
A Study of the Academic English Needs of Medical Students

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This article reports on the results of a needs analysis of Mahidol students. It was an attempt of the Curriculum Task Force group of the Department of Foreign Languages to identify the academic needs of English of Mahidol students in more specific ways than in the past, that is, English whose use is specifically called for by work assigned to the students in their various courses in their four or more years of studies. The study was divided into two phases; in the first phase, a questionnaire was employed to gather the data about the needs of English of students in all faculties. In the second phase, structured interviews were carried out to study the target situation for the academic use of English by Medical students. The interviews aimed at closing gaps in the questionnaire data and clarifying ambiguities. The results of the interview study will be extensively discussed. There are also suggestions to improve the effectiveness of the English teaching syllabus.

Introduction

The ESP programs of Mahidol University are offered to students in their first two years of studies in different fields, e.g. Medicine, Nursing, Dentistry, Pharmacy, Medical Technology, Science, Public Health and X-ray Technology. The program mainly aims to enable students to read as effectively as possible specialized English language materials as part of their University course work. This objective is based on the recognition of the fact that reading is a skill increasingly important to their professional development. A lesser emphasis of the program is on writing and listening skills whereas none is on speaking. The justification for the importance of any skills to be included was basically based on the opinion given by administrators about the English needed by students in their profession. Pliensaisurb (1984) and Wannasiree (1985) surveyed the needs of students in the field of Medicine in a more systematic way by analysing the needs of certain groups of students at different levels, i.e. first-year medical students, third-year medical students, residents, and doctors. The findings of the needs could be used as guidance in developing the program objectives. However, since no precise data on the actual English use needed by students to complete the work assigned to them in the courses taken for four or more years are available to guide the syllabus revision, a project was undertaken to gather such information.

Objective

This project aimed to study the target situation for academic English use of one or more groups of Mahidol students and to develop a "map" of that use, i.e. a detailed list showing where English is used and what specifically it is used for.

Methodology : Questionnaire

In the first phase, questionnaire was used as a data-gathering instrument. About 2,000 questionnaires were sent to the entire teaching staff in the 103 departments under 12 faculties and 4 institutes to cover all courses. Respondents were asked about the current academic use of the four language skills in each course they had taught over the previous three semesters. For each course, they were asked whether or not the students were assigned any work in which students were required to make use of any of the four language skills; reading, writing, listening and speaking. If the answer was "yes", they were asked to provide details -- for reading, the titles of the assigned reading texts; for writing, the type and the approximate length; for listening and speaking, the nature of the situation. Where students were required to read, write, or listen to English, respondents were asked to indicate whether or not the assignment was tested or evaluated, thereby distinguishing between "assigned" and "assigned and evaluated". Any language use which was assigned and its results were evaluated would be referred to as the academic needs of English.

Results : Questionnaire

From the data analysis, reading, as expected, is the main skill needed by Mahidol students. In fact, reading skill ranks more than twice as high as any other skills needed in the academic course work of students. Writing and listening seemed to be the second most needed skills, though the numbers are much lower whereas speaking does not seem to be needed much at all.

The data also suggest that the needs for English of students in different faculties vary from major to major and from skill to skill. For all groups, the present major emphasis on reading skill remains unchanged. Moreover, the data seem to support the idea that English becomes progressively more important in later years of academic study. This might suggest that the English courses would be possibly postponed until students have greater perception of needs for English.

Unfortunately, the total number of respondents was only 351 out of 2,000 questionnaires sent out or only 17%. Such a low percentage of responses precludes any hard conclusions of data analysis. The findings, then were not yet hard enough to give definite statements of implications for materials development and methodology. There was also an unanticipated ambiguity in the question which asked whether or not the assigned work was tested. These need to be remedied in the interview phase of the study.

Interview

The second phase centered on interviews with as many teachers as possible involved in one or more content-area tracks, e.g. medical, science, or nursing. In consultation with the chairperson, the decision was made to focus exclusively on one track of medical students because of time constraints. The Ramathibodi Hospital medical track was chosen for three reasons: 1) The questionnaire results indicated a greater level of need than some other groups, e.g. nursing; 2) New medical materials were being planned within the department; 3) We had easy access to Ramathibodi in contrast to Siriraj. In addition, the Faculty of Medicine at Ramathibodi Hospital is in the process of revising its undergraduate program and has called for interdepartmental cooperation, which has made our study coincide in a small way with their own efforts.

The specific objectives of the interviews were :

1. To develop an academic English needs "map" to show where exactly English is needed, i.e. in what courses.
2. To show exactly what the English is needed for, i.e. what types of reading, what types of writing, etc.

3. To get any sample materials that could be useful for reference and for possible identification (by others) of specific language functions, patterns, etc.
4. To get the views of the teachers of the medically-related courses on the problems their students have in English.

Because there is often confusion on what exactly a "need" is, an explanation of the definition here is in order. We defined "academic need" as something which is required and tested in a particular course. Thus,

$$R + T = N$$

(R = Required, T = Tested, N = Academic Need)

When a teacher indicated that texts were suggested, but not required, we did not list that as a need, because it had no relation to any student's ability to pass the tests and succeed in the course. When a teacher indicated that tests were required, but not tested, we did list it as a requirement, but not a need because students did not have to read in English to pass the tests. In those cases where texts were actually required AND where those particular readings were actually tested, we listed something as a need. Our aim in exploring this in such detail was to get beneath the surface of general "needs" to find out what the real situation is in our students' content area courses.

Interviewing Procedures

First, all courses in the medical program were listed and classified by year of study and by department. A formal letter from our chairperson was sent to the head of each relevant department, clarifying the purposes of the interviews and asking for cooperation. After cooperation was granted, appointments were made and interviews with the teachers were set.

The interviews were structured, i.e. the same questions were asked of each interviewee. First, each interviewee was asked whether reading in English was required or not required in a specific course. Then, if it was required, the interviewee was asked whether it was tested and contributed in part to the students' final grades. The same line of questioning was used for writing, listening, and speaking. Then, whenever any of the answers were positive, the interviewee was asked what English was specifically used for in their courses, e.g.

1. **READING** : textbooks, articles, exams, handouts, lab-guides, terms on course outlines, etc.
2. **WRITING** : short answers, technical terms, reports, etc.
3. **LISTENING** : technical terms, lectures, videotapes, etc.
4. **SPEAKING** : technical terms, discussion, oral reports, etc.

After these structured questions, interviewees were asked for any samples of English from their classes, e.g. handouts, quizzes, etc. that might be helpful to our department's teachers. Finally, the interviewees' views on student problems were elicited. Each interview took about 15-20 minutes at the average in a semi-formal atmosphere.

Findings

1. **Reading in English is required in about 65% of the courses (years 2-6). BUT it is only needed, i.e. required and tested, in less than 15% of the courses.** The most frequent need for reading, by far, is for taking exams, including the comprehensive exam in the sixth year. The reading of textbooks is required in about 40% of the courses, though the majority of those readings are NOT tested and sometimes the same content is given in lectures in Thai. Another 15% of the courses have optional or recommended readings in English. These percentages of texts in English

have been decreasing over the last few years, according to the interviewees. Aside from exams and texts, the next most frequently mentioned type of reading is handouts, which are sometimes in English and sometimes in Thai mixed with English.

2. Writing is required in about 25% of the courses, though it is only needed in less than 5%. Reports where English is used, partially or completely, occur in 15% of the courses. In the third year, when writing is first required, the reports are on autopsies. In the fourth year, a medical summary or case report is required. Other than that, the English is needed for writing technical terms, phrases, or short answers.

3. Listening is required in about 20% of the courses though hardly any of it is apparently tested. The most frequently mentioned type of situation is watching/listening to a videotape. There are occasional lectures and guest speakers, mostly in years 4, 5 and 6. Technical terms are also sometimes used.

4. Speaking is required in about 10% of the courses, though tested in none. It ranges from word and phrase level to presentation level.

5. The use of English is not uniform throughout the curriculum, but rather clustered in certain areas, e.g. Anatomy, Pathology, and a few others. Appendix A shows this succinctly.

Analysis

This analysis is derived chiefly from the interviews but also utilizes notes from the questionnaires.

1. Compared to past views, there are fewer real academic needs for English than previously expected. This might be somewhat influenced by national policies on medical education which focus on community medicine. The trend toward more texts in Thai is another factor. The most apparent need in English is for reading but that need *for students* is decreasing not increasing. For the English program, then, it would appear that there are fewer specific language needs to deal with for undergraduate students. As one questionnaire respondent from Siriraj wrote, "Third year students in my class read only textbooks translated into Thai and refuse to read textbooks written in English. Teachers also enjoy translating textbooks to be promoted. Graduate students don't have to write their theses in English because they can hire a translator to do so for them". This statement has been echoed by some of the Ramathibodi interviewees as well, as one representative commented: "There used to be several foreign lecturers participating in the teaching teams at Ramathibodi Hospital. Medical students at that time were forced to read and write in English. Now, most lecturers are Thai; classes are conducted in Thai and many texts are written in Thai. Therefore, the English proficiency of medical students now is much less than before".

This lack of a strong concrete need for English combined with the resistance, at least by some students, toward English seems to be a concern worthy of our attention.

2. In contrast to the low, and perhaps diminishing, academic need for English, the need is more clear for professionals. According to the interviewees, staff and residents need English in their profession more than medical students do and have more opportunities for using it. Some interviewees have called for our department to offer periodic intensive courses for specific purposes. Whatever may come of that, the disparity between low academic needs and concrete professional needs is linked to a psychological concern. As another questionnaire respondent from Siriraj noted, "English is not an immediate need for undergraduate students. They often realize it 4-5 years after graduation". If our students need English only in a limited way, or even moderately, for academic purposes, but need it more clearly later, then our mission as English teachers may be less linked to specific linguistic concerns and more to psychological ones. In other words, *our efforts at getting students motivated may be more important than any actual ESP language we teach them.*

3. The most frequently mentioned need for English was for reading on quizzes and exams. Surprisingly, even in courses where all the text reading is in Thai, some exams are in English. The fact that many tests continue to be in English, including the comprehensive exam, indicates that despite decreased overall need for reading, there is still an identifiable need for the reading and understanding of test questions. That need is fairly consistent throughout years 2-6 of the program.

The few exams we have seen have been of the multiple choice type, in which the language used is at the sentence level with a few common patterns making up the majority of the questions. In some cases, the English used on the exams is flawed, which may make the students' task in reading even more difficult than normal. Appendix B shows actual questions taken from one quiz and one exam.

4. Comments of the interviewees ranged quite a bit. On the one hand, there were many statements about student problems with reading speed and reading for main ideas, which support the findings about the actual needs of the students. There were different opinions on whether technical terms should be pretaught or not to be taught at all in the first year. Some lecturers said teaching technical terms in the first year would ease the learning in some specific courses in the later years. Students would be able to understand the concepts easily without long explanations thus, saving time. Others contradicted that by saying such preteaching would do more harm than good in most cases. English teachers would not have enough specific knowledge to make clear the meaning of each technical term. What would happen when there is misunderstanding? Also, this might be a waste of time teaching what will be taught again in the specific courses. Problems in pronouncing technical terms correctly are, therefore, a concern that may have general merit but which does not fit with the academic needs noted by the vast majority of interviewees.

Implications for the English Program for Medical Students

1. Obviously, reading should be the core element of the program, but since it already is-- along with language functions, that is nothing new. However, the key concern is not that reading is the core, but how that core should be handled. Given the differences in medical needs, i.e. fewer for undergraduates but more for professionals, the key concern for teaching English to undergraduates would seem to be motivational, not linguistic. As such, it would appear crucial, when developing materials and teaching in the classroom, to try to get and keep students interested in learning the language. What they actually learn in our courses may be forgotten by the time they need to use it, but their feelings toward the language and the learning of it may influence their future desire and ability to keep up with it. In this regard, the video clips on scientific and medical topics that the task force has been collecting for departmental use may be very helpful.

2. Given the need for taking tests in English, it would seem worthwhile to include a unit, or part of a unit, on the English for taking exams as part of the reading strategies section of the program. An example of what could be done is shown in Sonka (1981).

3. Reading for main ideas and improving reading speed seem legitimate areas to focus on in the program, both because they are important strategies and because improved abilities to do them can help confidence and motivation. Improving reading speed may have special importance because of the fact that many content-area tests are in English.

4. Extensive concern for vocabulary and for reading in great detail do *not* seem to be worthwhile given the time constraints of the program and the actual academic needs the students have. Obviously, there is a place for both in the learning, but too much concern here may take away from the motivational part of our task.

APPENDIX A

Academic English Requirements For Medical Students (Rama)

	Comprehensive Examination					
6 th year	R W L S ID	R W L S OG	R W L S PD	R W L S PC	R W L S SU	R W L S CM
5 th year	R W L S MD	R W L S PC	R W L S PD	R W L S AS	R W L S OR	R W L S RD
4 th year	R W L S MD	R W L S PD	R W L S OG	R W L S SU	R W L S OP	R W L S CM
3 rd year	R W L S RAID	R W L S RACM	R W L S SCPM	R W L S SCMI	R W L S SCPA	R W L S SHSS
2 nd year	R W L S SCPS	R W L S SCID	R W L S SCAN	R W L S SHHU	R W L S SCBC	R W L S SCBC
	In. MD	In. PC	In. PD	His. t.,	Phy Ex.,	Symp. & Sign
	Clin. Physiolog					

- R Reading assignments e.g. handouts, chapters are required and tested.
- R Reading assignments are required but not tested.
- R Reading assignments are required but not tested. Students read exams in English.
- R Students read exams in English.
- No requirements of English.
- R = Reading assignment
- W = Writing
- L = Listening
- S = Speaking

APPENDIX B

English Patterns in a Pathology Exam

(30 questions -- out of order/technical terms left out)

1. One of the *most* likely agents is :
2. The *most* common late complication is :
3. The *least* likely associated condition is :
4. The *least* likely complication of this disease is :
5. The *least* likely associated finding is :
6. The *least* likely complication is :
7. The *least* likely finding in the patient is :
8. The *least* likely finding in association with the disease is :
9. The *best* diagnosis of this case is :
10. The *best* diagnosis in this case is :
11. The *best* diagnosis is :
12. The *best* diagnosis is :
13. The *best* diagnosis of this case is :
14. The *best* diagnosis in this case is :
15. The *best* diagnosis is :
16. The *best* diagnosis is :
17. The *best* diagnosis of this case is :
18. The common associated findings include all, *except* :
19. All are found in this case, *except* :
20. The findings in this case include all, *except* :
21. One of the abnormal findings is :
22. The disease which is usually associated with this condition is :
23. Study of the (kidney) in this case is expected to show :
24. The lesion demonstrates :
25. This finding is usually the complication of :
26. This lesion indicates:
27. Concerning this case, the *false* statement is:
28. The rapid and effective test for clinical diagnosis is:
29. The etiologic agent of this disease is:
30. The mechanism of this disease is related to:

English Patterns in an Otolaryngology Quiz

1. The *most* common etiology is:
2. The *most* common cause of....in young children is:
3. The *most* effective antibiotic....in young children is:
4.can cause the following conditions, *except*:
5. Investigation in cases with....include the following, *except*:
6. Sudden....following inflammation of the....may cause and/or be related to the following conditions, *except*:
7. Which of the following is NOT an....agent?
8. Which of the following is NOT indicative of:

9. Which of the following does not show recruitment?
10.is a disease of....
11. The primary etiologic factor in....is:
12.is a result of....
13.is rather common in children below the age of....
14.is mostly associated with....
15.is commonly found in....
16. The common site off is....
17. A....is common in case of
18.may be found in....
19.always show negative....when....
20.is always done under general anaesthesia.

Acknowledgement

This study is part of a larger task force led by Keith Maurice. Other members in this study group are Kanittha Vanikieti, Sonthida Keyuravong and Ronald Kutny.

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