sheffield, Massachusetts General Hospital, and the University of Liverpool.

4. Requirements for participation

Students wishing to participate in the overseas clinical clerkship must apply by September of their 5th year. This application includes their top three choices of universities and their scores on the TOEFL iBT and Japanese national CBT exams. A TOEFL iBT score of 61 or above is "desir-

able," but, depending on the host university, lower scores have been accepted. The average TOEFL score for students in this program has usually been about 65 to 70 points. Students must also score above the national average on their CBT exam to participate in the program.

After submitting their applications, students must take a written test of medical English that is prepared by a committee of English-speaking doctors at Toho University. After this, students must take an oral English interview test. This test can be stressful for students since one student must sit in a room with five professors, including at least one native English speaker, and answer a battery of questions in English.

The result of the oral interview test plus the student's other test scores determines which overseas university the student will be able to go to. Students who request universities in the US or the UK but who have low TOEFL scores or do not do well on the interview will usually be advised to go to a university in a non English-speaking country such as Thailand. For the most part, however, the committee tries to accommodate the student's wishes.

Recently, it has become more difficult to send students to universities in the UK or the US. The UK changed its visa requirements for visiting medical students to a tier 4 working visa, which is more difficult to get than the previous one. In addition, many US medical schools have increased their TOEFL iBT requirements for visiting foreign medical students to 80 points, with some schools such as MGH requiring scores as high as 100 points. Even with these tougher standards, though, several Toho University students have still managed to do clerkships in the UK and the US.

5. Clinical Skills Assessment class

Students who are accepted for an overseas clinical clerkship must take a special class called Clinical Skills Assessment before they go abroad. This class meets for seven Saturday afternoons in November and December. The class is required to be taught by a native English-speaking doctor, and since 2009 that instructor has been Dr. Daniel Salcedo. Students practice how to interview patients in English and also learn real examination techniques such as how to use a fundoscope while explaining it to the patient. Student reaction to the class has been overwhelmingly positive, with some students saying that Dr. Salcedo had taught them not just English but also examination techniques that they had not known before. I also have participated in this class for the last four years as a simulated patient.

6. Student reactions

Students who go on the overseas clinical clerkship often say that their main reason for participating is that they want to see how medicine is practiced in other countries and compare it with medicine in Japan. Also, some students have said that they are interested in seeing the work of some medical departments that are not found in Japan. One student who did his clerkship in Thailand said that he wanted to see family medicine because it does not exist as a separate field in Japan. He was especially interested in how family medicine in Thailand uses a lot of traditional Thai practices as well as western techniques. Few students said that practicing English was their main reason for going abroad, although one student who went to Thailand did say that it was a good chance for him to use English to discuss medicine since he rarely uses English in the hospital in Japan. Finally, some students said that while abroad they enjoyed meeting Japanese medical students from other universities who were participating in similar overseas clerkships. All 6th year students give a presentation upon completion of their clinical clerkships. In these presentations, those students who chose to go abroad have almost always reported that the experience was valuable and they would encourage other students to do it.

Some students returning from overseas clinical clerkships had interesting advice for those who want to do an overseas clerkship in the future. One said that students going to Thailand should stay in the university hospital hotel rather than in the dormitory because Thailand is too hot, even in April, and the dormitory has no air conditioning. A student who went to the US said that the first week was really hard because she had to do similar things as an intern in Japan would do, and it took her a while to get used to reading medical charts, writing notes, and making daily presentations. Also, since the attending doctors changed every week, as soon as she got used to one doctor a new one would come in.

One very interesting comment from a student returning from the US was that to get the most out of the experience, visiting students should actively ask to do things. Students who do not ask will just watch the procedures, but those who do might be allowed to actually examine patients and make presentations, thus learning what working at a university hospital is really like. This student also recommended that visiting students volunteer to do weekend or night shifts and work hard to gain the trust of the hospital staff.

7. Conclusion

While only a few Toho University students participate in the overseas clinical clerkship program every year, it provides a valuable service to students who wish to see how medicine is practiced in other countries. Those students who do participate generally recommend other students to consider doing their 6th-year elective clinical clerkship overseas. Even students who are not so good at English can find value in the program and gain new perspectives on medicine.

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I would like to thank Dr. Daniel Salcedo for teaching the Clinical Skills Assessment class these last 6 years and allowing me to write about it. I would also like to thank Professor Hidechika Matsui, the director of the International Communication Center of Toho University for providing me with information about the overseas clerkship program.

'e-clinic' benefits English program at Shimane University, Faculty of Medicine

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This paper describes how the e-clinic, English Language Support Center of Shimane University, Faculty of Medicine, assists the English teaching program by stimulating interest in English and providing English-related resources for the students. The e-clinic is an extracurricular English resource room that helps us enhance learner autonomy by providing students with a variety of resources including iPads and computers, English readers, test study books, travel guides and more. The e-clinic also helps facilitate international exchange between our Japanese students and foreign students, guest lecturers, and other visitors. Our students often meet foreigners in the e-clinic, and when they are getting ready to go on exchange programs with other universities, they often come to the e-clinic to prepare. Although the e-clinic is only a few years old, we have found that it has already had a positive impact on our students in everything related to English Language learning and international exchange.

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Keywords extracurricular English education, e-clinic, learner autonomy, international exchange

1. Introduction

Medical and nursing students at Shimane University (Izumo Campus) believe they may need English in their professional lives and are usually somewhat motivated to learn the language.[1]

To help increase the motivation of our students in English, we developed an English Enhancement Program (3e program), with 3 basic pillars (**Figure 1**). Pillar 1 is enhancing English curriculum design which we have done by applying integrated curriculum combined with e-learning.[2] We also started an advanced English skills course for students interested in studying English beyond the required classes.

Pillar 2 is enhancing learner autonomy and pillar 3 is enhancing international exchange. This paper focuses on the ways our English resource room, called the 'e-clinic,' supports these two pillars.

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2. Pillar 2: Enhancing Learner Autonomy

We endeavor to enhance learner autonomy through e-learning, mobile learning, various seminars, an e-clinic Facebook site, *e*-clinic journals and our '*e*-clinic' facility itself. The *e*-clinic is a 10 x 12 meter English resource room

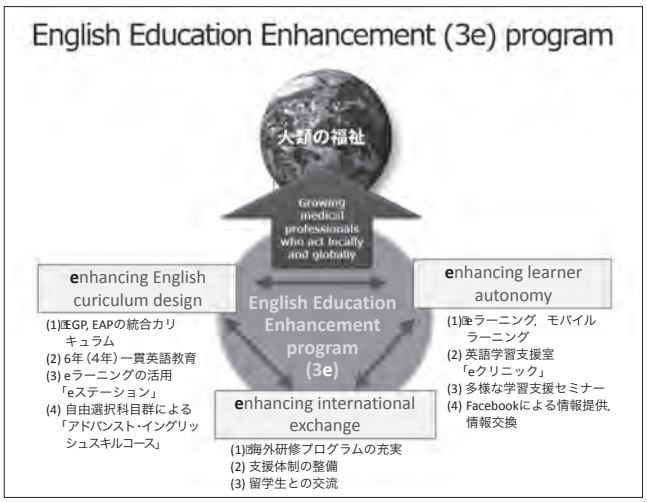

Figure 1. 3e Program at Shimane University, Faculty of Medicine

Table 1. Number of *e*-clinic visitors

School Year	No. of visitors	Note
2013	3,043	First e-clinic on the 3rd Floor
2014	3,970	Moved to temporary *e*-clinic in September
2015	2,181	New e-clinic on the 2nd floor. Number of visitors is through June 30 and the estimated number for the 2015 school year is 6,000.

with multiple uses. Students use it as a study lounge, a social area, and a place to practice conversational English while doctors, teachers and foreign students often use it as a seminar room. It is quite flexible with easily adjustable partitions and can comfortably accomodate groups up to approximately 50 people in size.

The *e*-clinic originally opened in April 2013 in a small, out-of-the-way room on the 3rd floor of the Lecture Building. At that time, the furniture was old and the English resources, computers and electronic equipment were limited. From September 2014 to March 2015, the *e*-clinic moved to a temporary location while the Lecture Building was remodelled. In spite of these drawbacks, the volume of people using the *e*-clinic steadily increased (**Table 1**). Since April 2015, the *e*-clinic has been open at its new, convenient location on the 2nd floor of the Lecture Building.

The *e*-clinic is fashionably designed in brown and tan colors and somewhat resembles the interior of a stylish cafe. It has been stocked with English reference books, English journals, TOEIC and TOEFL study books, travel guides, novels, readers, DVDs of English movies and television programs, English games and other English resources (**Figure 2**). It also has 12 personal computers and 2 iPads the students may freely use for personal study.

The *e*-clinic's positive atmosphere draws in students. And, they never quite know for sure whom they might run into when they visit the *e*-clinic. Sometimes they meet foreign doctors, medical students and/or exchange students (**Figure 3**). At other times, it could be one of their English teachers. Our students and university guests like to spend time relaxing at the *e*-clinic because it is comfortable and has internet access.

Most foreigners who visit the *e*-clinic are not proficient in Japanese which usually limits anyone wishing to communicate with them to using English. These opportunities to have casual conversations in English are invaluable for our students because few English-speaking foreigners live near our campus. Each English conversation is beneficial and helps our students regard English as a genuine communication tool.

When our students have success communicating, they

Figure 2. Medical student at *e*-clinic

Figure 3. Exchange students from other countries

gain confidence in their English ability and this often makes other English-related opportunities seem more exciting and realistic for them. For example, students considering our New Zealand exchange program may be worried about their English ability. Our nursing students in particular, can sometimes lack confidence in this area. Yet, if our students can hold a conversation with a friendly foreigner in the *e*-clinic, it may give them just enough added confidence to sign up for one of our foreign exchange programs.

The *e*-clinic provides the ideal environment to empower our students to thrive in English. On Mondays, there is an English conversation time over lunch at the *e*-clinic. Any interested students may join several English teachers for casual English conversation while they eat. And we also host an English salon twice a week for any foreign students, students or staff who want to improve their English. We usually have 10–15 participants come to the *e*-clinic for an hour or so on Tuesday and Thursday evenings to work on their English through games, role playing, quizzes and other creative methods. This class has proved to be a great opportunity for our foreign students to make friends with students and staff

at our school.

At the *e*-clinic, travel guides are available for almost all key countries students could possibly want to visit. For students going abroad, the *e*-clinic often becomes their exit point to the world outside Japan. It is the place where they study and prepare before they leave on their international trips. And it is the place they return to with souvenirs and exciting stories of their adventures abroad.

Our English teachers and the *e*-clinic staff are working diligently to blend our available human resources with the *e*-clinic's physical resources to provide our students with as many English-related opportunities as possible (**Figure 4**).

Figure 4. English teachers and support staff

3. Pillar 3: Enhancing International Exchange

The third pillar of our English Education Enhancement program is enhancing international exchange. The number of our students going abroad for study has greatly increased partly due to effect of the positive English environment of the *e*-clinic and the efforts of the *e*-clinic staff to promote internationalization.

One of our oldest and largest exchange programs is a study tour (Overseas Study A, **Table 2**) at Waikato Institute of Technology (WINTEC) in Hamilton, New Zealand. This program is 7 years old and every year 20–25 of our students travel to NZ for two weeks to study English for medicine and closely observe the NZ medical system. Before departing for NZ, these students complete a 10-week course focusing on travel English, international travel tips and key points of New Zealand's history and culture. Other exchange programs (Overseas Study B, **Table 2**) include medical study programs at universities in Melbourne, Australia, Bangkok, Thailand and Seattle, USA.

Students may also design their own overseas medical study program (Overseas Study C, **Table 2**). Students are increasingly taking advantage of this opportunity through organizations such as The International Federation of Medical Student Associations (IFMSA). Each of our foreign study programs require significant amounts of planning and preparation. The *e*-clinic staff leader works closely with the students, the travel agency representatives and the foreign institutions involved to make sure that everything necessary for these trips is done properly.

We use the *e*-clinic to help promote all of these exchange programs. After the students sign up for a particular program, the *e*-clinic provides the quintessential environment to help them prepare and sharpen their English skills.

Table 2. Number of participants in overseas study programs

Program	2013	2014	2015
Overseas Study A	26	21	20 (+ α)
Overseas Study B	4	11	16
Overseas Study C	3	13	17
Total	33	45	53

Figure 5. *e*-clinic weekly schedule

4. *e*-clinic Management

Important *e*-clinic decisions are made by Professor Iwata after consulting with the support staff leader and other support staff. The *e*-clinic is open on weekdays from 10:00 to 18:30 and for the majority of that time, it is supervised by the staff leader. This person keeps an eye on everything while maintaining positive relationships with the *e*-clinic guests. Various English teachers also help supervise and assist in the *e*-clinic as their schedules allow. We post a schedule each week, so students can know when a particular teacher will be available at the *e*-clinic. Any student may then freely talk with that teacher about anything during that time (**Figure 5**).

The *e*-clinic hosts a variety of seminars, special classes and other events, so the *e*-clinic staff need to be able to create interesting, attractive flyers to increase interest and participation for these events.

The healthy growth in the number of *e*-clinic users (**Table 1**) is probably directly attributable to the upgraded facility in a better location as well as the superior people skills and technical creativity of Ms. Yuri Ajiki, the *e*-clinic support staff leader since its inception.

As the *e*-clinic grew in popularity, we needed help to extend the operating hours. So, we hired six outgoing, trustworthy students to be 'peer supporters.' These students assist the *e*-clinic users, answer any questions people have and help keep the *e*-clinic neat. They are paid a modest hourly fee and come in individually one day per week to supervise the *e*-clinic from 16:30 to 18:30. They have been invaluable to the *e*-clinic's success and growing popularity.

5. Conclusion

It took much planning, time and money to make our *e*-clinic a reality, however, we feel the benefits exceed the costs as our students love spending time there as they improve their English. The reality of this is reflected in the steadily-growing number of users. The excitement in the *e*-clinic, the connection with our international exchange programs and the significant English resources available there have all helped raise the interest level in English at our school. Our English classes and exchange programs are all benefitting from the *e*-clinic's resources and excitement. For years to come, the students, doctors and staff here should be the beneficiaries of the *e*-clinic and its excellent English resources.

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Extracurricular activities to promote English skills at Okayama University Medical School

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Recently, an increasing number of medical students seem keen on enhancing their English skills beyond the medical curriculum. The teachers and students at the Department of Primary Care and Medical Education at Okayama University jointly organized frequent extracurricular activities in English in the form of periodic English medical seminars, medical interview seminars with English-speaking patients, English journal seminars, casual lunch time chats and monthly English medical newsletters. The aim was to create an all-English, interactive environment beyond classroom learning. The target population included 1st-6th year medical students and 1st-year resident doctors. Various kinds of English exposure and different learning methods for developing targeted English skills received extremely positive back. Students felt these opportunities motivated them to go abroad for higher education and increased their confidence to take up the challenge of foreign patient encounters. Teachers felt extracurricular activities really motivated students to use English in a medical setting. However, some students felt they needed further practice with medical English vocabulary and English communication skills, while teachers felt more tailored approaches that cater to the untapped areas of medical English education were essential. The enthusiasm of medical students and constant cooperation of teachers at Okayama University Medical School was motivational. As English is a second language in Japan, extracurricular activities to improve English skills, with proper guidance and periodic exposure to an English-speaking environment are effective ways to enhance English skills at medical schools in Japan.

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Keywords English skills, medical English education, extracurricular activity, interdependency

1. Preface

In Japan, many medical professionals do not require English language skills. However, with Japan going global and opening the gateway for two-way educational and professional opportunities, the number of foreign healthcare professionals coming to Japan is increasing, and many Japanese healthcare professionals are working overseas. Moreover, in accordance with global trends based on international standards, the World Federation for Medical Education (WFME) has introduced the system of international accreditation of medical institutions, through international quality assurance of medical education and medical methodology.[1] While the Japan Accreditation Council for Medical Education is underway,[2] Japanese medical schools are actively moving towards internationalization and integration of English into the Japanese medical curriculum.[3-5] Teaching medical English and English communication skills to medical students in Japan requires a clear understanding and proper use of English for medical purposes (EMP).[6-7] Some medical institutions are trying to develop innovative ways through extracurricular activities (ECAs), and create opportunities for medical students to use English more frequently, and improve their English communication skills.[9]

At the Department of Primary Care and Medical Education, Okayama University Medical School, ECAs for medical students are organized through joint efforts by medical teachers and students, with the following agenda: a) to

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familiarize medical students with basic medical terminology so that they can easily access medical information in English textbooks and on the web; b) to train students for foreign patient encounters; c) to train students and resident doctors in the use of scientific expressions and medical terminology appropriate to writing research articles and making presentations in English at scientific meetings; and, most important of all; d) make English learning enjoyable. ECAs can also provide an English-friendly environment for other healthcare professionals and administrative staff at Japanese medical schools besides medical students.

2. Introduction to extracurricular activities

2.1. Weekly lunchtime chat

This collaborative activity was initiated by Japanese students returning from abroad who wanted to use English more often in their daily campus life with friends who were also interested in practicing English. Once a week during lunch break, students get together to talk about everyday life, exchange opinions on current issues and share a few laughs. Everyone, including the teacher, wears a nametag and addresses each other on a first name basis. The atmosphere is very friendly and interactive.

2.2. Bimonthly evening medical English seminars

Medical teachers and senior students who are fluent in English and have experience in clinical training abroad arrange medical English seminars twice a month. Senior students or resident doctors make 20 minute power point presentations focusing on different areas of medical history taking in English, followed by 10 minute role playing by students as doctor and patient. At the end of each practice session, time is allotted for self-reflection and feedback. Finally, a summary is provided by the instructor.

2.3. Monthly English PBL seminars

Problem Based Learning (PBL)[10] is a structured approach to help medical students make a clinical diagnosis, where students learn to critically evaluate laboratory and imaging data and devise a treatment plan suitable for each patient. At every monthly English PBL, a medical student presents a clinical case sequentially in English using power point slides. All participating students take turns reading out the slides, while a volunteer student summarizes the data on the white board in English. This is followed by interactive group discussions regarding chief complaints, results of physical examination and laboratory data. The students are strictly advised not to use any Japanese during the interactive sessions, and the main role of the instructor is to help the students explain themselves or ask and answer questions in English by providing useful hints or essential vocabulary.

2.4. History-taking practice seminars with English-speaking SPs

Once every two months, English medical interview seminars are arranged, and a lecturer specialized in medical interviewing is invited to train medical students in the art of medical interviewing in English. In every session, medical teachers and students fluent in English pose as English-speaking SPs. For each session, a predetermined chief complaint is chosen and 3 to 4 students and resident doctors take turns in interviewing the SPs. Each interview lasts 10 minutes followed by a 10-minute feedback from the in-house medical instructor and invited lecturer. The final goal of this session is to help students make a methodical diagnosis and appropriate treatment plan designed in English.

2.5. English Seminar with foreign exchange students

To create an opportunity for Japanese medical students to interact with foreign medical exchange students, evening seminars are arranged where foreign students talk about their home countries, campus life, teaching methods, and ECAs at their respective medical schools. Medical teachers are responsible for conducting the seminar smoothly by involving students in interactive question and answer sessions in English, taking the conversation forward and helping students express and share their opinions easily. A mini coffee and cookie break creates opportunities for further casual interaction.

2.6. Early morning seminar with resident doctors

Bi-monthly, early morning seminars are organized where junior resident doctors present a recent scientific article or an interesting clinical case in English. Presentation slides are checked by medical teachers beforehand. Every other month, a senior doctor experienced in oral English presentations at international conferences, discusses the details of how to effectively handle question and answer sessions in English after oral presentations, which seems to be the main problem that most Japanese presenters face at scientific conferences.

2.7. Lunchtime chats with faculty administrative staff

Twice a week, lunchtime English chats are held, where administrative staff interested in learning English interact and practice spoken English with other English-speaking staff over lunch. Casual exposure to English allows staff to relax and learn English without hesitation and has already encouraged some staff members to take the TOEIC test and travel abroad.

2.8. Monthly newsletter (Medical Express)

The Department of Primary Care and Medical Education recently started publishing a monthly newsletter called "Medical Express," which contains tips on improving English language skills. The newsletter is divided into mini sections, such as: the "right and wrong section," which introduces incorrect sentences or phrases (e.g. What's the spell?) along with the correct version (e.g. How do you spell that?); the "commonly used medical abbreviations" section (e.g. BP: blood pressure; IV: intravenous, etc.); the "simply speaking" section (Antibiotic: kills bacteria; Benign: harmless, etc.) and a section with mini instructions in English for nurses (e.g. Explaining how to use the insulin pen to foreign diabetic patients, etc.). There are also heartwarming messages from faculty members and other medical personnel in English, encouraging readers to enhance their English communication skills and actively participate in upcoming ECAs. An announcements section provides information about upcoming medical English exams, such as Examination of Proficiency in English for Medical Purpose (EPEMP), etc. Both the printed and digital versions of the newsletter are distributed throughout the medical school.

3. Feedback from teachers and students about ongoing ECAs

Feedback obtained from teachers over a 5-month period revealed that students regularly attending the ECAs seemed motivated with a good knowledge base, and the initiative and performance of senior students was very encouraging. However, teachers felt for further improvement, students needed more practice in using appropriate English vocabulary, speaking in front of a large group, and answering questions in English, in addition to one-on-one encounters with English-speaking SPs. Students responded by saying that they were lucky to have the opportunity to practice medical interviews with English-speaking SPs. Following their encounters with English-speaking SPs posing as foreign patients, students felt they needed to know more about the patients' cultural backgrounds and foreign customs. Students also expressed satisfaction in having instructors and senior medical students constantly helping them. Regarding areas they needed to work on, students thought "English clinical scenarios" and "Medical diagnosis in English" were still big hurdles they needed to overcome with continuous practice. Both students and teachers agreed that in order to overcome the language barrier it was important to continue the ongoing programs and increase exposure to different English accents, along with foreign cultures and customs.

4. Achievements through ECAs within a 5-month period

Through the English PBL and medical English seminars, students were able to choose their own case studies, pose their own questions, and explore complicated cases together. By brainstorming the answer together, they tried to teach each other medical English, while improving their own English skills. In every English ECA, all participants acted as guides and resources for each other. ECAs helped students develop the habit of gathering, organizing, and sharing information through feedback from each other on areas they needed to work on, by sequentially arranging presentations focusing on solving common medical issues, and finding easy ways to use the information they collected more effectively. All these combined activities formed a platform of interdependence among students and teachers through English communication. Junior resident doctors were happy to be given an opportunity to present in English. With each session, their confidence grew, and they learned how to use the inputs from senior doctors to improve their presentations. Besides students, the administrative staff really appreciated the opportunity to practice English casually at their workplace. With the passage of time, at the Department of Primary Care and Medical Education, Japanese greetings are gradually changing into English ones, and everyday communication through short English phrases is becoming enjoyable. The Newsletter, too, has received very positive feedback, with readers highly praising the initiatives taken by The Department of Primary Care and Medical Education to try and reach out to a larger community beyond medical students and enhance the overall English skills at Okayama University Medical School.

5. Discussion

The introduction of various ECAs showed promising results over a 5-month period. The initial and most impor-

tant step taken by teachers to ensure success when planning ECAs was to build strong student-teacher relationships. As students' English language and communication skills improved, teachers gained satisfaction from fostering learner motivation. While students appreciated the efforts of teachers after school hours, teachers constantly tried to devise ways of bringing out the best in students and encourage diversity in language use. All ECAs were planned around student availability to ensure maximum student attendance.

Through weekly lunchtime chats, students had the opportunity to make new friends on campus on the same mission as them, whilst becoming familiar with their teachers. The bimonthly evening medical English seminars and monthly English PBL provided students with a chance to practice their English history-taking skills and to improve their communication skills through repetition, guidance and constructive feedback. With the use of English-speaking SPs in the PBL seminars, a greater number of students became interested in taking the United States Medical Licensing examination. Although the students have yet to experience one-on-one encounters with trained English-speaking SPs, there are ongoing efforts to provide such experiences, starting this fall. Frequent exposure to foreign/English-speaking students of their own generation seemed to help Japanese students learn more about foreign countries and foreign cultures from first-hand sources. Further similar exposures will enable students to realize the importance of international communication and assist them in staying up-to-date up with rapidly changing global trends.

The early morning seminars encouraged resident doctors to make English presentations and practice question and answer sessions in English. In the near future, these doctors hope to write their first English scientific articles and make oral or poster presentations in English at international medical conferences.

Finally, the monthly newsletter created a lot of interest in the ongoing ECAs and had a positive influence on the attendance. The authors are hopeful that the newsletter will reach out to many others beyond medical students and encourage English language learning at Okayama University Medical School.

6. Epilogue

Through group work, repetition, proper guidance and periodic training, the Department of Primary Care and Medical Education at Okayama University Medical School took action oriented, multi-structured approaches to enhance active English learning and improve EMP. The outcome so far has been inspiring and very promising. Both teachers and students intend to continue working hand in hand to devise new and effective ECAs and prepare medical students at Okayama University Medical School for the international arena.

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Training clinical students through interviews with English-speaking simulated patients and giving case presentations to clinicians

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English-speaking simulated patients (ESSPs) can help students develop interviewing skills in English. For students in clinical training (years 4–6), developing case presentation and clinical reasoning skills along with interviewing skills is essential; and especially for students planning to do electives abroad, it is necessary to develop these skills in English as well. We designed an extracurricular program to help students develop these essential skills in English. The program consisted of 6 sessions: in the first 3, students performed interviews with ESSPs; and in the second 3, students first performed interviews with ESSPs, and then presented the ESSP cases to clinicians in English for practice in clinical reasoning. Students were mainly fifth-year students who were planning to do electives abroad. Eighteen students participated in the first 3 sessions, which were held during the term, but only 7 participated in the second 3 held during the spring holidays. The program helped students prepare for electives abroad. Students developed confidence in performing medical interviews in English, became aware of cultural differences, were able to capture the relevant information to present to the clinicians, developed clinical reasoning skills, and reaffirmed the significance of medical interviews as the core of patient care. Although this program was designed for students planning to do electives abroad, the same kind of program could usefully be introduced to all students in clinical training. Previous training in Japanese helps students learn the skills in English.

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Keywords English-speaking simulated patients, medical interviews, case presentations, clinical reasoning, overseas electives

1. Introduction

Working with English-speaking simulated patients (ESSPs) gives medical students authentic experiences of interviewing non-Japanese patients in English, and the involvement of ESSPs in education is gradually increasing.[1-5] Experience with ESSPs helps motivate students to further develop their patient-interviewing skills in English and can be introduced from the first year of medical school.[1,2] For students in clinical training (years 4-6), along with patient interviewing skills, case presentation and clinical reasoning skills are important. The need to develop these skills in English is particularly important for students going abroad for electives.[6] This paper describes an extracurricular program created for the purpose of improving these essential skills in students going abroad for electives, and discusses the efficacy of the program.

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2. Program design

We designed an extracurricular program in which students practiced interviewing skills with ESSPs, and then gave case presentations to clinicians in English for practice in clinical reasoning. Two-thirds of the participants were fifth-year students at The Jikei University School of Medicine who were planning to go abroad for electives. The program consisted of 6 sessions, the first 3 held in October and November 2014, and the second 3 in February and March 2015. The sessions were held on Saturdays from 15:30 to 18:30. In the first 3 sessions, 18 students (1 third-year, 2 fourth-year, 12 fifth-year, and 3 six-year students) participated, but in the second 3 sessions, only 7 students (1 third-year and 6 fifth-year students) participated, one of whom, a fifth-year student, had not participated in the first 3 sessions. The second 3 sessions were held immediately after the final examinations, during the spring holidays. Those who applied to participate were required to commit themselves to attending on all 3 days, which limited the number of applications.

2.1. The first sessions—interviews only

The aim of the first sessions was to develop students' interviewing skills, so the students were given many opportunities to perform interviews with ESSPs. The 3 sessions were designed as follows:

Session 1:

1) Students learned English expressions used in medical interviews through lectures and role-playing.
2) Students practiced interviews with 2 ESSPs and 2 teachers. Only in this session were students allowed to look at their notes during the interviews; they had to perform the interviews without their notes in the following 2 sessions.

Session 2:

In seminar rooms, students performed Objective Structured Clinical Examination (OSCE)-style interviews with ESSPs. There were 9 ESSPs with 9 different scenarios, but each student interviewed only 6 ESSPs because of time limitations.

Session 3:

1) Watching videos: Students evaluated their own performances by watching videotaped interviews in small groups.
2) Students practiced interviews with 6 ESSPs in groups of 2 or 3: while 1 student performed the interview, the other student(s) watched and gave feedback (**Figure 1**).

Figure 1. Interview with an ESSP

We had previously developed many scenarios on basic symptoms, such as headache, abdominal pain, chest pain, and backache. Because this was the students' first interview practice in English, we decided to choose pairs of scenarios with similar symptoms, so that the students would have to distinguish between them. Thus, migraine was paired with tension headache, gallstones with esophagitis, angina with pleurisy, and acute low back pain with urinary stones.

After each interview, students were given interactive feedback from the ESSPs. We administered questionnaires before the interview (right after the lecture) and after the one-on-one OSCE-style interviews to find out what effect the interviews with ESSPs had on students. Although the program was not designed as an examination, the ESSPs filled in an evaluation form (checklist) after each interview, and the average score of the 3 categories—interviewing skills, interpersonal/communication skills, and English skills—was given to the students along with comments from the ESSPs. We did not give students the exact score for each item on the checklist, because although we wanted to give students some idea of their overall performance, we did not want them to regard the scores as an indication of their competence. Each ESSP differed in appearance, approachability, and symptoms assigned, so students found some of them more difficult to communicate with than others, regardless of their own English ability.

2.2. The second sessions—case presentations after interviews

The aim of the second 3 sessions was to develop students' case-presentation skills in English along with clinical-reasoning skills. Although students can learn these skills by practicing with written patient information, in real-life situations, they can only accurately perform case presentations and clinical reasoning after conducting thorough interviews with patients. Therefore, we had students perform inter-

Figure 2. Giving a case presentation to a clinician

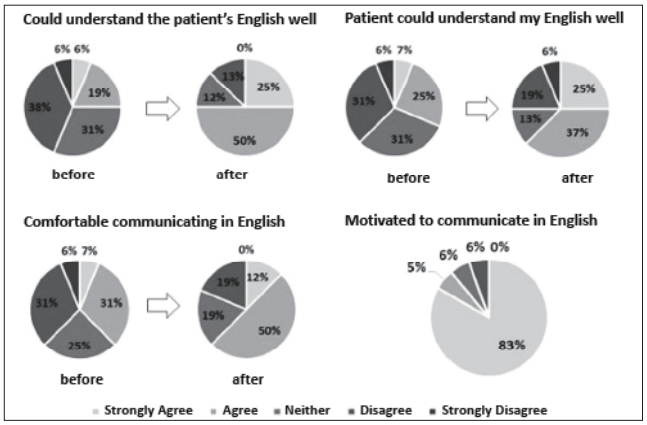

Figure 3. Student evaluations of the efficacy of interview training with ESSPs

views with the ESSPs and then give case presentations using the information they had obtained. The presentations were given to 2 clinicians at The Jikei University School of Medicine who had graduated from King's College London. They were fluent in English, and after the presentations, they asked students questions so that they could practice differential diagnosis. The sessions were structured as follows:

Session 4:

1) Students learned useful English expressions and a recommended format for case presentations through lectures.
2) Students performed interviews with 2 ESSPs, wrote up the patient histories, and then presented them to the 2 teachers. The teachers gave feedback and advice for improving case presentation skills in English.

Session 5:

1) Students performed OSCE-style interviews with 4 ESSPs playing different scenarios.
2) Using their notes, students wrote up the histories and memorized them for their presentations.
3) Students made case presentations to 2 participating clinicians and discussed differential diagnosis in English.

Session 6:

1) Each student performed interviews with 4 ESSPs playing different scenarios, wrote up the cases and presented them to 1 clinician (**Figure 2**).
2) Other students observed the interviews and presentations and gave feedback.

Because this was the first time the students had practiced case presentations in English, we used the same scenarios in Sessions 4 and 5 as in Sessions 1–3. In Session 6, we used new scenarios provided by the participating clinicians. These were on common diseases that the students would be likely to encounter in their clinical practice: diabetes, hypothyroidism and Meniere's disease.

After the interviews, the ESSPs filled in an evaluation form, and the average scores were given to the students. Likewise, after the case presentations, both the students (self-evaluation) and the clinicians filled in the evaluation form. The teacher gave students verbal feedback, including their scores, at the end of the session. A questionnaire was given to the students to investigate the effects of performing case presentations based on interviews.

3. What students achieved

3.1. Developing confidence in performing interviews in English

As the students were given many opportunities to interview ESSPs in the first 3 sessions, they were able to build confidence in interviewing foreign patients. After the interviews, many students realized they had done better than they had initially expected. Before the interviews, many students thought that they would not be able to either understand the ESSPs' English or be understood by them. However, 75% of them found that they could understand the ESSPs well (only 25% expected to be able to do so pre-interview), and 62% found that the ESSPs could understand their English well (32% pre-interview). While only 38% of the students felt comfortable communicating in English before the interviews, 62% felt comfortable after the interviews. Furthermore, 88% of the students were motivated to improve their English communication skills (**Figure 3**). One student wrote in the questionnaire given after the interviews:

> *"It was really exciting and I could enjoy this OSCE practices. But I was a bit nervous when I did this to the first patient. This experience has motivated me to practice more English."*

With increased motivation and confidence, some students practiced further on their own towards the second 3 sessions in February and March. After performing interviews in the second sessions, 67% of the students stated that they did better than they had in the first 3 sessions. Here are two students' comments:

"When a patient presented with a cough in the first sessions, I did not know what to ask. But this time, I had studied on my own using textbooks, so I could ask questions more logically."

"I could interview more smoothly than in the first sessions."

It is clear that the experience of interviewing many ESSPs increased students' confidence and skills.

3.2. Learning about cultural differences

Besides practicing their language skills, students also came to recognize some cultural differences by interviewing ESSPs. They commented, for example:

"Eye-contact is regarded with greater importance."

"Foreigners articulate more."

"Explanations should be precise because an interviewer cannot depend on the nuances that are shared and understood among Japanese persons."

"I felt a cultural difference when shaking hands."

The students appreciated the opportunities they were given and thought that the best way to improve their understanding of cultural differences was to have more opportunities to interview ESSPs.

3.3. Understanding the patient's condition and writing it up in an appropriate format for a case presentation

In writing up their case presentations, students did not just list the information gleaned from the interviews but also organized it in a proper format for case presentations (**Table 1**). They tried to capture the essential information that would enable the clinicians to understand the patients' conditions and lead to meaningful differential diagnosis. On making their presentations in Session 5, 43% of the students thought that they were able to make the clinicians understand the patients' conditions, but the clinicians reported that they were able to do so in 85% of the presentations. While only 29% of the students thought they were able to include both the positive and negative symptoms the patients had, the clinicians identified both aspects in 69% of the presentations. Although students seemed to have found it difficult to make case presentations (as they had previously had little practice even in their own language), they did well enough for the clinicians to understand the patients' conditions and discuss possible diagnoses.

Table 1. Format for case presentation (what should be included)

1. Beginning: must include name, age, gender, chief concern/complaint
2. Organization: must proceed logically so that it is easy for listeners to picture the patient's concern
3. Positive and negative aspects of symptoms: sufficient information on both the positive and negative symptoms of the patient must be included
4. Language: must be easy to understand; the patient's words can be quoted
5. Presentation style: memorize your report and maintain good eye contact

3.4. Developing clinical reasoning skills

After the case presentations, the clinicians discussed diagnoses with the students. They reconfirmed the patients' symptoms and asked students what examinations or tests were needed to rule out or confirm various possible diagnoses. This discussion made students realize and reflect on what they had covered and missed, and helped them develop their clinical reasoning skills,[7] as illustrated by the following comments:

"The clinician asked and checked what I had been thinking while interviewing the patient. Discussing what kind of tests were needed, etc. trained me to think ahead of what needs to be done."

"I could make case presentations, but when I was asked about diagnoses or test procedures, I could not answer, except for the case of hay fever. I realized my lack of knowledge."

"Considering the differential diagnosis enabled me to reflect on my own interview, acknowledge what was not important and what was important, and perform better in the next interview. Even though one may be good at English, competence in medical knowledge is essential."

Students learned what information and medical knowledge were important in considering differential diagnosis, and thus came to be able to perform interviews in English with clinical reasoning in mind.

3.5. Reaffirming the significance of medical interviews as the core of patient care

As students realized through clinical reasoning what they had covered and missed in their interviews, they reaffirmed the importance of medical interviews:

"I thought that the interviews were important since case presentations could only be made from the interviews."

"I learned a lot. As I had the task to clearly convey the patient's concerns later, I listened more attentively and in more detail."

"I desperately tried to listen."

The students understood the importance of listening to the patient's story as both the beginning and core of patient care, because both the case presentations and clinical reasoning that follow are based on the interviews.

4. Conclusion and future possibilities

Through the 6 sessions, students developed confidence in performing medical interviews in English, became able to make case presentations, and practiced clinical reasoning skills in English. Even those who participated only in the first sessions valued the experience of performing interviews with ESSPs:

"This experience was most valuable to me. Definitely something we all need before we go abroad for clinical clerkship."

"Thank you very much for this opportunity. This is really helpful for my future."

This kind of program is an effective method to prepare students going abroad for electives. Although students had practiced case presentations and clinical reasoning for only 3 days, they became better able to give case presentations and learned what information was essential in working towards differential diagnosis. Recently, 1 student stated on her return from an elective in Taiwan that our program had helped her more than anything else to make presentations. In the future, we are planning to hold additional sessions to help students further develop their presentation and clinical reasoning skills.

This program was designed mainly for students planning to go on overseas electives; therefore, introducing them to case presentations and clinical reasoning in English was not difficult, because most of them were already good at English. However, this kind of program should also be introduced to other students. The first 3 sessions are suitable for students in all years, because the focus is on developing their interviewing skills. However, the second 3 sessions are more suitable for students in their clinical years. For students with a lower level of English, the second 3 sessions would be easier if they first practiced giving case presentations in Japanese. In this age of globalization, all Japanese medical students need to develop the skills that the program described herein helps instill.

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The reciprocal effects of teaching evening classes at a non-university hospital and developing a university medical English course

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In this case study, we explore the effects that two very different teaching situations have had on each other: evening classes for working professionals at a national hospital, and the teaching of a university curricular medical English course. First, we summarise the development of an intensive course for third-year undergraduates, one that involves the integration of corpora, word lists, and teaching materials. Then, we describe the teaching of a conversational evening course at a non-university hospital. We reflect on how the challenges of developing the university course created the conditions for discussing medicine in the evening classes, and also helped us to contribute ideas to medical professionals attending those classes. We also discuss how the developing relationship with medical professionals in the evening classes had a major effect on the curricular course, particularly in relation to the creation of integrated teaching materials.

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Keywords curriculum, medical English, corpus, word list, teaching materials

1. Introduction

In this article, we consider English classes at a non-university hospital and how they have affected a project to teach medical English to third-year students at a national university. For several years our group, the Institute for Foreign Language Research and Education, has been involved in the design, teaching, and evaluation of a medical English course at Hiroshima University. At the same time, one of the authors has been involved in teaching evening classes to a group of staff at a hospital that is not connected to the university. This non-university teaching has had a profound impact on the development of the university English course, which in turn has offected the non-university classes.

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2. Method

The article may be considered a case study, in which we summarise the two situations, and reflect on how they have affected each other. As our interest in teaching medical English has been driven by the creation of the university curricular course, we summarise this course first, followed by a description of the evening classes. In discussing the two courses, we address the following questions:

1) What has been the value of the non-university classes for their participants?
2) What effects has the teaching of the non-university classes had on the curricular course?

2.1. Course development within the university curriculum

Our involvement in medical English dates back to 2012, when the Institute for Foreign Language Research and Education was approached by our medical faculty with an inquiry on whether we could improve the medical English of the faculty's students; this has been documented in detail.[1-3] A summary is presented here.

After discussion within the institute, and then between

members of the institute and the medical faculty, a mandatory four-day intensive course of 12 classes for third-year students was scheduled for 2012 and taught in that year. The medical faculty were particularly concerned with students' productive skills, and so the decision was taken to make relatively small classes by university standards, dividing the medical students into four groups of 30. Consequently, a team of four English language instructors was required. At this early stage, three broad strands of teaching were agreed: medical conversation (six classes involving two instructors), medical writing (three classes with one instructor), and medical discussion (three classes with one instructor). The teaching team itself would clarify the contents of each strand, and each instructor would prepare and teach three units of material. Over the years, the course itself has undergone various changes.[2]

The first year of the course we describe as *exploratory*. Discussion within the teaching team resulted in the decision to focus on medical ethics in the medical discussion strand, and doctor-patient dialogues in the medical conversation strand. Medical writing would involve summarisation of two encyclopaedia articles on Ebola and tuberculosis, which provided plenty of useful language on symptoms. A medical word list was created, with the majority of the words coming from the encyclopaedia articles; words chosen by the four instructors from their teaching materials were also added. At the end of the course, students were evaluated on the basis of a word test, a piece of summary writing, attendance, and instructors' perceptions of classroom performance. Overall student feedback was positive, and the medical faculty asked us to continue with the course.

The second year of the course we describe as the *research and piecemeal development* phase. In this phase, central government funding was obtained to develop medical corpora and word lists integrated with teaching materials. While a number of researchers have investigated the types of words contained in medical texts,[4-9] our main interest has been pedagogic, focusing on how to produce lists of words that are embedded in teaching materials. The key software used for corpus analysis has been *AntConc*, a freeware program developed by Laurence Anthony.[10] During this phase, senior members of the medical staff were interviewed.[11]

The results of the interviews led to a change in our approach. Initially, our aim was to build a corpus of 100 medical research articles, following Fraser's methodology for creating pharmacology word lists.[12] In response to our request for a division of medicine into ten broad areas, a senior member of the medical faculty made the following categorisation: cardiovascular medicine, digestive medicine, respiratory medicine, neuromuskuloskeletal medicine, infectious diseases and immunology, oncology, developmental medicine, nephrology and endocrinology, critical care and anaesthesiology, and sensory organology. However, due to the emphasis that was placed on the importance of anatomy, Gray's Anatomy for Students was chosen for analysis.[13] At the same time, anatomy worksheets were developed, based on ideas in Chabner,[14] relating to medical terminology. While the course remained essentially the same in the second year, the anatomy worksheets were used, but as an add-on rather than being integrated into the other material.

The third year of the course we describe as the *consolidation and syllabus development* phase, with new materials being written that integrated anatomy with medical problems. While our request for the categorisation of medicine into ten broad areas was made from the perspective of corpus-building, it suddenly became clear that these categories could be used to organise integrated sets of materials. Originally doctor-patient dialogues had been adapted from existing CDs and Internet materials covering a range of diverse medical complaints. The receipt of the ten categories suggested that materials focusing on medical problems within a particular category could be built that included important anatomy terms. For example, anatomy terms relating to the circulatory system could be introduced in a unit on cardiovascular medicine. Six units of integrated materials were created, and a new word list was developed from an analysis of those materials using *AntConc*. These materials were used in nine of the twelve classes (medical conversation and summary writing).

2.2. Non-university courses at a national hospital

At the same time that the curricular course was being planned (2012), a non-university hospital near our Higashi-Hiroshima campus asked our institute if an English teacher was available to teach evening classes. As a result, one of the authors (Davies) has been involved in teaching these evening English classes over the same period as the curricular course.

An initial decision was made to provide an office staff course and a medical staff course, organised by two different doctors, a neurosurgeon (the medical staff) and a thoracic surgeon (the office staff). Each class met once every two weeks for one hour. The doctors' request was that for each class, time should be allocated equally to general English conversation and to something more related to work.

Both evening courses were optional for hospital staff, and

tended to vary between one and eight participants in size, depending on what was happening in their hospital in any one week. With small classes and participants who got to know each other well, the content of the class was fluid, and materials were not always used. Also, in terms of planning, it was almost impossible to create any kind of structured syllabus because the participants attending the class tended to change week on week. The effect of this was that the classes became more and more unstructured.

After one year, there was a reorganisation of classes. Due to the very wide variation in class levels in the medical class, with elementary-level participants finding the conversational level too difficult, the decision was taken to create two classes on the basis of English level, with one doctor, a neurosurgeon, in charge of both. In the higher-level class he would attend as a participant, and in the lower-level class as a kind of teacher's assistant.

The reorganisation had a big initial effect for a few weeks, with more nurses attending the lower-level class. However, building any kind of syllabus was still a problem, with the number of people attending varying according to work commitments and levels of interest. Also, given the nature of work pressures and the fact that five or six participants were very keen on English classes, the two classes effectively merged to form a core group, which has since become a conversation class.

3. Discussion

Taking on the evening classes at the non-university hospital was primarily driven by two motivations. The first of these was due to the curricular course: It was important to gain insight into the medical profession, and teaching classes to hospital staff was a way of achieving this. The second factor was the importance of helping hospital staff with their English. In the case of Hiroshima University, the medical campus and the main campus are in two different cities: Hiroshima and Higashi-Hiroshima. As a national university tends to boost the number of non-Japanese speakers in its vicinity, with most of them likely to visit their nearest hospital, teaching English to staff at the a hospital in Higashi-Hiroshima was important. These motivations are reflected in the two research questions, which are addressed below.

3.1. What has been the value of the non-university classes for their participants?

In evaluating the evening classes, it is important to note that from a pedagogic perspective, the greatest challenge has been the difficulty of creating structure within them. At a busy hospital, attendance at voluntary classes is very volatile. This is in contrast to university curricular courses, where syllabuses are specified in advance and students must attend classes as part of the requirement for gaining the necessary credits to graduate.

From a general language-teaching perspective, the classes have been most valuable for a particular type of participant: one who has sufficient English skills to engage in conversational activities. The core participants range from the pre-intermediate level to the advanced level. It should be noted that a number of them attend an "English café", where they can sit at a small table with other customers and converse with an international student in English for an hour; such participants have reached a level where they feel they can express themselves fairly well, and are clearly looking for opportunities to use their English skills in situations that are less structured and more conversational. The hospital evening courses seem to fit with this conception of English language learning.

In the case of medical English, the situation is more complex and linked to the next section in the discussion. Most applied linguists have very good general discourse competence but only a layperson's medical understanding and medical English competence. In the non-university evening classes, because the teacher was involved in a curricular medical English course, he had a strong motivation to learn as much as possible from the medical staff. As the classes were conversational in nature, the participants would often talk about their work. It was possible to steer conversations into descriptions of operations, working routines, medical instruments, and anatomy. On both sides there was a genuine interest in developing clear understanding. Consequently, there was plenty of interaction, summarisation, concept-checking, and correction. An example of this was when a junior neurosurgeon mentioned that he was going to an international conference to make a presentation about cephaloceles. During the discussion that followed, he was asked to describe them and talk about the key points he was planning to make concerning treatment. This kind of activity was probably most useful for the doctors attending the class, but a surgical nurse was also able to contribute, talking about the preparation of operating theatres and the selection of equipment for operations.

It has also been possible to offer ideas to medical doctors. We are considering, for example, whether access to a medical corpus might be useful for medical staff and students in our university medical faculty. Due to our contact with the neurosurgeons attending the non-university course, we organised a meeting with a senior and junior neurosurgeon,

and were able to show them the *Antconc* software, how to download it, and its usefulness in producing frequency lists and extracting words in context.

3.2. What effects has the teaching of the non-university classes had on the curricular course?

One reason for taking on the classes was our institute's involvement in curricular innovation in medical English. The evening classes created opportunities for teacher development, mainly through dialogue with the neurosurgeon organising the classes, but also indirectly through gaining an understanding of what medical staff do and how a hospital operates.

Weekly contact with the neurosurgeon also yielded very important benefits in terms of materials design, which constituted a vital part of syllabus development for the curricular course. In the case of the non-university classes, there was weekly face-to-face contact with the neurosurgeon, who was prepared to spend time after one class talking about medical problems treated in his field. He was asked to describe four conditions that had slightly different symptoms from each other. On the basis of his advice, we researched the four conditions in much greater depth, and built a trial unit of material around them, integrating receptive skills through essays and word-building with productive skills focused on description and doctor-patient role-plays.[2] After producing the trial unit of material, we passed it to the neurosurgeon, who identified a number of mistakes and misleading definitions. For example, in the material we originally used the term *arachnoid* rather than *arachnoid membrane*. Later in the unit, an aneurysm had been defined as *a lump* in the wall of a blood vessel, but the neurosurgeon was concerned that *lump* had too strong an association with tumours, so it was changed to a *balloon-like bulge*. He also noted that an anatomy diagram was potentially misleading and was difficult to label. Consequently, we were able to make the unit clearer and more accurate.

Following on from the trial unit, we produced some question sheets for specialists, asking them to choose four medical problems in their specialism with similar but slightly different symptoms. The neurosurgeon approached several colleagues, and from the completed sheets and further research we were able to build more units of material.

In relation to corpus analysis, we have noted above that we were able to show corpus software to the two neurosurgeons. They were able to help us by identifying some of the key neurosurgery journals and supplying us with nine articles as PDFs from those journals, which we were then able to convert to text files for corpus analysis using Laurence Anthony's *AntFileConverter*.[15] Regarding curriculum and syllabus development, the nine articles form the starting point of the article-based corpus.

4. Conclusion

As noted earlier, this article is essentially a case study, examining the effects that non-university classes and curricular courses have on each other. Several points may be made in conclusion relating both to the value of the non-university classes in themselves and their effect on curricular innovation.

The non-university classes in this study can best be described as conversational classes that are more reflective of language school teaching than university classes. They are attended by participants who have spent a long day at work, and who want to express themselves in a relaxed atmosphere. Given this situation, a challenge is how to build appropriate English skills in an environment where attendance is dependent on work commitments. A future direction for the class will be to discuss problems relating to English that participants encounter in their everyday work. With this approach, course content emerges through problem-solving arising from the challenges participants face in the hospital.

The effect of the non-university course on curricular development has been substantial, mainly through the actions of the doctor organising the non-university classes. Teaching such classes involves weekly contact with an experienced medical professional. While the overall design of the curricular course has emerged through discussion between senior members of the medical faculty and our applied linguistics team, the units of teaching material themselves evolved through discussions with the neurosurgeon organising the non-university classes, and advice from other specialists in his hospital.

Finally, it is worth noting the importance of a shared interest in medicine between applied linguists and staff working at a hospital. Even in conversational classes such as the non-university ones described in this article, this shared interest leads conversation into medical areas. In such classes, the applied linguists gain medical understanding in the process of teaching English, while the medical and administrative staff have the opportunity to describe what they do in English. This case study illustrates some of the ways in which curricular courses and non-university courses can have a powerful reciprocal effect on each other.

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医学英語と文化交流と：東京女子医科大学における英語課外活動の取り組み

What is learnt through intercultural communication besides medical English? – Promoting extracurricular activities at TWMU

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In response to the increasing globalization of medicine, we at Tokyo Women's Medical University are offering several extracurricular English programs for students wishing to develop international perspectives. Two of these programs are reviewed in this paper: one for students planning to go abroad on clinical clerkships, and one for any students interested in intercultural communication and studying overseas. I will focus mainly on the latter program, which, by offering instruction in such fields as foreign cultures, history, and art, is designed to help busy medical students build up the communication skills and broad knowledge base they will need to function as successful doctors in the future.

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Keywords intercultural communication, cultural exchanges, communication skills, international perspectives

1. はじめに

専門科目で学ぶことが膨大にあり，過密カリキュラムの中で忙殺されている医学部生，本学も例外ではなく，そのため2年生以上の英語の授業は年に数える程しかカリキュラムには組まれていないのが現状である。そのため課外活動として，英語科が関われることをいろいろ模索している。現段階では，本学において，英語科が携わっている課外活動には大きく次のようなものがある。

1. 海外への派遣留学生を対象とした医学英語プログラム
2. 誰でも参加出来る「英語サロン」
3. 個人的な希望者を対象として行う英語リサーチペーパーの輪読

本稿では，1と2についてどのような目的でどのように実施されているかを紹介したいと思う。

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2. 海外への派遣留学生を対象とした英語プログラム

本学では，毎年5年生が2月から3月にかけて，交換留学生として派遣され医療研修を行ってくるという制度がある。派遣先は米国5大学，ヨーロッパ3大学，アジア4大学で，毎年25名くらいが選抜されて渡航する。選抜時期は5年生の6月なので，内定してから派遣までの半年程の間に行われるのが，このプログラムである。

なお，選抜前の4年生以下の希望者には，英語科として選抜の一つの基準となるTOEFL受験のために指導をしている。

2.1. 目的

5年生ということで，臨床実習中の真最中，英語に触れる機会はほとんどないのが現状である。しかし，実際には海外の派遣先の病院で実習をしなければならないわけで，そのために必要な英語を習得して，派遣先でも英語でしっかりコミュニケーションができ実習にも積極的に参加できるようにすることが目的である。

2.2. 実施状況

内容としては，症例報告についての英語を母語とするドクターによる講義と個人的な症例報告演習，また一人30分程度の英語模擬医療面接演習，そしてイーラーニングに

よる医学英語の語彙学習(1年間で約3000語の医学英語の語彙を学習するプログラム)を実施している。これらプログラムは毎年定期的に実施されているのであるが，昨年度の状況は下記の通りである(参加者はすべて5年生)。

①9月5日(土)　ネイティヴドクターによる講義
(参加者25名)
②10月～11月にかけて5回，症例報告演習
(各回10名程度)
③12月12日(土)，19日(土)英語模擬医療面接演習
(各回12名程度)

選抜された学生たちなので，学習意欲が高く，半年の間でもかなりの学習効果を挙げている。また，帰国後のアンケート調査よると，学んだこと特に自分が実際演習したことは派遣先でも大いに役立っているという結果が出ている。

3.「英語サロン」の開催

昨年度後期より始まったばかりであるが，開催のきっかけは，海外より来学している研修医や研究員，または留学生が大勢いるのだから，本学の学生たちと英語で歓談をしながら文化交流を図る機会を作ろうというところからスタートした。

3.1. 目的

過密なカリキュラムで勉強や研究に追われる医学生たちは，確かに医学的な知識は必然的に身につくし，医学的な経験もそれなりに積んでいくことであろう。また，医学英語なるものは，必要に応じて学べるように時間数は少ないもののカリキュラムに組み込まれている。しかしながら，海外の歴史とか文化を生で学べる機会は，自ら望まない限り得られない。そのため，最近の医学部生は，教養がないとか，人間性に欠けているとか言われがちなのである。そこで，海外からの研修や研究員，留学生を囲んで自由に英語で談話が出来る場所を提供し，そこで参加者たちが，日本とは異なる文化や歴史などを学びつつ，コミュニケーション能力も磨くというのが目的である。

3.2. 実施状況

1)第1回英語サロン(2014年12月1日18:00開催，参加者は学生が2, 3, 4年生が中心で15名程度，教員7名)

ゲストはバングラデシュから来日中の脳外科のドクターとタイ出身の脳外科研修生で，それぞれの国の紹介や医療事情などのお話を伺った。参加した学生たちは，あまりなじみのなかった国々なので，初めて触れる異国の文化や歴史に新鮮な感銘を受けつつ，積極的に質問をしては理解を深めていた。

Figure 1. イランの楽器を演奏するDr. Rashighi.

2)第2回英語サロン(2015年3月2日18:00開催，3, 4年生を中心に参加者があった。教員および研修生数名)

ゲストとしてロシア出身の本学の特任教授とイランから来日中の脳外科医をお招きした。開催時期が試験前とあって学生の参加が少なかったのは残念だったが，先生がた見せて下さった膨大な写真の数々は，未知の国を知る上で，インパクトがあった。また，お話だけでなく，地元の食べ物の披露や，珍しい楽器の演奏といったエンターテイメントまであって，まさに「サロン」でこそ実現可能な異文化との触れ合いであった。

3)第3回英語サロン(2015年6月23日昼休み開催)

この時期ちょうど来日中のベルギー・ブリュッセル自由大学からの交換留学生5名を迎え，本学の学生たち13名(内訳は，1年生3名，3年生5名，4年生3名，5年生2名)が集まった。この回は，3つのグループに分け，自己紹介後，両大学の医学教育のカリキュラムの違いや，授業時間数の違いなどの情報交換を，昼食を食べながらの和やかな雰囲気の中で行った。その後，話が進むに連れて，ヨーロッパでも人気の高い日本のアニメや，ベルギーのアニメの話などで，かなりの盛り上がりを見せた。

第4回は9月に，女性の海外よりの研修医を何人かをゲストに，海外における女医の働き方，生き方を主に女子医大生との歓談する場を設ける予定である。

4. まとめ

2のプログラムは，対象者が決まっていて，本学のカリキュラムで行われる医学英語以外にもっと専門的な英語を提供するという意味で大きな役割を果たしていると思われるので，今後も少しずつ対象者の幅を広げつつ，プログラムも増やして行く予定である。

また，後者の「英語サロン」は昨年度後期から始まったばかりであるが，参加者たちには，大好評だったので，今後は隔月くらいに開催しようと計画している。このように，異文化交流を実際に体験する中で，医者の資質として必要な人間性は，人と人とのface to faceのコミュニケーションを通してこそ育まれると思われる。また，現在のグローバル社会では，英語で臨機応変に対処できるコミュニケーション能力が必要とされている。それゆえ，このような「英語サロン」の開催は，将来期待される医師の育成に大きな意味を持つと思われる。

日本医学英語教育学会
医学教育のグローバルスタンダードに対応するための医学英語教育ガイドライン

Medical English education guidelines corresponding to the Global Standards for the Medical Education

日本医学英語教育学会 ガイドライン委員会
福沢嘉孝,[1] 一杉正仁,[2] 石井誠一,[3] 亀岡淳一,[3] 建部一夫,[4] 高田　淳,[5] 服部しのぶ,[6]
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2010年にECFMG (Educational Commission for Foreign Medical Graduates) が「WFME (World Federation for Medical Education)のグローバルスタンダード評価基準に準拠した医学教育を受けている医科大学・医学部の卒業生以外にはUSMLEの受験資格を2023年以降認めない」と宣言して以来，日本の医学教育もグローバル化に向けてパラダイムシフトを余儀なくされている。所謂『2023年問題』である。WFME認証評価基準項目内には，内容的にも医学英語教育と密接に関連する項目が多数含まれており，各医科大学・医学部においても早急に自己点検・評価を実施し，各々独自性を有している医学英語教育手法がそれに対応しているか否かをチェックし，質の改善・改革を図る必要性がある。以上の背景を鑑み，日本医学英語教育学会では2013年9月にガイドライン作成ワーキンググループを組織し（2014年7月にガイドライン委員会に改組），医学教育のグローバルスタンダードに対応するための医学英語教育ガイドライン作成に取り組んできた。2014年7月の中間報告，同年11月のパブリックコメント募集を経て，2015年7月の第18回学術集会において最終報告を行い，完成に至ったガイドラインを日本語と英語の2カ国語版で報告する。

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Keywords guidelines, EMP education, global standards

前 文

近年，社会においてはグローバル化が求められているが，それは医学の領域でも例外ではない。現状の教育では，教員は医学用語を日本語だけで指導しがちであり，また医学生は英語版の教科書を見ることもなく学習することが少なくない。[1] その結果として英語力は伸び悩み，我が国は他国に比べ，TOEFL-iBT[2] やIELTS[3] の成績も低いという現状を導いている。これでは，医学英語の運用能力にも支障をきたすことになる。

医学に関する英語は多くの医科大学で教育されているが，その教育内容や到達度の目標設定は統一されていない。したがって，十分な教育を受けていない人は，医療現場や医学研究の現場で，十分に医学英語を活用できないことがある。そこで，日本医学英語教育学会 (JASMEE) では，英語が母語ではない日本の医学生の，医学・医療の現場における，読み・書き・聴き・話すという医学英語能力の向上を

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目標に，日本における医学英語教育のガイドラインを提案する。

本ガイドラインの作成にあたっては，2013年に日本医学教育学会から提示された『医学教育分野別評価基準日本版（世界医学教育連盟（WFME）グローバルスタンダード2012年版準拠）』[4,5]を参考とし，医学教育の国際的基準に合致するために必要な英語運用能力の習得を主眼とした。

この評価基準を参考に，本ガイドラインでは「英語で教科書・論文を読み，理解できる」「患者に英語で面接し診察できる」「学会等において英語で発表討論できる」ということをoutcomeとする。その達成のために教員は普段から医学英語を講義で使うように心がけることが望まれ，学生は英語ではどう表現するのかを考えながら学習することが望まれる。

本ガイドラインは，医学英語学習における必要最低限の目標を示しているに過ぎず，各教育機関における個々の取り組みを規制するものではない。すでに多数の医科大学・医学部で独自の取り組みがなされていることを踏まえ，さらなる発展を奨励するものである。また，今後の医学英語教育の発展により本ガイドライン自体が改訂・改良されることが望ましいと考えている。

本ガイドラインにより医学英語教育が発展し，わが国の医学・医療が国際的に評価されることを願ってやまない。

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日本医学英語教育学会
理事長　**伊達　勲**
ガイドライン委員会
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高田　淳，服部しのぶ，廣川慎一郎，森　茂，
守屋利佳，Raoul Breugelmans，吉岡俊正

注　＊TOEFL-iBTスコアに関する報告はhttps://www.ets.org/で参照可能

＊IELTSスコアに関する報告はhttp://www.ielts.org/で参照可能

【本ガイドラインの構成】

本ガイドラインにおいては，英語運用能力（proficiency）を下記の4項目に分類している。

(1) Vocabulary
(2) Reading
(3) Writing
(4) Communication

学習のoutcomeとして，医学部卒業時に全員が習得すべき内容をMinimum requirement，全員が習得する必要はないが，さらなる能力向上のために習得が望ましい内容をAdvanced requirementと定義した。そして前記の4運用能力それぞれに対して，学習目標を大別して具体的に示した。

【本ガイドラインと医学教育分野別評価基準との対応】

「医学教育分野別評価基準」は直截的に医学英語教育に関わるものではないが，その内容として医学英語の運用能力が求められるものが少なくない。具体的には下記の各項目が挙げられる。本ガイドラインでは，これらの目標に到達できるために必要な能力の習得を目安としている。

医学教育分野別評価基準の収載項目	必要となる医学英語運用能力
国際保健 (Q 1.1.2): 国際的な健康障害の認識，不平等や不正による健康への影響などの認識を含む）	・医学文献のreading能力 ・臨床におけるcommunication能力
生涯学習 (B1.1.6): 評価，審査，自己報告，または認定された継続専門職教育 (continuing professional development; CPD) / 医学生涯教育 (continuing medical education; CME) などの活動を通して，知識と技能を最新の状態で維持する職業上の責務	・生涯学習を行う上での情報収集のための英文資料のreading能力
社会的責任 (B 1.1.7): 地域あるいは国際的な医学の発展に貢献する意思と能力を含む。	・医学文献のreading・writing能力 ・臨床や研究におけるcommunication能力
EBM（科学的根拠に基づく医学）(B 2.2.3)	・医学文献等，種々の情報・資料のreading能力
他教育機関との国内・国際的な協力 (B 6.6.1): 適切な資源を提供することによって，教員と学生の国内・国際的な教職員と学生の交流を促進すべきである (Q 6.6.1)	・専門家どうしのcommunication能力
全体的な学習成果 (Q 7.1.3): 医師国家試験の成績，ベンチマークの評価，国際的試験，職業選択，大学卒業後の業績などから測られる。	・試験に対応するreading・writing能力

(1) Vocabulary

1. Minimum requirements
- 身体の部位と機能，医療・健康に関する基本的な専門用語*を理解し使うことができる。
- 医学英単語を使い，必要な情報を英語テキストやweb上で検索できる。

注）基本的な専門用語*：医師国家試験出題基準に記載されている医学用語に相当する英語表記。

［具体的な目安］

〈基本的な英単語（一般用語と専門用語語彙）〉

・「身体の部位と機能」，「症状，徴候」，「検査，診療行為，診療器具」，「疾患，診断」に関する基本的な専門用語*を理解し使うことができる。

〈英語表現〉

・「医療面接」，「身体診察」，「患者への病状説明や指示・指導」「医療情報（カルテ，電子カルテ）記載」，「症例プレゼンテーション」で必要な基本的な英語表現を使うことができる。
・医学・医療の研究に必要な英単語，英語表現の情報を英語テキストやweb上で検索できる。

2. Advanced requirements
- 医療・健康に必要な英単語，英語表現を十分に理解できる。
- 医学・医療の研究に必要な英単語，英語表現の情報を十分に利用できる。

［具体的な目安］

〈医学英語用語〉

・臨床研修，診療実践のための医学用語を理解し，英語で医療に従事できる。
・一般用語と専門用語の語彙を理解し使い分けながら，患者に説明できる。
・医学英単語を駆使し，その意味も解説しながら臨床参加型実習の指導ができる。
・医学英単語を駆使し，論文執筆や学会発表・討論ができる。
・医学英単語を駆使し，その意味も解説しながら講義やディスカッションができる。

〈医学英語表現〉

・頻繁に辞書を引くことなく，英語の成書や論文を自由に使い，学習することができる。

(2) Reading

1. Minimum requirements
- 医療・健康に必要な基本的な医学英語が理解できる。
- 医学・医療の研究の基礎に必要な医学英語が理解できる。

［具体的な目安］

〈診療〉

・基本的な身体機能及び疾患の英語表記を理解できる。
・基本的な症状，徴候の英語表記を理解できる。
・基本的な診察所見，診療行為，診療器具の英語表記を理解できる。
・基本疾患（モデル・コア・カリキュラムに収載されている）について英語の資料を読み，内容を理解できる。

〈研究〉

・英語の文献検索を行い，目的とする英語論文のabstractを読んで理解できる。
・医学英語論文の基本的な構造を理解できる（abstract, introduction, methods, results, discussion, references）。

2. Advanced requirements
- 医療・健康に必要な医学英語を十分に理解できる。
- 医学・医療の研究に必要な医学英語資料を十分に理解できる。

［具体的な目安］

〈医療・健康〉

・患者の症候や病態をもとに，英語の資料を利用して問題点を解決できる。

〈研究〉

・英文の症例報告の内容がおおむね理解できる。
・最新の医学的知識を英文で理解できる。すなわち，診療や研究に関する英語資料の内容がおおむね理解できる。

(3) Writing

1. Minimum requirements
・テクニカル・ライティングができる。
・医学・医療関連のインフォーマルなコミュニケーション英文が書ける。
・医学論文の英文abstractを書ける。

［具体的な目安］
〈テクニカル・ライティング〉
・テクニカル・ライティングの存在を知っている。
　・伝えたい内容を的確にまとめる特殊技術（レトリック）である点
　・文法・語彙が正しいだけでは不十分である点
　・日本語でのライティングにも共通の技術である点
・パラグラフ・ライティングができる。
　・各パラグラフに一つだけ論点／主張を置く。その論点を述べる文をtopic sentenceといい，通常パラグラフの冒頭（または最後）におく。残りの部分は，その論点を補強・拡充するための論証や例示にあてる。
・一貫性（coherence）の保たれた文章を書ける。
　・文単位で
　・パラグラフ単位で
・明確 (clear) かつ簡潔 (concise) な文章を書ける。
・推敲 (self-editing) ができる。

〈一般のコミュニケーション英文〉
・基本的な文法（punctuationを含む）を知っている。
・基本的な語彙（医学用語を含む）を知っている。
・応用的な文法・語彙を調べながら運用できる。
　・辞書・参考書・インターネット（Googleフレーズ検索・ワイルドカード検索，コーパス等）等を用いて検索できる。
・インフォーマル文書 (e-mail, etc.) を書ける。

〈医学英語論文（およびそれに準じたレポート）〉
・医学論文に必要な要素を理解している。
　・新規性 (novelty) と重要性 (importance) の2大要素。
　・他の論文を参考にして良いが，倫理的に問題（剽窃plagiarism，捏造fabricationなど）がないこと。
・英文abstractを自分で書ける。
　・モデルとなりうる英文abstractを検索できる。
　・英文abstractの構造 (introduction, body, conclusion) に従って書ける。

2. Advanced requirements
・医学・医療関連のフォーマルなコミュニケーション英文が書ける。
・医学英語論文を書ける。

［具体的な目安］
〈医学・医療を含む一般のコミュニケーション英文〉
・各種フォーマル文書 (curriculum vitae, cover letter, reference letter, etc.) のフォーマットを検索して，それに基づいた文書を書ける。

〈医学・医療の英語論文（およびそれに準じたレポート）〉
・英語論文を指導のもとに書ける。
　・モデルとなりうる英語論文を検索できる。
　・英語論文の構造 (introduction, methods, results, discussion, references) に従って書ける。

(4) Communication

1. Minimum requirements
・英語で患者を案内することや良好な関係を築くことができ，基本的な医療面接を行える。
・英語で医学・医療の研究成果の簡単な発表と質疑応答ができる。

注　Minimum requirementは「国内における外国人患者への対応」を前提とする。

［具体的な目安］
〈診療〉
・聴解力
　・一般的な身体表現，症状を聴き取り，理解できる。
　・専門用語を使用した医療従事者間の会話を聴き取り，理解できる。
・発話力
　・初診患者の受付や院内誘導などの案内ができる。
　・挨拶・患者確認，ならびに基本的な医療面接を行える。
　・患者の診察上必要な説明（体位の変換，指示など）を行える。

〈研究〉
・聴解力
　・（英語を母語としない人たちを対象とした）国際学会発表などのプレゼンテーションの内容をおおむね理解できる。
　・（英語を母語としない人たちを対象とした）グループディスカッションでの議論の内容をおおむね理解できる。
・医学・医療関連の英語メディアの情報を聴き取りおおむね理解できる。

・発話力
　・簡単なプレゼンテーションができる。
　・グループディスカッションで自分の意見を簡単に述べることができる。
　・簡単な質問に答えることができる。

2. Advanced requirements
・英語で診察結果などを患者に説明し，上級医に報告できる。
・英語で医学・医療の研究成果の発表・討論，並びにネットワーク形成ができる。

注　Advanced requirementは「国外での医療活動」を前提とする。

［具体的な目安］
〈診療〉
・聴解力
　・患者の社会的背景，信条などを聴き取り，理解できる。
　・電話での会話，子供の発音，異なる母語の話者の発音などを聴き取り，理解できる。
・発話力
　・患者に基本的な診察結果・治療方針などをわかりやすく説明できる。
　・患者の状態を上級医に報告し，病態についてディスカッションすることができる。
　・症例プレゼンテーションとそれに伴う質疑応答ができる。

〈研究〉
・聴解力
　・国際学会発表などのプレゼンテーションの内容をおおむね理解できる。
　・医学・医療関連の英語メディアの情報を聴き取り活用できる。
　・グループディスカッションでの議論の内容を理解できる。
・発話力
　・学会・研究会で発表ができる。
　・他の発表に対して質問ができる。
　・グループディスカッションで議論に沿って発言し，説明できる。
　・学会・研究会参加者と懇談やネットワーク形成ができる。

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[Vocabulary]

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[Reading]

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Japan Society for Medical English Education

Medical English education guidelines corresponding to the Global Standards for Medical Education

Japan Society for Medical English Education Guidelines Committee
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With the 2010 announcement by the Educational Commission for Foreign Medical Graduates (ECFMG) that foreign physicians applying for ECFMG Certification will be required to have graduated from a medical school that has been appropriately accredited in accordance with the World Federation for Medical Education's (WFME) Global Standards for Quality Improvement – the so-called "2023 problem" – Japan has been forced to re-evaluate its medical education system. WFME's Global Standards includes many references to the teaching of English for medical purposes (EMP), so medical schools in Japan are also obliged to ensure that they are delivering on this front. In view of the above, JASMEE created a guidelines working group in September, 2013 (renamed the Guidelines Committee in July, 2014), which is working to ensure that Japanese medical schools meet global standards. An interim report was issued in July, 2014, outside comments were solicited from people working in the field in November, 2014, and the Committee gave a final report at JASMEE's 18th Academic Meeting in July, 2015. This document reports the final version of JASMEE's guidelines.

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Preamble

In recent years, the need for globalization has grown throughout society, and the field of medicine is no exception. In our current education, teachers tend to teach medical terminology only in Japanese, and medical students tend to study without ever opening English-language textbooks.[1] As a result, English proficiency has stagnated, and the national results of English proficiency tests such as the

TOEFL-iBT[2] and IELTS[3] are generally lower than those of many other advanced countries. This will have negative effects on medical English proficiency.

Many medical schools provide programs teaching English for medical purposes, but their educational contents and objectives vary widely in Japan. Consequently, those who have not received sufficient instruction often lack adequate medical English proficiency in the clinical or research setting. The Japan Society for Medical English Education (JASMEE) therefore proposes guidelines for medical English education in Japan, with the aim to raise the medical English proficiency of Japanese medical students whose native language is not English, in the areas of reading, writing, listening and speaking in medicine and health care.

These guidelines were developed with reference to the "WFME Global Standards for Quality Improvement, Basic Medical Education: Japanese Specifications"[4,5] published by the Japan Society for Medical Education in 2013, with a focus on achieving the English proficiency necessary for meeting the global standards of medical education.

In accordance with these specifications, the outcomes of the present guidelines are "be able to read and understand textbooks and articles in English", "be able to conduct medical interviews and medical examinations in English" and "be able to present and discuss at scientific meetings in English". To achieve this, we advise that medical school teachers aim to use medical English in their regular lectures, and that students study medicine while constantly thinking about how to express the contents in English.

These guidelines present minimum objectives for learning medical English, and are in no way intended to limit or regulate the programs of individual educational institutions. Numerous medical schools already have original programs in place, and we encourage the further development of such programs. As medical English education in Japan advances, these guidelines themselves will need to be revised and updated.

It is our wish that these guidelines contribute to the development of medical English education, thus raising the international reputation of Japanese medicine and health care.

January, 2015

Japan Society for Medical English Education
Chairperson of the Executive Board
Isao Date
Guidelines Committee
Yoshitaka Fukuzawa, Masahito Hitosugi, Raoul Breugelmans, Shinobu Hattori, Shinichiro Hirokawa, Seiichi Ishii, Junichi Kameoka, Kazuo Kenpe, Shigeru Mori, Rika Moriya, Jun Takata, and Toshimasa Yoshioka

Notes: * TOEFL-iBT score reports are available at https://www.ets.org/
* IELTS score reports are available at http://www.ielts.org/

"Basic Medical Education: Japanese Specifications, WFME Global Standards for Quality Improvement" item	Required medical English proficiency
Aspects of global health (Q 1.1.2): Aspects of global health would include awareness of major international health problems, also of health consequences of inequality and injustice.	• The ability to read medical articles • The ability to communicate in the clinical setting
Lifelong learning (B 1.1.6): Lifelong learning is the professional responsibility to keep up to date in knowledge and skills through appraisal, audit, reflection or recognised continuing professional development (CPD)/continuing medical education (CME) activities.	• The ability to read English materials for information gathering as part of lifelong learning
Social accountability (B 1.1.7): Social accountability would include willingness and ability to contribute to the national and international developments of medicine.	• The ability to read and write medical articles • The ability to communicate both in the clinical and research setting
Evidence-based medicine (EBM) (B 2.2.3)	• The ability to read medical articles and other types of information and materials
National and international collaboration with other educational institutions (B 6.6.1): Facilitate regional and international exchange of staff and students by providing appropriate resources (Q 6.6.1)	• The ability to communicate with other experts
The overall outcomes (Q 7.1.3): Overall outcomes would be measured e.g. by results at national license examinations, benchmarking procedures, international examinations, career choice and postgraduate performance.	• The ability to read and write for an examination

Structure of these guidelines

In these guidelines, English language proficiency is divided into the following four areas.

(1) Vocabulary
(2) Reading
(3) Writing
(4) Communication

As learning outcomes, those competencies that must be achieved by all students by the time of graduation from medical school are referred to as "minimum requirements", and those that do not need to be achieved by all students, but are recommended for further development of ability are referred to as "advanced requirements". Concrete learning objectives are given for each of the above-mentioned four proficiencies.

Relationship of the present "Medical English Education Guidelines" with the "WFME Global Standards for Quality Improvement, Basic Medical Education: Japanese Specifications"

The "WFME Global Standards for Quality Improvement, Basic Medical Education: Japanese Specifications" do not contain any explicit requirements for medical English education. A considerable number of items, however, imply the need for proficiency in medical English.

These items are listed below.

The aim of the present "Medical English Education Guidelines" is the acquisition of the abilities required to achieve these objectives.

(1) Vocabulary

1. Minimum requirements

- Understand and be able to use basic technical terms* related to body parts and functions, and medicine and health care.
- Be able to search for information in English-language textbooks and on the web using medical English terms.

Note: Basic technical terms*: The English equivalents of Japanese medical terms included in the Criteria for Questions on the Japanese National Medical Licensing Examination.

Specific aims

Basic English terms (general and technical vocabulary)

- Understand and be able to use basic technical terms related to body parts and functions, signs and symptoms, medical examination, care and equipment, disease and diagnosis.

English expressions

- Be able to use basic English expressions necessary for conducting medical interviews and physical examinations, giving explanations and instructions/advice to the patient, entering medical information (into medical records, electronic medical records), and giving case presentations.
- Be able to search for information consisting of English terms and expressions necessary for research in medicine and health care.

2. Advanced requirements

- Have a thorough understanding of English terms and expressions necessary for medicine and health care.
- Be able to adequately use information consisting of English terms and expressions necessary for research in medicine and health care.

Specific aims

Medical English terminology

- Understand the medical terminology necessary for clinical training and medical practice, and be able to practice health care in English.
- Be able to give explanations to the patient appropriately distinguishing between general and technical vocabulary.
- Have a sufficient command of medical English terminology to provide guidance on participatory clinical training while explaining the meaning of the terminology.
- Have a sufficient command of medical English terminology to write research articles and give presentations and participate in discussions at scientific meetings.

- Have a sufficient command of medical English terminology to give lectures and participate in discussions while explaining the meaning of the terminology.

Medical English expressions

- Be able to use and learn from English-language publications and research articles without frequently consulting a dictionary.

(2) Reading

1. Minimum requirements

- Understand basic medical English necessary for medicine and health care.
- Understand medical English necessary for the basics of research in medicine and health care.

Specific aims

Medical care

- Understand the English referring to basic body functions and diseases.
- Understand the English referring to basic signs and symptoms.
- Understand the English referring to basic findings, medical care, and medical equipment.
- Be able to read and understand English-language materials related to basic diseases (included in the Model Core Curriculum).

Research

- Be able to do a literature search, and read and understand the abstracts of target English-language research articles.
- Understand the basic structure of an English-language medical research article (abstract, introduction, methods, results, discussion, references).

2. Advanced requirements

- Have a thorough understanding of medical English necessary for medicine and health care.
- Have a thorough understanding of medical English materials necessary for research in medicine and health care.

Specific aims

Medicine and health care

- Be able to use English-language materials for problem solving according to the symptoms and condition of the patient.

Research

- Understand the general content of English-language case reports.
- Understand the latest medical knowledge in English. In other words, understand the general content of English-language materials related to medical care and research.

(3) Writing

1. Minimum requirements

- Be able to do technical writing.
- Be able to write in English for informal communication related to medicine and health care.
- Be able to write English-language abstracts of medical articles.

Specific aims

Technical writing

- Have basic knowledge of technical writing and know that

  it is a special technique for accurately conveying information (rhetoric)
  it is not sufficient for grammar and spelling to be correct
  the technique also applies to writing in Japanese

- Be able to do paragraph writing.

  Limit each paragraph to one topic/issue.
  The sentence that states the topic is called the topic sentence and is usually placed at the beginning (or end) of the paragraph. The rest of the paragraph consists of evidence and illustrations that support/expand the topic.

- Be able to write coherently.

  At the sentence level
  At the paragraph level

- Be able to write clearly and concisely.
- Be able to do self-editing.

English writing for general communication

- Know basic grammar rules (including punctuation).
- Know basic vocabulary (including medical terms).
- Be able to look up and use applied grammar rules and vocabulary.

  Be able to perform searches in dictionaries and reference books, and on the Internet (Google phrase searches, wild card searches, corpus searches etc.)

- Be able to write informal documents (e-mail etc.)

English-language medical articles (and equivalent reports)

- Understand the elements necessary for a medical article.

  Know the two major elements: novelty and importance.
  Know how to refer to other research articles while avoiding ethical issues (plagiarism, fabrication etc.)

- Be able to write an English-language abstract by oneself.

  Be able to search for an English-language abstract that can serve as a model.
  Be able to write according to the structure of an English-language abstract (introduction, body, conclusion).

2. Advanced requirements

- Be able to write in English for formal communication related to medicine and health care.
- Be able to write English-language medical articles.

Specific aims

English writing for general communication including medicine and health care

- Be able to write formal documents (curriculum vitae, cover letter, reference letter, etc.), by looking up the formats of these documents.

English-language medical articles (and equivalent reports)

- Be able to write English-language medical articles with guidance.

  Be able to search for an English-language medical article that can serve as a model.

  Be able to write according to the structure of an English-language research article (introduction, methods, results, discussion, references).

(4) Communication

1. Minimum requirements

- Be able to give directions and establish good rapport with the patient, and conduct a basic medical interview in English.
- Be able to give a simple presentation on and answer questions about the results of research in medicine and health care in English.

Note: The minimum requirements apply to dealing with non-Japanese patients in Japan.

Specific aims

Medical care

Listening comprehension

- Recognize and understand general body expressions and symptoms.
- Be able to follow and understand technical conversations between medical professionals.

Speaking

- Be able to give new outpatients assistance at the reception or help them find their way around the hospital.
- Be able to greet and identify patients, and conduct a basic medical interview.
- Be able to give explanations necessary for examining a patient (instructions for changing position etc.)

Research

Listening comprehension

- Understand the general contents of oral presentations at international conferences (targeted at non-native English speakers).
- Understand the general contents of group discussions (targeted at non-native English speakers).
- Be able to follow and generally understand information in the English-language media related to medicine and health care.

Speaking ability

- Be able to give simple presentations.
- Be able to simply present one's opinion in group discussions.
- Be able to answer simple questions.

2. Advanced requirements

- Be able to explain examination results to the patient and report to the attending physician in English.
- Be able to present and discuss the results of research in medicine and health care, and network in English.

Note: The advanced requirements apply to the practice of medicine overseas.

Specific aims

Medical care

Listening comprehension

- Recognize and understand the patient's social background and religious orientation.
- Be able to follow and understand telephone conversations, children's speech, and speech by speakers of different languages.

Speaking ability

- Be able to give easy-to-understand explanations of basic examination results, treatment plans etc. to the patient.
- Be able to report on the patient's condition and discuss with the attending physician.
- Be able to give case presentations and answer related questions.

Research

Listening comprehension

- Understand the general content of oral presentations at international conferences.
- Be able to follow and use information in the English-language media related to medicine and health care.
- Understand the content of group discussions.

Speaking ability

- Be able to give presentations at congresses and research meetings.
- Be able to ask questions about other presentations.
- Be able to make statements and give explanations during group discussions.
- Be able to socialize and network with participants at congresses and research meetings.

Reference teaching materials

Vocabulary

General vocabulary

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- Terminology in the index and the 36 main symptoms and conditions included in the Model Core Curriculum [モデル・コア・カリキュラムに収載されている主要36症候・病態や索引に書かれている語彙]

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Communication

- Uemura K, Oi S, Hollister P: Vocabulary Building for Doctors: 500 Common Phrases at Outpatient Clinics. Medical View Co., Ltd., 2007. [in Japanese; 今日から役立つ！医師のための英会話フレーズ500外来診療編]
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  <http://www.uptodate.com/ja/home>
- **DynaMed** (EBSCO Publishing)
  <http://www.ebsco.co.jp/medical/dynamed/>
- **Ichushi-Web** (Japan Medical Abstracts Society)
  <http://login.jamas.or.jp/>
- **Ovid** (Wolters Kluwer)
  <http://www.ovid.jp/site/index.html>
- **Best Practice** (BMJ Publishing Group)
  <http://clinicalevidence.bmj.com/x/index.html>
- **STAT!Ref** (Teton Data Systems)
  <http://www.statref.com/>

- **Henry Stewart Talks** (Henry Stewart Talks Ltd.) <http://hstalks.com/>
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