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Task-Based Syllabus Design for the Oil and Gas Sector in Algeria: Hassi Messaoud English for Petroleum Purposes Case Study

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Abstract

This paper explores linguistic demands of the Algerian manpower in the oil gas sector in designing an English for Petroleum Purposes (EPP) course. Based on surveys, interviews, and observations of workspaces, the analysis seeks out incompatibilities between existing levels of English proficiency and sectoral communication needs, namely in the employment of specialised vocabulary, writing of reports, delivery of presentations, and reading of safety instructions. It further takes into consideration Algeria's sociolinguistic environment, in which French and Arabic prevail. The results guide recommendations in the direction of creating practical, environment-related EPP courses in terms of real material, task-centered exercises, striking a balance between fluency and accuracy.

Keywords: *Linguistic demands, Algerian manpower, oil gas sector, English for Petroleum Purposes, English proficiency, specialised vocabulary*

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Introduction

The international setting of the oil and gas sector is one of highly internationalised settings, which necessitates proper communication across the diversified linguistic and cultural settings. Placed at the centre of the international scene, Algeria, by virtue of its hydrocarbon wealth, as well as that of being the hub of energy supply, sees all-critical importance of the sector's main lingua franca in the form of English. The Algerian oil and gas sector, led by the giant national Petroleum and Gas Company of the country, Sonatrach, is involved in long-term international collaboration, technology transfers, as well as manpower exchanges, all of which necessitate a high degree of English among members of staff (Africa News 2024).

Even where English knowledge has become increasingly acquired, all too often a noticeable gap can be recognised between the personnel on the Algerian oil fields' English language abilities and the staff's professionally accredited specialised linguistic and communicating requirements. This gap can generate shortages, misunderstandings, and peril of accident where clarity and accuracy are essential. Albeit the role of French has always remained central, supplemented by Arabic, the current trend of change towards the use of English in various professional settings, particularly in the hydrocarbon industry, cannot be discounted (Bendoukha & Boukreris, 2022). The evolving linguistic fact of the situation thus necessitates the urgent introduction of specialised English language training schemes.

Needs analysis, the cornerstone of English for Specific Purposes (ESP) courses, is the prime concern while developing productive language courses specifically pertinent to the professional needs of the students (Eric, 2024). By making the explicit identification of the needs of the target situation (what the learner has to be able to do in his/her profession in English) and of the learning needs (what the learner has to learn so he/she can function in the target situation), an ESP course can properly be developed to counteract clear-cut linguistic and communicative deficiencies (Arianto & Hanif, 2024).

The current study endeavours to undertake a comprehensive needs analysis of the staff operating in the Algerian oil fields. First, its main purpose is to determine the required English

language proficiency, communicative competence, and linguistic sensitivity to function effectively in the varied occupations in this field. Second, this paper attempts to provide a firm empirical basis for the development of a relevant in-context, highly efficient EPP course that would be flexible enough to accommodate the idiosyncrasies of the Algerian oil and gas sector. By addressing the aforesaid significant gap, this research paper aims to make a contribution to the elaboration of the professional skills of the Algerian oil field staff and thus to the general efficiency, security, and international competitiveness of the industry.

Needs Analysis (NA) has become established as the pivot of ESP curriculum planning (Tihal, 2025). It is a systematic gathering of information about the learners' needs and the requirements of the intended/target environment in which they will be working the language. Dudley-Evans and St John (1998) observe that the NA process has to be undertaken continuously, not as an exercise, in putting all the other course design stages, that is, syllabus design, material selection, as well as course assessment. Brindley (1989) groups needs in three ways, that is, objective needs (what the learners themselves do in the language), subjective needs (what the learners think that they need themselves), as well as perceived needs (what the instructor/expert thinks that the learner needs). A successful NA, therefore, requires a range of different positions in order to consider the intended/target environment from a bird's eye view.

More recent studies reaffirm again the supremacy of NA. For instance, Eurokd's (2025) systematic review demands the synthesis of the use of objective and qualitative approaches in a bid to develop overall input that considers individual learners' requirements in English for Academic Purposes (EAP) courses, something that is a requirement that is also true for the design of EPP (Oxford Business Group, n.d., para. 3). Similarly, Li and Fu (2021) reaffirm the assumption that needs analysis is necessary in the design of ESP courses by establishing objectives and selecting materials on the basis of the learners' requirements (Belmihoub, 2017). The process usually involves canvassing target situations, establishing linguistic features, and assessing learners' current abilities and orientation for learning (Al-Tamimi & Shuib, 2010). This

multi-dimensional process guarantees that the resulting ESP course is maximal in terms of relevance, difficulty, and effectiveness for the learners.

English For Petroleum Purposes (EPP) - An ESP Sub-Field. English for Petroleum Purposes (EPP) represents a specialised ESP that deals with industry-specialised language and the communication requirements of the oil and gas industry. Its highly technical and safety-critical environment calls for appropriate as well as clear communication, making the mastery of the English language an essential capability of every employer in the oil and gas industry manpower, be they engineers, geologists, technicians, or administrative staff (Li & Fu, 2021). Research reviews of the needs analysis of EPP, even if quite uncommon, always highlight the significance of the mastery of industry-specialised language. For instance, a survey of Yemeni petroleum engineering students (Flowerdew, 2012) named local reading of technical manuals, writing of reports, and participation in technical discourse as being crucial (Astika, 1999). A hydrocarbon industry survey spotlights the necessity of using effective communication skills in the context and circumstance (Al-Khalidi et al., 2023).

These communicative needs of the oil industry are of a broad nature compared to the linguistic terms. Workers are primarily involved in complex tasks such as reading blueprints, reading safety manuals, attending international team work sessions, doing exhaustive accounts of what happens, and explaining the progress of the project. An effective EPP course, hence, would be required to focus not just on the selection of words and grammatical features of the English language, but on the pragmatic, discourse features of the industry-related communicative routines (Pacheco, 2023). The utilisation of authentic materials, e.g., industry reports, safety manuals, as well as specifications, becomes essential in making the learner experience the usage of the language in the real world of the oil industry.

The Algerian Context: Language Policy in the Oil Industry. Algeria provides a unique sociolinguistic setting where Arabic (the official language), Tamazight (also official), and French (a foreign language used on a large scale due to historical connections) coexist. Nonetheless, over the past decade or so, a strong movement towards the increased emphasis

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on English has been observed, notably in the upper education and professional sectors (Sonatrach 2025). English has received a great deal of attention with respect to promotion by the Algerian government that regards it as an international lingua franca and as a tool of increased economic development and global communication (Trade.gov, 2023).This shift in policy is most evident in the fields with high international contacts, such as the hydrocarbons industry.

Algerian oil and gas markets are mainly controlled by the national giant Company Sonatrach, whose foreign cooperation is enormous. Foreign cooperation demands an English-speaking personnel to be capable of communicating with foreign partners, tapping the latest technologies, and participating in global exchanges. English learning in the Algerian work environment, including the oil industry, has witnessed the increasing need for workers to be English-competent. While French has long been the administration and business language, however, English has quickly made inroads, mostly in the fields of technique, and foreign communication in the oil industries (Flowerdew, 2025). The linguistic profile of the oil workers tends to be polyglot, polycompetent, to a larger or smaller extent, in the three languages, namely, Arabic, French, and English. The polyfacetic linguistic reality in this context values the need for an EPP course that counts and capitalises on the participants' pre-existing linguistic experience while focusing, in the particulars of the sector, on implementing the language of the English language in use so as to facilitate the participants' professional achievement in the oil and gas sector.

Aims of the Study

The study is directed by two major research inquiries to bridge these gaps found on Algerian oil field workers' English language proficiency:

1. What are the specific English language skills, communicative skills, and linguistic skills needed to perform under diversified jobs performed under the Algerian oil and gas industry?

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2. What would be the potential means through which a Petroleum English course, fitting and professionally oriented, could be adjusted to meet the linguistic diversity and specific speech demand of the Algerian manpower?

Such questions are the base on which extensive needs analysis can be conducted and on which ESP measures for enhancing operative safety, international cooperation, and industry competitiveness in general can be designed.

Method

Research Design

A mixed-methods design was adopted in this study, whereby both quantitative and qualitative methods were utilised in an attempt to attain an in-depth understanding of the English language needs of the staff in the Algerian oil and gas industry. This design triangulated the data, thus increasing the validity and the reliability of the findings.

Participants

Research participants consisted of employees of different cadres working in the oilfields of Algeria. A heterogeneous sample was selected in order to cover different functions of the work, departments, and experience. Quantitative phase included a survey of 200 employees of Sonatrach and its partner companies in the region of Hassi Messaoud and Hassi Rmel. Interviews were carried out with engineers (petroleum, mechanics, electrotechnicians), geologists, technicians (drilling, repair, and production), safety managers, and administrative staff. Qualitative phase included semi-structured interviews with15 key informants, most senior managers, Human Resource managers, training managers, and chief technicians, who represented the selection on the basis of extensive experience they possessed in the field as well as knowledge about the linguistic specification of the sector. Observations of the communication that takes place at the workplaces were also carried out in the focal working areas.

Data Collection

Data collection for this study was conducted through a multi-faceted approach, integrating quantitative and qualitative methodologies to ensure a comprehensive understanding of the English language needs within the Algerian oil and gas sector. The process involved the administration of a Needs Analysis Questionnaire, semi-structured interviews with key

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informants, and direct observations of workplace communication. The quantitative data, primarily gathered through the questionnaires, provided a broad overview of perceived English language importance and challenges across a larger sample of employees. Concurrently, the qualitative data, derived from interviews and observations, offered in-depth insights into specific communicative instances, linguistic demands, and the practical application of English in the daily operational environment. This triangulation of data sources allowed for a robust validation of findings, enhancing both the reliability and validity of the study's conclusions. All data collection activities were carried out under strict ethical guidelines, ensuring informed consent and confidentiality for all participants.

Data Analysis

Quantitative Data Analysis

Quantitative data collected using the Needs Analysis Questionnaires were subjected to rigorous statistical analysis. Descriptive statistics, including percentages, frequencies, means, and standard deviations, were employed to characterize the usage patterns of the English language, the perceived relevance of various English skills, and the most challenging areas reported by the participants. Furthermore, inferential statistics were utilized to identify significant differences in English language needs and proficiency across various demographic groups, such as those with varying levels of experience or different functional roles within the industry. This approach allowed for the identification of specific trends and patterns within the quantitative dataset, providing a foundational understanding of the overall English language landscape in the Algerian oil and gas sector.

Data Collection Tools

Needs Analysis Questionnaire (Quantitative Data). The questionnaire was constructed upon a critical literature review on papers available on needs analysis for ESP, complemented by unofficial interviews between some personel from the Algerian oil and gas industries to maintain the questionnaire narrow on a defined setting. The questionnaire was divided into a variety of primary parts:

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•Demographic Information: The table presented general demographic information like age, gender, rank, work experience, and educational background of the participants.

•English Language use : The subsection examined English language use quantity and quality at work, and tasks of reading technical instructions, writing reports, attending a meeting, making a presentation, and communicating through foreign colleagues.

•Perceived importance of English skills: Students assessed comparatively the importance of different linguistic skills (e.g., vocabulary, pronunciation, grammar) and communicative skills (e.g., problem-solving skill, negotiation, instructions) in their work environment.

• Human issue: The section above made efforts to pinpoint a few specific domains where workers encountered issues or challenges while applying English on the ground.

• Preferred Learning Style: Information on participants' favored learning activities, materials, and course designs was gathered to inform future development work on the EPP program.

It used a five-point Likert scale to scale items, and open ended questions were also used to enable qualitative data collection and richer answers.

Semi-structured Interviews (Qualitative Data). Semi-structured interviews were carried out on 15 essential informants who were senior managers, Human Resource officials, training coordinators, and senior technicians. The interviews were administered to collect detailed opinions and attitudes towards the oil and gas industry English language requirements. The schedule for interviews was used to inquire about a variety of essential features:

- Particular instances of communication within the English language: This focused on real-world scenarios where English communication was essential.
- Main linguistic and communicative skills attuned to several work tasks: This explored the specific language skills required for various job roles and tasks.
- Issues employees encounter because of the limitations of the English language: This section delved into the challenges faced by employees due to insufficient English proficiency.

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- Suggested EPP course material and teaching methods: Informants provided recommendations for the content and pedagogical approaches of a Petroleum English course.

Workplace Observations (Qualitative Data). Direct observations were carried out in short-listed workplaces, including control rooms, meetings, and fieldwork sites. The purpose of these observations was to identify the actual use of the English language in real-time operational settings. The observations focused on several aspects:

- The nature of interaction: This involved noting the types of communicative exchanges occurring.
- The language functions that are executed: This identified the specific purposes for which English was used (e.g., giving instructions, reporting, negotiating).
- Technical terms that are used: This documented the specialized vocabulary prevalent in the industry.
- Communication errors that occur in terms of English proficiency: This recorded instances of miscommunication or difficulties arising from English language limitations.

Qualitative Data Analysis

Thematic analysis was systematically applied to the rich qualitative data obtained from the observation notes and interview transcriptions. This iterative process involved several stages: initial reading cycles of the data to gain a holistic understanding, followed by the identification of recurring patterns and themes. Subsequently, the data were coded, and categories related to English language needs, existing issues, and conceptions of effective teaching spaces were developed. Key themes emerging from the qualitative analysis were then cross-matched with the quantitative data. This triangulation of findings from both methodologies allowed for the construction of a richer, deeper, and more nuanced interpretation of the overall data, providing a comprehensive understanding of the complex English language requirements and challenges faced by the Algerian oil field manpower.

Ethical Considerations

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All participants in this study provided informed consent, freely choosing to participate after being fully apprised of the study's objectives, procedures, and their rights. The confidentiality and anonymity of all participants were rigorously ensured throughout the research process. Participants were explicitly informed that they retained the right to withdraw from the study at any time without penalty. The research adhered strictly to ethical standards, prioritizing the well-being and privacy of all individuals involved in the study.

Findings

Perceived Importance of English Language Skills

The survey findings disclosed high perceived importance of speaking, reading, writing, and listening in English by every work rank in the Algerian oil field sites. On a 5-point Likert scale (1=Not Important, 5=Extremely Important), the Mean (M) importance of speaking in English in daily work was 4.5. Reading of technical articles (M=4.7) was highest, understandability of safety instructions (M=4.6), taking part in technical discussions (M=4.4). Writing of reports (M=4.2) and oral presentations (M=4.0) also ranked high, mostly by managers and engineers. These results were confirmed by qualitative data. Testimony was characteristic in confirming that English continues to be the language of preference in gaining access to the latest technical information, working complex equipment, and meeting international standards of safety. "All of our new manuals of equipment, software interfaces, and safety procedures are in English," confirmed a senior drilling engineer. He further added "You can't work efficiently or safely if you can't read them". It drives home the key connection between successful operation, safety, and English proficiency.

Perceived Challenges in Existing English Language Practice

While the necessity of English was realised, the survey revealed that there was a wide gap between perceived need and current proficiency/ease of use. Personnel regularly replied that they engaged in English-related tasks, yet numerous workers stated that they experienced difficulties. Most commonly reported English language tasks were:

- Tech manuals, specifications, reading (daily/weekly use by 95%)
- Oral translation of complex technical terms during meetings and on-site operations (reported by 80%)

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- Writing technical reports and emails to international partners (reported by 75%)
- Participating in international training sessions and workshops (reported by 70%)
- Understanding spoken English in various accents during international collaborations (reported by 65%)

Qualitative data sheds light on these challenges too. The interviews found that, even though workers did understand the premordial role for English, most outlined themselves poorly prepared to handle the special needs of oil and gas industries. While common worries included lacking sufficient technical terminology, difficulty maintaining sophisticated sentence structure when writing sample on a technical report, and distress when responding extemporaneously under oral exam conditions to native non-English informants, several participants answered that, for them, the high-stress and high-pressure environment on oil fields exacerbated these linguistic pitfalls, commonly resulting in a communication breakdown or a delay. The findings indicate a strong necessity for special English for Petroleum Purposes (EPP) training to compensate these special communicational weaknesses and increase employee self-assurance.

Discussion

The study is undertaken to carry out a whole needs analysis of English language capabilities on oilfield workers throughout the Algerian oil fields, pinpointing the exact linguistic and communicative competences needed for efficient operation and formulating recommendations for aprofessionally sophisticated Petroleum English (EPP) course. The results indicate a critical disparity between the perceived significance accorded to English and the existing standard of capability possessed throughout the workforce, and provide a strongargument in favour of qualified language training.

The high perceived importance of English across all work ranks, particularly for reading technical articles and understanding safety instructions, aligns with the highly internationalised nature of the oil and gas sector [1]. This reinforces the notion that English serves as the primary lingua franca for technology transfer, international collaboration, and adherence to global safety standards [13]. The qualitative data further solidified this, with a senior drilling engineer explicitly stating the necessity of English for efficient and safe

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operations due to all new manuals and interfaces being in English. This finding checks previous research stressing the English predominance in special technological areas [15].

But, above this widely accepted fact, there is a significant disparity between perceived need and true capability.The reported difficulties in tasks such as oral translation of technical terms, writing reports for international partners, and understanding diverse accents during international collaborations indicate a clear deficiency in both linguistic and communicative competence. This aligns with the multi-dimensional nature of communicative needs in the oil industry, which extend beyond mere linguistic terms to encompass pragmatic and discourse features of industry-related routines [17]. The challenges identified are not merely about vocabulary or grammar but also about the ability to navigate complex communicative situations in a high-stakes environment. This echoes the broader understanding of ESP, where courses must be developed to counteract clear-cut linguistic and communicative deficiencies by identifying both target situation needs and learning needs [4].

The study's findings also highlight the unique sociolinguistic context of Algeria, where English is increasingly emphasized alongside Arabic and French [18]. The Algerian government's promotion of English as an international lingua franca and a tool for economic development [19] further supports the necessity of EPP courses.

Such a polyglot exposure on the side of Algerian oil workers, as a positive aspect, renders all the more necessary possessing an EPP course that benefits one from previous linguistic experience, and specialisation in the particular English usage needs pertaining to the oil and gas sector. The latter is necessary towards achieving professional success and fostering global competitiveness [21].

Potential causes of observed inequalities are that there may be a gap between standard English language study and the specialised demand from the oil and gas industry. The standard language study can fail to prepare questionnaire respondents adequately for the strict technical jargon, discourse syntax, and communicative contexts here. Technological and world-wide cooperation development intersected in the industry can be fatser, too, than employees' existing linguistic abilities. The origins of potential fault can be self-selection bias

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from the questionnaires, though utilization of qualitative data to triangulate was intended to minimize this. Focus on the Algerian context observed from the study is worth it, but unit results generalisability to other settings with different sociolinguistic contexts is limited.

Finally, the foregoing analysis establishes the continued necessity for EPP courses specifically directed towards Algeria. Such courses will be needed to address the pragmatic and discourse levels and the linguistic parts needed to facilitate effective communication during oil and gas work operations. The results form a strong empirical platform from which situational awareness-based and adaptable EPP courses can be built to address the competence gaps identified and encourage the increased effectiveness, safety, and international competitiveness of the Algerian oil field personnel.

Conclusion

Need analysis of demands on the English language was explored extensively by this study of Algerian oil and gas labor and disclosed a significant gap between the value placed on English and prevailing linguistic and communicative competence among the staff. The analysis is repeatedly demonstrated to be valid to the extent that although English is crucial when accessing technical information, rendering workability to safety, and rendering international collaboration workability, workers are significantly impaired when subjected to practical usage. Such issues extend from primary linguistic needs to pragmatic and discourse-specialised requirements of the enterprise. The work creates a strict empirical foundation to build English for Petroleum Purposes (EPP) packages expressly intended to address specialised communicative requirements on the Algerian oil and gas industry. By addressing observed competence gaps, specialised EPP packages can be instrumental towards improving organizational performance, safety measures, and overall international survivability of the Algerian hydrocarbon industry.

Recommendations

Based on the study's results and discussion of the needs analysis, different constructive recommendations are provided so as viable English for Petroleum Purposes (EPP) training course(s) can be established and administered for the Algerian oil and gas industry:

1. Develop Context-Related EPP Curricula: The EPP courses, as one would assume, should be carefully designed to mirror the realities of the genuine communicative needs of the Algerian oil and gas sectors. The kind of necessity here involves the use of realistic scenarios, specialised technical vocabularies, and task-based discourse patterns interspersed with reading blueprints, safety manuals interpretation, engagement in virtual world-wide work on video, and writing and production of technical reports. Curricula should graduate from abstraction, i.e from general English competence and use, instead, pragmatic and use-oriented features integrated with this high-stakes setting.

2. Integrate Authentic Materials: For the EPP courses to be closer and more effective, they should considerably integrate authentic materials from the oil and gas industry. They are, without limitation, true industry reports, safety manuals, work procedures, technical requirements, and intra-organisational messages. These resources will render the learners comfortable applying the language under its genuine working setting and prepare them to tackle genuine communication challenges from the work setting.

3.Communicative Competence : Grammar and vocabulary, while important, must on no account be centre-stage when one is training for the EPP. Communicative competence is where focus, rather, needs to be on: negotiation, problem-solving, accepting and giving instructions, and successfully engaging in discussion on a technical level. Role-playing, simulation, and cases from real life industry-based scenarios can be useful learning tools.

4. Addressing Deficits in Specific Skills: The training schedule must address specifically the cited weak aspects, namely, converting spoken words to specilised terminologies, developing reports to partners abroad, and learning various English accents. For such individual requirements, special modules/workshops can be created.

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5. Perform Continuous Needs Analysis: The oil and gas industry and communication patterns all over the world continue to evolve, and therefore, a regular and cyclic needs analysis process must be implemented. Yet, the EPP programmes will always be up to date, adaptable, and responsive to the evolving linguistic and communicative requirements of the manpower.

6. Adopt Blended Method of Study: The integration of face-to-face study, utilisation of modules on-line, and self-access materials may offer flexibility and suit varied learning timing and requirements of workers from the oil fields. Online content could further offer specialised vocabulary on a technical level and interactive language exercises.

7. Foster a Culturally Supportive Learning Environment: It is essential that there should be a setting where workers feel at ease trying out English and getting things wrong. Peer learning, helpful feedback, and acknowledging achievement can in fact enhance motivation and self-esteem.

8. Partner in Collaboration with Industry Experts: There must be proper interaction among language teachers, human resource, and technical experts of Sonatrach and other partner companies. Effective collaboration will facilitate coordination of the EPP programs along with organisational mission and directly serve industry operating needs. Frequent feed-back from industry experts will be a necessity during programme formulation.

Following these guidelines, Algeria's oil and gas industry can prove strong EPP programmes that not only strengthen its staff members' knowledge of the English language but also make tangible and direct inputs towards increased operating safety, effectiveness, and world-class competitiveness.

Limitations

While in a large measure inclusive, the research is vulnerable to a set of limitations to which it must be construed in relation to them:

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1. Participants: Despite a good-faith attempt to a diversified sample from a variety of cadres who work inside the Algerian oilfields, the study was mainly conducted on Sonatrach company staff members inside selected localities (Hassi Messaoud and Hassi Rmel). Such organisational and geographical limitations might hinder the generalisability of findings to other oil and gas exploitation activities inside other localities from other regions inside other countries.
2. Self-Reported Data: The vast majority of quantitative data was gathered via self-reported questionnaire. Good for a baseline on perceived concerns and needs, self-reported data themselves are flawed, e.g., via social desirability bias or mistaken self-evaluation of one's own skill. Using triangulation through qualitative data (interviews and observation) did not necessarily remove this kind of bias.

Qualitative Sample Size: The qualitative component included 15 semi-structured interviews from key informants. As these participants were chosen on the basis of knowledge and perceptions, the comparatively lower qualitative sample size implies that results from this sector might not reflect the whole spectrum of experience and opinions from the total personnel.

4. Point-in-Time Snapshot: The research is a point-in-time snapshot regarding English language requirements and levels. The oil and gas sector, language policy, and learning environments are subject to ongoing changes. Alterations to the oil and gas sector, language policy, or national language policy tomorrow may impact English language demands and levels needed for the staff.

5. English Focus: The study under consideration was exclusively on English, the lingua franca. Despite how dominant its presence is on the world scene, namely the world of oil and gas industry, the polyglottic character of the Algerian manpower was observed and not pursued to any considerable degree through a frame involving contact with English language use and study, other work could investigate the rich, multilevel sociolinguistic dynamics on the scene.

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6. Lack of Objective Measures of Proficiency: The study was conducted on perceived knowledge and communication observed. Since there were no widely accessible, objective English language tests of proficiency (e.g., IELTS, TOEFL), participants' actual, measurable levels of English were not directly measured. Such objective data could have yeilded a better indication of the proficiency gap.

These constraints offer future research avenues, such as increased geographical reach, larger qualitative sample sizes, longitudinal research, and the application of objective language measurement tools to further inform our knowledge of English language specifications within the international oil and gas industry.

References

1. Africa News. (2024, August 13). *Algeria invests in the English language.* https://www.africanews.com/2022/10/07/algeria-invests-in-the-english-language/

2. Al-Khalidi, I., Al-Shukaili, D. K. D., Sulaiman, M. M. S. A., Al Hinai, O., Al-Sabah, M., & Al-Harrasi, S. S. M. (2023). Investigating the process of developing a workplace English digital course for Oman Petroleum Academy and industry. *World Journal of English Language, 13*(7), 473–487. https://doi.org/10.5430/wjel.v13n7p473

4. Al-Tamimi, A., & Shuib, M. (2010). Investigating the English language needs of petroleum engineering students at Hadramout University of Science and Technology. (PDF) Investigating the English Language Needs of Petroleum Engineering Students at Hadramout University of Science and Technology

5. Arianto, F., & Hanif, M. (2024). Evaluating metacognitive strategies and self-regulated learning to predict primary school students' self-efficacy and problem-solving skills in science learning. *Journal of Pedagogical Research, 8*(3). https://doi.org/10.33902/JPR.202428575

6. Astika, G. (1999). The role of needs analysis in English for specific purposes. *TEFLIN Journal, 10*(1), 31–47. https://doi.org/10.15639/teflinjournal.v10i1/31-47

6. Belmihoub, K. (2017). English in a multilingual Algeria. *World Englishes, 36*(4), 634–644. https://doi.org/10.1111/weng.12294

7. Bendoukha, F., & Boukreris, L. (2022). The implementation of ESP in the Algerian hydrocarbon sector. *Revue Organisation & Travail, 11*(1), 25–38. https://asjp.cerist.dz/en/downArticle/147/11/1/187514

8. ERIC. (2024, October 18). *A needs analysis of English for Specific Purposes (ESP).* https://files.eric.ed.gov/fulltext/EJ1441218.pdf

9. Flowerdew, L. (2012). Needs analysis and curriculum development in ESP. In B. Paltridge & S. Starfield (Eds.), *The handbook of English for specific purposes* (pp. 325–346). Wiley-Blackwell. https://doi.org/10.1002/9781118339855.ch17

10. Li, X., & Fu, H. (2021). Needs analysis on ESP course for business and engineering students in a Chinese local university. *Creative Education, 12*(8), 1387–1396. https://www.scirp.org/journal/ce

11. Oxford Business Group. (n.d.). *Strong backing demonstrates Algeria's commitment to raising the...* https://oxfordbusinessgroup.com/reports/algeria/2016-report/economy/funding-the-future-strong-backing-demonstrates-the-governments-commitment

12. Pacheco, A. (2023). Communication in the oil and gas industry: Contributions from applied linguistics and aviation English. *Letras de Hoje, 58*(1). https://doi.org/10.15448/1984-7726.2023.1.44471

13. Sonatrach. (n.d.). *Sonatrach | LinkedIn.* LinkedIn. https://www.linkedin.com/company/sonatrach

14. Tihal, W. (2025). The shift from French to English in Algeria: A welcome change or a controversial move? *Education and Linguistics Research, 11*(1). https://www.macrothink.org/journal/index.php/elr/article/view

15. Trade.gov. (2023, January 31). *Algeria – Oil and gas – Hydrocarbons.* https://www.trade.gov/country-commercial-guides/algeria-oil-and-gas-hydrocarbons

16. Wiley Online Library. (2025, April 18). *Needs analysis and curriculum development in ESP.* https://onlinelibrary.wiley.com/doi/pdf/10.1002/9781119985068.ch7