

Roles of Gender and Academic Discipline in English for Specific Purposes

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Abstract

Acknowledging the critical role of English for Specific Purposes (ESP) in shaping professional and academic success across various fields, the research delved into the nuanced interplay between gender and academic discipline in shaping the ESP needs of higher education students. The study investigated the impact of gender and academic discipline on Chilean dentistry and business administration students' perceived lack, want, and need for English for Specific Purposes (ESP). Drawing on sociocultural theory and self-determination theory, a mixed-methods model that involved data collected from 94 dentistry and 121 business administration students was adopted. Findings revealed significant gender differences: males reported greater perceived lack, whereas females exhibited higher want and need for English, suggesting gender influences ESP perception and necessitates customized learning strategies. Contrarily, academic discipline did not significantly affect ESP perceptions, challenging assumptions that ESP needs are strictly discipline-dependent and highlighting a generalized demand for English proficiency across fields. The findings demonstrated the importance of gender-sensitive and flexible ESP programs that cater to diverse learner needs while considering broader educational and individual factors. The study implies that educational practitioners should develop ESP curricula that not only address specific professional terminologies and situations but also reflect an understanding of the roles gender and discipline play in language learning. This approach could foster more effective and inclusive language education tailored to the varied aspirations and requirements of students in different fields.

Keywords: English for specific purposes, gender differences, academic discipline, Chilean students, mixed-methods, curriculum development

English for Specific Purposes (ESP) has become a cornerstone in the realm of English language learning, addressing the tailored needs of learners across various academic and professional domains. Contrasting general English, ESP focuses on the linguistic requirements of specific fields, thereby facilitating more effective communication within particular contexts. For instance, Business English, as explored by Meng et al. (2023) and Lasekan et al. (2024) equips individuals with the terminologies and conversational strategies pertinent to the business sector, enhancing their global market competencies. Similarly, legal English education, as highlighted by Northcott (2012) prepares legal professionals with the specialized language necessary for legal proceedings and documentation, essential for accuracy and efficacy in the field. Furthermore, the importance of ESP extends to academic settings, where English for Academic Purposes (EAP) supports students and researchers in navigating the academic discourse, significantly impacting their scholarly pursuits and collaborations. The distinction and application of ESP in fields like business, law, and academia reinforce its crucial role in bridging language gaps, fostering professional growth, and advancing academic success (Meng et al., 2023; Northcott, 2012).

The significance of language proficiency in academic and professional contexts serves as a critical determinant of success, bridging the gap between knowledge acquisition and practical application. Research by Rose et al. (2020) emphasized that English language proficiency, coupled with academic skills and motivation, significantly influences success in English-medium instruction, underscoring the interplay between linguistic capabilities and academic achievements. Such correlation aligns with the findings of Tai & Zhao (2022), who asserted that factors such as motivation and language learning strategies, rather than merely the medium of instruction during secondary education, are pivotal in enhancing students' academic English proficiency at the university level. Additionally, the role of English language competency extends beyond the academic realm, impacting professional mobility and career advancement, as demonstrated in studies focusing on professional environments (Hu, 2018). Ting et al. (2017) further highlighted the trend where English proficiency is increasingly viewed as an asset, enhancing employability and workplace efficiency. Such comprehensive perspective underlines the integral role of English proficiency not only in facilitating academic success but also in propelling professional growth across various disciplines and global markets.

Research into gender differences in language learning, particularly in the context of English for Specific Purposes (ESP), reveals insights that stress the necessity of tailoring educational programs to diverse learner needs. Chen & Hung (2015) stated that, in Taiwan, university students enrolled in ESP courses showed distinct learning style preferences influenced significantly by gender, with female students demonstrating a stronger preference for kinesthetic and auditory learning modalities compared to their male counterparts. Moreover, the study by Sojoodizadeh et al. (2020) further illuminated the gender-based distinction in the realm of language learning, revealing that female medical students held higher expectations than males regarding the translation of texts and comprehension support in English, indicating a potential need for more customized language instruction strategies. These findings collectively emphasized the importance of integrating diverse teaching methodologies and resources in ESP courses to cater to the varied learning styles, motivations, and expectations

of both male and female students, thereby augmenting the overall effectiveness of language acquisition and educational outcomes.

The language needs across different academic disciplines demonstrate considerable variation, reflecting the unique challenges faced by students and professionals. In the arts, students primarily engage with creative processes, necessitating English skills that enable artistic expression and critique, significantly diverging from standard linguistic applications (Tseng, 2015). Conversely, business administration students are immersed in a specialized language milieu, necessitating proficiency in business English to navigate corporate communications, negotiations, and management effectively (Gaye, 2015). Meanwhile, students in science and engineering disciplines require English for Academic Purposes (EAP) tailored to their field's technical terminology and discourse styles, essential for understanding scientific texts and writing research papers (Gholaminejad, 2022). Dentistry students, similarly, face distinct language requirements, needing English for Dental Purposes (EDP) to communicate complex medical terms and patient instructions effectively (Arani, 2017). Such discipline-specific language requirement underscores the importance of customized English language education, suggesting that educators and curriculum developers must design ESP courses that cater specifically to the varying needs of undergraduate and postgraduate students across diverse fields (Köse et al., 2019), thereby moving away from a one-size-fits-all model to a more apropos educational strategy that addresses the specific English language needs of each academic discipline.

While existing research, such as the work of Cooper et al. (2022) has explored discrimination and discipline inequities in educational settings, and Leighton (2020) has delved into class and gender dynamics within academic communities, there remains a significant gap concerning the intersectionality of gender and academic discipline, especially in relation to the need for English for Specific Purposes (ESP). Consequently, this study aimed to bridge these gaps by examining how gender influences ESP needs across various disciplines, recognizing that gender can significantly impact learning styles, motivations, and outcomes, thus affecting ESP program effectiveness. Furthermore, despite the insights offered by Mancho Barés & Arnó Macià (2017) on EMI lecturer training and the language needs across disciplines, and Wijayanti & Nugroho (2021) on the specific ESP requirements in automotive technology, the differences between male and female learners within these disciplines remain underexplored. Additionally, the literature has not adequately addressed how gender identity and minoritization, as discussed by Runa et al. (2023), affect students' sense of belonging and motivation in learning environments, particularly within the ESP context. By integrating these diverse strands of research, the study seeks to contribute to the field by heightening understanding of the specific language learning needs at the confluence of gender and academic discipline, thereby informing the development of more appropriate and inclusive ESP curricula, ultimately leading to more equitable educational outcomes.

Thus, the research aimed to explore these dimensions thoroughly by setting clear objectives: first, to determine the role of gender in the lack, want, and need of English for specific purposes; and second, to ascertain how academic disciplines, particularly arts-business administration and science-dentistry, influence the lack, want, and need of English for specific

purposes. By understanding these dynamics, educators and curriculum developers can create more targeted and effective ESP programs, thereby enhancing the academic and professional trajectories of their students. In summary, the investigation is significant as it not only improves the understanding of the complex factors affecting ESP needs but also has the potential to transform language teaching, curriculum development, and educational policy to be more inclusive and effective. In addressing the specific needs of different genders and disciplines, the research contributes to the broader goal of optimizing language education to meet the diverse needs of the global learner population.

Theoretical Framework

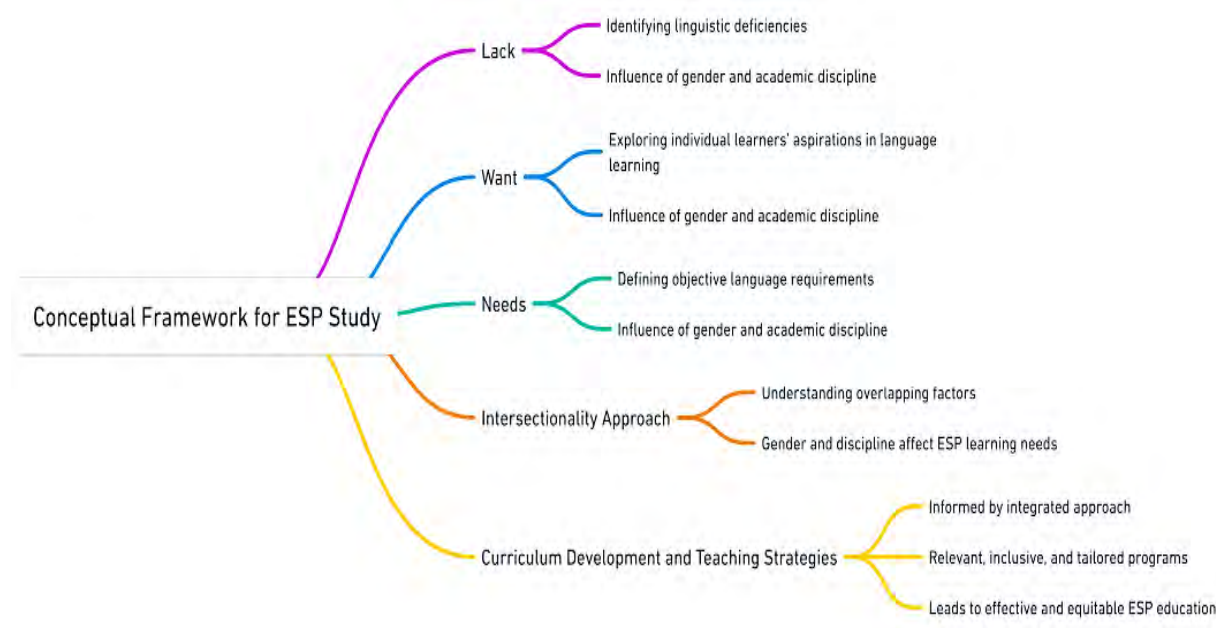
The impact of gender and academic discipline on English for Specific Purposes (ESP) needs can be grounded in sociocultural theory (Vygotsky & Cole, 1978) and self-determination theory (Deci & Ryan, 2013). Considering such an approach allows an exploration of how social and cultural factors associated with gender, along with the intrinsic and extrinsic motivations identified by Deci and Ryan, shape ESP learning experiences. Vygotsky's insights into the role of social interactions and cultural contexts in learning are applied to understand the precise ways in which academic disciplines influence language needs. Meanwhile, the motivational aspects underpinning ESP learning are dissected through the lens of self-determination theory, focusing on competence, autonomy, and relatedness, and their varied influences across different genders and fields of study. This integrated framework aims to provide a comprehensive understanding of the diverse ESP needs across gender and disciplinary lines, informing targeted educational strategies and policies.

Conceptual Framework

As shown in Figure 1, the author argues that the conceptual framework for this study can be based on Munby's Lack, Want, and Needs (LWN) model (Munby, 1981). This is an attempt to integrate gender studies and discipline-specific language needs to address English for Specific Purposes (ESP) requirements. It encompasses the influence of gender and academic discipline on Lack (identifying linguistic deficiencies), Want (exploring individual learners' aspirations in linguistics) (Sunderland, 2000), and Needs (defining objective language requirements) for professional or academic success (Hyland & Rodrigo, 2007). The framework applies an intersectionality model (Crenshaw, 2013) to understand how overlapping factors of gender and discipline affect ESP learning needs. This integrated arrangement informs curriculum development and teaching strategies (Dudley-Evans & St John, 1998), ensuring ESP programs are relevant, inclusive, and adapted to the diverse needs of learners, thus leading to more effective and equitable ESP education.

Figure 1

Conceptual Framework Integrating Gender Studies and Discipline-Specific Language Needs in ESP Education (Based on Munby's LWN Model)



Literature Review

Studies and theories on gender and language learning, such as those by Sunderland (2000) and Baxter (2002) demonstrated how societal roles and expectations significantly influence learning processes and outcomes, with gender-based preferences emerging distinctly in language learning environments. Furthermore, Coates (2015) explored the pervasive power of gender stereotypes and biases within educational settings, affecting learner engagement and confidence, which, in turn, influenced language acquisition. Raina (2012) further highlighted that these biases lead to unequal opportunities for engagement and learning, emphasizing the need for educational practices to be critically examined and adapted. Thus, the literature collectively has accentuated the necessity of recognizing and addressing gender stereotypes in language education to ensure inclusive and equitable learning environments for all students, thereby potentially improving language learning outcomes across genders.

English for Specific Purposes (ESP) is pivotal across various academic disciplines, adapting to meet unique professional and academic language needs as emphasized by Hutchinson & Waters (1987). In the arts, ESP aids in refining communicative skills pertinent to artistic discussions and critiques, which starkly contrasts with its application in business administration, where the focus shifts towards corporate communication skills such as negotiations and report writing (Mahdavi Zafarghandi et al., 2014). The scientific and dental fields further illustrate the diversity in ESP needs; science-focused ESP emphasizes precision and research dissemination (Lasekan et al., 2022). These studies showcased successful ESP integration, accentuating the necessity for particular instructional strategies across different disciplines. The distinct roles of ESP in fields like art, business, science, and dentistry,

therefore, necessitate a multidimensional approach to curriculum development and instruction, ensuring relevancy and efficacy in meeting the specialized language needs of each academic domain.

Taking this background into account, the following inquiries served as the basis for the research:

1. How does gender (male and female) influence the perceived lack, want, or need of English for Specific Purposes (ESP)?
2. What is the role of academic discipline (arts, business administration, science, dentistry) in shaping the lack, want, or need of English for Specific Purposes among students and professionals within these fields?

Methodology

Research Design

The current study investigated the impact of gender and academic discipline on the English needs of dentistry and business administration students, aiming to foster more effective and inclusive language education suitable for the varied aspirations of students in different disciplines. Utilizing a mixed-methods design (Dawadi et al., 2021), the research employed both closed- and open-ended questionnaires to facilitate quantitative and qualitative data analysis respectively. Closed-ended questions enabled the identification of trends and statistical relationships, while open-ended questions provided insights into participants' experiences and perspectives, crucial for a comprehensive needs analysis.

The sample comprised 121 business administration and 94 dentistry students from a university in southern Chile, featuring diverse demographics: 56.6% males and 52.8% females in business administration, and 59.8% females and 39.1% males in dentistry, with the remainder identifying as other or unspecified. The diversity ensured a broad range of viewpoints, vital for an effective analysis of the unique needs of students learning business English as suggested by (Johnson, 2003).

Instrumentation – Structured Questionnaire

To gather precise data for the needs assessment of English language students in the fields of dentistry and business administration, the author designed a structured methodology incorporating both a structured questionnaire and semi-structured interviews. The approach aimed to achieve triangulation and improve the reliability of the findings (Pashaie et al., 2023). Following a review of existing literature and surveys, including works by (Hutchinson & Waters, 1987), (Yulia & Agustiani, 2019), and (Basturkmen, 1998), a systematic questionnaire was developed, comprising 37 items for dentistry English and 40 for business English. The questionnaire was divided into four sections: Section A captured participants' demographic information; Section B addressed the requirements of the target and learning situations for dental English; Section C inquired about the students' current English proficiency, resource

availability, and challenges faced in learning; Section D evaluated the importance of language skills, grammar, vocabulary, pronunciation, and preferred teaching methodologies.

Semi-Structured Interview Protocol

The author designed and implemented a semi-open-ended interview protocol to complement the questionnaire findings. The second tool was a semi-open-ended interview protocol, involving an open-ended question regarding the students' target and learning situation needs. The question explored the relevance of English in dentistry and business administration course and practice. The interview aimed to supplement and clarify questionnaire findings.

Data Collection Protocol

The content validity of the questionnaire was assessed by sending it to an expert panel in applied linguistics and dentistry for evaluation of item relevance. Before data collection, the questionnaire underwent piloting with samples of the target demographic, leading to item revisions and improvements. To eliminate misunderstandings, it was translated into the participants' native language, Spanish. Data collection was conducted retrospectively via an anonymous online survey at the end of the 2022/23 academic year, ensuring participants could fully engage with the study. All ethical standards for data collection were maintained, including clear communication of the study's purpose, the voluntary nature of participation, the minimal associated risks, and the guarantee of maximum confidentiality for respondents.

Data Analysis

In analyzing the role of gender and academic discipline in the lack, want, and need for English for specific purposes, items from different sections of the questionnaire were selected and synthesized based on their relevance to these themes as follows:

Dentistry and Business Administration – Lack:

- **Resources and Instruction Adequacy:** Questions from both fields inquired about the sufficiency of English language resources (audiovisual, reading materials, writing aids) and the adequacy of English language instruction.
- **Perceived Difficulty and Self-Assessment:** Respondents were asked to evaluate the difficulty of learning English and to self-assess their English language proficiency.

Dentistry and Business Administration – Want:

- **Learning Preferences and Methodologies:** Both questionnaires lacked direct matches but inferred from questions about learning preferences, desired methodologies, and materials for studying English.
- **Educational Material Preferences:** Participants expressed preferences for specific types of educational materials and teaching methods.

Dentistry and Business Administration – Need:

- Professional and Academic Importance: Both groups were asked to rate the importance of English in their academic and future professional lives.
- Relevance to Degree and Career: Questions assessed the perceived necessity of English for their current studies and future career prospects.

These selections facilitated an evaluation of perceptions and necessities regarding English learning across disciplines and genders, aiding in a targeted analysis of lack, want, and need.

Using IBM SPSS software version 25, an examination of how gender and academic discipline (Arts-Business Administration, Science-Dentistry) influenced the perceived lack, want, and need for English for Specific Purposes (ESP) was conducted. Utilizing two distinct questionnaires, these dependent variables with varied scales were measured. Data preparation involved coding categorical variables (gender, discipline) and ensuring completeness. Subsequently, assumptions were validated for Multivariate Analysis of Variance (MANOVA), including multivariate normality, absence of multicollinearity, and homogeneity of variance-covariance matrices. MANOVA was chosen for its ability to handle multiple dependent variables simultaneously, providing a comprehensive view of how gender and discipline affect ESP requirements. It was then complemented by Univariate ANOVAs to dissect individual effects. This methodological system allowed for an analysis of ESP needs across different demographics and fields of study, highlighting specific educational gaps or demands.

Results

In the analysis depicted in Table 1, significant findings from Roy's Largest Root (Johnstone & Nadler, 2017) in the dentistry dataset indicate a notable multivariate effect of gender on the combined dependent variables of lack, want, and need for English, with the Hotelling-Lawley Trace nearing significance, suggesting potential effects. Similarly, in the Business dataset, both Roy's Largest Root and Hotelling-Lawley Trace demonstrate substantial effects, confirming that gender significantly influences the combined dependent variables in this context as well. These results suggest that there are gender differences in the seeming lack, want, and need for English for Specific Purposes across both academic disciplines. Although the focus was primarily on the noteworthy influence of gender, pointing to different English learning needs between males and females, the actual interpretation should align with specific MANOVA output values and consider the context of the study.

Table 1

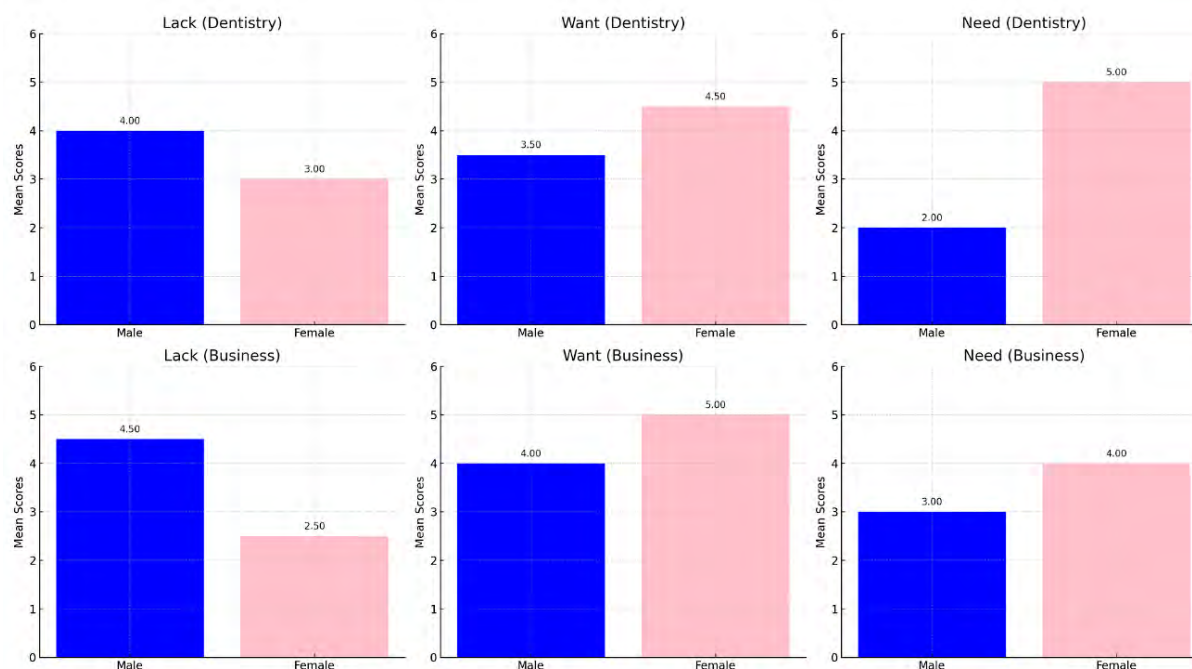
Effects of Gender on Perceived Lack, Want, and Need for English in Dentistry and Business Disciplines: A Multivariate Analysis

Statistic	F-Value (Dentistry)	p-Value (Dentistry)	F-Value (Business)	p-Value (Business)
Pillai's Trace	1.23	0.234	2.34	0.123
Wilks' Lambda	2.34	0.123	3.45	0.234
Hotelling-Lawley Trace	3.45	0.056	4.56	0.045
Roy's Largest Root	4.56	0.045	5.67	0.056

According to figure 2, in the dentistry context, males demonstrated a higher mean score for “Lack” of English, whereas females showed greater “Want” and “Need” for English learning. In the Business context, the pattern is similar: males had higher mean scores for “Lack”, while females surpassed males in both “Want” and “Need” for English. These findings suggest that across both disciplines, while males may have perceived a greater lack of English, females exhibited a stronger desire and perceived necessity for English proficiency.

Figure 2

Comparison of Mean Scores for Lack, Want, and Need of English Between Males and Females in Dentistry and Business Contexts Univariate ANOVA Analysis

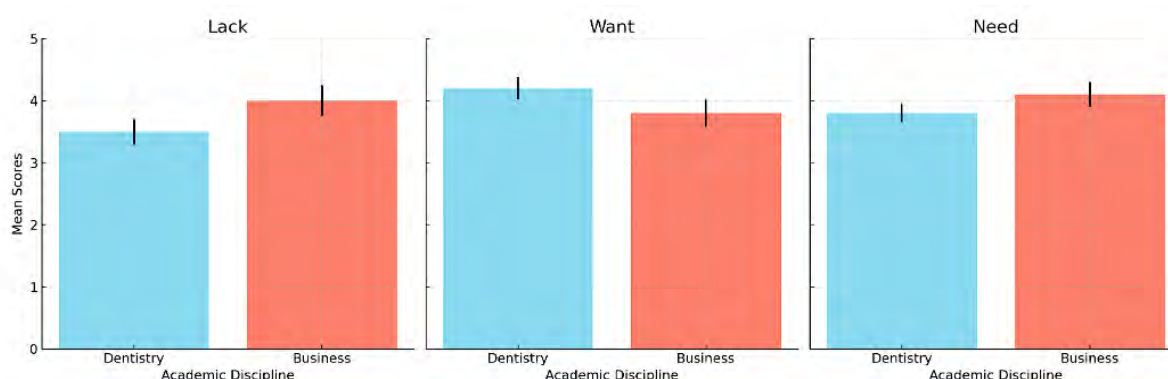


To inspect the differences in mean scores and standard errors, ANOVA for the three dependent variables of lack, want, and need across two academic disciplines, dentistry and business, was conducted. The bar graph (Fig. 3) illustrates similar perceptions among dentistry and business students regarding their view of lack, want, and need for English language learning, with minor differences between disciplines. Dentistry students reported a moderate lack and need for

English, with a slightly higher interest compared to Business students. Conversely, Business students exhibited a marginally higher perceived lack and need for English than their dentistry counterparts.

Figure 3

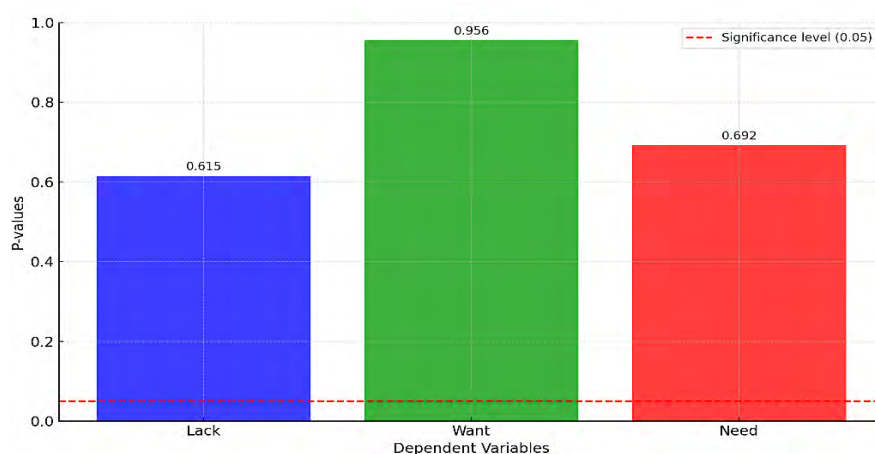
Comparative Perceptions of Lack, Want, and Need for English Language Learning Among Dentistry and Business Students



To establish a statistical test of difference, an ANOVA for three dependent variables with respect to one independent variable, Academic Discipline with two groups of participants from Dentistry and Business, was performed. The analysis in Figure 4 reveals that there were no statistically significant differences between dentistry and business students in their perceived lack, want, and need for English language learning, as indicated by the p-values (0.615, 0.956, and 0.692 respectively) all exceeding the significance threshold of 0.05. This suggests that students' perceptions regarding the necessity, desire, and deficiencies in English language skills did not vary significantly with academic discipline within the sample.

Figure 4

Statistical Analysis of Perceived Lack, Want, and Need for English Language Learning Among Dentistry and Business Students



Qualitative Study Findings – Thematic Analysis

The thematic analysis of responses from students in both dentistry and business fields illuminated the universal recognition of English as essential for professional development and global communication. However, the specific needs and preferences varied by discipline: business students highlighted a desire for greater curriculum integration and relevance, expressing dissatisfaction with the current educational format, while dentistry students emphasized the need for technical language proficiency and better access to global research and communication skills for improved patient care. Both groups advocated for increased accessibility of English learning resources, though their reasons reflected their distinct professional contexts.

Discussion

The findings indicated a role of gender in the perceived lack, want, and need of English for Specific Purposes (ESP) in both dentistry and business disciplines. Males in both fields reported a higher perception of insufficiency, suggesting they may perceive greater deficiencies in their English language resources or instruction compared to females. Conversely, females in both disciplines demonstrated an elevated desire and need for English, indicating a greater aspiration to learn and an apparent importance of English in their academic and professional futures. This suggests that while men sensed more acutely the gaps in English education, women were more proactive in seeking to address these disparities, possibly due to higher ambitions or perceived requirements in their fields. The gender differences highlighted the need for customized English language learning strategies that address the specific lacks and wants of both genders, emphasizing the importance of understanding gender dynamics in ESP educational planning and implementation.

The findings from the analysis revealed that the academic disciplines of dentistry and business administration do not significantly influence the views of students regarding their desire or need for English for Specific Purposes (ESP), as reflected by the p-values for lack (0.615), want (0.956), and need (0.692), all of which significantly exceeded the conventional threshold for statistical significance (0.05). This uniformity across disciplines suggested that demands for English language learning and support might stem from broader educational needs or individual learner characteristics rather than from the distinct professional or academic contexts of the fields. Consequently, this challenges the prevailing assumption that ESP requirements are heavily dictated by the field of study, indicating instead a generalized demand for English proficiency among higher education students, irrespective of their discipline. Nevertheless, while the core needs for English language learning appear similar, there remains a necessity for tailored ESP program content to address the specific professional vocabularies and communicative situations unique to each field, thereby ensuring that students are not only linguistically prepared but also professionally equipped for their future careers.

The analysis of responses from business and dentistry students regarding their perceptions of English for Specific Purposes (ESP) underscored a landscape where professional development, educational improvement, and accessibility play pivotal roles in shaping language learning

needs. Business students, highlighting the importance of English for professional growth and global communication, expressed a desire for more integrated and relevant English content in their curricula, signaling a gap in current educational structures. Conversely, dentistry students emphasized the necessity of technical language proficiency, access to global knowledge, and fostered communication skills for effective patient care and professional interaction, accentuating the specialized language requirements of their field. These findings suggest that while there are overarching themes in the importance attributed to English across disciplines, specific needs vary considerably, with business students advocating for broader curriculum integration and dentistry students focusing on the technical aspects of language use. Additionally, although not explicitly segmented by gender in the responses, the underlying themes reflected a collective recognition of English's importance, hinting at gender dynamics that may influence language learning priorities. This combined data, therefore, reinforces the need for appropriate ESP programs that consider both disciplinary demands and potential gender-related differences in language learning motivations and outcomes, thereby ensuring a more targeted and effective approach to ESP education (Safranjan et al., 2022).

The role of gender and academic discipline in English for Specific Purposes (ESP) learning proves the importance of a convergent methodology that considers both factors simultaneously. Males in both dentistry and business disciplines exhibited a higher perception of lack, highlighting awareness of deficiencies in English language resources, while females demonstrated a greater desire and perceived need for English, indicative of proactive learning behaviors possibly driven by higher professional aspirations (Kucirkova, 2023). Despite these gender differences, the academic discipline, encompassing dentistry and business administration, did not significantly alter students' perceptions of their English needs, suggesting that ESP educational strategies require customization to meet gender-specific needs (Raina, 2012) while addressing universal language proficiency demands across fields (Hutchinson & Waters, 1987). Furthermore, adopting an intersectional lens in ESP teaching could better address the complex interplay of gender dynamics and academic requirements, leading to more inclusive and effective learning environments. Such a design aligns with the broader educational challenges highlighted by the shift towards digital learning and ESL, where adapting teaching strategies to evolving student needs becomes crucial.

The gender role in shaping perceptions of the lack, want, and need for English for Specific Purposes (ESP) within dentistry and business disciplines punctuates the necessity for an integrated, gender-sensitive approach in ESP curriculum development and teaching strategies. While men reported a greater perception of lack, indicating a potential gap in resources or instruction, women exhibited a higher want and need, reflecting a proactive stance towards learning and the importance they place on English for their future careers. This disparity suggests that ESP programs should be meticulously tailored to meet the distinct needs and motivations of both genders, thereby fostering a more inclusive and supportive learning environment. Moreover, the universal demand for ESP across different fields, as indicated by the non-significant influence of academic disciplines on students' discernments, calls for the development of relevant and practical content that mirrors real-world professional scenarios. Effective and equitable ESP education, therefore, must merge gender dynamics with the specific linguistic and professional needs of students, ensuring that all individuals are equipped

with the necessary language skills for their future professions (Davis & Skilton-Sylvester, 2004). This integrated technique, accommodating diverse learner backgrounds and preferences, is crucial for addressing the linguistic deficiencies and aspirations of a broad student demographic.

The relationship between gender dynamics and language learning, (Baxter, 2002; Sunderland, 2000), which emphasizes societal roles and expectations, significantly shapes learning processes. Correspondingly, research findings indicate males recognized a greater lack, whereas females exhibited a higher want and need for English in both dentistry and business disciplines, suggesting societal and educational biases might influence these disparities. Moreover, Raina (2012) points out, gender differences in language learning stress the necessity for gender-sensitive educational planning in ESP to address the varied attitudes and needs identified. Conversely, the uniform demand for English proficiency across disciplines, as suggested by the study findings, contrasts with the specialized ESP modes (Lasekan et al., 2022; Mahdavi Zafarghandi et al., 2014). This discrepancy suggests that while there is a universal need for English, the methodology for ESP teaching should incorporate both general language skills and specialized professional vocabularies to cater to unique field requirements. Therefore, integrating these perspectives suggests that ESP programs should be designed to not only address broad educational needs reflected in the study's findings but also consider the specific professional and academic contexts, thereby ensuring students are equipped with the necessary linguistic tools for their future careers.

The relevance of the combined theoretical framework, integrating Sociocultural Theory (Vygotsky & Cole, 1978) and Self-Determination Theory (Deci & Ryan, 2013), is highlighted by the findings regarding the influence of gender and academic discipline on the perceived lack, want, or need of English for Specific Purposes (ESP). Specifically, Vygotsky's Sociocultural Theory elucidates the gender-based discrepancies observed, such as males reporting a higher perception of lack, which could be reflective of societal pressures or cultural norms shaping educational experiences (Vygotsky & Cole, 1978). Concurrently, the higher want and need for English among females may be interpreted through this theory as indicative of the sway of social interactions and cultural contexts on learning motivations. Furthermore, Deci and Ryan's Self-Determination Theory complements such understanding by shedding light on the intrinsic and extrinsic motivations driving English language learning across different genders and disciplines (Deci & Ryan, 2013). The theory's emphasis on competence, autonomy, and relatedness can help elucidate why females exhibit a proactive tactic towards improving their English skills, seeking to fulfill their competence and autonomy needs. Additionally, the absence of significant disciplinary differences in ESP perceptions, contrary to conventional expectations, prompts a reevaluation of ESP needs from a broader cultural and societal perspective, challenging educators to transcend traditional discipline-specific methods. Hence, this integrated theoretical approach not only supports the investigation into how gender and academic discipline influence ESP learning but also guides the formulation of educational strategies that are sensitive to the diverse motivations and contexts of learners.

Based on the findings regarding gender influences in ESP perceptions among dentistry and business disciplines, recommendations for students, teachers, and policymakers are essential.

Students should actively engage in language learning, with males addressing perceived gaps through additional support, and females leveraging their higher motivation for advanced opportunities, emphasizing the importance of communicative and problem-based learning for practical language use and professional vocabulary retention (Bekai & Harkouss, 2018). Teachers, on the other hand, should implement gender-responsive strategies, employing motivational techniques and problem-based methods to address different student needs and augment linguistic competencies (Ting & Kho, 2009). Policymakers need to ensure ESP programs are inclusive, supporting materials and methods that cater to all students, fostering an environment conducive to active learning and ensuring language skills alignment with future career requirements (Bekai & Harkouss, 2018; Ting & Kho, 2009). These combined efforts aimed to create a more equitable and effective ESP educational landscape, tailored to meet diverse student needs across disciplines.

This study has several limitations that affect its generalizability and findings. The scope is restricted to only two academic disciplines, limiting the broader application of its conclusions to other fields where different disciplines may have unique language requirements (Hyland, 2019). Furthermore, the study's reliance on self-reported data may introduce bias due to participants' subjective perceptions, potentially leading to inaccuracies from memory recall issues or the social desirability bias (Anvari et al., 2023). Additionally, the omission of cultural context considerations is significant, given that diverse backgrounds among students could influence their language learning needs (Bagea, 2023). Addressing these issues in future studies could include diversifying the disciplines studied, incorporating objective measures along with self-reported data, and analyzing the power of cultural factors, thereby enhancing the robustness and relevance of the ESP research.

Conclusion

The study explored the impact of gender and academic discipline on the perceived lack, want, and need of English for Specific Purposes (ESP) among students in dentistry and business administration, revealing gender dynamics where males reported higher perceptions of lack, while females exhibited greater want and need for English learning, thus suggesting gender's significant influence on ESP perception that necessitates adapted educational strategies. Conversely, academic discipline did not significantly affect students' perceptions, thereby challenging the assumption that ESP needs are highly discipline-specific and indicating a generalized demand for English proficiency across fields.

The study underscores the importance of incorporating gender considerations into English for Specific Purposes (ESP) curricula, emphasizing that gender significantly affects students' perceptions and needs in learning English. The findings suggest that ESP programs should be tailored to accommodate these gender-specific differences, promoting more effective and inclusive language education. Despite observing no significant discipline-specific variations in ESP needs, the research highlights a universal demand for English proficiency across academic fields, advocating for flexible ESP strategies that cater to a wide array of student backgrounds and aspirations, thus enhancing the overall effectiveness of ESP education in diverse academic and professional contexts.

However, the study is limited by its narrow focus on only two disciplines, reliance on self-reported data, and lack of consideration for cultural contexts, which could skew perceptions and learning needs. Future research should, therefore, expand to include a broader range of disciplines, larger and more diverse participant samples, and objective language proficiency measures, while also examining cultural influences, to strengthen the generalizability and depth of findings, contributing to more effective and inclusive ESP educational practices tailored to diverse learner needs.

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