SPECIALIZED VS. GENERAL VOCABULARY: CHALLENGES FOR ESP LEARNERS IN THE OIL AND GAS INDUSTRY

Musayeva Fariza Maksutovna
Senior teacher
Branch of Russian State University of Oil and Gas (NRU)
named after I.M. Gubkin in Tashkent

Abstract.

This study explores the challenges faced by ESP learners in distinguishing specialized vocabulary from general terms within the oil and gas industry. Through a mixed-methods approach, the research investigates the difficulties learners encounter when navigating polysemous words that have different meanings depending on context. A specialized corpus, consisting of over 2 million words from industry-specific resources such as technical manuals, journal articles, and textbooks, was developed to examine vocabulary usage in various subfields. The study involved 48 ESP learners with varying levels of English proficiency, ranging from pre-intermediate to intermediate. The research includes a word categorization task, semi-structured interviews, error analysis of written and spoken tasks, and corpus-based text analysis. The results highlighted significant challenges in misclassifying words with dual meanings, such as 'field' and 'deposit,' which are often understood as general vocabulary despite their specialized significance. Findings also revealed that learners struggle with recognizing contextual cues and applying technical terms correctly in communication. Statistical analyses confirmed correlations between proficiency levels and learners' ability to classify vocabulary accurately. The study underscores the need for targeted instructional strategies, including corpus-based tools, contextualized learning, and explicit teaching of polysemous words, to support ESP learners in mastering specialized vocabulary. These strategies are essential for equipping learners to navigate the complex linguistic demands of their professional fields.

Keywords

ESP learners, specialized vocabulary, oil and gas industry, polysemous words, corpus-based tools, contextualized learning, technical communication.

Introduction. The distinction between specialized and general vocabulary is a critical consideration in English for Specific Purposes (ESP), particularly in technical fields like the oil and gas industry. For ESP learners, mastering the vocabulary necessary for professional communication often extends beyond acquiring technical terms; it involves identifying and interpreting words that carry multiple meanings depending on the context. This semantic ambiguity poses significant challenges, as learners must navigate between general and specialized usages while ensuring accurate understanding and application. These semantic overlaps create a unique learning hurdle, as students must develop skills to distinguish context-specific meanings from their general counterparts. Additionally, the technical nature of oil and gas vocabulary demands a deep understanding of industry-specific concepts, which are often intertwined with broader terminologies. This complexity is further compounded by the interdisciplinary nature of the field, where terminology from geology, engineering, and business converge. [3, 6.]

This study investigates the challenges faced by ESP learners in distinguishing specialized vocabulary from general vocabulary within the oil and gas industry. The research employed a mixed-methods approach, combining qualitative and quantitative data collection methods to ensure a comprehensive understanding of the issue. [1]

Material and Methods. A specialized corpus of oil and gas industry texts was developed to support this study, drawing from diverse resources such as technical manuals, journal articles, textbooks, webpages, and dictionaries. The corpus, consisting of approximately 2,008,561 words, was designed to provide comprehensive coverage of various contexts and subfields within the industry, ensuring the inclusion of both technical and operational aspects. General vocabulary was identified using widely recognized high-frequency word lists, such as the General Service List, while specialized vocabulary was meticulously extracted with the aid of Sketch Engine. This process emphasized keywords with significant domain-specific relevance, highlighting terms critical to understanding industry practices. The study was conducted with the participation of 48 ESP learners specializing in the operation and maintenance of transport and storage facilities for oil, gas, and refined products. The participants, whose English proficiency ranged from pre-intermediate to intermediate, represented a diverse group, enabling an exploration of vocabulary acquisition across varying skill levels. This approach ensured that the study captured insights into the challenges faced by

learners in distinguishing specialized vocabulary from general terms in a complex technical domain. [2]

The study employed a comprehensive methodological framework to investigate the vocabulary challenges faced by ESP learners in the oil and gas field, combining qualitative and quantitative approaches. Participants engaged in a word categorization task, classifying ambiguous terms such as 'deposit, reservoir, field, and well' into specialized or general vocabulary based on provided contexts. Their responses were systematically analyzed to identify patterns of misunderstanding, misclassification, and the underlying causes of such errors. Semi-structured interviews provided an in-depth exploration of learners' perspectives, shedding light on individual experiences, cognitive processes, and difficulties encountered when navigating specialized vocabulary. Error analysis of both written and spoken tasks revealed recurring issues in the interpretation and usage of technical terms, pinpointing the specific areas where learners struggled most, such as distinguishing nuanced meanings or adapting terms to different contexts.[4]

To further enrich the analysis, comparative text analyses of general and specialized vocabulary in the corpus were conducted using concordance tools, identifying words with overlapping meanings and scrutinizing their contextual usage. This approach highlighted the complexity of certain terms and their dual roles in general and specialized contexts. Quantitative data from the categorization task and accompanying questionnaires were subjected to descriptive and inferential statistical analyses, uncovering significant trends, correlations, and potential predictors of vocabulary-related challenges. This rigorous and multi-layered approach provided a robust foundation for identifying key vocabulary difficulties and evaluating targeted strategies to support ESP learners in acquiring and effectively utilizing specialized vocabulary within the technical domain of the oil and gas industry. [5, 9, 10.]

Results. The results of the study revealed significant challenges for ESP learners in distinguishing specialized vocabulary from general terms, particularly for words with multiple meanings across different contexts. The word categorization task highlighted frequent misclassification of terms such as 'field' and 'deposit,' which were often perceived as general vocabulary despite their specialized significance in the oil and gas industry. Analysis of participant responses showed a tendency to rely on surface-level meanings, leading to misunderstandings when context-specific interpretations were required. Insights from the semi-structured interviews indicated that learners often struggled with recognizing the contextual cues that differentiate general and specialized usage.

Participants reported difficulties in applying technical terms correctly in spoken and written communication, especially when faced with unfamiliar or ambiguous scenarios. Error analysis further reinforced these findings, revealing common issues such as the misuse of terms in technical descriptions and confusion over overlapping meanings.

(Fig.1)

(Fig. 2)

The text analysis of the corpus demonstrated that many words used in the oil and gas industry serve dual roles, appearing frequently in both general and technical contexts. Concordance tool outputs identified key patterns, with specialized meanings often tied to specific collocations and syntactic structures. Statistical analysis of the categorization task and questionnaire responses revealed significant correlations between learners' English proficiency levels and their ability to accurately classify vocabulary, with intermediate learners outperforming their pre-intermediate counterparts.

Overall, the findings underscored the complexity of acquiring specialized vocabulary and the need for targeted instructional strategies. These include enhanced focus on contextualized learning, explicit teaching of polysemous words, and greater use of corpus-based tools to provide authentic examples of specialized vocabulary in use. [7]

Discussion. The findings of this study underscore the significant challenges ESP learners face in distinguishing specialized vocabulary from general terms, particularly for words with multiple meanings across different contexts. These struggles indicate a gap in traditional teaching methods, which often prioritize general vocabulary acquisition over the nuanced understanding required for technical fields. Error analysis further illuminated these challenges, particularly with polysemous words whose meanings shift based on context. The corpus analysis confirmed that many high-frequency terms in the oil and gas domain serve dual roles, appearing in both general and specialized contexts. These findings highlight the need for targeted instructional strategies to enhance learners' understanding and application of specialized vocabulary. Incorporating corpus-based tools, such as concordance analyses, into ESP instruction can provide learners with authentic examples of technical terms in varied contexts, helping them recognize usage patterns and develop deeper lexical awareness. Moreover, teaching strategies that emphasize the functional roles of vocabulary in technical communication—through approaches like task-based learning or case studies—can bridge the gap between theoretical knowledge and practical application. [6, 8]

Conclusion. This study has highlighted the significant challenges ESP learners face in distinguishing specialized vocabulary from general terms in the oil and gas industry, particularly when dealing with polysemous words that shift meanings across contexts. The findings from word categorization tasks, semi-structured interviews, error analysis, corpus-based text analysis, and statistical evaluations collectively demonstrate that learners often rely on surface-level interpretations,

struggle with recognizing contextual cues, and experience difficulty applying technical terms in professional communication.

The study emphasizes the importance of incorporating targeted instructional strategies to address these challenges. By integrating corpus-based tools and contextualized learning approaches, educators can provide learners with authentic exposure to specialized vocabulary and its functional use. Task-based learning, case studies, and explicit teaching of polysemous words can further support learners in developing a deeper understanding of technical terms and their application in real-world scenarios.

Ultimately, this research underscores the need for a more context-sensitive approach to ESP vocabulary instruction, particularly in technical domains. Addressing the complexities of ambiguous terms and fostering nuanced lexical competence will not only enhance learners' language skills but also equip them to meet the linguistic demands of their professional environments effectively. By bridging the gap between general and specialized vocabulary learning, educators can better prepare ESP learners for success in their technical fields.

REFERENCES:

1. Coxhead, A., & Nation, P. (2001). The Academic Word List. TESOL Quarterly, 35(4), 213-238. https://doi.org/10.2307/3587672
2. Chung, T. M., & Nation, P. (2004). Identifying technical vocabulary in specialized texts. System, 32(3), 249-264. https://doi.org/10.1016/j.system.2004.01.003
3. Biber, D., Conrad, S., & Reppen, R. (1998). Corpus Linguistics: Investigating Language Structure and Use. Cambridge University Press.

4.   Gavioli, L. (2005). Thematic analysis of specialized corpora: A methodological approach. Journal of English for Specific Purposes, 24(2), 115-135. https://doi.org/10.1016/j.esp.2004.05.003

5.   Hunston, S., & Francis, G. (2000). Pattern Grammar: A Corpus-Driven Approach to the Lexical Grammar of English. John Benjamins Publishing.

6.   Sköld, M., & Dahlgren, K. (2012). ESP and corpus-based learning: Applying corpora in professional contexts. English for Specific Purposes, 31(2), 113-125. https://doi.org/10.1016/j.esp.2011.11.001

7.   Xhaferi, B. (2022). Teaching and Learning Specialized Vocabulary in ESP Settings. International Journal of Language and Linguistics, 9(1), 44-61. https://doi.org/10.11648/j.ijll.20220901.14

8.   Nation, P. (2001). Learning Vocabulary in Another Language. Cambridge University Press.

9.   Richards, J. C., & Schmidt, R. (2010). Longman Dictionary of Language Teaching and Applied Linguistics (4th ed.). Pearson Education.

10.   Tognini-Bonelli, E. (2001). Corpus Linguistics at the Crossroads: Theoretical, Methodological and Applied Perspectives. John Benjamins Publishing.