Challenges and strategies in implementing English for specific purposes learning in higher education: A systematic literature review (2018–2023)

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Abstract

The implementation of English for Specific Purposes (ESP) learning in higher education remains generally unsatisfactory, with persistent challenges affecting both lecturers and students. This study adopts a qualitative approach through a systematic literature review, aiming to identify the key obstacles and strategies associated with ESP instruction in universities from 2018 to 2023. Out of 96 articles initially identified, only 18 met the inclusion criteria and were found to be directly relevant to the research focus. The review reveals several recurring challenges in ESP implementation, including limited teacher competence, insufficient learning media, outdated or inappropriate teaching methods, and a lack of relevant ESP teaching materials. Broader systemic issues, such as inadequate curriculum design, limited stakeholder understanding, and a lack of assessment frameworks, also hinder effective delivery. Despite these barriers, the review highlights several benefits of ESP learning, such as enhanced content relevance, improved communication skills, alignment with industry needs, increased learner motivation, and the development of an international outlook. Addressing these implementation challenges is essential to maximizing the pedagogical and professional impact of ESP in higher education contexts.

Keywords: Challenge, ESP, Higher education, Learning.

1. Introduction

English for Specific Purposes (ESP) courses in Indonesian universities have a dual purpose. First, it helps students learn English according to their academic and non-academic needs, such as reading, writing, and speaking in the context of their discipline as well as in everyday life. Second, it prepares them for the world of work by focusing learning on job and

training needs, such as preparing them for the TOEFL test and English-speaking situations in the work environment. However, ESP teaching faces a number of challenges, including the limitations of young and inexperienced teachers, the lack of materials to suit the needs of various majors, and the varying levels of students' English proficiency. The necessary solutions involve developing ESP materials that are aligned with the needs of various disciplines, institutional support in developing a clear curriculum, and increasing student motivation to face these ESP challenges. Alemi and Ebadi [1] stated that the implementation of ESP courses in universities is basically an effort to address the challenges of one aspect, namely the demands of the world of work.

ESP courses provide dual benefits. The first is that because ESP is given when students are pursuing academic education in accordance with their field of interest, they learn to use English directly in the context of their discipline for both academic and non-academic purposes [2]. Academic interests involve the ability to read, listen, write, and discuss topics related to one's academic disciplines. Non-academic interests encompass activities outside of academic disciplines, such as speaking, reading, listening, and writing for daily needs. Examples include chatting with lecturers and friends, writing light reviews, and hearing news in English. The second advantage is preparation for the world of work [3]. As we all know, English is now an absolute requirement for finding a job. Many job interview sessions require TOEFL or use English as an introduction [4]. This occurs because companies prepare themselves to be more capable of competing globally, especially in the current era of free trade.

Learning English as a course in general universities (PT) (non-English majors) in Indonesia is included in the group of Personality Development Subjects (MPK). According to the Ministry of National Education Number: 232 / U / 2000, the course includes an institutional curriculum whose content and orientation are determined by each institution according to the characteristics of the university concerned Bui [5] and Dudley-Evans and St. John [6]. The characteristics of universities regarding the material/content of courses in the context of the academic scope should apply English for Specific Purposes (ESP) in accordance with the field or study program. At the same time, Ekayati et al. [7] English is very dynamic along with the development of science, technology, and art (Science and Technology) globally.

The dynamism of English in the context of higher education (PT) can be measured from two aspects: English language learning based on scientific disciplines or study programs, known as English for Academic Purposes (EAP), and English language learning oriented toward professional or work interests, known as English for Occupation (EOP) [8]. Both are integrated into English for Specific Purposes (ESP), as mentioned above, as an English language learning approach and as one of the leading academic learning approaches in higher education [9]. ESP in this case is more inclined toward language learning in context than problems of language rules (grammar) and language structure [10]. Therefore, authentic context and language use in typical situations can evoke the spirit of ESP learning [11, 12]. The application of ESP in Japan, for example, as acknowledged Hamidah and Yanuarmawan [13], ESP will become a reference without exception, including various universities in Japan, replacing the general English curriculum." Hewings, in *A History of ESP through English for Specific Purposes*, Haryono et al. [14], discusses the development of the use of English as a means of communication in interactions between non-English speakers. This development seems to have an impact on the types of ESP programs we establish and the research needed to support those programs [15-18]. As such, there is no hesitation in keeping a close eye on these developments, both for upcoming ESP journals and special-purpose world English. The same thing is reinforced Johnson and Johnson [19], the expansion of demand for English for certain needs, and the development of linguistic and educational psychology have led to an increase in ESP growth.

The Albanian government's idea regarding ESP about the importance of ESP, it is obvious that knowing English and using English for specific purposes is a challenge [20]. It can be said that ESP is acquiring a special status in Albania. In fact, in French universities, related to the level of development of ESP learning, which is characterized by the formation of ESP research groups such as the higher education ESP research group GERAS, ESP research and teaching are often qualified as "innovative," namely, the growth rate of ESP, which is very innovative. Because English courses are classified as institutional curricula, whose material or content is regulated and determined by the authority of the institution according to the Ministry of National Education above, it is suspected that there is a diversity of content levels and orientations, which do not always reflect the characteristics of the field or study program. This can be identified and investigated further through the curriculum or syllabus of study programs in higher education.

2. Methods

The method used in this study is a literature review through systematic literature review and meta-analysis (PRISMA). The literature that is the focus of this article concerns English for Specific Purposes with the following criteria:

Table 1.
Article Selection Criteria.

No	Criteria
1	Articles related to the implementation of English for Specific Purpose learning in Higher education
2	The article discusses the analysis of special English learning needs
3	Articles that discuss challenges and strategies in learning English for a specific Purpose
4	Learning English for a specific purpose as a Foreign language
5	Articles published between 2018-2023

To ensure the relevance and quality of the literature included in this study, a clear set of inclusion and exclusion criteria was established. The inclusion criteria focused on peer-reviewed articles published between 2018 and 2023 that specifically examined the implementation, challenges, or strategies of English for Specific Purposes (ESP) learning in higher education contexts. Conversely, the following types of articles were excluded from the review: studies related to ESP teaching at the primary or secondary school level; articles that demonstrated limited theoretical grounding or lacked sufficient reference to relevant literature; studies in which ESP was taught as a first language, rather than as a foreign or second language in higher education.

To identify and retrieve appropriate literature, a strategic search process was employed. This involved formulating and refining keyword combinations based on synonyms and closely related concepts associated with the study topic. The search was conducted using academic databases such as Scopus, Google Scholar, and Semantic Scholar. The keyword strategy was structured to maximize coverage while maintaining relevance to the research objectives.

The strategy for searching articles to be analyzed in this research is to ensure that the literature selected complies with the established selection criteria. First, look for synonyms of keywords in this study as outlined in the following Table 2.

Table 2.
Synonyms of keywords.

Keywords	Synonyms
Implementation	Use, application
Learning	Education, guidance, lectures
English for Specific Purpose	Special Purpose, Particular purpose
Challenge	Obstacles, difficulties
Strategy	How to, Tips
Higher Education	Universities, Academies, Colleges, Institutes

Furthermore, in the data selection process, researchers evaluate and report data selection through a data filtering process that matches the search criteria. Then, in order to synthesize the literature using content analysis.
The procedure for searching literature by selecting articles in this study is as follows:
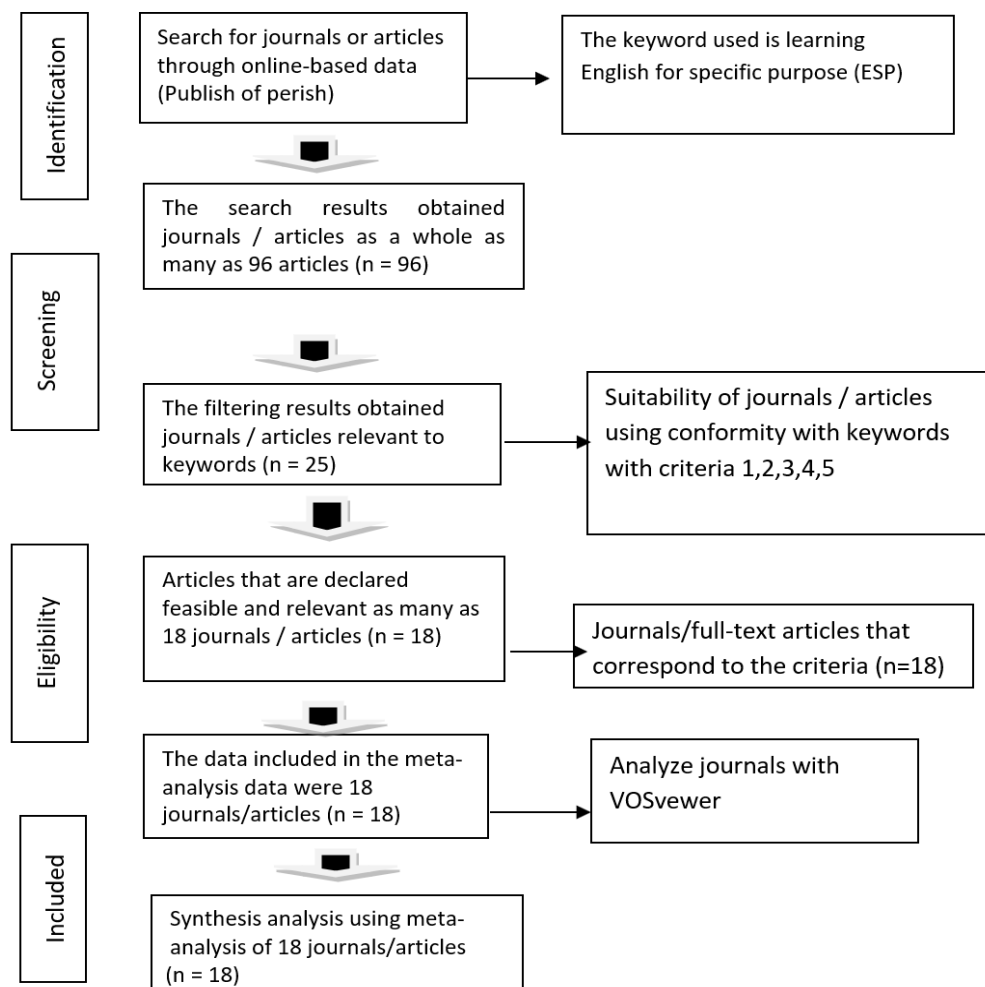

Figure 1.
Literature Screening and Selection Procedures.

3. Results

In this study, the analysis was conducted using Publish or Perish 8 software sourced from Google Scholar and Scopus, followed by the VOSviewer tool, by entering the main keyword "English for Specific Purposes" and applying five selection criteria for articles. Table 3 shows the development of research related to English for specific research from 2018 to 2023 by Google Scholar.

Table 3.
Publication Development.

Years	Number of Publications
2018	27
2019	27
2020	33
2021	46
2022	100
2023	105
Total	338

Figure 2.
Number of Publications
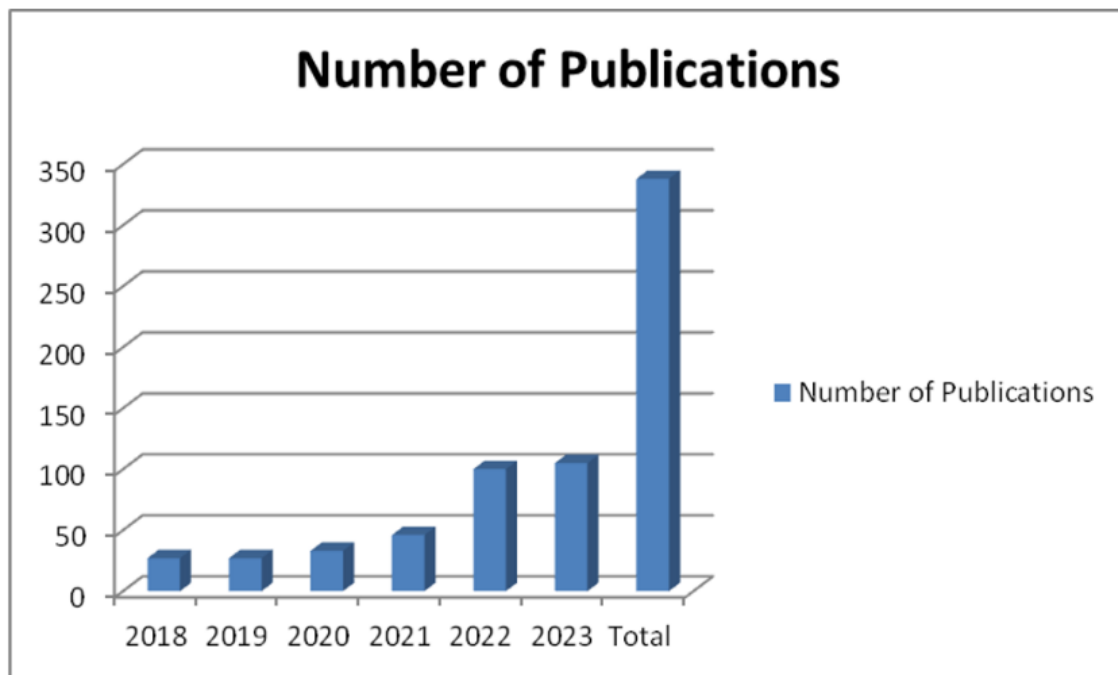
According to the data presented, the development of research on English for Specific Purposes has been increasing every year. However, most articles do not address the obstacles or challenges associated with learning in higher education. Therefore, to understand the development of the results, appropriate article selection is represented through visual networks in Figure 2,3, 4 below.
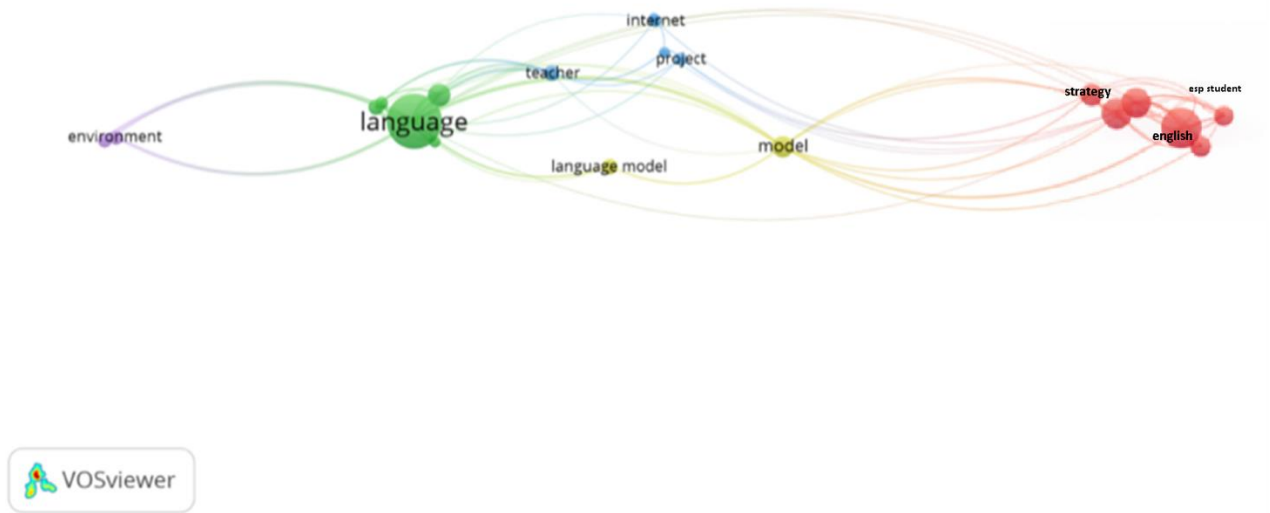
Figure 3.
Visualization Network.

Based on the figure of visualization, the network presents a total link strength of 596, with item 23, cluster 5, and 80 related articles. The development of research on specific purposes is indicated in red. In the small view, it can be seen that there is still a lack of research in this area.
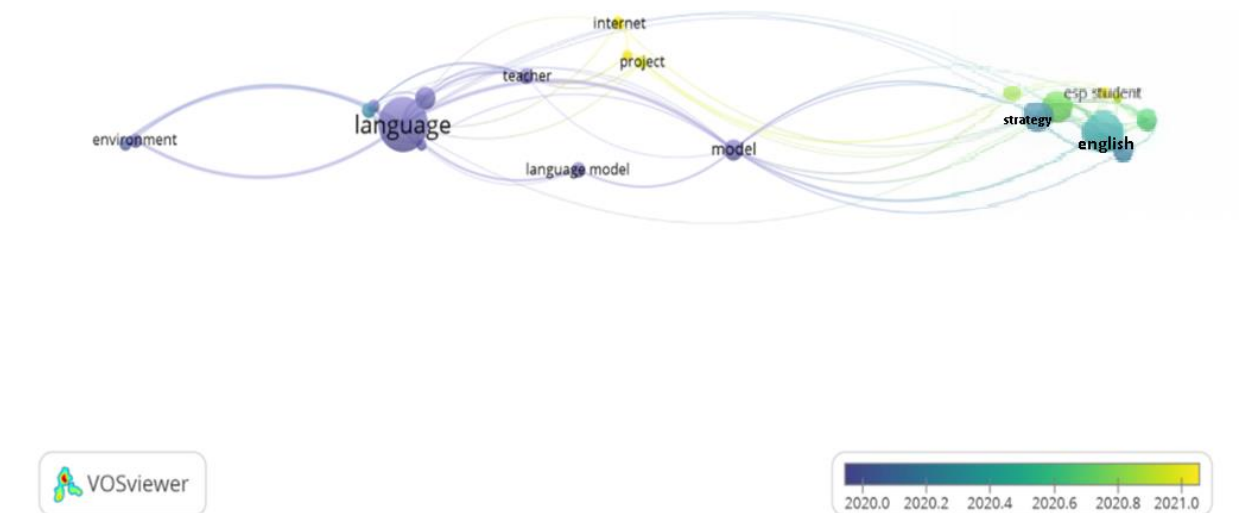

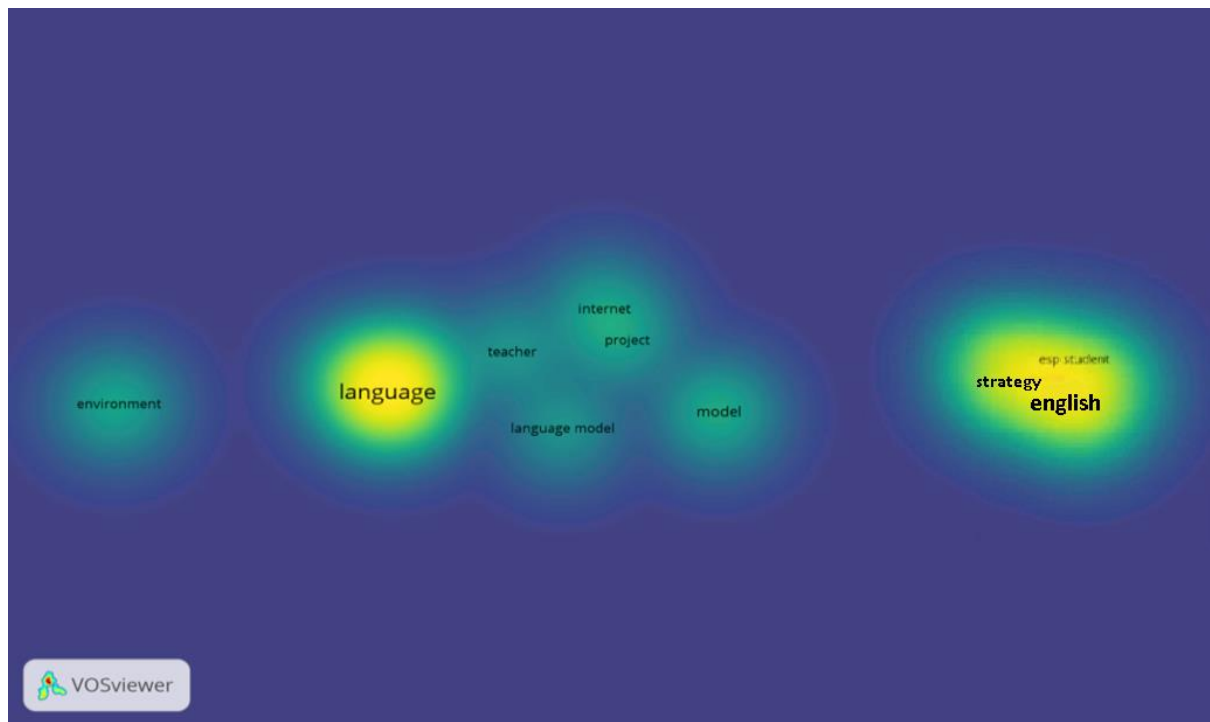
Figure 4.
Overlay Visualization.

Figure 5.
Density Visualization.

ESPs can be understood as a method in the field of English language education. It is characterized by the teaching of English for specific and specialized purposes. However, other experts describe ESP as English language instruction applied in academic studies or for specific work-related or professional purposes. Teaching materials play an important role in achieving teaching goals. The importance of teaching materials is emphasized to achieve learning objectives. In the framework of learner-centered teaching, teaching materials play a very important role. In addition to teaching materials, learning objectives provide direction for a series of activities carried out during the teaching and learning process, focusing on the needs or motivations of learners in learning. In Table 4 will be described the results of research on the implementation of ESP in Higher Education.

Table 4.
Article Citations.

NO.	Researcher / Title of Research Results	Research Results
1	Aflah and Rahmani [2]	The results of the analysis of learning needs obtained indicate that students need the ability to speak fluently and communicatively to prepare themselves to meet the demands of their future professions. This demonstrates that students' desire to improve their speaking skills *(speaking)* requires the ability to communicate effectively in English. The findings of this research are expected to serve as a reference for preparing syllabi and developing teaching materials.
2	Septiana [21]	His article aims to shed light on some learning problems in particular. Many problems arise from teachers, material production, and the misjudgment of students. To minimize this impact, several solutions are offered. The solutions include improving the ability of lecturers, enhancing material development, and refining course evaluation processes.
4	Nur [22]	There are no study programs from a number of universities that apply ESP learning with a CBT approach in English courses that reflect the characteristics of their scientific fields in all of these universities.
5	Balaei and Ahour [4]	Since the beginning of the development of ESP in the 1960s, needs analysis has played a very important role in designing and developing teaching materials that are ESP-based. Because needs analysis is a process of activities to find information carefully about what the needs of learners in language learning are, so that when followed up, it will improve teaching effectiveness.
6	Fadly [8]	The research found that accounting students understand better when they are taught in their native language, which increases their grades. In addition, this study found that students' level of English proficiency affects their performance in accounting courses, as all courses in the accounting study program are in English.
7	Fitria [10]	Related to the definition of Business English or English for Business Purposes, it shares important elements of needs analysis, syllabus design, course design, as well as material selection and development with all areas of ESP work. Teaching Business English requires the teacher's awareness of the subject matter. ESP merges subject matter and English teaching skills. The role of a teacher at

NO.	Researcher / Title of Research Results	Research Results
		this stage is to organize the adaptation of teaching skills and Business English teaching strategies.
8	Yulientinah et al. [23]	Research shows that the most needed English skills are speaking skills. The skills that are weaknesses are speaking skills, and the skills you want to master are speaking skills. The conclusion is that the language skills that are the needs and desires of learners are not specific skills referring to their field, but rather language skills that are more commonly used in the world of work. Speaking skills are still weak due to lack of opportunities to practice.
9	Ekayati et al. [7]	Research shows that the most needed English skills are speaking skills. The skills that are weaknesses are speaking skills, and the skills you want to master are speaking skills. The conclusion is that the language skills that are the needs and desires of learners are not specific skills referring to their field, but rather language skills that are more commonly used in the world of work. Speaking skills are still weak due to a lack of opportunities to practice.
10	Haryono et al. [14]	From the data obtained, a summary of important English learning materials has been found, covering four areas of language skills and language topics relevant to the fields of science and work. Students majoring in Civil Engineering. The results of this research are also expected to be used as reference material for further research, namely syllabus planning / RPS and the development of English teaching materials for civil engineering.
11	Jande and Ibrahim [18]	The review concludes by offering solutions on how practitioners can overcome these challenges to make ESP teaching more effective.
12	Amalyah [3]	This research is based on a literature review in English language teaching in Vietnam. In this article, many suggestions are provided to overcome some difficulties that can be applied by the reader according to the challenges faced, both in Vietnam and in other countries.
13	Risan et al. [24]	The results showed that the application of sports-specific materials provides many benefits for students, as follows: improve communication skills in using English, understand sports terms, access references about sports, implement sports practices, meet sports competition requirements, and enhance the education/teaching process. Based on the results of the study, the author suggests that, as an educator, a lecturer should pay attention to the importance of providing material related to student disciplines so that the learning outcomes and the competencies of the study program graduates can be achieved appropriately and in a well-synchronized manner. The Head of the Study Program should also monitor the process of preparing learning tools made by each educator to ensure that the material provided aligns with the needs of students and the profile of study program graduates.
14	Bui [5]	Current research proposes a step in uncovering student and teacher perceptions of effective ESP teaching in the context of EFL in Asia. Data collected from questionnaires and interviews highlight what students and teachers believe are important in ESP teaching and how to apply these aspects in ESP classrooms. Based on these results, ESP teachers may need to emphasize student competency development; ESP teaching should not focus to knowledge of language or knowledge of any particular discipline alone. Since ESP is an interdisciplinary field, teachers' knowledge of those disciplines can help improve the quality of teaching and improve student competence.
15	Huang and Yu [15]	The study highlights the specificity of ESP nursing courses and the challenges posed by the changing nature of the global healthcare landscape, where patient-centered care is prioritized. It also has implications for ESP curriculum development and emphasizes the importance of tailor-made, learner-centered language teaching.
16	Garcia and Gomes [11]	The results of this investigation will provide support to teachers in selecting appropriate multimodal materials for their ESP courses, as well as pedagogical tips on activities that can enhance the multimodal features of this digital genre.
17	Syandri [12]	Based on observations in English learning activities in the classroom, it can be seen that most lecturers have used various student-centered learning methods (student-centered). This can be seen from the use of role-playing learning methods, active learning, discussion, presentation, and others. In addition to using student-centered learning methods (students). Center), English learning in almost all universities mostly uses teacher-centered learning methods (lecturers). This can be seen by the dominance of lecturers using the lecture method in delivering lecture material. In addition, it can be seen that lecturers still use assignment methods, presentations, exercises, audiolingual, and so on.
18	Fitria [9]	Teaching ESP requires more challenges than teaching EGP (English for General Purposes). In the implementation of ESP learning, they face several difficulties, including) 1) Making syllabus and lesson plans. 2) Create ESP course materials according to student needs. 3) Choose and use learning methods. 4) Obtain ESP textbooks related to student needs. 5) Create/create ESP textbooks related to student needs. 6) Differences in students' English proficiency levels. 7) Differences in students' motivation levels in learning English. 8) Different levels of students' awareness of the importance of ESP. 9) The institution's policy related to the curriculum of ESP courses has not been clearly stated. 10) Institutional policies related to facility policies are inadequate. 11) The number of courses/credits and the number of semesters in ESP courses are not as expected. 12) Compensation (income) in teaching ESP courses is not expected.

4. Discussions

Education in higher education has undergone significant changes along with the development of globalization. One part of this change is the introduction of English for Specific Purposes (ESP) courses in universities [22]. ESPs are

designed to meet the specific needs of students in their field of study [25]. In this context, the discussion about the implementation of ESP courses in universities is very important. Risan et al. [24] examine the benefits provided by the implementation of ESP courses, as well as identify the constraints and challenges. The benefits of implementing ESP courses in higher education are as follows: ESP helps students develop English language skills relevant to their field of study, allowing them to access more specific literature and information. Through ESP, students can improve their professional communication skills, both oral and written, which are essential in the future work environment. ESP courses can be tailored to industry needs, helping students understand the expectations and demands that exist in the job market. When students see the relevance between English language learning and their future careers, their learning motivation increases, which in turn can improve their academic performance. ESP can open doors for international collaboration [26], allowing students to interact with people from different cultural backgrounds, developing a broader understanding of the world.

Then, the challenges in the implementation of ESP courses in higher education are as follows: A key challenge is the lack of resources, including qualified lecturers, appropriate learning materials, and technology that supports ESP teaching. The inflexible general curriculum can be a bottleneck because it does not allow the necessary adjustments to include ESP courses according to the specific needs of the students. It is difficult to quantitatively measure ESP learning outcomes [21], making assessing implementation effectiveness difficult. Stakeholders, including students and parents, may not fully understand the benefits of ESP, resulting in resistance to the implementation of this course. Continuous evaluation and monitoring are required to ensure the success of the ESP program. The challenge lies in designing effective and relevant evaluation methods [23]."

Further studies also underline similar obstacles. Qiao et al. [27] revealed that implementing ESP through blended learning faces issues such as large class sizes, a lack of training for teachers, and difficulties in conducting formative assessments. Huang et al. [28] identified additional difficulties in Sino-Foreign educational programs, where diverse student backgrounds, limited resources, and teacher preparedness become barriers in course design and delivery. Simbolon [29] emphasized that in the Indonesian higher education context, ESP can play a pivotal role in supporting English Medium Instruction (EMI), but only if there is strong collaboration between language lecturers and content lecturers. Moreover, Rafiq et al. [30] suggest that mobile learning could provide an innovative solution to ESP challenges, as technology allows flexible access to materials, encourages student engagement, and sustains learning beyond the classroom. Explored the application of ESP in vocational schools, showing that industry-based ESP curricula improved student engagement and job readiness. Similarly, demonstrated that digital teaching tools, specifically an ELT methods e-module, can effectively enhance critical thinking in prospective English teachers. The experimental results (average score 84.97 for the experimental group vs. 76.48 for the control) highlight the potential of such technologies to strengthen pedagogical skills, implying that similar approaches could benefit ESP instruction by fostering analytical and domain-specific communication competencies. Recent innovations also highlight the role of reading strategies in ESP contexts. Erni et al. [31] developed the Inquiry Complexity Reading Strategy (ICRS) to improve students' critical and creative thinking in online academic reading. Their findings show that ICRS, based on inquiry and complexity learning with digital tools, significantly enhanced learners' reading comprehension, participation, and engagement in hybrid environments. This emphasizes that integrating inquiry-based and technology-supported strategies into ESP curricula can strengthen both language proficiency and higher-order thinking skills, which are essential in academic and professional domains. Thus, there needs to be a solid solution to overcome challenges and obstacles regarding the implementation of ESP learning in universities. Efforts such as providing professional development for ESP teachers, integrating technology like mobile learning, aligning curricula with industry needs, and fostering collaboration between language and subject specialists will enhance the effectiveness and sustainability of ESP programs in higher education.

5. Conclusion

From the results of the English for Specific Purposes (ESP) in higher education, several important conclusions can be drawn: (1) improving the quality of learning. ESP helps improve the quality of learning by providing personalized academic support to students. ESP tutors and mentors help students understand subject matter better, improve comprehension, and enhance academic achievement; (2) improving student welfare. The non-academic support provided by ESP, such as mental health services, counseling, and financial aid, improves student well-being. Students feel supported and motivated, reducing stress levels and increasing happiness during their studies; (3) promoting inclusion and equity. ESP helps create an inclusive learning environment, supports students with special needs, and ensures that every student has fair and equal access to higher education. This creates fairness in education; (4) increasing student retention and graduation rates. With ESP support, student retention rates increase as students get the help they need to overcome academic and social barriers. Graduation rates also increase as students feel supported and motivated to complete their studies; (5) development of soft skills and relevant skills. ESP not only provides academic support but also helps in the development of soft skills and skills relevant to the world of work. It engages students in extracurricular activities, leadership training, and collaborative projects, helping them become graduates ready to enter the workforce; (6) improving the reputation of the college. Universities that successfully implement ESP create a good reputation for supporting students and producing quality graduates. This good reputation can increase the interest of prospective students and help the college attract more quality students. Overall, the implementation of ESP in higher education contributes greatly and positively to students' learning experiences, helping them succeed in their studies and preparing them to face the challenges of the world of work with confidence and relevant skills. However, challenges related to resources, curriculum, evaluation, and stakeholder understanding must be overcome in order for ESP programs to have maximum impact. Cooperation between

educational institutions, government, and industry is needed to support the effective implementation of ESP courses in universities.

References

[1]   M. Alemi and S. Ebadi, "The effects of pre-reading activities on ESP reading comprehension," *Journal of Language Teaching and Research,* vol. 1, no. 5, pp. 569–577, 2010.

[2]   M. N. Aflah and E. F. Rahmani, "Need analysis of English language courses for vocational students," *Jurnal Pendidikan Bahasa,* vol. 7, no. 1, pp. 77-89, 2018. https://doi.org/10.31571/bahasa.v7i1.828

[3]   L. S. Amalyah, "Difficulties in teaching English for Specific purposes: Empirical study at Vietnam universities," *AMCA Journal of Community Development,* vol. 1, no. 1, pp. 6-8, 2021. https://doi.org/10.51773/ajcd.v1i1.21

[4]   P. Balaei and T. Ahour, "Information technology students' language needs for their esp course," *International Journal of Applied Linguistics and English Literature,* vol. 7, no. 2, pp. 197-203, 2018. https://doi.org/10.7575/aiac.ijalel.v.7n.2p.197

[5]   H. P. Bui, "Students' and teachers' perceptions of effective ESP teaching," *Heliyon,* vol. 8, no. 9, p. e10628, 2022. https://doi.org/10.1016/j.heliyon.2022.e10628

[6]   T. Dudley-Evans and M. J. St. John, *Developments in English for specific purposes*. Cambridge: Cambridge University Press, 1998.

[7]   R. Ekayati, I. D. Manurung, and E. Yenni, "Need analysis of esp for non-English study program," *Language Literacy: Journal of Linguistics, Literature, and Language Teaching,* vol. 4, no. 2, pp. 322-332, 2020. https://doi.org/10.30743/ll.v4i2.3152

[8]   Y. Fadly, "Accounting students' performance in the implementation of English for specific purpose (ESP) at PANCA Budi Development University (UNPAB) MEDAN: Yossy Fadly," *Jurnal Akuntansi Bisnis dan Publik,* vol. 9, no. 2, pp. 190-201, 2019.

[9]   T. N. Fitria, "English lecturers' difficulties in teaching English for Specific Purposes (ESP) in various higher education in Indonesia," *Journal of English Teaching and Learning Issues,* vol. 6, no. 1, pp. 65-80, 2023. https://doi.org/10.21043/jetli.v6i1.19178

[10]   T. N. Fitria, "Business English as a part of teaching English for specific purposes (ESP) to economic students," *Jurnal Education and Economics,* vol. 2, no. 2, pp. 143–152, 2019.

[11]   M. Garcia and A. Gomes, "Science dissemination videos as multimodal supporting resources for ESP teaching in higher education," *English for Specific Purposes,* vol. 70, p. 101130, 2023.

[12]   G. Syandri, "English language learning in the context of English for specific purpose (ESP) at the university of Muhammadiyah West Sumatra," *Inovasi Pendidikan,* vol. 10, no. 1, pp. 19-28, 2023.

[13]   F. N. Hamidah and D. Yanuarmawan, "Implementation of English for specific purposes to improve English teaching for vocational high school teachers," *Jurnal ABDINUS : Jurnal Pengabdian Nusantara,* vol. 2, no. 2, pp. 236-247, 2019. https://doi.org/10.29407/ja.v2i2.12767

[14]   E. P. Haryono, D. R. J. Taju, F. F. Tombokan, and T. P. Lonan, "Needs analysis in the context of ESP (English for Specific Purpose): Analysis of the English learning needs of civil engineering students," *Jurnal Teknik Sipil Terapan,* vol. 2, no. 3, pp. 36–47, 2021. https://doi.org/10.47600/jtst.v2i3.254

[15]   Q. Huang and Q. J. Yu, "Towards a communication-focused ESP course for nursing students in building partnership with patients: A needs analysis," *English for Specific Purposes,* vol. 70, pp. 57-69, 2023. https://doi.org/10.1016/j.esp.2022.11.006

[16]   T. Hutchinson and A. Waters, *English for specific purposes*, 22th ed. United Kingdom: Cambridge University Press, 2006.

[17]   T. Hutchinson and W. Waters, *English for specific purposes: A learning-centered approach*. Cambridge: Cambridge University Press, 1987.

[18]   L. V. Jande and N. M. Ibrahim, "Challenges of teaching ESP: A review," *LSP International Journal,* vol. 8, no. 2, pp. 1-8, 2021. https://doi.org/10.11113/lspi.v8.16334

[19]   K. Johnson and H. Johnson, *Encyclopedic dictionary of applied linguistics*. Oxford: Blackwell Publishers, 1999.

[20]   Kusni, "Reformulation of ESP program design in higher education," *Linguistik Indonesia,* vol. 25, no. 1, pp. 1–12, 2007.

[21]   I. Septiana, "The challenges of teaching for English specific purposes in higher education," *Jurnal Ilmiah Bina Bahasa,* vol. 11, no. 1, pp. 22–31, 2018.

[22]   M. Nur, "Implementation of ESP in public universities (Non English Majors) through the content-based instruction-CBT approach," *Jurnal Mabasan,* vol. 12, no. 1, pp. 32–42, 2018.

[23]   D. S. Yulientinah, R. Juwita, and W. Resdiana, "Identification of English language learning needs analysis (non-English language study program) in the special English course/English for specific purposes (ESP) in the D4 Financial Accounting Study Program, Indonesian Postal Polytechnic," *Competitive,* vol. 15, no. 1, pp. 1-11, 2020. https://doi.org/10.36618/competitive.v15i1.625

[24]   R. Risan, R. Mahyuddin, and G. Hasan, "The importance of ESP materials (English for Specific Purposes) specialization on sport in English courses," in *Proceedings of the International Conference on Science and Advanced Technology (ICSAT)*, 2021.

[25]   M. Rahman, "English for specific purposes (ESP): A holistic review," *Universal Journal of Educational Research,* vol. 3, no. 1, pp. 24-31, 2015. https://doi.org/10.13189/ujer.2015.030104

[26]   C. Sarré and S. Whyte, "Research in ESP teaching and learning in French higher education: Developing the construct of ESP didactics," *ASp. la revue du GERAS,* vol. 69, pp. 139-164, 2016.

[27]   L. Qiao, Y. Xu, and N. bin Ahmad, "An analysis of implementation challenges for English for specific purposes (ESP) formative assessment via blended learning mode at Chinese vocational polytechnics," *Journal of Digital Education, Communication, and Arts,* vol. 6, no. 02, pp. 64-76, 2023. https://doi.org/10.30871/deca.v6i02.6813

[28]   Z. Huang, S. S. Mustakim, and N. Ghazali, "Analyzing the challenges of developing English for Specific Purpose (ESP) courses for Sino-Foreign cooperative educational programs," *International Journal of Academic Research in Progressive Education and Development,* vol. 12, no. 3, pp. 2278–2287, 2023.

[29]   N. E. Simbolon, "English for specific purposes ESP: An existing resource to English medium instruction (EMI) implementation in Indonesian higher education," *JULIET: Journal of English Language and Literature,* vol. 1, no. 2, pp. 83-93, 2024.

[30]   K. R. M. Rafiq, H. Hashim, and M. M. Yunus, "Sustaining education with mobile learning for English for specific purposes (ESP): A systematic review (2012–2021)," *Sustainability,* vol. 13, no. 17, p. 9768, 2021. https://doi.org/10.3390/su13179768

[31]   E. Erni, M. Mohamad, F. Azhar, and A. Hasnah Faizah, "The development of the inquiry complexity reading strategy (ICRS) in online academic reading," *Theory and Practice in Language Studies,* vol. 13, no. 6, pp. 1349–1359, 2023. https://doi.org/10.17507/tpls.1306.03