

Chapter 26:

Teaching English in Engineering Polytechnic: Challenges in Material Development

Perwi Darmajanti

(Politeknik Perkapalan Negeri Surabaya)

perwi@ppns.ac.id

A. INTRODUCTION

English has been taught in schools for decades, including in Indonesia (Ramadhan et al., 2022), in Nepal (Tiwari, 2021), in the Philippines (Obenza & Mendoza, 2021), and in other countries (Ariatna, 2016; Wei et al., 2018). Generally, students learn what so called general English in schools. But when they are in university, they may learn English for academic purposes or English for occupational purposes (Bezircilioğlu, 2025). Those are traditionally covered in English for Specific Purposes (ESP). It is a branch of Applied Linguistics that focuses on teaching and learning English for a specific field in professional life. It is based on the use of English language skills for a specific aim, in particular, to meet the users' needs. ESP is a significant subject as English is the language of science, technology, and communication worldwide. Different from English for general purpose, ESP books tend to be developed specifically to accommodate suitable learning because a good command of English is still important as one wants to express oneself in one's profession, to be a part of the professional global community about a job, and to use the required language skills appropriately by which underlying the implementation of teaching English for a very long time. Meanwhile, designed as a vocational higher education, polytechnic institution in Indonesia applied ESP teaching in their program, which is intended to equip the

graduates with applicable skills in their professional life, but the learning materials still require adjustment and improvement following the developing needs.

It is urgent to understand the characteristics of ESP, which is not limited to specifying for professional life. It is a learner-centered approach to English language teaching that focuses on the specific communicative needs of learners in particular disciplines, professions, or academic fields (Nuryanti, 2025). Strevens (1988) mentioned three features of ESP which are characterized by learners' needs, specific job-related activities, and language use in conducted activities. On the other hand, Dudley-Evans & St. John (1998) strengthen the previous notion that ESP courses are based on the needs of the learners, which are job-related in a particular field. After the fundamental theory had been established, another significant point is that the language skills (reading, writing, speaking, listening) and the main grammatical structures are in the scope of the ESP course. Therefore, it can be stated that the ESP course is shaped in the light of the learners' needs, and it has a frame constituted by the language use that is required in that specific job-related content (Rahmawati & Mar'an, 2024). Furthermore, Dudley-Evans and St John (1998) modified Strevens' definition of ESP, which included absolute and variable characteristics. Absolutely, it is designed to meet the specific needs of the learner who might use the underlying methodology and activities of the disciplines it serves. For example, the importance of integrating effective language learning strategies into ESP courses to enhance psychology students' communication skills (Ananta et al., 2025). The course is centered on the language, focusing on language rules, terminology, and word inventory. It is also addressed to language skills, discourse, and genres appropriate to specified activities. In the meantime, several characteristics may be generated that the course is designed for specific disciplines, applied in specific teaching situations, and uses specified teaching and learning methodology. As

it is taught in higher education, the course is aimed at adult learners with an intermediate or advanced level of English proficiency. Nevertheless, most ESP courses assume basic knowledge of the language system, but they can be used with beginners.

Considering the characteristics of ESP, Dudley-Evans (1997) mentioned that the roles of the ESP teacher are not only teaching but also standing as course designer and materials provider, collaborator, researcher, and evaluator. At this point, the ESP teacher is challenged so much, specifically in designing and developing learning materials as it is not so easy to find a course book and use it all the time for ESP courses since the learners' needs may vary. The condition forces the teacher to work on customizing the course to meet the needs of the learners.

B. DISCUSSION

Keeping in mind all the responsibilities of an ESP teacher and reflecting the characteristics of ESP learning, the teacher must arrange all her activities based on both the priority and the sequence. Related to the material development, the first thing to do is to find out the learners' needs before finalizing the course syllabus. The process to find out the learners' needs might become an opportunity to conduct research since the needs cannot be outlined by the learners themselves. Identifying learners' needs requires information from many parties (Muthmainnah & Hasbi, 2022). Especially in determining the needs of engineering polytechnic students, it is urgent to involve "the industry" as future users of the graduates. For example, Shipbuilding State Polytechnic in Surabaya had established an "Industrial Advisory Board" which was expected to be a forum of companies that had used the graduates. The board is formed to give professional advice to the educational institution, as well as to be informed about the campus's potential, including the graduates. "The industry" mentions requirements that should be fulfilled by the graduates. The

requirements transform to become some of the learning outcomes. Generally, they require graduates to have adequate competency to communicate in both written and spoken language, which sounds “normal” like common people of Indonesia expect after having foreign language learning. On the other hand, the process of fulfillment becomes a challenge for the teacher to develop learning materials and teaching methods (Hasbi et al., 2025). Nevertheless, it is not a simple task to balance both language teaching and industry-specific content at equal weight due to a lot of constraints like limited class allocation, different learning outcomes, administrative responsibility, and other (Viledy & Yusuf, 2025)

The other parties that contribute to determining learning materials are alumni and lecturers who made suggestions based on their experience. The graduates had valuable experience during their struggle to match what they have learned and what they are expected to have to perform their job. Many of them suggested strengthening the development of speaking skills because this is the language skill that is directly demanded (Hasbi & Nursaputri, 2024; Islamiah & Nurhasanah, 2019). Furthermore, the skill is obviously seen in whether a person can speak English fluently or not. Unfortunately, many of them experienced difficulty winning a job due to their lack of speaking skills. Some lecturers also give advice on developing learning material. They expected students to have adequate reading and speaking skills for presentation. The academic demand characterizes those suggestions. Students of the engineering polytechnic are required to understand some technical standards or manual instructions, or regulations that refer to activities in class and laboratory, or workshop. All students of Diploma 3 and Diploma 4 need to understand those documents to support their practical activities in the laboratory or workshop, as well as to analyze classroom subjects. For example, grammar understanding of modal auxiliaries such as *must*, *should*, *can*, and others is necessary to

develop understanding of the necessity of a condition in the safety field, welding engineering field, piping engineering field, and other related safety, welding, and shipbuilding standards. Meanwhile, speaking skills for presentations are also urgent to develop. The skill is urgent in academic activity when they are required to share results of research or present their analysis of a problem in their school projects. So, based on the experience of people who are in the same profession, the learning material should accommodate speaking and reading skills.

Not only advising on skills to develop during the course, but the graduates and the lecturers are also very helpful in providing texts that can be used as learning materials. Some alumni contribute several manual instructions of engines, machines, and tools, such as an oscillator, a boiler, and a clamp meter. These materials are relevant, which might fulfill Strevens' (1988) three features of ESP, which might become one of learners' needs and be related to specific job-related activities and language use in conducted activities. They meet with learners' needs since those texts are useful in language learning as well as in technical learning. Nevertheless, the learning material developer needs to find out specific terminologies used in the texts. It is urgent since the developer might not have much information about the content and the vocabulary related to the fields (Bezircilioğlu, 2025).

C. REFLECTION

The development of learning material in English teaching in an engineering polytechnic encounters a challenge in selecting the coverage of the material. There are many parties that were involved to give opinions. The parties claimed to be the ones who understand the content to discuss and the skills to master by the learners. Advice and suggestions may vary depending on different points of view. These are challenging since the learning material developer tries to

accommodate all suggestions, but in fact, she is overwhelmed by the suggestions, and she faces difficulty in selecting authentic materials to match with language learning requirements.

Developing speaking skills, as suggested by the graduates and the lecturers, is also not a simple and easy task. However, this is a wonderful suggestion that is valuable and applicable during the learning period and after it. This skill is also strategic to increase the result of language learning, but it requires some time to develop; however, the allocated learning time might be hard to increase. The dream to develop speaking skills is not only supported by the sibling but also the environment.

AUTHOR



Dr. Perwi Darmajanti, S.S., M.Pd., serves as a lecturer at Politeknik Perkapalan Negeri Surabaya, Indonesia. She earned her bachelor's degree from Airlangga University. Her master's and doctoral degrees are from Universitas Negeri Surabaya. Her academic and research works focus on English language teaching, material development, and teaching speaking. She has published papers in reputable international journals indexed in Scopus. She has a strong interest in exploring technology-enhanced instruction to support effective and innovative teaching and learning of English. Her contribution includes teaching, research, and community engagement, all aimed at enhancing the quality of English education in Indonesia.

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