

ESP for Junior Year Medical Students as Part of Medical Curriculum

Kazumi MAKI

1. Introduction

English is a required subject during the first two years in most medical schools in Japan. In many, however, the courses end in the students' first year. Needless to say, English courses hardly go on to the 3rd and 4th years, due to a tightly knit medical curriculum. According to one piece of research work done by Kipler, et al (2000), the 1991 Ministry's guidelines which abolished its 8 credit minimum for English instruction accelerated the reduction on minimum hours averagely to 6 - 7 hours. Among the 44 medical schools which responded, 27 were offering a medical English course, the number of which is also declining, comparing with one study previously done by Uemura, et al in 1994. At Shinshu University School of Medicine, English programs were reorganized as follows :

1. The minimum credit hours should be kept as they were ; however, 6 hours out of 8 are considered to be English for general purposes (EGP) and the remaining 2 hours should be upgraded as Medical English (English for Specific Purposes, ESP course) which is introduced during the 4th year when students possess basic medical knowledge in general.
2. For EGP, native English instructors are asked mainly to focus on oral communication and Japanese instructors to focus mainly on reading preferably scientific materials.
3. The medical school introduced the use of textbooks in English such as Human Biology in elementary medical science courses during the 1st and 2nd years.

The year 2002 marks the 6th year since the introduction of Medical English courses for 4th year students. Current students have received 6 credit hour of EGP and have read Human Biology in their 1st and 2nd years, which has helped them become accustomed to basic medical terms in English. No formal English classes, however, were offered during their 3rd year¹⁾.

In 1997 the Medical English course was taught by 2 native English instructors, 1 Japanese English instructor (the author) along with several Japanese medical professionals. The main objective of this course was to have students gain practical English

¹⁾ Some doctors are offering Medical English study sessions voluntarily at the department they belong to. Those who expressed their wish to learn oral communication in a small group setting came to me during their 2nd year. As they began the 3rd year, the lessons have geared more toward ESP direction, mainly focusing on medical terms.

skills through a native instructor in a small group setting and this objective remained the same until the year 2001. Having served as the course coordinator every year as well as an instructor for the first year, the author gave the class an end of course questionnaire every other year in 1997²⁾, 1999³⁾, and 2001. The author asked the native instructors to try to reflect these questionnaire results in his/her lessons. Upon considering the students' evaluations, the following major changes occurred in 1998 :

1. A native English instructor takes the sole responsibility to conduct the lessons.
2. Small groups are formed according to English proficiency level determined by the students' own self-evaluations.
3. The class is offered once a week on Saturday for 6 weeks and students are totally immersed in English for over 7 hours each time.
4. The lesson is focused on oral communication to develop logical and analytical thinking skills by using medical science related topics.

The class evaluations in 1999, the 2nd year after the major revision, have shown a high rate of satisfaction with the lessons. The main contributing factors of this appreciation of the class are the instructor's personality and his student-centered, task-based teaching approach. And yet, the voices to request more medicine-oriented contents were also heard. Students' expectations of this course were as follows :

1. a course which gives incentives to learn English
2. a course which stimulates students' thinking processes
3. a course which promotes their understanding of different perspectives through interaction with a native English instructor
4. a course which promotes their learning of technical terms and their understanding of technical papers
5. a course which is filled with listening and speaking activities using medicine related materials

Taking these into consideration, the instructor brought in more medicine-related videos and had his students select medical sciences topics for their final group presentations.

The purpose of this paper is to provide some information for implementing realistic medical English programs for junior year medical students using the results of students' course evaluations conducted this time as well as those of the previous surveys.

II Survey Outline

The beginning of February had been the time most medical courses end and thus, it had been the time to distribute the survey. However, due to medical courses curricula

²⁾ Journal of Educational Research Shinshu University (1999) Vol. 5, pp.35-44

³⁾ Shinshu Medical Journal (2001) Vol.49, No.4, pp.199-206

revisions that have been happening in recent years one after another, students have already started their session called Individual Research Studies at the location of their choice. Therefore, the survey was distributed to each location, most of which are within the school. The students were asked to return their responses to the box placed on the counter of the administration office. To those who were doing their studies at institutions outside the campus, the surveys were mailed and they were asked to bring their responses on the first day of reporting to school. These circumstances negatively affected the overall response rate.

The survey method was a multiple choice questionnaire, using exactly the same questions which appeared on the '97 and '99 surveys. The answer choices were derived from the descriptions that the respondents frequently used in previous surveys. The language of the questionnaire was Japanese and respondents were allowed to remain anonymous.

III Results and Discussion

III-1 General outline of the results (Charts 1-6)

	Response rate	40% (class size : 100 Students # of respondents : 40)
Q1	Elements that were most useful (Chart 1)	“discussion/presentation” “native English teacher” and “stimulation to learn” These come to the respondents' minds first and the most frequently as useful.
Q2	Least useful elements (Chart 2)	Among the few who replied, 6 mentioned of grammar exercise on worksheets. Nothing was useless, some said.
Q3	M e d i c a l significance (Chart 3)	Replies converged around “discussion/presentation” (30), “medical terms”(24), and “importance of English studies” (24). Seventeen of them obviously arranged their 3 choices in the order of high significance.
Q4	Satisfaction rate (Chart 4)	Mean 6.5, Median 7, Fifty-three % gave the score higher than 7.
Q5	The course being different from their expectations (Chart 5)	Twenty-one responded.13 : clinical conversation 8 : more medicine related contents Some expected more medical paper reading and writing. Some expressed their wish to learn medical terminologies in a systematic way.
Q6	Other comments (Chart 6)	Comments from 22 respondents varied greatly, though a half of them complained about Saturday schedule. Twelve of the 22 respondents were among those who replied to Q5, but their satisfaction rates were widely spread out from 1 through 10.

III-2 Discussion of the results in comparison with the previous results

In terms of method of instruction and the teacher who conducted the class, the course of 2001 basically remained the same as that of '99, except topics used in class focused

2001/Medical English Course/Students Course Evaluation

Chart 1. Three most useful activities

	(in the order of usefulness)			Total
	1	2	3	
1. stimulation to learn	10	6	7	23
2. discussion. presentation	12	6	2	20
3. native E. teacher	11	6	10	27
4. listening	2	4	4	10
5. medical terminology	3	4	4	11
6. active participation	0	5	0	5
7. logical thinking practice	1	3	4	8
8. others	1	0	1	2

Chart 2. Things not so useful

1. not relating to medicine	3
2. video	2
3. discussion	3
4. group task	2
5. oral presentation	2
6. grammar worksheet	6
7. final test	1
8. others	3

more on medicine. Some notable characteristics of the present survey results will be discussed below, keeping in mind the changes which occurred in the type of survey and in the response rate.

III-2-1 Course satisfaction (Chart 4)

The average course satisfaction rate rose from 5.0, 5.9, to 6.5 with the present one being the highest. The rate of '99 was significantly higher than that of '97 ($p = 0.0014$); however, no significant difference was observed between the scores of '99 and '01.

As in previous studies, many students commented that the lessons gave them incentives to learn English. More students felt the usefulness in having a native English teacher. As more students also selected "English western logics" than before, it implies that students found having a native English teacher helpful in learning logics. "Discus-

Chart 3. Medical significance

	(choose upto 3)			total
	1	2	3	
1. medical terminology	16	5	3	24
2. oral presentation	9	12	9	30
3. logical thinking practice	5	2	3	10
4. active participation	0	1	2	3
5. importance of Eng. Studies	8	11	5	24
6. recognition of cultural difference	0	2	4	6
7. concern to patients	1	0	2	3
8. others	1	0	1	2

Chart 4. Satisfaction rate

Score	2001	1999	1997	total
	N	N	N	
10	7	4	0	
9	4	4	2	
8	7	15	7	
7	3	15	11	
6	6	8	9	
5	5	11	15	
4	1	2	8	
3	1	7	7	
2	3	4	8	
1	3	5	3	
N	40	75	70	
Mean	6.5	5.9	5	
Median	7	7	5	
7+	53%	51%	39%	

Chart 5. Things they expected

	N	M.S.R.
clinical conversation	13	5.9
more medicine related	8	4.1
technical terms	6	3.1
paper reading	6	4.6
paper writing	6	7.6
student initiated presentation	4	5.5
others	3	3.6

Chart 6. Other comments (notable ones)

schedule complaints
 very significant and fun
 A native speaker is a must.
 Offer medical courses in English.
Reading papers is more important.

sion/presentation” activities were evaluated highly. Amongst the most frequently selected elements, “native English teacher”, “stimulation to learn”, and “discussion/presentation”, a slight correlation was observed ($p = 0.057$) by χ^2 testing between satisfaction rated higher than 8 and “discussion/presentation”. As a similar result was obtained in the '99 survey, it is suggested that students continue to welcome student-centered activities like discussion and presentation. “Medical terminology” was selected by many and χ^2 testing has shown some correlation ($p = 0.052$) between “medical terminology” and satisfaction rated higher than 6, which is below the overall mean satisfaction score, 6.5. It implies, therefore, that students have gained some satisfaction from learning medical terms, but they are not fully satisfied with how they are taught.

III-2-2 Course significance in their medical studies (Chart 3)

In this present survey, negative comments have decreased regarding the course significance in their medical studies. “Oral presentation”, “medical terminology”, and “recognizing the importance of English” are the factors that made many students feel this course to be significant for their future profession. The mean satisfaction score as well as the median was higher among those who commented on the above three factors than that of those who did not. (Charts 7,8,9) Therefore, it can be said that the students consider these elements indispensable. Particularly “medical terminology” was the first choice for most respondents, which indicates that the great need in learning technical terms exists. This also explains that students were not fully satisfied with the way terminologies were taught in class.

III-2-3 Different expectations and dissatisfaction (Chart 5)

Of the 21 who responded, 13 students commented that they expected clinical conversations to be offered in this course, followed by 8 who said that they expected a more technically oriented course, which coincides with the result of the previous survey. The students who said they expected medical paper reading and writing activities in this course have increased this time. It is not too far-fetched to assume that the description of course objective, “learning practical English from a native English instructor” made

the impression on students that this course is a clinical conversation class. Developing speaking skills is one of the common aims among medical students as well as doctors (Hishida & Ohki, 2000). Therefore, these people naturally welcome oral activities such as discussions and presentations just as their moderately high satisfaction rate (5.9) indicates. Moreover, 6 students, to my surprise, who expected paper writing activities in this course, evaluated “discussions/presentations” highly and gave a high satisfaction score (7.6). On the other hand, 8 students who expected a more medicine-oriented class and 6 who expected systematic learning of medical terms have shown dissatisfaction. Their mean scores were as low as 4.1 and 3.1 respectively. It is the first time “systematic”, which probably means etymological, learning of medical terms appeared in the survey.

These students are the first groups who have been exposed to basic medical terminology in English as they have used the English version of a Human Biology text for a year and a half. They have also read more science related reading materials during their 1st and 2nd years and received more and more medically oriented English lessons in this course, compared to the previous 4th year students. And yet, they received no formal English lessons during their 3rd year or systematic instruction in medical terminology. Attributed to these sets of circumstances, the following conclusions could be drawn: the use of English textbooks in medical courses and gearing English lessons to become more ESP oriented gave students incentives to learn English and made their expectations even higher, and in result, well-motivated 4th year students expect medicine-oriented practical activities such as systematic learning of medical terms, clinical conversation, discussion, presentation, paper reading and writing to be happening in class.

Medical Significance

<u>Chart 7. Terminology</u>			<u>Chart 8. Presentation</u>			<u>Chart 9. Importance of English</u>		
Score	Yes	No	Score	Yes	No	Score	Yes	No
10	4	3	10	6	1	10	4	3
9	3	1	9	2	2	9	2	2
8	5	2	8	5	2	8	5	2
7	3	0	7	3	0	7	3	0
6	3	3	6	5	1	6	4	2
5	2	3	5	4	1	5	2	3
4	1	0	4	1	0	4	1	0
3	0	1	3	1	0	3	0	1
2	2	1	2	2	1	2	2	1
1	1	2	1	1	2	1	1	2
total	24	16	total	30	10	total	24	16
Mean	6.6	5.9	Mean	6.7	5.9	Mean	6.6	6.1
Median	8	6	Median	7	7	Median	7	6

IV In Conclusion

The present research suggests that well-motivated 4th year students want to develop their presentation skills and paper writing skills. In 1996, the Foreign Language Education Working Group of the Japan Medical Education Society proposed a model English curriculum that ranges throughout the 6 years of undergraduate education (Uemura, 1996). One survey conducted by Hishida, et al (2000) indicated that medical doctors in practice preferred to have received ESP during their junior or senior years. Their survey also showed some discrepancy between doctors' needs (paper reading and writing) and their wants (oral communication skills). By the same token, what students want to learn does not necessarily match what they need. At any rate, it is our duty to provide the best possible programs that motivate students to study. In reality, an increasingly cramped medical school curriculum is further preventing most schools from actualizing the model English curriculum. Taking students evaluations into some consideration, incorporating English courses as part of medical curriculum seems to be the must to combat the reality. At the same time, if those who are voluntarily offering medical English lessons work together in an organized form, benefit will be even greater. (Nakasu, et al 2000)

Here in Shinshu, a medical English class for the 4th year students in the year 2002 has been in session having the following aims :

1. to develop students' listening comprehension ability as well as to deepen understanding in medical sciences through watching related videos
2. to enhance and expand knowledge in medical terminology
3. to allow students to become accustomed to the structure of scientific papers by making English paper writing mandatory for the Individual Research Studies which lasts 7 weeks at the end of the 4th year

Considering English education as part of medical education, English courses for medical students and medical curriculum should go hand in hand not only to make the most of restricted time, but also to motivate students to recognize the importance of English for their future profession. Fortunately, English courses for academic writing have been offered lately as part of EGP during their 1st year. For the Individual Research Studies, our students are allowed to do their work outside of Japan. It is my wish that requiring students to write a paper in English reflecting their research work will encourage them to do their studies even abroad where English is a must.

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