

Developing Syllabus for Medical Academic Purposes for Indonesian Undergraduate Medical Students

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Abstract

English for Medical purposes is increasingly important in medical education to prepare students to actively participate in international scientific communication. However, medical students in Indonesia still face challenges in oral communication and academic writing, making them less than optimal in following global discourse. This study uses a Research and Development (R&D) approach in its second stage, namely planning for English for medical academic purposes syllabus. Document analysis was conducted on existing lecture materials, case scenarios in medical education, and international frameworks in scientific communication and the previous need analysis. The designed syllabus systematically integrates four language skills—speaking, listening, reading, and writing—through learning activities such as Small Group Discussion (SGD) using the Seven Steps to Problem Solving (7-Jump Step) method, oral presentation training, article structure analysis, and medical text evaluation using the Introduction, Methods, Results, and Discussion/IMRAD, Setting, Population, Intervention, Condition, Endpoint (SPICED), and Consolidated Standards of Reporting Trials/CONSORT models. The EMAP syllabus provides a practical and contextual model for integrating language and content in medical education

Keywords: *English for Medical and Academic Purposes ; syllabus design, Research and Development*

Abstrak

English for Medical purposes semakin penting dalam pendidikan kedokteran untuk mempersiapkan mahasiswa agar dapat berpartisipasi aktif dalam komunikasi ilmiah internasional. Namun, mahasiswa kedokteran di Indonesia masih menghadapi tantangan dalam komunikasi lisan dan penulisan akademik, sehingga kurang optimal dalam mengikuti wacana global. Penelitian ini menggunakan pendekatan Research and Development (R&D) pada tahap kedua, yaitu perencanaan silabus untuk English for Medical and Academic Purposes (EMAP). Analisis dokumen dilakukan terhadap materi perkuliahan yang ada, skenario kasus dalam pendidikan kedokteran, serta kerangka acuan internasional dalam komunikasi ilmiah serta need analysis yang dilakukan sebelumnya. Silabus yang dihasilkan secara sistematis mengintegrasikan empat keterampilan berbahasa—berbicara (*speaking*), menyimak (*listening*), membaca (*reading*), dan menulis (*writing*)—melalui kegiatan pembelajaran seperti Diskusi Kelompok Kecil (*Small Group Discussion/SGD*) dengan metode Tujuh Langkah Pemecahan Masalah (*7-Jump Step*), pelatihan presentasi lisan, analisis struktur artikel, serta evaluasi teks medis menggunakan model *Introduction, Methods, Results, and Discussion/IMRAD*, *Setting, Population, Intervention, Condition, Endpoint (SPICED)*, dan *Consolidated Standards of Reporting Trials/CONSORT*. Silabus EMAP memberikan model praktis dan kontekstual untuk mengintegrasikan bahasa dan konten dalam pendidikan kedokteran.

Kata kunci: *English for Medical and Academic Purposes ; syllabus development, Research and Development*

INTRODUCTION

Medical education in Indonesia requires students to not only master medical science, but also practical English language skills to support academic and professional

activities, such as reading scientific literature, writing articles, discussing cases, and giving presentations. This competency is very important because English serves as the lingua franca in the world of medicine

and global research.

A number of studies showed that medical students have a high need for English language skills. Research in Iran, for example, found that reading skills are seen as a top priority in terms of frequency of use, level of importance, and mastery, followed by speaking, listening, and other oral communication skills (Karimnia, Zade, & Mahjubi, 2018). Another study confirms that medical students, teachers, and practitioners consider all four language skills (reading, writing, speaking, and listening) to be equally important because the medical profession requires effective interaction and the use of English-language scientific literature (Hekmati, Davoudi, Zareian, & Elyasi, 2020).

Similar findings have also been reported in Indonesia. Research by Wahyuni (2021) showed that 94.8% of medical students at Baiturrahmah University consider English to be very important for their academic and professional careers, with listening and speaking as the top priorities. However, the skills of reading medical journals and academic discussion are still considered inadequate. In line with this, Basturkmen (2010, as cited in Sikumbang & Dalimunte, 2021) emphasizes that the English for Specific Purposes (ESP) syllabus must be designed based on the real needs of students in order to be relevant and effective.

Although a number of studies have highlighted medical students' need for English, there is still a gap between needs analysis and actual implementation in the form of syllabus development. Hyland (2016) asserts that most ESP studies stop at the needs analysis stage without following up with curriculum design. Classical literature also affirms this, with Hutchinson and Waters (1987) stating that needs analysis is only the first step and is often not followed by the development of appropriate teaching materials. Thus, the research gap lies in the lack of ESP syllabus development that is truly oriented towards

the needs of medical students in the local context.

This study aims to address this gap. Rinawati (2022) has identified the key skills required by first-semester including medical students, namely reading medical literature, giving presentation, writing scientific articles, and participating in case discussions. These findings form the basis for this study to develop a more structured and applicable English for Medical Academic Purposes (EMAP) syllabus. Thus, this study aims to develop an EMAP syllabus for second-semester medical students that is tailored to their academic needs and refers to international standards. The resulting syllabus is expected to provide an integrated learning structure that supports academic activities while preparing students to face professional demands in the field of medicine.

METHODOLOGY

This study uses a Research and Development (R&D) approach by adapting the Borg and Gall (1983) model. The focus of the study is on the second stage, namely syllabus development, which is a continuation of previous research by Rinawati (2022). In the first stage, an analysis of the needs of first-semester medical students was conducted, which produced information about the main skills required, namely reading medical literature, writing scientific articles, and participating in case discussions. These results were then used as the basis for designing the syllabus in this development stage.

In the development process, the researcher involved several relevant parties. Two ESP (English for Specific Purposes) lecturers provided pedagogical input regarding structure, learning strategies, and the integration of English skills in the context of medical academia. In addition, the researchers also conducted brief interviews with the head of the study program and the secretary of the medical study program. Both were chosen because they had the

authority and experience in aligning the syllabus design with the curriculum policies applicable at the study program level. Thus, the input obtained not only reflected the learning needs of students but was also relevant to the institutional medical curriculum framework.

Data collection was carried out through three main sources. First, the researchers reviewed the results of the needs analysis that had been carried out in the previous stage and combined them with a document review of the international EMAP/ESP syllabus framework. Second, the researchers held limited discussions with two ESP lecturers to review the initial draft of the syllabus that had been compiled. Third, the researchers conducted brief interviews with the head of the study program and the program secretary to obtain practical input regarding the integration of the syllabus into the curriculum.

The collected data were analysed using a qualitative descriptive approach. The results of this analysis were then used to refine the syllabus draft.

FINDING(S) AND DISCUSSION

This study produced a draft syllabus for English for Medical Academic Purposes (EMAP) intended for second-semester medical students at a private medical faculty in Central Java, Indonesia. This syllabus was compiled based on the results of a previous needs analysis (Rinawati, 2024) and input from two ESP lecturers and the head and secretary of the study program, who are stakeholders in the program.

Table 1:
Summary of the yllabus of English for
medical and academic purposes

No	Topik	Fokus Skills
1	Small group Discussion in English (scenario-based discussion using 7-Jump Step particularly step 1 to 5)	Speaking, Listening,
2	Transcript of recorded small Group Discussion	Speaking, Listening
3	English for presentation	Reading, speaking,

		writing
4,	Massive open online course on Slide Designing (visme.co)	Listening
4	Types of Medical Articles (Original, Review, Case Report, Editorial)	Reading
5	Structure of Medical Articles (IMRAD)	Reading, Writing
6	Evaluating Research Titles using Setting, Population, Intervention, Condition, Endpoint, Design (SPICED)	Reading, Writing
7	Writing and Reviewing Abstracts (CONSORT checklist 2010 for Abstracts)	Reading, Writing
8	Introduction to IMRAD Structure	Reading, Writing
9	Appraisal of Research Articles (IMRAD focus)	Reading, Writing, Speaking
10	Word Formation in Medical Terminology	Vocabulary Development, Reading

In general, this syllabus consists of 10 learning topics arranged in stages. The initial focus is on mastering English for Discussion through the 7-Jump Step method, which is in line with case-based learning practices in medical education. After that, students are guided to analyze types of medical articles, review research titles and abstracts, evaluate article structures using international formats, and develop academic literacy through presentation and scientific writing exercises.

The initial focus of the syllabus on mastering discussion in English is proven to be relevant because speaking skills are often a major weakness of medical students in Indonesia (Wahyuni, 2021; Rinawati, 2024). This is in line with the research by Dolmans et al. (2005) and Sivanjali & Arulpragasam (2023), which emphasizes the effectiveness of case discussions in developing academic communication skills as well as clinical reasoning. Unlike the study by Karimnia, Zade, & Mahjubi (2018) in Iran, which prioritizes reading skills, Indonesian medical students have a greater need for oral communication practice. Therefore, this syllabus pays special attention to discussion from the outset.

Analysis of various types of medical articles (Meeting 5) supports the need for students to understand the variety of scientific publications. Day & Gastel (2012) emphasize that academic literacy encompasses not only reading skills but also the ability to recognize the purpose of scientific communication in various types of articles. This is reinforced by Hekmati et al. (2020), who emphasize the importance of integrating the four language skills (reading, writing, speaking, listening) in medical education to strengthen students' understanding and scientific production abilities.

Another important focus is on the title, abstract, and structure of scientific articles based on the IMRAD format (Introduction, Methods, Results, and Discussion). The IMRAD format is an international standard in academic publishing (Swales & Feak, 2012), so mastering this format makes it easier for students to understand global literature while training them to write articles according to international academic standards. In addition, the use of the CONSORT checklist (Moher et al., 2012) for evaluating clinical trials introduces students to medical research quality standards. The integration of IMRAD and CONSORT in this syllabus is very important because medical students are not only required to read scientific literature in English, but also to write research reports and scientific publications in that language.

Furthermore, the integration of oral presentation skills (Meetings 3–4, Project 2, and Project 3) strengthens the essential aspect of academic speaking in international scientific forums. Activities such as oral presentations using PowerPoint and YouTube train students to articulate medical ideas professionally in front of a wider audience. This is in line with Chou's (2018) findings that presentation skills in English are one of the

main needs of non-native students in the field of medicine.

Compared to similar syllabi, such as the Outcome-Based ESP syllabus for medical students at Mataram University (Sujana et al., 2022) or the integrated syllabus for pharmacy students (Puspita Sari et al., 2022), this model shares similarities in being based on needs analysis and integrating the four language skills. However, the difference lies in the specific emphasis on academic discussion and the use of international frameworks (CONSORT, SPICED, IMRAD), which are rarely highlighted in previous studies

CONCLUSION(S)

This study developed a syllabus for English for medical academic purposes based on the a need analysis. this syllabus accommodates the needs of academic literacy and professional communication in a balanced manner.. Therefore, this syllabus not only reinforces the evidence of the importance of ESP in the health field but also presents a more applicable syllabus model for the medical context.

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