ANSWERING THE CHALLENGES OF ESP LEARNING IN VOCATIONAL SCHOOLS: COMPARATIVE ANALYSIS OF LITERATURE AS THE BASIS FOR THE DEVELOPMENT OF DIGITAL ESP MODULES

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ABSTRAK

Penelitian ini bertujuan untuk mengevaluasi efektivitas dan urgensi pengembangan modul ESP (English for Specific Purposes) berbasis digital yang ditujukan untuk siswa Sekolah Menengah Vokasi (SMK). Pendekatan yang digunakan adalah metode penelitian perpustakaan melalui analisis tematik dari empat artikel ESP saat ini yang relevan dengan konteks pendidikan vokasi. Setiap artikel dievaluasi berdasarkan aspek metodologi penelitian, temuan utama, dan kontribusinya terhadap konsep pengembangan modul ESP digital. Hasil analisis mengungkapkan tiga isu krusial dalam pembelajaran ESP di sekolah vokasi, yaitu ketergantungan pada materi umum yang tidak sesuai dengan kebutuhan vokasi, kurangnya materi otentik dan digital yang siap untuk pendidik, serta pemanfaatan teknologi yang belum maksimal. Di sisi lain, beberapa penelitian telah membuktikan bahwa materi digital dapat meningkatkan motivasi siswa untuk belajar, memudahkan instruktur dalam mengajarkan kompetensi keterampilan, dan mendukung siswa dalam memahami teks vokasi dengan cara yang lebih kontekstual. Selanjutnya, penelitian pengembangan (R&D) yang dianalisis menekankan bahwa kualitas materi ESP sangat ditentukan oleh analisis kebutuhan, kesesuaian dengan dunia kerja, dan integrasi antara teori dan praktik. Berdasarkan temuan tersebut, penelitian ini menyimpulkan bahwa pengembangan modul ESP digital merupakan langkah strategis untuk mengatasi berbagai keterbatasan materi konvensional di sekolah vokasi. Modul yang dikembangkan secara digital tidak hanya meningkatkan partisipasi siswa, tetapi juga memperkuat konteks kejuruan, menyediakan materi otentik, dan memfasilitasi pembelajaran otonom. Dengan demikian, modul ESP digital berpotensi menjadi solusi efektif dalam meningkatkan kualitas pembelajaran bahasa Inggris berbasis keterampilan di sekolah vokasi.

Kata Kunci: Bahasa Inggris Untuk Tujuan Tertentu, SMK, Modul Digital, Analisis Tematik, Penelitian Perpustakaan.

ABSTRACT

This study aims to evaluate the effectiveness and urgency of developing digital-based ESP (English for Specific Purposes) modules intended for Vocational High School (SMK) students. The approach used is a library research method through thematic analysis of the four current ESP articles that are relevant to the context of vocational education. Each article is evaluated based on aspects of the research methodology, main findings, and its contribution to the concept of developing digital ESP modules. The results of the analysis revealed three crucial issues in ESP learning in vocational schools, namely dependence on general materials that are not in line with vocational needs, lack of authentic and digital materials that are ready for educators, and the use of technology that has not been maximized. On the other hand, several studies have proven that digital materials can increase students' motivation to learn, make it easier for instructors to teach skill competencies, and support students in understanding vocational texts in a more contextual way. Furthermore, the analyzed development research (R&D) emphasizes that the quality of ESP materials is largely determined by needs analysis, suitability with the world of work, and

integration between theory and practice. Based on these findings, this study concludes that the development of digital ESP modules is a strategic step to overcome various limitations of conventional materials in vocational schools. Digitally developed modules not only increase student participation, but also strengthen the vocational context, provide authentic materials, and facilitate autonomous learning. Thus, the digital ESP module has the potential to be an effective solution in improving the quality of skills-based English learning in vocational schools.
Keywords: *English For Specific Purposes, SMK, Digital Modules, Thematic Analysis, Library Research.*

INTRODUCTION

In school, learning a language like English is an important part of the curriculum, and this is also true for vocational high schools. Students in these schools study English to help them communicate better in everyday life, especially since English is a global language used widely around the world. A vocational school is a type of educational place that, depending on the country, can offer either secondary or post-secondary education. The main goal of these schools is to teach practical skills and knowledge needed for specific jobs. In some cases, vocational schools provide education at the secondary level, which is different from academic high schools. Academic schools usually prepare students for university or higher education, while vocational schools often help students get ready for work right after graduation. (Fauzi & Hanifah, 2019)

The Indonesian government continues to improve the development of human resources through Vocational High Schools (SMK). One of the government's efforts in the education sector, especially for SMK, is by issuing several policies through the Director General of Basic and Secondary Education Decision Number 251/C/KEP/MN/2008 Year 2008 about the Vocational Skill Spectrum in SMK. This decision regulates the vocational skill spectrum to add more specific program options in Indonesian SMK (Ministry of Education and Culture (Kemendikbud 2008) . This policy aims to increase the variety of skills students can learn at SMK.

The government also runs the SMK Revitalization Program through the President's Instruction. The President issued Presidential Instruction Number 9 Year 2016 about SMK Revitalization to Improve the Quality and Competitiveness of Indonesian Human Resources. This presidential instruction is intended to help educational institutions, especially SMK, in creating synergy between institutions and related organizations according to their respective duties and functions
Through this revitalization program, the government issued the Implementation Strategy Guidelines for SMK Revitalization through a Bilingual Learning Ecosystem (Kemdikbud, 2017).

METHOD

discuss the challenges, needs, and strategies of teaching English for Specific Purposes (ESP) in Vocational High Schools (SMK). Articles were collected from databases such as Scopus, ERIC, Google Scholar, and ScienceDirect, with publications ranging from 2014 to 2024.
The keywords used include:

"English for Specific Purposes", "ESP in vocational school", "ESP challenges", "teaching materials", "digital module", and "vocational education".

The inclusion criteria are as follows:

A. Articles that directly discuss the implementation of ESP in SMK or vocational education,
B. Studies that highlight challenges faced by teachers, needs for teaching materials, curriculum readiness, or the use of digital media in ESP,
C. Articles written in English or Indonesian,
D. Articles that clearly explain their methodology, whether qualitative, quantitative, or mixed methods.

Non-empirical articles, reports that do not mention methodology, or opinion-based writings without data were excluded from the analysis.

The selection process followed the PRISMA flow, starting with screening titles and abstracts, followed by full-text review. Articles that passed the selection were analyzed based on themes such as challenges in implementing ESP, needs of students and teachers, use of authentic materials, and the potential for digitalizing ESP resources. The analysis was conducted in a descriptive and thematic manner to identify patterns, similarities, and differences among the relevant studies.

FINDINGS & DISCUSSION

This study aims to explore and compare the findings of various studies related to ESP learning in vocational schools, especially in the aspects of implementation challenges and the need for digital material development. From the 4 selected articles, it was found that each study highlighted different but complementary dimensions.

Some journals such as those written by Dilla Sintia et al. highlight real challenges in the implementation of ESP, including:

- low teacher competence in ESP,
- lack of authentic material,
- the inalignment of the curriculum with the needs of the industry,
- the lack of use of digital media in learning.

Meanwhile, other studies tend to emphasize solution strategies, for example:

- the use of authentic materials based on the needs of the world of work,
- integration of technology to support independent learning,
- development of contextual and digital-friendly ESP modules,
- Improvement of pedagogic and professional competence of teachers.

Comparisons between studies show that the biggest challenge lies in the limitations of teaching materials and teacher readiness, while development opportunities lie in the digitization of ESP modules that can improve the accessibility, flexibility, and relevance of materials for vocational school students.

The difference in focus between these studies enriches the understanding of the need for the development of digital ESP modules. Findings that focus on challenges provide the basis of the problem, while studies that focus on digital innovation provide direction for the development of solutions.

Here's the comparison table:

	(Sintia et al., 2025)	(Fadlia et al., 2022)	(Prabandari & Aji, 2019)	(Fauzi & Hanifah, 2019)
Comparison Aspects	Dependence on general materials, enhancing vocational context, and strengthening the use of technology.	Evidence that digital materials are effective for vocational school students.	Not merely a compilation of digital content.	The skills required to genuinely support the learning process in vocational schools.
Methods	Library research employing thematic analysis of recent ESP studies	Research and Development (4D model: define, design, develop, disseminate)	R&D with expert validation and module readability testing	a qualitative case study involving needs analysis, syllabus formulation, material design, and implementation.
Main Findings	1) The lack of authentic and digital materials is a common issue. 2) Teachers need support in the form of ready-to-use modules. 3) Technology is not yet used optimally even though it is highly needed.	1) Digital materials increase students' enthusiasm and motivation. 2) Teachers feel that digital ESP materials help in teaching specialized competencies.	1) Modules must be relevant to real needs in the field. 2) A high-quality module is one that connects theory and practice.	1) Field-specific reading materials help students better understand texts. 2) Needs analysis strongly determines the quality of ESP materials.
Relevance to the Digital ESP Model	The discussion about the limitations of authentic and digital materials indicates that the ESP digital module is highly necessary as a practical solution to provide relevant, structured, and easily accessible materials for both teachers and students. Unutilized technology highlights the	It has been demonstrated that digital materials can increase students' motivation and enthusiasm while also assisting teachers in demonstrating their ability to strengthen the argument that the ESP digital modul not only functions as a learning medium	The argument that the modul must be relevant to the needs stated in the lapangan indicates that the ESP digital modul must be based on industry needs in order to connect theory to practice and provide SMK students with contextual learning	According to the study, reading materials based on keahlian bidang enhance students' comprehension, and it is crucial to analyze needs and support the development of an ESP digital modul that is unique (vocational-specific),

	importance of digital modules that can improve the quality of ESP education at Vocational school.	but also as a pedagogical tool that increases the effectiveness of the learning process.	opportunities.	adaptable, and based on students' needs and keahlian programs.

A comparison table of journals shows that each study contributes in different ways to understanding the challenges, needs, and direction for teaching ESP in vocational high schools. In terms of methods, the first study used library research with thematic analysis of recent ESP studies, providing an overall view of basic issues in implementing ESP, especially regarding the availability of authentic materials, limited digital resources, and the lack of technology use in teaching. The second and third studies used the Research and Development (R&D) approach, either through the 4D model or expert validation, showing that developing digital materials or ESP modules requires a structured design process and must go through evaluation by experts. The fourth study used a qualitative case study approach, emphasizing the importance of needs analysis, syllabus development, and creating context-based teaching materials.

From the main findings, all the journals show a consistent pattern. The first study highlights that the lack of authentic and digital materials is a common issue faced by SMK teachers, along with the need for ready-to-use modules and low usage of technology. The second study emphasizes that the use of digital materials can increase student motivation and enthusiasm, as well as assist teachers in teaching vocational competencies. The third study stresses that high-quality ESP modules must be relevant to real field needs and capable of connecting theory with practice. Meanwhile, the fourth study proves that reading materials suitable for the field of expertise improve students' understanding, and needs analysis plays a central role in determining the quality of ESP materials.

All the results of this research turned out to be very closely related to the development of the Digital ESP Module. The lack of original materials and the infrequent use of technology make us realize how urgent digital modules are neat, easy to use, and practical for teachers and students. In fact, digital content can make students' enthusiasm for learning increase, which proves that this module is not only an ordinary teaching tool, but can also make the learning experience more exciting and interactive. Moreover, the pressure of materials that are relevant to the needs of the world of work shows that digital ESP modules must be made based on professional needs analysis, while connecting with industry conditions. On the other hand, the findings about the importance of field-specific materials and regular material design make it clear that this module should not just be a pile of digital materials, but must be a complete learning package, that has been tested, and adapted to the character of vocational school students.

Thus, the four studies as a whole provide a solid theoretical and empirical foundation for the development of the Digital ESP Module aimed at Vocational High School students. This digital module acts as a strategic solution in overcoming the limitations of learning materials, increasing student participation, facilitating the teaching of vocational competencies, and ensuring the relevance of learning to contemporary industrial demands.

CONCLUSION

The findings of this library research confirm that the development of a digital ESP module is an essential response to the recurring challenges identified in recent ESP studies. The comparative analysis of four relevant articles reveals a consistent pattern: vocational students still rely heavily on general English materials, teachers lack accessible authentic and digital resources, and technological integration in ESP classrooms remains suboptimal. These issues collectively hinder the attainment of vocationally oriented English competencies expected in SMK.

The reviewed studies also demonstrate clear evidence that digital materials positively influence the teaching–learning process by increasing student motivation, strengthening the relevance of learning to specific fields, and supporting teachers in delivering specialized competencies more effectively. Research employing R&D and needs analysis underscores that high-quality ESP materials must be grounded in real-world vocational demands and must align theory with practical application.

Therefore, this study concludes that a digital ESP module is not merely an alternative instructional resource but a strategic solution capable of enhancing both the quality and relevance of vocational English instruction. By providing authentic, field-specific, and technologically supported materials, a well-designed digital module has the potential to significantly improve students' learning outcomes and support teachers in implementing ESP more effectively in the SMK context.

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