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Journal Name:	Journal of Education, Society and Behavioural Science
Manuscript Number:	Ms_JESBS_123679
Title of the Manuscript:	Communication Needs of Post-Graduate Engineers in Saudi Arabia: An Exploration of English Language Proficiency Requirements
Type of the Article	Original Research Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.		
Are subsections and structure of the manuscript appropriate?		
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p><u>Optional/General</u> comments</p>	<p>The research "Communication Needs of Post-Graduate Engineers in Saudi Arabia: An Exploration of English Language Proficiency Requirements" provides a detailed examination of the essential English language skills needed by postgraduate engineers in Saudi Arabia to thrive in the labor market. The study emphasizes that English has become the primary language of communication in global engineering contexts, underscoring its importance for both written and spoken professional interactions.</p> <p>Key Findings</p> <ol style="list-style-type: none">Necessity of English Proficiency: The study found that English language proficiency, particularly in speaking and writing, is critical for engineers working in multinational and multicultural environments. Without these skills, engineers are often considered inadequate for their roles, affecting their professional standing and career progression.Workplace Communication Challenges: The research identified specific communication tasks that postgraduate engineers need to handle in English, such as drafting reports, conducting presentations, participating in meetings, and writing technical documentation. Engineers often face significant challenges when communicating with native English speakers, which can lead to misunderstandings, reduced productivity, and limited career opportunities.Impact on Career and Performance: English proficiency is not only important for day-to-day communication but also plays a crucial role in career advancement. Engineers with strong English skills are better positioned to succeed in their roles, network professionally, and contribute to their organizations' success.Need for Educational Reforms: The study suggests that there is a substantial gap between the English communication skills taught in academic settings and those required in the professional world. To bridge this gap, the research calls for the development of tailored educational programs and curriculum that specifically address the communication needs of engineers, emphasizing practical and workplace-relevant language skills. <p>Recommendations</p> <ol style="list-style-type: none">Integration of Communication Skills in Education: To address the identified deficiencies, the study recommends integrating speaking and writing skills into engineering curricula. This approach aims to equip engineers with the necessary language skills before they enter the workforce.Practical Communication Strategies: The research suggests practical strategies for overcoming communication challenges, such as using visual aids, simplifying language, and employing techniques to manage speaking anxiety. These strategies can help engineers communicate more effectively, even in high-stress situations like presentations.Targeted Support and Training: The study highlights the need for specialized training programs that focus on the specific linguistic challenges faced by non-native English-speaking engineers. This includes improving vocabulary, grammar, pronunciation, and the ability to write clearly and persuasively.Creating Supportive Environments: Fostering an environment that values multilingual skills and provides opportunities for translanguaging (switching between languages to enhance communication) can empower bilingual engineers. Modifying engineering education to recognize and enhance these skills can significantly improve communication outcomes.	

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	<p>Methodology</p> <p>Population and Sample: The research targeted engineers in Jeddah with at least five years of experience, aged between 25 and 60, ensuring they had sufficient English proficiency for interview purposes. The engineers could be of various nationalities, reflecting the diversity in the private sector in Saudi Arabia. The sample consisted of ten randomly selected engineers who were proficient in English and worked in environments where English was the primary language of communication.</p> <p>Research Design: The study employed interviews as the primary data collection tool to gather insights into the speaking and writing functions required by engineers in their work. Focus groups and brainstorming sessions were also conducted to explore these communication needs further. Key interview questions focused on speaking and writing functions, the impact of communication failures, and strategies to improve English communication among engineers. Additionally, a questionnaire with 31 items was distributed via social networks and Google Forms to gather broader input on writing and speaking functions, communication challenges, and strategies.</p> <p>Results:</p> <p>Interview Findings: The interviews revealed several key English languages speaking and writing functions needed by post-graduate engineers:</p> <ol style="list-style-type: none">1. Speaking Functions: These include presenting technical information, participating in meetings, collaborating with multidisciplinary teams, negotiating, providing technical support, delivering presentations, and engaging in professional networking. These skills are essential for effective communication, professional interactions, and career growth.2. Writing Functions: Engineers need to be proficient in writing technical reports, research papers, proposals, technical specifications, emails, presentations, blogs, and project documentation. These writing functions support the engineers' ability to communicate clearly and professionally in various contexts.3. Consequences of Poor Communication: The study highlighted several consequences when engineers fail to communicate effectively with native English-speaking colleagues, including misunderstandings, inefficiencies, reduced productivity, strained relationships, limited career opportunities, professional development challenges, and reduced confidence.4. Strategies for Effective Communication: To enhance communication skills, engineers should focus on improving their English proficiency, seek language support, use plain language, practice active listening, ask questions, be culturally aware, use visual aids, build relationships, engage in regular communication, and seek feedback. <p>Interview Results: The study's interviews revealed a strong consensus among participants on the critical speaking and writing functions required for KAU post-graduate engineers in the workplace. Key speaking functions included presentation skills, team interactions, meeting participation, and socializing with non-Arabic speakers. Writing functions highlighted as essential included technical report writing, proposal preparation, conducting research, creating presentation slides, and drafting orders and specifications. The study emphasizes the severe consequences of communication failures, such as financial losses, contract delays, limited career opportunities, and development challenges.</p> <p>Questionnaire Results:</p> <ol style="list-style-type: none">1. Speaking Functions (Chart 1): The data indicates that the majority of respondents rated the importance of English speaking skills highly, with most choosing ratings of 4 or 5. However, there was noticeable uncertainty, with a significant portion selecting neutral ratings (3) for various items, indicating some confusion or indecision about the importance of specific speaking functions. Nonetheless, the overarching sentiment was that oral communication skills in English are vital for post-graduate engineers.	
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	<p>2. Writing Functions (Chart 2): While the respondents largely agreed on the importance of English writing skills, there was again a notable degree of uncertainty, with several respondents selecting neutral options. This reflects some ambiguity or lack of confidence among respondents regarding the essential nature of writing skills. Despite this, a general agreement emerged that writing skills are critical for engineers, albeit with a hesitancy in fully endorsing their indispensability.</p> <p>3. Communication Challenges (Chart 3): The study identified several communication challenges faced by KAU post-graduate engineers, such as misunderstanding messages, ineffective communication, and a lack of confidence in their English skills. Notably, there was less consensus on whether poor communication skills directly impact job opportunities, with responses evenly split among agree, disagree, and neutral options, highlighting a lack of clarity on this particular issue.</p> <p>4. Communication Strategies (Chart 4): In terms of strategies for improving communication skills, the majority of respondents agreed that taking language courses, utilizing language support services, using clear and simple language, active listening, and seeking feedback were effective approaches. This suggests a strong recognition of the steps needed to enhance communication competence, with less uncertainty compared to previous sections.</p> <p>Discussion: This research investigates the English language speaking and writing functions required by KAU (King Abdulaziz University) post-graduate engineers upon entering the labor market. The study utilized interviews with ten experienced engineers from various companies that employ English-speaking staff, as well as a questionnaire consisting of thirty-one items exploring similar themes. The primary focus was on identifying key communication needs, challenges, and strategies employed by these engineers to improve their English proficiency.</p> <p>Key Findings:</p> <p>1. Speaking Functions: The study highlighted the importance of English-speaking skills for KAU engineers in professional settings, particularly in interactions with native English speakers. Essential functions identified include presentations, negotiations, persuasion, contracting, and socializing. Failures in these areas can lead to significant misunderstandings, such as misinterpretations in tenders or contracts, which can result in substantial financial losses and strained relationships within the workplace. A lack of effective communication may also create a sense of exclusion among foreign engineers, contributing to a hostile work environment.</p> <p>2. Writing Functions: Writing skills were also deemed crucial, with participants unanimously agreeing on the need for proficiency in various writing tasks, such as progress reports, PowerPoint presentations, research proposals, and meeting memos. The ability to document agreements and contracts accurately is vital, as any errors or ambiguities in these documents can have serious legal and financial repercussions. The discussion emphasized that writing competence goes beyond basic skills to include understanding nuanced language, as certain terms and phrases can carry multiple interpretations, potentially leading to costly misunderstandings.</p> <p>3. Communication Challenges: The survey results identified several challenges faced by KAU post-graduate engineers due to insufficient English proficiency, including limited job opportunities and hindered career advancement. Engineers with poor English skills often feel isolated in professional and social contexts, unable to participate meaningfully in discussions or express valuable ideas. This language barrier can prevent them from accessing promotions or pursuing further studies, ultimately affecting their career growth.</p> <p>4. Strategies for Improvement: Respondents suggested several strategies to enhance English communication skills, including attending language courses, participating in seminars, engaging in active listening, and seeking feedback from native speakers. The use of simple, clear language was also recommended as a practical approach to ensure at least a basic level of communication. Companies were encouraged to support these efforts by providing training workshops tailored to the needs of engineers, helping them integrate into the broader engineering community.</p> <p>Conclusion and Recommendations:</p>	
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The research underscores the critical role of English language proficiency for postgraduate engineers in Saudi Arabia. It highlights the urgent need for educational reforms that better align with the communication demands of the global engineering workplace. By addressing these gaps, the study aims to enhance the professional competencies of engineers, thereby contributing to the continued growth and success of the engineering sector in Saudi Arabia. The findings call for a comprehensive approach that includes both educational interventions and practical strategies to equip engineers with the communication skills they need to excel in their careers. The research findings suggest a clear recognition among KAU post-graduate engineers of the importance of English communication skills in the workplace, especially in speaking and writing. While there is enthusiasm and acknowledgment of the need for these skills, the responses also reveal areas of uncertainty, particularly in the perceived impact of communication challenges on career prospects. The suggested strategies for improvement are promising and indicate a proactive attitude among the engineers toward overcoming communication barriers.

Overall, the research highlights the critical role of English proficiency in the professional success of engineers in Saudi Arabia and encourages further studies to delve deeper into specific communication needs and effective interventions. The unanimous agreement on many of the study's points underscores the urgent need for targeted language support and training to prepare engineers for the global job market.

Evaluation of the Study

The study offers valuable insights into the specific communication needs of post-graduate engineers in Saudi Arabia. The use of interviews and questionnaires provided a detailed understanding of both speaking and writing requirements, along with the consequences of poor communication skills and strategies for improvement.

Strengths:

- **Targeted Population:** The study's focus on engineers with substantial work experience and proficiency in English ensures that the findings are relevant and applicable to professionals in the field.
- **Comprehensive Approach:** Combining interviews, focus groups, and questionnaires allowed the researchers to gather a well-rounded perspective on the communication needs of engineers.
- **Practical Implications:** The study's outcomes are practical, providing a foundation for curriculum development to equip undergraduate engineers with the necessary communication skills.

Limitations:

- **Small Sample Size:** The sample of only ten engineers may not be fully representative of the broader population, which could limit the generalizability of the findings.
- **Focus on High Proficiency Individuals:** The selection of engineers whose English is nearly perfect may overlook the needs of those with lower proficiency, which could provide a different perspective on challenges and strategies.
- **Limited Exploration of Writing Challenges:** While the study addresses writing functions, there is less focus on the specific challenge's engineers face in writing, which could be further explored to inform curriculum development.

Overall, this research effectively highlights the communication needs of post-graduate engineers in Saudi Arabia, providing a solid foundation for improving English language training in engineering programs. Future research could expand the sample size, include engineers with varying levels of English proficiency, and explore the specific challenges in writing to provide a more comprehensive understanding of the communication needs in the field. The research concludes that effective communication in English is indispensable for KAU post-graduate engineers, who must be equipped with both speaking and writing skills to succeed in the labor market. The study underscores the importance of English as the lingua franca in Saudi Arabia, especially in the cosmopolitan city of Jeddah, where many nationalities converge, making English the default language for professional interactions. The inability to communicate effectively in English is seen as a significant handicap, rendering an engineer "illiterate" in the context of the Gulf states.

The study's limitations include a small sample size, as only ten experienced engineers participated in

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	<p>the interviews and twenty responded to the questionnaire. These numbers may not fully capture the breadth of communication needs across the engineering field. The researchers recommend further studies to explore the importance of all four English language skills (listening, speaking, reading, writing) for post-graduate engineers and propose the development of a targeted syllabus to equip engineering students with the necessary language functions before graduation.</p> <p>Overall Assessment:</p> <p>The research effectively highlights the critical role of English language proficiency for engineers in Saudi Arabia, particularly in international and multicultural work environments. It provides valuable insights into the specific communication skills required and the challenges faced by post-graduate engineers, offering practical recommendations for both individuals and companies to address these needs. However, expanding the study to include a larger and more diverse sample would strengthen the findings and provide a more comprehensive understanding of the communication demands in the engineering sector.</p>	
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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Ei Thandar Win
Department, University & Country	Magway University, Myanmar