

# ENGLISH FOR MEDICAL PURPOSES AT TMPU - A RATIONALE AND CRITIQUE

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## Introduction

### *English as the International Language of Medicine*

English is now considered the international language for communication in many fields - the "lingua franca", as termed by Samarin in 1962. However, this has not always been the case in the medical field. There have been various lingua francas of the medical sciences in the past, such as Sanskrit, Chinese, Greek, German and French. As is widely known, Latin has been very influential in medicine and even now, at the morphological level, many of the medical words used today originated in Latin. According to Maher (1985), the fact that Chinese used to be the international language of medicine illustrates an important point in sociolinguistics, i.e. language is maintained or declines in response to the amount of new information it carries. In the 6th and 7th centuries as the Chinese expanded eastwards, non-Chinese-speaking doctors from Japan, South East Asia and Central Asia found it necessary to learn the Chinese language in order to benefit from the wealth of information in medical research coming from China at that time. Based on this information, one might expect that the reason English is now the language of medicine is due to the fact that most of the research comes from English speaking countries. Maher (1985) investigated this and found that 72% of the total number of biomedical articles published in 1980 were published in English. However, not all the publications were from English speaking countries, for example, 33% of all the medical publications from Japan were in English, as were 45% of all the publications from Germany. Countries with English as the "official" language were also taken into consideration. Maher noted that 99.6% of all the medical articles published in India were in English, as were 100% of the articles published in Pakistan and Singapore. The number of medical conferences around the world were also noted and it was found that out of the 373 meetings listed only 1 did not specify English as the official

language or one of the official languages.

### *The Situation in Japan*

These findings would suggest that it is essential for medical professionals in non-English speaking countries to master English, at the very least, to a level where they are able to read medical articles written in English and understand presentations given at medical meetings. Maher (1985) carried out a survey in Japan during 1983 and 1984 at Shimane Medical University in Izumo, to investigate the importance of English among doctors. The doctors were asked how often they read medical books or journals in English, and 68.3% stated often or very often. Likewise, when asked how necessary it was to read medical articles in English for their work, 68.3% answered essential and 16.8% answered important. From this study it can be concluded that English has an important role to play in the medical education system in Japan.

Kipler, Vogt and Aramaki carried out a study to determine the current situation regarding English courses offered in Japanese Medical Universities in 1999. They found that the minimum number of English credits needed by students in many universities had fallen from the mandatory 8, which were required before 1991 by the Ministry of Education, to 6 or 7, 1 credit being fifteen 90 minute classes. Medical English courses (defined for this study, as a course in English that was taught at least in some part by a medical doctor) taught in universities were also investigated and it was found that only 27 of the 44 universities researched, offered a course that reached their criteria. This statistic suggests that only 61% of the medical universities in Japan offer Medical English courses, however the percentage would vary greatly depending on the criteria used to define Medical English. One problem the researchers found was how to identify Medical English Courses, as sometimes the title of the course and the content were quite different. A course entitled Medical English 1 did not guarantee that the content of the course was sufficiently specialised as to differentiate it from standard English courses offered.

### *What is Medical English?*

Maher (1986) defines “English for Medical Purposes” as “the teaching of English for doctors, nurses, and other personnel in the medical professions”. In general terms he says that Medical English:

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- a) is designed to meet the specific English language needs of the medical learner
- b) focuses on themes and topics specific to the medical field
- c) focuses on a restricted range of skills which may be required by the medical learner  
e.g. for writing a medical paper, preparing a talk for a medical meeting etc

He suggests 2 types of English for Medical Purposes (EMP). EM-OP i.e. English for Medicine for Occupational Purposes, related to active professional requirements (consultation skills, conference presentation etc) and EMP-EP i.e. English for Medicine for Educational Purposes for students of medicine involving language training as part of primary medical studies. While both these areas will teach the same skills e.g. reading medical articles etc. and include the same content e.g. immunology; the teaching procedure, levels of knowledge involved and specific purpose will be different for doctors and students.

Taking Maher's definition of medical English as a criteria, then it could be argued that medical English courses do not need to be taught by doctors. The importance not being on who teaches, but on the content and skills taught during the course. The skills needed are language skills - e.g. writing a paper, reading an article, giving a presentation, communicating with patients etc, hence it is necessary for someone with an English language teaching background (TEFL) to teach these skills. A Medical English teacher is not teaching content, however, it is desirable for the teacher to have at least a lay knowledge of medicine and an interest in the way in which doctors work or study. Ideally they should know as much as possible about the register of medical English: typical "genres" or text types, typical collocations and their uses and the pronunciation of basic medical terminology. Concerning the register and style of Medical English, Swales (1981) has warned about the "hasty assumptions that talking about language for special purposes automatically means talking about special language". Rather, it can be described as "a restricted repertoire of words and expressions (often formulaic) selected from the whole language to cover every requirement within a well-defined context".

In an EMP-EP situation a medical English course that is taught alongside or after the students have clinical training in their first language might be most beneficial. As was mentioned above, the EMP teacher is not teaching medicine but the language of medicine. In order to understand this "language" the students must first understand the concepts behind the "language". Therefore it is important that the students have already mastered the concepts in their own language before studying the English for them. It is also vital for the students to bring their medical knowledge to the classroom, as in any language

teaching situation the knowledge learners bring to the classroom is most important - English should be thought of as a tool for talking / reading / writing about the knowledge already gained. In most EMP classrooms the medical knowledge of the learners is a most important resource, it is relied on heavily by the EMP teacher as it is the language knowledge not the content knowledge that is the teachers' speciality.

### *The Present Situation at TMPU*

At Toyama Medical and Pharmaceutical University medical students need to study for 7 foreign language credits in their first 2 years. Their options are English, Chinese, German and French. The majority of students only study for 3 general English credits - of these, the English Reading credit is compulsory. This is a big drop from the mandatory 8 English credits that were required by the Ministry of Education before 1991. In the 3<sup>rd</sup> year, students must take and pass Medical English I in order to continue to Medical English II in the 4<sup>th</sup> year. If they fail Medical English I it is very difficult for them to retake it again in the 4<sup>th</sup> year due to the congested schedule. Students begin their clinical training in 5<sup>th</sup> year (it is known as BST - Bed Side Training), hence their medical knowledge is limited in 3<sup>rd</sup> and 4<sup>th</sup> year when they are studying EMP. However, it can be argued that students need to have studied Medical English so that their English level is appropriate for BST. Which is necessary first - Medical English knowledge to deal with the texts etc read in clinical training or medical knowledge to base the EMP course on? TMPU medical English courses are taught by TEFL teachers - not doctors, and the course content is decided by these teachers, at present there are no guidelines to base the syllabi on. The students are divided into 2 groups and each group is taught by a different teacher - hence the content for each group is different. While some improvements would benefit this system it is also necessary to take into account the situation in Japan at the moment within all medical universities. The medical curriculum is under review and many aspects of the curriculum are changing.

## **Medical English IIa**

### *The Rationale behind the course*

The focus of this paper is one of the 4<sup>th</sup> year medical English courses (Medical English IIa), which was taught from April 2003 for 15 weeks, each class lasting 90 minutes. When

designing the course the perceived needs of the students were taken into account. Without doing a detailed needs analysis the various reasons for learning medical English were brainstormed (i.e. the Target Situations) and then analysed to decide which were the most immediate or would benefit the most students. Table 1 shows these needs - divided into the skill areas of speaking and listening, reading and writing. Many of the needs are multi-skilled, but for the sake of clarity they have been put under the heading that is considered the predominant skill. In the case of taking a post graduate course in an English speaking country, all 4 skills are considered equally important, so it has been placed in each group

**Table 1: Why do learners need a medical English course?**

*Speaking / Listening*

- To work in an English speaking country with patients
- To take a post-graduate course in an English speaking country
- To attend international meetings
- To communicate with English-speaking patients within Japan
- To communicate with English speaking colleagues on professional visits
- To present research at international conferences

*Reading*

- To keep up with medical literature of which the majority is written in English
- To make use of the database available on the Internet
- To take a post-graduate course in an English speaking country

*Writing*

- To write up research for journal publication
- To take a post-graduate course in an English speaking country

From the list of needs in Table 1 it is clear to see the first problem of any short medical English course. What should be included and what should be omitted? How can it be decided which needs are the most important when the course is only for 15 weeks? Studies by Allwright (1987) and Allwright and Baily (1991) have shown that students learn best when they feel that an emphasis has been placed on what they, as individuals deem most

important. The teacher should serve as a facilitator to educate students as to their learning options and choices, thereby providing the tools for decision making and improving students' confidence and responsibility. In a Japanese university situation this is very difficult to achieve, as teachers need to set the syllabi before meeting the students and there is no opportunity to meet the students before the course begins. Also many Japanese students are not used to telling the teachers what they want to learn and feel that "the teacher knows best". According to Richterich 1979 and Wilkins 1975 the learner as a source is not very helpful "Many learners have little or no idea of their future language needs and little linguistic awareness in general". Long (in press) recommends that the ideal method for conducting a needs analysis involves the use of multiple sources such as published literature, learners, teachers and applied linguists and domain experts. In the case of the 4<sup>th</sup> year medical course discussed here, the needs were decided in this way. After talking informally with some doctors from the university hospital it was clear that many of them had been overseas to study for a post graduate qualification, as well as to conduct research and participate in exchange programs. Also many doctors had been overseas to international conferences, where they had given presentations both formally and in poster formats. Few doctors had had much experience of working overseas with patients, however several commented on the fact that they had treated non-Japanese patients in Japan. They all mentioned the importance of reading articles written in English and several had written articles for publication in English. Taking into account these discussions as well as information gleaned from EMP textbooks and previous EMP courses taught, the general aims of the course was narrowed to those seen in Table 2.

**Table 2: The General Aims of Medical English IIa**

- To be able to read medical articles in English
- To be able to give a poster presentation in English
- To be able to give a presentation in English
- To be able to take a patient's case-history in English

In spite of the fact that not many students will probably have much contact with English speaking patients, taking a case-history in English was included in the course in order to incorporate some speaking activities, role-plays etc that would keep the students motivated and make the class interesting. Motivation and inspiration have been considered as the

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core to improving education (Gardner 1988). In High School and Junior High School, Japanese students have a reason to study English i.e. in order to pass the entrance exam for university. This kind of motivation is known as “extrinsic motivation”. Once students enter university their reasons for studying English change and become more “intrinsic” i.e. motivation coming from within. Enhancing and maintaining motivation is one of the major hurdles in teaching Japanese university students. At medical universities, students have little motivation to study English, as their main subjects take up so much time - especially in the 4<sup>th</sup> and 5<sup>th</sup> year as their workload is dramatically increased, so anything that can improve motivation is worth trying! According to Kinoshita (1998), medical students feel that there is little point in studying English, as the National Examination for Medical Practitioners is in Japanese (hence there is no extrinsic motivation). It isn't until students want to go to graduate school or go abroad to study that they realise the importance of English. If this is the case then it is important to make the class as interesting as possible in order to motivate students intrinsically.

As well as classes based on the aims above, a video lesson was also included in the course. Students watched a video from a series of Time Life videos based on different illnesses. The series was made for English native speaker patients who had visited their doctor and been diagnosed with the illness - in this case osteoarthritis. The aim of the video is to help the patient understand why their illness had been diagnosed, what it means and how to manage it. The rationale behind this lesson was for the students to see an example of how to explain something to a patient in lay-man's terms and also to give them an example of the kind of information that would be necessary for them to include in their final presentation

### *Course Evaluation*

At the end of the semester students were asked to complete a questionnaire (see Appendix) in order to find out how they rated the course in terms of usefulness, level of difficulty and level of interest. The questionnaire was also designed to find out how motivated the students were to study English - both general English and medical English - and how important they considered it to be for their future. The class consisted of 44 students - 17 females (88% under the age of 25), and 27 males (78% under the age of 25). Of the 9 students that were over 25 years old, 5 had studied a subject other than medicine previously at another university.

In order to get some idea of the level of motivation of the students towards English, several questions were asked about their involvement with English. 30% of the students answered that their parents spoke some English either at home or at work, although of these only 6% answered "often". 13% had been to an English speaking country in the past to study English for 1 month or less. 65% had studied English as an elective either at school or university and 29% has studied English outside of school or university. These answers suggest a certain amount of motivation although in order to understand this further, more questions would need to be asked. When asked if they would like to go overseas at some point in the future, 6% (3 students) answered "no".

Regarding feedback about Medical English IIa, the students had to rate their level of interest in the course and how useful the course was perceived to be on a Likert Scale of 1 - 5, 1 being very interesting or useful and 5 being not at all useful or interesting. The results are below.

	1	2	3	4	5
How interesting was your course?	3	14	18	7	3
How useful was your course?	4	15	18	6	2

Regarding the level of difficulty, 11 students rated the course as too difficult, 2 as too easy and 31 as the right level. 7 students considered the amount of work required of them to be too much, but 37 considered it to be the right amount.

When asked which parts of the course were most interesting, useful or difficult, the results can be seen below

	Most useful	Most interesting	Most difficult
Dr-Patient interaction	28	11	2
Reading journal articles	11	4	6
Video	4	15	21
Poster presentations	5	17	3
Giving a presentation	7	7	18

It is interesting to note that 64% of the students considered Dr-Patient interaction to be the most useful part of the course. When designing the syllabi this part was actually considered by the teacher to probably be the least useful for the students' future. As mentioned before, the most likely situations for students to need English in the future are



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for reading journal articles and giving both formal and poster presentations. However, if students consider Dr-Patient interaction to be useful it is possible that their motivation in these classes was higher - which is always a positive thing!

In order to reach the target needs of the students within an EMP course, a needs analysis needs to be carried out. For the Medical English IIa course, the target needs were only suggested at, hence, in order to make a course that truly addresses the needs of the students further analysis would need to be done. A possible way to achieve this might be in the form of a questionnaire sent out to existing doctors in Japan to find out what they actually use English for in their careers. A course could then be designed that prepares students for their future as a doctor in Japan as fully as possible.

As expected, the majority of the students found the video lesson to be the most difficult. The level of English needed for this class is fairly high, and also due to the time restrictions there is not really enough time for the students to watch the video and replay it as often as would be ideal. For the future this lesson might be a lesson that students need to prepare for outside of class ie they need to watch the video before the lesson, so lesson time can be spent on discussions and questions related to the video.

The poster presentation class was very successful. Initially the students were shown examples of poster presentations and effective ways of creating posters. They were then given copies of short journal articles from BMJ and told to imagine that this was their research and they were to prepare a poster presentation for the following week. This work was done in pairs. The following week's class was set up like a Poster Presentation Hall at an International Conference. Half the students had to stand by their poster and explain it to visitors to their stand, while the other half visited the stands. After 45 minutes the roles were reversed. This worked very well and it is clear from the questionnaire that students enjoyed it too. The level of the posters was very high and it was clear that they had tried hard and hopefully got a lot out of the exercise.

Students were given a chance to mention things that they didn't study in Medical English IIa, that they would have liked to have been included in the course. 73% answered nothing particularly, but 6 students suggested that more medical terms in English would have been useful. 2 students would have liked to learn about the medical education system overseas, 3 would have liked to study Dr - Patient communication in more detail and 1 would have

liked to learn how to write a medical report in English. While all the above comments are valid it is difficult to include everything in such a short course, however, the suggestion of more medical terms can be included within the lessons generally and an effort to do this will be made in the next course.

When asked about their medical English in the future, only 61% answered that they intended to continue studying, 34% answered that they will not study medical English in the future as they don't have time, and 2 students answered that they are not interested in medical English. Although the majority want to continue studying English in the future, the figure is not overwhelming, it leads to the conclusion that possibly some students don't realise the importance of English for their future careers. However, when asked this question 91% answered that English is important or very important, with only 4 students answering not very important.

Finally students were asked which of the following things they thought they would need to do in English in the future

read medical journals in English	35 students
write research papers	29
treat foreign patients	27
give presentations at international conferences	19
work overseas	14
other	0

As mentioned previously it is vital for doctors to read articles in English if they are going to keep up with new research, while 80% of the students are aware of this, it leaves 20% who consider this unimportant. 61% of the students expect to treat foreign patients while only half of these plan to work overseas. As the foreign population of Japan increases, this expectation could be realistic within a few years.

Finally at the end of the questionnaire the following comments were written.

“I must study more English, especially Medical English after the end of class”

“I will realise the importance of this class after 2 or 3 years maybe. I want to be able to speak English fluently, but I have avoided English study”

“I feel that this class is so important for me. Poster presentations were very interesting

because I got many medical knowledge from other students”

“I think Poster Presentation is the most interesting because it takes a short time to prepare. And the best reason is that we can read a lot of articles”

The comments show that some Japanese students do realise the importance of English, and are quite encouraging for the EMP teacher. However these comments are only from 4 out of the 44 students.

## **Summary and Conclusion**

Within the international community it is clear that English for Medical Purposes is very important for students and doctors in non English speaking countries all over the world. However, at the university level in Japan, it could be perceived that English is not getting as much attention as it should be. In order for students to realise the importance of English, the education system should reflect this importance. When students are at high school or junior high school, they study so much English with little relevance placed on actual use, that by the time they reach university they have lost interest in English completely. During the first 2 years of medical university, students have the opportunity to study languages other than English, which are much more appealing and offer them a break from English. Then as they reach 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> years, the medical curriculum becomes so extensive that students don't have time to study anything outside of their main courses and English soon gets forgotten or is considered something for the future to study when they have more time. This rationale is understandable but it will not benefit students for their future. It is clear that as long as English takes a back seat in the medical curriculum at university it will continue to do so for the student. If within the curriculum, the content courses were taught - at least in part - in English, students would be prepared for their future as a doctor in a way that no EMP course could prepare them. English would be taught in school as a tool rather than an end in itself, in order to better prepare students for university and overall the general level of English throughout the whole education system would improve greatly. This is the case for all subjects, not only medicine. However, teaching content courses in English at the present time is unlikely, so EMP courses are necessary.

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## Appendix

### 4<sup>th</sup> Year Medical English

Please answer the following questions as accurately as you can. You do not need to write your name.

#### PART 1

1. Sex            a. male            b. female
2. Age            a. under 25      b. between 25 - 30      c. over 30
3. Do your parents ever use English at home or in their jobs?  
a. never            b. rarely            c. sometimes            d. often            e. always
4. After graduating from High School, did you study anywhere else before entering TMPU?  
a. no            b. yes

If yes, please give details

5. Have you ever been overseas?  
a. yes, only for a holiday  
b. yes, because of my parents work  
c. yes, for other reasons. Please write  
d. no

- If yes, a. how long did you spend overseas?  
b. were you in an English speaking country?  
c. did you or your family members need to speak English?  
d. how old were you?

If no, would you like to go overseas?            a. yes            b. no



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- C Video
- D Poster Presentations
- E Giving a presentation

Which part or parts were the most useful for you?

Which part or parts were the most interesting for you?

Which part or parts were the most difficult?

Was there anything that you didn't study, that you would have liked to have studied?

**PART 4**

Will you continue to study Medical English on your own after the course has finished?

- a. yes
- b. no, I don't have time
- c. no, I'm not interested in it.

How important do you feel Medical English is for your career as a doctor?

- a. very important, I think I will need to use it often
- b. important, I might need it sometimes
- d. not very important, I will rarely need to use English
- e. not important at all, I do not want to get a job where I might need to use English

As a doctor which of the following things do you think you will do in English?

- a. write research papers
- b. give presentations at international conferences
- c. treat foreign patients
- d. work overseas
- e. read medical journals in English.
- f. other (please state)

**PART 5** Please feel free to write any comments