Arus Jurnal
Psikologi dan Pendidikan (AJPP)
Website: http://jurnal.ardenjaya.com/index.php/ajpp
Email: jurnal.ajpp@ardenjaya.com

Learning Strategies and Challenges of Light Vehicle Engineering Students in Learning English for Engineering at a Vocational High School

INFO PENULIS

Amanda Arsya Larasati
Universitas Negeri Surabaya
larsstamnd@gmail.com

Nur Chakim
Universitas Negeri Surabaya
nurchakim@unesa.ac.id

INFO ARTIKEL

ISSN: 2963-8933
Vol. 5, No. 2 Juni 2026
http://jurnal.ardenjaya.com/index.php/ajpp

© 2026 Arden Jaya Publisher All rights reserved

Saran Penulisan Referensi:

Larasati, A. A, & Chakim, N. (2026). Learning Strategies and Challenges of Light Vehicle Engineering Students in Learning English for Engineering at a Vocational High School. Arus Jurnal Psikologi dan Pendidikan (AJPP), 5(*2*), 2443-2451.

Abstrak

Penelitian ini bertujuan untuk mendeskripsikan strategi belajar yang digunakan siswa Teknik Kendaraan Ringan (TKR) dalam mempelajari English for Engineering serta mengeksplorasi tantangan yang mereka hadapi dalam proses pembelajaran tersebut. Penelitian ini menggunakan desain kualitatif interpretatif dasar karena berfokus pada pemahaman pengalaman siswa dalam konteks pembelajaran bahasa Inggris vokasional. Data diperoleh melalui wawancara semi-terstruktur, observasi kelas, dan catatan lapangan terhadap siswa TKR di salah satu SMK di Surabaya. Data dianalisis secara tematik melalui proses reduksi data, penyajian data, serta penarikan dan verifikasi kesimpulan. Hasil penelitian menunjukkan bahwa siswa menggunakan beberapa strategi belajar, yaitu strategi sosial, strategi kognitif, strategi kompensasi, strategi memori dan latihan, serta strategi berbasis media digital. Strategi sosial dan kompensasi menjadi strategi yang paling dominan karena siswa sering meminta bantuan guru, teman, dan pembimbing praktik kerja, serta menggunakan Google Translate, pencarian Google, AI, YouTube, film, gim, dan media sosial untuk memahami kosakata teknis, manual, serta instruksi otomotif. Di sisi lain, siswa menghadapi beberapa tantangan, seperti kesulitan berbicara, rendahnya rasa percaya diri, keterbatasan kosakata, kesulitan memahami teks teknis, masalah tata bahasa dan kata kerja, serta kesulitan dalam ejaan dan pelafalan. Temuan ini menunjukkan bahwa strategi belajar siswa berfungsi sebagai respons praktis terhadap tantangan yang mereka alami. Oleh karena itu, pembelajaran bahasa Inggris bagi siswa teknik di SMK perlu dirancang secara lebih kontekstual, interaktif, dan relevan dengan kebutuhan dunia kerja.

Kata Kunci: Strategi Belajar, Tantangan Belajar, English for Engineering, English for Specific Purposes, siswa SMK, Teknik Kendaraan Ringan.

Abstract

This study aims to describe the learning strategies used by Light Vehicle Engineering students to learn English for Engineering and to explore the challenges they face in the process. A basic interpretative qualitative research design was employed because the study focused on understanding students' learning experiences in a vocational context. Data were collected through semi-structured interviews, classroom observations, and field notes involving Light Vehicle Engineering students at a vocational high school in Surabaya. The data were analysed thematically through data reduction, data display, and conclusion drawing or verification. The findings revealed that students used several learning strategies, including social, cognitive, compensation, memory and practice-based, and digital or media-based strategies. Social and compensation strategies were the most dominant, as students frequently asked teachers, peers, and internship supervisors for help, and used Google Translate, Google search, AI tools, YouTube, films, games, and social media to understand technical vocabulary, manuals, and automotive instructions. However, students also encountered several challenges, particularly speaking difficulties, low confidence, limited vocabulary, grammar problems, and spelling and pronunciation difficulties. These findings indicate that students' learning strategies functioned as practical responses to the challenges they experienced in vocational English learning. Therefore, English instruction for engineering students in vocational high schools should be designed to be more contextual, interactive, and closely related to workplace communication needs.

Keywords: learning strategies, learning challenges, English for Engineering, English for Specific Purposes, vocational high school students, Light Vehicle Engineering.

A. Introduction

English is a major global language widely used in science, technology, and industry. As technological development and international collaboration continue to grow, English functions not only as a communication tool but also as a medium for knowledge transfer and professional interaction. Proficiency in English is beneficial for engineering professionals in achieving job opportunities and preparing for their careers (Sari, Kuncoro, and Erlangga 2019). In engineering sectors, English is commonly used for technical documentation, such as manuals and research reports, as well as for communication in global teams. In vocational education, English is taught as English for Specific Purposes (ESP), which focuses on language relevant to particular professions and emphasizes subject-specific terminology essential for workplace performance (Day and Krzanowski 2011).

In Indonesia's vocational education system, Vocational High Schools (Sekolah Menengah Kejuruan/SMK) are secondary education institutions oriented toward workforce readiness through a “link and match” approach between education and industry needs. In Technology and Engineering programs such as Light Vehicle Engineering (Teknik Kendaraan Ringan/TKR), students require English competencies that support technical tasks and workplace communication, making mastery of technical vocabulary essential to meet vocational standards and industry expectations. Unlike General English, which emphasizes everyday communication, ESP concentrates on language functions, terminology, and discourse relevant to specific occupations (Day and Krzanowski 2011). For TKR students, this means requiring not only general conversational English, but also technical vocabulary and communicative competence directly related to automotive tasks and workplace practices.

However, despite the vocational orientation of SMK and the emphasis on ESP, many students still experience difficulties in mastering technical vocabulary related to their specialization. Limited knowledge of technical terms can significantly affect students' ability to understand manuals, operating procedures, and technical instructions, and may hinder effective communication in workshop practices and industry-related discussions.

Language learning strategies are an essential component of how students approach, regulate, and evaluate their learning. Yip (2019) categorizes strategies into memory, cognitive, compensation, metacognitive, affective, and social strategies. Several studies reveal that vocational students frequently use basic memory strategies, such as memorizing or repeating

terms (Maemunah and Susanto 2023), which tend to remain surface-level and do not necessarily contribute to long-term retention or communicative competence. This contrasts with findings outside the vocational context, where successful learners employ more reflective, metacognitive strategies (Oxford 2016). This mismatch suggests that vocational English instruction, which remains dominated by general English materials, leaves little room for strategy training aligned with technical learning needs.

Vocational students also face several interrelated challenges. Maemunah and Susanto (2023) found that many learners consider English difficult and uninteresting, leading to low motivation and poor classroom participation, a problem that is often worsened when instructional materials are not aligned with students' vocational needs. Oxford (2016) emphasizes that learning strategies must be contextualized and linked with self-regulation, yet many vocational schools still expose students to general English rather than ESP content. Lingga (2021) further reported that vocational engineering students struggled with poor internet access and limited digital literacy, which hindered their English skill development. In addition, Ardasheva and Tretter (2013) note that learners do not always use language learning strategies effectively, while Zou (2021) highlights persistent difficulties in retaining technical vocabulary.

ESP plays a crucial role in bridging the gap between language instruction and workplace realities, yet its implementation in Indonesian vocational schools remains inconsistent. Mahbub (2018) and Asmin (2019) argue that most SMKs continue to rely on general English textbooks, indicating a systemic gap in needs analysis, an essential component of ESP. Studies focusing on automotive engineering (Lestari and Priyana 2020) show that students prefer materials containing diagrams, manuals, and automotive terminology, yet such materials remain scarce in the classroom. For engineering students specifically, English functions as the primary medium for technical manuals, global collaboration, and academic resources (Sanyal, Amani, and Chandrakala 2020), and difficulties in pronunciation, grammar, and technical vocabulary often hinder their ability to communicate effectively.

Previous research on English learning in vocational contexts has highlighted several recurring themes, including the dominance of general English curricula in vocational schools (Muliyah and Aminatun 2020; Asmin 2019), the lack of contextual ESP materials (Mahbub 2018; Syamsudin et al. 2024), and the importance of English for global engineering competence (Sari, Kuncoro, and Erlangga 2019; Yıldırım and Bal 2023). However, these studies tend to examine learning strategies and learning challenges separately rather than as interconnected aspects of students' learning experiences (Maemunah and Susanto 2023; Syamsudin et al. 2024), and few studies specifically examine Light Vehicle Engineering students, who face linguistic demands that are distinct from those of other vocational departments. There is also little evidence on how students cope with the lack of ESP materials, such as how they adapt, modify, or create their own learning strategies in response to curriculum limitations.

These gaps indicate the need for a study that not only identifies the strategies vocational engineering students use but also examines how these strategies interact with the challenges they face in learning English. Therefore, this study aims to describe the learning strategies used by engineering students in learning English vocabulary for engineering and to explore the challenges they encounter in this process, guided by the following research questions: (1) What learning strategies are used by engineering students in learning English vocabulary for engineering at a vocational high school? and (2) What are the challenges faced by engineering students in learning English vocabulary for engineering at a vocational high school?

B. Methodology

Research Design

This study employed a basic interpretative qualitative research design. According to Creswell and Poth (2016), a basic interpretative study seeks to understand how individuals make meaning of their experiences. This design was considered appropriate because the study aimed to interpret vocational students' learning strategies and the challenges they faced in learning English for Engineering based on their perspectives and real classroom context. The design was informed by Oxford's (2016) taxonomy of language learning strategies, which helped the researcher understand how metacognitive, cognitive, memory, social, affective, and compensation strategies appeared in students' learning processes, in line with the principles of English for Specific Purposes (ESP) that focus on learners' needs, challenges, and real-world contexts.

Research Setting and Participants

This study was conducted at a public vocational high school (SMK) in Surabaya, Indonesia, which offered a Light Vehicle Engineering (TKR) program. The school was selected purposively because it provided an English for Engineering subject and the teachers and students were willing to participate. The participants consisted of five TKR students and one English teacher who taught the course. Purposive sampling was used to select participants based on specific criteria (Sugiyono 2017), including active enrollment in the TKR department, experience in learning English with vocational-specific content, and willingness and ability to reflectively express their learning experiences and strategies.

Data and Source of the Data

This study employed qualitative data consisting of verbal, behavioral, and documentary data collected from multiple sources to gain a comprehensive understanding of students' learning experiences and to support methodological triangulation (Creswell and Poth 2016). Verbal data were obtained through semi-structured interviews with TKR students and the English teacher, focusing on participants' perspectives, learning strategies, and perceived challenges. Behavioral data were collected through classroom observations to document students' observable learning behaviors in natural instructional settings (Sugiyono 2017), while documentary data were gathered from instructional materials and lesson plans to support the interpretation of the interview and observation data (Miles and Huberman 2014).

Instruments

Data collection adhered to the principles of qualitative research, which emphasize natural settings, the researcher as the primary instrument, and the use of multiple data sources to obtain comprehensive and credible findings (Sugiyono 2017). Three main instruments guided systematic and consistent data gathering.

Semi-Structured Interview Guide

A semi-structured interview guide was developed to maintain flexibility while ensuring consistency across participants (Sugiyono 2017). The guide contained open-ended questions focusing on how students planned, monitored, and regulated their learning, as well as the difficulties they faced in vocabulary mastery, understanding technical texts, and oral communication. An adapted version of this instrument was also used to interview the English teacher to gain additional insights into instructional practices and classroom conditions.

Field Notes

Field notes were used to complement the interview data by recording contextual information, non-verbal behavior, and the researcher's immediate reflections during the interview process (Miles and Huberman 2014). The field notes focused on the interview context, students' emotional and non-verbal responses, and information related to learning strategies and challenges, helping the researcher interpret students' responses more accurately.

Classroom Observation Sheet

A non-participant observation sheet was used to capture students' behaviors and interactions in their natural classroom environment, enabling the researcher to record real actions and learning processes that may not have been revealed through interviews alone (Sugiyono 2017). The observation indicators included how students engaged with assigned materials, interacted with peers, and demonstrated coping strategies when facing linguistic difficulties.

Triangulation of Instruments

The integration of interviews, field notes, and observations enabled methodological triangulation, a key strategy for enhancing data credibility in qualitative research (Sugiyono 2017). By comparing findings from multiple instruments, the study ensured the accuracy of interpretations and minimized potential bias.

Data Collection Techniques

Data were collected through semi-structured interviews, classroom observations, and document review, following the principles of qualitative research that emphasize natural settings and multiple data sources (Sugiyono 2017). Interviews were conducted with the students and the teacher to explore learning strategies and challenges, while classroom observations captured actual teaching and learning behaviors. Instructional materials and lesson plans were also reviewed to support and validate the interview and observation findings.

Research Procedure

The research was conducted in several stages. First, permission and access were obtained from the school principal and the English teacher. Second, participants were selected based on the predefined purposive criteria. Third, data collection was carried out through classroom observations during two to three English sessions, semi-structured interviews with the students

and the teacher, and the collection of relevant documents. Finally, the data were organized by transcribing interview recordings verbatim, coding them, and categorizing them thematically for analysis.

Data Analysis Technique

Data were analyzed using the interactive model proposed by Miles and Huberman (2014), which consists of three steps. First, data reduction was carried out by selecting, simplifying, and categorizing relevant information from interview transcripts, observation notes, and documents according to recurring themes. Second, the reduced data were displayed in narrative form, supported by direct quotations from participants. Third, conclusions were drawn and verified by interpreting patterns and relationships among the data, linking them to existing theories, and confirming them through triangulation.

C. Findings and Discussion

Findings

This section presents the findings based on the two research questions. The first part reports the learning strategies used by TKR students in learning English for Engineering, and the second part reports the challenges they experienced during the learning process. The findings were generated from semi-structured interviews with five TKR students, supported by field notes and classroom observation, and are organized thematically, beginning with a general explanation of each theme followed by relevant interview evidence and triangulated interpretation.

Learning Strategies Used by Engineering Students

Based on the interview, field note, and classroom observation data, students used five main strategies to support their English learning: social strategies, cognitive strategies, compensation strategies, memory and practice-based strategies, and digital or media-based strategies. These strategies were mainly used to understand technical vocabulary, automotive manuals, workshop instructions, pronunciation, and English communication related to engineering contexts.

Social Strategies: Asking Teachers, Friends, and Workplace Supervisors

Classroom observation showed that students often asked classmates and the teacher when they did not understand English vocabulary or technical instructions, and the field notes confirmed that students tended to rely on peer discussion when facing difficulties in automotive-related English.

"If there was a difficulty, I directly asked Mr. Abu." (S1)

S1 considered the teacher the most reliable person in the classroom, since the teacher's direct explanation helped him understand difficult vocabulary faster and more accurately.

"I would ask the internship supervisor." (S3)

S3 saw the internship supervisor as the most relevant person to consult because the supervisor was directly involved in practical workplace situations where technical English appeared.

These findings indicate that students used social strategies because they needed immediate clarification and were not fully confident in solving English problems independently, especially with technical or automotive vocabulary. This supports Oxford (2016), who explains that social strategies help learners improve language learning through interaction and cooperation with others, and is consistent with Maemunah and Susanto (2023), who found that vocational students often rely on direct assistance and peer support for practical, immediate understanding.

Cognitive Strategies: Note-Taking, Summarizing, Listening, and Practicing

Classroom observation showed that students took notes during lessons, listened attentively to the teacher's explanations, and repeated words after the teacher modeled pronunciation, indicating that students actively processed English materials.

"I would listen first to how the word is pronounced and then practice saying it." (S5)

Pronunciation was difficult for S5, so listening first allowed him to imitate the correct sound before practicing independently.

These findings show that note-taking helped students remember information, summarizing helped them simplify texts, and listening practice improved pronunciation, in line with Yip (2019), who categorizes these behaviors as cognitive strategies that help learners process and understand language more effectively.

Compensation Strategies: Using Google Translate, Google Search, and AI

Classroom observation showed that students frequently used mobile phones, Google Translate, and online search tools when encountering unfamiliar vocabulary, often translating word by word when working with automotive English texts.

"I would use Google Translate and then ask my friends if I still don't understand." (S2)

Google Translate provided a quick meaning, but S2 still relied on friends to confirm whether the translation was correct, showing that digital tools were combined with peer support rather than used alone.

These findings indicate that students used compensation strategies because of limited vocabulary and comprehension, allowing them to continue learning even when they could not understand English independently. This supports Oxford (2016), who explains that compensation strategies help learners overcome gaps in language knowledge, and is related to Lingga (2021), who found that vocational students often use digital tools to support English learning.

Memory and Practice-Based Strategies: Repetition and Vocabulary Familiarity

Classroom observation showed that students repeatedly practiced automotive-related vocabulary and pronunciation, asking about the meaning of unfamiliar words more than once, indicating that repetition was important for vocabulary learning.

"Yes, because it makes me become used to it, such as the vocabulary and how to read it." (S1)

Repetition helped S1 become gradually familiar with English words and pronunciation, rather than relying only on one-time memorization.

These findings show that technical vocabulary was difficult to remember if learned only once, so repetition helped students recognize, pronounce, and understand automotive terms more effectively, consistent with Yip (2019) on memory strategies and Zou (2021) on the difficulty of retaining technical vocabulary.

Digital and Media-Based Strategies: YouTube, Films, Games, and Social Media

Field notes showed that students used YouTube, films, games, Instagram, and online communities to support their English learning outside the classroom, making learning more enjoyable and less monotonous.

"I would listen to YouTube, specifically videos related to TKR, to understand TKR terms better." (S5)

YouTube provided automotive-related content directly connected to S5's major, allowing him to see objects, hear pronunciation, and understand technical vocabulary more clearly.

"I have a group with many mechanics and many people in another country. So I can talk in English." (S2)

Online communities gave S2 an opportunity to communicate with people who shared similar automotive interests, making English more meaningful because it was used for real communication.

These findings indicate that digital and media-based strategies were used because students needed enjoyable, practical, and authentic exposure to English, supporting Lingga (2021), who explains that digital media can provide flexible and authentic language exposure for vocational students.

Challenges Faced by Engineering Students in Learning English

The analysis indicated five major challenges faced by students: speaking difficulties and low confidence, vocabulary and comprehension difficulties, grammar and verb difficulties, spelling and pronunciation difficulties, and difficulty understanding manuals and technical instructions. These challenges were closely connected to students' limited English exposure and the specific demands of English for Engineering.

Speaking Difficulties and Low Confidence

Classroom observation showed that many students were hesitant when speaking English, looking at friends before answering questions and appearing nervous when asked to pronounce words aloud.

"I am a little bit confused in speaking/public speaking. Because I am not used to speaking English." (S4)

S4's difficulty was caused by limited practice, showing that the problem was not only linguistic but also related to confidence and habit.

These findings indicate that speaking became difficult due to limited exposure, limited practice, and low confidence, consistent with Sanyal, Amani, and Chandrakala (2020), who explain that engineering students often face speaking difficulties because of limited exposure and lack of confidence in technical communication.

Vocabulary and Comprehension Difficulties

Classroom observation showed that students frequently struggled to understand technical vocabulary and automotive instructions, often asking friends, using Google Translate, or waiting for the teacher's explanation.

"Yes, I'm still confused about the meaning and I have not memorized them yet; some words are almost the same but have different meanings." (S1)

S1's difficulty was not only about not knowing the meaning but also about confusion between words that looked or sounded similar.

These findings indicate that vocabulary and comprehension difficulties were strongly connected, since limited technical vocabulary directly hindered students' understanding of texts, instructions, and automotive materials, supporting Zou (2021), who identifies technical vocabulary as a major challenge for vocational ESP learners.

Grammar and Verb Difficulties

Field notes showed that students often hesitated when constructing English sentences, being unsure about sentence structure and verb usage, especially in speaking or writing.

"Maybe verb because I don't understand, verb is difficult to me. Like writing using the right speech for example." (S2)

S2 found it difficult to choose the correct verb form and arrange sentences properly, even when he knew what he wanted to express.

These findings show that grammar and verb difficulties reduced students' confidence in producing English, consistent with Ardasheva and Tretter (2013), who explain that learners may experience grammatical difficulties when they lack sufficient practice or do not use learning strategies effectively.

Spelling and Pronunciation Difficulties

Classroom observation showed that students often struggled to pronounce technical vocabulary correctly and needed teacher modeling before attempting automotive-related words.

"Spelling, because for me, spelling a word in English is quite difficult." (S5)

English spelling often differs from pronunciation, making it difficult for S5 to read, spell, and pronounce unfamiliar technical vocabulary correctly.

These findings indicate that spelling and pronunciation difficulties were caused by limited exposure to English sounds and unfamiliar technical terms, supporting Sanyal, Amani, and Chandrakala (2020), who identify pronunciation of technical vocabulary as a common difficulty for engineering students.

Difficulty Understanding Manuals and Technical Instructions

Classroom observation and field notes showed that almost all students had difficulty understanding English manuals and technical instructions, often relying on Google Translate, friends, and teacher explanation.

"I would use Google Translate and then ask my friends if I still don't understand." (S2)

Manuals and technical texts contained unfamiliar vocabulary, so Google Translate provided an initial meaning while peer explanation was still needed when the translation was unclear.

These findings indicate that manuals and technical instructions were difficult because they contained specialized vocabulary, procedural language, and unfamiliar sentence structures, supporting Day and Krzanowski (2011), who explain that ESP learners need English instruction connected to their specific academic or professional needs.

Discussion

The findings show that TKR students used various strategies, including social, cognitive, compensation, memory, and digital or media-based strategies, to overcome difficulties in learning English for Engineering. These findings are closely related to Oxford's (2016) classification of language learning strategies and Yip's (2019) explanation of cognitive and memory strategies.

Social and compensation strategies were the most dominant. Students often asked teachers, friends, and internship supervisors because they needed immediate clarification, and used Google Translate, Google Search, and AI because they had limited vocabulary and needed fast support. This shows that students' strategies were practical and problem-oriented, consistent with Maemunah and Susanto (2023), who found that vocational students tend to use direct and immediate strategies in English learning. The findings also show that students' English learning needs were strongly connected to the vocational context, supporting Day and Krzanowski's (2011) view that ESP should be based on learners' specific needs.

The challenges found in this study, namely speaking difficulties, low confidence, vocabulary limitations, grammar problems, spelling and pronunciation difficulties, and difficulty understanding manuals, were interconnected. Limited vocabulary made students less confident in speaking, pronunciation difficulties made them hesitant, and grammar problems affected their ability to construct sentences. Overall, the findings indicate that students' strategies functioned as coping mechanisms: when facing vocabulary problems, they used translation tools or asked peers; when facing pronunciation problems, they listened and practiced; and when facing difficulty understanding manuals, they summarized, translated, and asked for help. Therefore, English teaching for TKR students should be contextual, interactive, and supported by guided digital learning.

D. Conclusion

This study investigated the learning strategies and challenges experienced by Light Vehicle Engineering students in learning English vocabulary for engineering at a vocational high school. The findings revealed that students used various strategies, namely social, cognitive, compensation, memory, and digital strategies, with social and compensation strategies being the most dominant. Students frequently relied on teachers, peers, Google Translate, and AI tools to understand technical vocabulary, manuals, and automotive instructions, which helped them cope with limited vocabulary, low confidence, and spelling and pronunciation problems. Because these challenges were interconnected and hindered students' ability to communicate in vocational contexts, the study concludes that students' learning strategies functioned as direct, practical responses to the specific terminology challenges they experienced.

These findings imply that English instruction for vocational engineering students should be highly contextualized and directly connected to workplace communication needs, integrating automotive-related vocabulary, technical manuals, and practical communication activities into the curriculum, while digital learning tools such as Google Translate, YouTube, and AI should be actively guided by teachers so that students learn to use them critically and effectively. For English teachers, it is suggested to provide contextual ESP materials that integrate automotive terminology and to create interactive activities that encourage active vocabulary practice. For students, continued independent practice through digital media, films, games, and automotive-related content is recommended to expand vocabulary and build confidence. For future researchers, broader studies involving larger participant samples and different vocational departments are recommended to gain a deeper and more comprehensive understanding of vocabulary learning strategies and challenges across vocational education contexts.

E. References

Ardasheva, Y., & Tretter, T. R. (2013). Strategy Inventory for Language Learning-ELL Student Form: Testing for Factorial Validity. Modern Language Journal, 97(2), 474–489. https://doi.org/10.1111/j.1540-4781.2013.12011.x

Asmin, A. I. (2019). Teacher's Strategies in Teaching Vocabulary at Vocational High School. IDEAS Journal of Language Teaching and Learning, Linguistics and Literature, 7, 155–164. https://doi.org/10.33503/journey.v8i1.1597

Creswell, J. W., & Poth, C. N. (2016). Qualitative inquiry and research design: Choosing among five approaches. Sage Publications.

Day, J., & Krzanowski, M. (2011). Teaching English for specific purposes: An introduction. Cambridge University Press.

Lestari, E., & Priyana, J. (2020). Developing English reading and writing materials for Automotive Engineering program in vocational high school. Jurnal Pendidikan Vokasi, 10(2), 167–176.

Lingga, Y. M. (2021). Online English Learning for Mechanical Engineering Students during the Pandemic: Challenges and Suggestions. International Journal of Research in Vocational Studies (IJRVOCAS), 1(3), 32–41.

Maemunah, R., & Susanto, D. A. (2023). Students' Cognitive Language Learning Strategy in Mastering English Material at Vocational School Level. PRIMER: Jurnal Ilmiah Multidisiplin, 1(4).

Mahbub, M. A. (2018). English Teaching in Vocational High School: A Need Analysis. 1(29), 229–258.

Miles, M. B., & Huberman, A. M. (2014). Qualitative Data Analysis (Vol. 17).

Muliyah, P., & Aminatun, D. (2020). Teaching English for Specific Purposes in Vocational High School: Teachers' Beliefs and Practices. Journal of English Teaching, 6(2), 122–133.

Oxford, R. L. (2016). Teaching and researching language learning strategies: Self-regulation in context. Routledge.

Sanyal, R., Amani, D., & Chandrakala, K. (2020). Case-Based Study on Strategies Obtained in Teaching English Language to First Year Engineering Students. International Journal of Engineering Applied Sciences and Technology, 04(12), 231–234. https://doi.org/10.33564/ijeast.2020.v04i12.036

Sari, R. K., Kuncoro, A., & Erlangga, F. (2019). Need analysis of English for Specific Purposes (ESP) to informatic students. JEELL (Journal of English Education, Linguistics and Literature), 5(2), 26–37.

Sugiyono. (2017). Metode penelitian bisnis: pendekatan kuantitatif, kualitatif, kombinasi, dan R&D. Penerbit CV. Alfabeta.

Syamsudin, S., Istiadah, I., Syafiyah, S., Cahyono, A. E., & Mulyono, S. (2024). Utilizing fillers for addressing speaking challenges, improving self-confidence and motivation in EFL learning. Journal of Education and Learning (EduLearn), 18(4), 1327–1334.

Yip, M. (2019). Learning Strategies - Education. https://www.oxfordbibliographies.com/display/document/obo-9780199756810/obo-9780199756810-0211.xml

Yıldırım, N. K., & Bal, N. G. (2023). English Language Education in a Vocational School: A Qualitative Case Study. Participatory Educational Research, 10(2), 275–297.

Zou, B. (2021). Oxford's strategy inventory for language learning: English learning of Chinese students in Thai university. Rangsit University.