CHAPTER I
INTRODUCTION

The chapter reveals the background of the study, the research question, the purposes of the research, the significance of the research, the research scope, the research framework, and previous studies.

A. Background

This study aims to identify the English language needs of Computer and Network Engineering students at vocational high school and examine the extent to which the English teacher's classroom practices fulfill these needs. Students in Computer and Network Engineering programs routinely encounter English when using software interfaces, following troubleshooting instructions, accessing online programming resources, and reading technical documentation. These activities require them to understand technical vocabulary and task-specific language beyond general communication skills. However, English materials that do not align with field-specific demands may limit students' preparation for their vocational studies and future careers.

English for Specific Purposes (ESP) is an approach in which decisions about content and teaching methods are based on learners' reasons for learning. Unlike General English, ESP focuses on the specific linguistic demands of learners' target situations (Hutchinson & Waters, 1987). Needs analysis provides a foundation for ESP curriculum design, materials development, and pedagogical decision-making (Dudley-Evans & St John, 1998). Through this approach, English instruction can be directed toward learners' specific academic and professional needs, making language learning more relevant to vocational contexts.

Needs analysis is a systematic process of gathering information about learners' target needs, current language abilities, and learning needs in order to design English instruction that is relevant to their academic and professional contexts (West, 1994, as cited in Dou et al., 2023; Mede & Doğan, 2017). Through needs analysis, educators can identify the gap between learners' current language abilities and the competencies required in their academic or professional contexts.

Learner needs in ESP can be categorized into three dimensions: necessities, which refer to what learners objectively require to function effectively in their target situations; lacks, which represent the gap between students' current proficiency and required competencies; and wants, which reflect learners' subjective perceptions of their needs and learning preferences (Hutchinson & Waters, 1987).

Despite this clear theoretical framework, significant gaps often exist between students' needs and the instruction they receive. The dominance of General English materials in Indonesian vocational schools is well documented. Nurhasanah and Kurniawan (2023) document that English teachers frequently utilize textbooks designed for general senior high schools rather than vocationally specific materials, resulting in identical instructional content across fundamentally different majors. Latifah et al. (2024) identify that teachers face difficulties in finding appropriate ESP materials for Computer and Network Engineering, with many English books containing only general English content rather than field-specific language.

A preliminary observation at SMK Muhammadiyah 2 Banjarsari revealed that the English teacher still uses a general English textbook that is not specifically designed for Computer and Network Engineering students. Some learning materials, such as narrative texts, are perceived as less relevant to students' vocational needs. In addition, the teacher reported that students generally have low English proficiency, limited motivation, and face difficulties, particularly in listening skills. Although some efforts have been made to incorporate field-related content, the implementation remains inconsistent. These preliminary findings indicate a mismatch between the current English instruction and the vocational needs of Computer and Network Engineering students, highlighting the need for a systematic needs analysis to better align English learning with their field of study.

In the context of Indonesian vocational education, ESP instruction in vocational high schools faces particular challenges related to curriculum policy and institutional readiness. The Merdeka Curriculum introduced by the Indonesian Ministry of Education emphasizes *link and match* between vocational education and industry demands, yet the implementation of field-specific English instruction remains inconsistent across schools (Sugiyanto, 2022). This gap between policy

aspirations and classroom realities further underscores the need for empirical investigation into English language needs and instructional practices at the school level.

Previous research reveals consistent patterns of challenges in vocational English education. Computer and Network Engineering students at SMK Ma'arif NU 1 Sumpiuh were found to perceive English as important for careers, yet 84.5% struggle with listening comprehension, and 92.6% indicate insufficient technical vocabulary mastery (Aisyah, 2023). Nurhasanah and Kurniawan (2023) examine ESP needs at a vocational school in Riau, documenting confusion between ESP and General English among Computer and Network Engineering students, with inadequate alignment between instructional materials and students' majors. The study identifies insufficient facilities, teaching resources, and the predominance of vocabulary and pronunciation difficulties as primary obstacles. Similarly, Rahmawati et al. (2020) found that Computer and Network Engineering students at vocational schools in Mataram needed English for industrial communication and technical vocabulary, while their textbooks mainly focused on general competencies rather than department-specific content.

However, several significant gaps remain. First, a detailed examination of how teachers' classroom practices address these identified needs is insufficient. Second, existing research relies mainly on questionnaires and interviews to identify needs, with limited qualitative exploration of classroom practices through direct classroom observation in vocational English education. Third, no existing research has specifically examined the English language needs and classroom practices at SMK Muhammadiyah 2 Banjarsari.

Therefore, this study seeks to address these gaps by conducting a comprehensive qualitative needs analysis that examines the English language needs of Computer and Network Engineering at vocational high school and investigates the extent to which classroom practices fulfill these identified needs. By employing multiple data collection methods, including questionnaires, interviews, and classroom observations, the research aims to provide a rich, contextualized

understanding of English language needs and classroom practices in this specific setting.

B. Research Questions

To guide this study, the following research questions are formulated:

1. What do Computer and Network Engineering students need to learn in English at a vocational high school?
2. To what extent do the English teacher's classroom practices fulfill the identified English language needs of Computer and Network Engineering students?

C. Research Purposes

In line with the research questions, the purposes of this study are:

1. To identify what Computer and Network Engineering students need to learn in English at a vocational high school.
2. To examine the English teacher's classroom practices in fulfilling the identified English language needs of Computer and Network Engineering students.

D. Research Significance

This study is expected to provide both theoretical and practical contributions:

1. Theoretical Significance

The findings of this study enrich the literature on ESP needs analysis in Indonesian vocational education by providing an in-depth, contextualized understanding of how English language needs manifest within the specific context of Computer and Network Engineering programs at vocational high school. Moreover, the study extends the application of Hutchinson and Waters' (1987) needs analysis framework by examining how students' necessities, lacks, and wants collectively shape their overall English language needs in a comprehensive manner. Furthermore, it offers insights into how ESP theory aligns with classroom practice in vocational settings, revealing both points of convergence where theoretical principles are successfully implemented and areas of divergence where practical constraints and contextual factors create gaps between theory and practice.

2. Practical Significance

This study provides several practical contributions for multiple stakeholders in vocational English education. For students, this study helps them realize their English learning needs related to their vocational field and understand the importance of English competencies for their future academic and professional contexts. For teachers, it provides empirical information to improve alignment between classroom instruction and the actual English needs of Computer and Network Engineering students, enabling more targeted and effective ESP teaching practices. For the school, this research supports efforts to strengthen vocational English instruction to meet industry demands, improving education quality and graduate employability in technology sectors.

E. Research Scope

To maintain focus and ensure the feasibility of the study, several limitations are established. This research is confined to the Computer and Network Engineering program at SMK Muhammadiyah 2 Banjarsari as its primary context. The participants include the tenth-grade students of the Computer and Network Engineering program and one English teacher who teaches the class. The students provide data related to their English language needs, while the English teacher provides insights into English classroom practices and instructional approaches.

The scope of the content focuses on identifying the comprehensive English language needs of Computer and Network Engineering students, encompassing their necessities, lacks, and wants as conceptualized by Hutchinson and Waters (1987). Although necessities, lacks, and wants are presented separately for clarity, this study synthesizes them to understand students' overall English language needs. Furthermore, the instructional analysis focuses specifically on English classroom practices used in the Computer and Network Engineering program, including teaching methods, classroom activities, materials selection, and teacher-student interactions, rather than the entire English curriculum at the school. Methodologically, this study adopts a qualitative case study design; therefore, the findings are not intended to be generalized but to provide rich and in-depth insights into the particular context examined. Moreover, data collection is limited to three

methods: questionnaires, semi-structured interviews, and classroom observations, which together provide sufficient triangulation to ensure credible findings.

F. Conceptual Framework

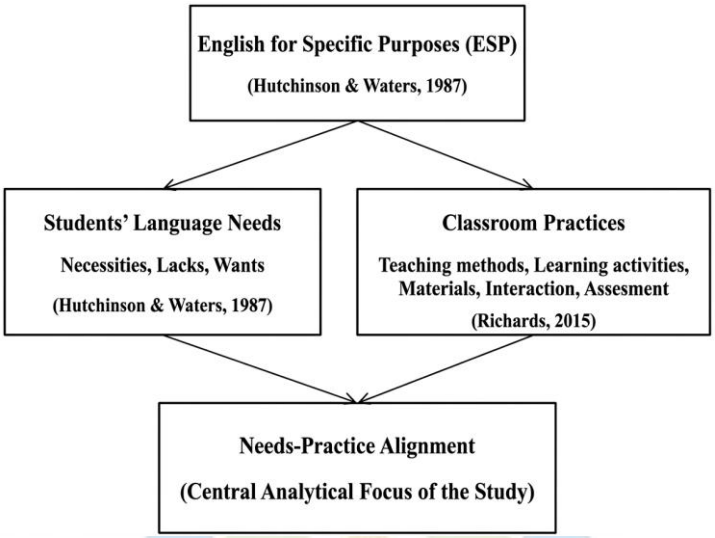


Figure 1. 1 Conceptual Framework

This study is grounded in the ESP needs analysis framework, which conceptualizes learner needs through three interconnected dimensions: necessities, lacks, and wants (Hutchinson & Waters, 1987). Necessities refer to what learners must know to function effectively in their target professional context; for Computer and Network Engineering students, this includes comprehending technical documentation, operating equipment, and communicating troubleshooting procedures in the workplace. Lacks represent the gap between learners' current proficiency and these target requirements, an area where vocational learners commonly struggle with technical vocabulary, pronunciation, and communicative competence related to their field (Aisyah, 2023). Wants, meanwhile, reflect learners' own preferences, expectations, and personal goals in language learning; vocational students generally favor interactive, practice-oriented instruction that is tied directly to their field over generic, decontextualized material (Rahmawati et al., 2020). Together, these three dimensions provide a comprehensive picture of what students need, what they currently lack, and what kind of instruction they themselves want.

This framework is further supported by two complementary situational analyses. Dudley-Evans and St John (1998) distinguish target situation analysis, which examines the linguistic demands learners will face in their professional context, from learning situation analysis, which considers how learners can best acquire the needed competencies given their preferences, resources, and institutional constraints. Robinson (1991) adds a further distinction between present situation analysis, which diagnoses learners' current strengths, weaknesses, and prior learning experience, and target situation analysis. Present situation analysis, in particular, allows the lacks dimension of Hutchinson and Waters' (1987) framework to be mapped precisely, since it shows not only what learners are missing but how far they currently stand from the target requirement.

Needs analysis in ESP also requires attention to the specific vocabulary, procedural texts, and task-based communication that characterize a given vocational field (Basturkmen, 2010), since vocational students need contextualized, authentic materials that reflect real workplace communication and field-specific tasks (Murdanianto & Idris, 2026). For Computer and Network Engineering students specifically, this means materials built around interpreting manuals, understanding technical instructions, and communicating solutions to technical problems, supported by adequate mastery of the specialized vocabulary they encounter in manuals, software interfaces, and online resources (Nation & Newton, 2009).

How well these needs are ultimately met depends on classroom practices, namely teachers' choice of methods, materials, learning activities, interaction patterns, and assessment strategies (Richards, 2015). Effective ESP classroom practices are typically authentic and task-based, incorporating collaborative learning and workplace-related communication tasks rather than generic exercises (Murdanianto & Idris, 2026; Latifah et al., 2024). Consequently, examining classroom practices alongside students' identified necessities, lacks, and wants becomes essential for determining whether English instruction genuinely provides students the opportunity to develop the competencies their vocational field

demands, and the alignment or misalignment between these two sides constitutes the central analytical focus of this study.

G. Previous Studies

Research on ESP needs analysis in Indonesian vocational education has documented consistent patterns of challenges while also revealing field-specific variations. Aisyah (2023) conducted a mixed-method needs analysis examining Computer and Network Engineering students at SMK Ma'arif NU 1 Sumpiuh. The study identified that while 97.7% of students recognized English as important for their future careers, significant deficiencies existed in listening comprehension, with 84.5% of students struggling in this area, and technical vocabulary mastery, with 92.6% indicating insufficient competence. The research revealed that English materials were perceived as only partly appropriate to students' majors, with substantial gaps between instructional content and vocational demands. The study employed questionnaires and interviews to gather data on target situation analysis, present situation analysis, and learning situation analysis.

More recently, Amarta et al. (2026) conducted a mixed-methods case study of Computer and Network Engineering students at a vocational high school in Bandar Lampung, involving 36 eleventh-grade students, one English teacher, and one Computer and Network Engineering teacher. Using a questionnaire, semi-structured interviews, and document analysis within Hutchinson and Waters' (1987) framework, they found that students needed English mainly for technical instructions, tutorial videos, technical vocabulary, documentation, and workplace communication, and that they preferred hands-on, collaborative, task-based, and technology-related activities. Their main gaps were low confidence in professional English use, difficulty explaining technical concepts, limited technical vocabulary, and dependence on translation tools, while the school's materials remained general and lacked field-related vocabulary, authentic technical texts, and workplace tasks. The study recommended adapting ESP materials through collaboration between English and vocational teachers. However, the mismatch was identified through document analysis rather than by observing how English was actually taught, so the study did not show how classroom practices responded to students' needs. A recent

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case study in another Computer and Network Engineering program did use classroom observations, but it focused on how English was integrated through teacher collaboration rather than on comparing classroom practices with students' necessities, lacks, and wants (Widiayanti & Maghfiroh, 2026).

Evidence from international contexts further reinforces the importance of needs-based ESP instruction. Changpueng and Pattanapichet (2023) conducted a needs analysis on English for meeting lessons among Thai undergraduate engineering students, revealing that learners required specific communicative skills such as expressing opinions, clarifying technical information, and actively participating in professional meetings, particularly in speaking and listening activities. The study identified gaps between students' current English proficiency and the communicative demands of real workplace interactions, emphasizing the necessity of aligning ESP instruction with authentic professional tasks rather than general language content. A systematic review of ESP needs analyses for engineering students similarly reported skill deficiencies and recommended authentic content and balanced attention to the four language skills (Musrina et al., 2024).

However, few studies have compared the needs identified through needs analysis with what actually happens in the classroom. Earlier work on Computer and Network Engineering students has mainly documented students' needs and the suitability of materials, and the studies that included classroom data did not systematically examine how far observed practices addressed students' necessities, lacks, and wants. To the researcher's knowledge, no study has examined this alignment for CNE students at SMK Muhammadiyah 2 Banjarsari. This study addresses that gap by combining questionnaires, interviews, and classroom observations to explore students' needs and the teacher's classroom practices in depth within this specific institutional context.