Grammatical awareness and language performance: examining gendered differences among Saudi EFL (English as a foreign language) learners [version 1; peer review: awaiting peer review]

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Abstract
Background: Despite the many studies that have been conducted on the learners of English as a foreign language (EFL) regarding grammar ability in various contexts, some gaps are still unbridged and need researching. Therefore, this study addresses the research gap in the Saudi context concerning the grammatical competence of Saudi EFL (English as foreign language) learners.

Methods: This study described the Saudi EFL learners' level of awareness in developing grammatical forms. It also assessed Saudi EFL students' level of performance in grammar learning. Finally, it quantitatively explored what, if any, gendered differences exist in the grammar acquisition of Saudi EFL learners. The study employed descriptive and inferential statistics to analyze the data. The study sample comprised 50 Saudi EFL students out of the population of 120 students enrolled in EFL programs at Qassim University, Saudi Arabia with sample size being determined using online sampling calculator Raosoft.

Results: The results of the present study show that the Saudi EFL learners manifest a favorable level of awareness in developing grammatical forms while they still not having attained mastery of English grammar. Results also indicate that grammatical competence and level of awareness are more advanced among the Saudi EFL female learners compared to their male counterparts.

Conclusions: The outcomes of this research imply that Saudi EFL learners have sufficient performance in grammar learning but need further nurturance. Implications of this study will serve as a basis for English language learning development interventions in the benefit of the students.
Keywords
Acquisition, Gender difference, Grammatical Awareness, Language Teaching, Performance, Saudi EFL Learners.

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Introduction

English is a global language of communication as a majority of individuals use English on a daily basis though for various purposes. It is a vital language in current geopolitics since it is used to communicate with individuals from other nations. Proficiency in English also makes it possible for individuals to access almost unlimited information and knowledge, which in turn, play a key role in individual and national socio-economic growth. According to Oktaviani and Fauzan (2017), as English has risen to the status of the world’s lingua franca, countries all over the world have incorporated English language instruction into their educational curriculum. Many nations begin English education at the primary level, and pupils the world over are beginning to learn the language at a much younger age than ever before while there is common realization of its immense importance to stay connected not only with peoples form other nations, but also, with one’s compatriots. The scene is no different for learners of English as foreign language (EFL). The most visible manifestation of one’s language proficiency lies in speaking. However, students especially in Saudi Arabia, encounter problems in developing English conversation skills, which appear as anxiety and unwillingness to speak English, as well as an insufficient vocabulary, poor language formulation, and a general lack of grasp of grammatical structure. Also, as a result of limited exposure of instructors to the latest developments in the field of second language learning, funding restrictions, inadequate multimedia project teaching and learning system, and the absence of an English Language Club in many schools, many pupils do not obtain Standard Education of English (Hosain, 2018). Therefore, many researchers have consistently pointed out the need to develop skills such as grammatical competence and also, metalinguistic awareness to help students improve their English (Bessy & Knouse, 2020; Minasyan & Midova, 2016; Putri & Ngadiso, 2019; Roehr-Brackin, 2018).

When words are placed together correctly, they make proper sentences. Grammar is the process by which words are put together coherently. It is a set of rules and norms that allows languages to function correctly (Hans & Hans, 2017). In an educational context, grammatical competence may be described as the skill that pupils must have in order to comprehend and communicate meaning in a variety of situations. He or she must have a firm grasp of the rules of the language code (lexicon, syntactic structure, semantic structure, phonetic structure, and pragmatic structure), which will allow them to employ these grammatical aspects to convey and comprehend the meaning of utterances (Pinto-Llorente et al., 2017). According to Crystal and McLachlan (2010), grammar is “the study of how sentences mean and how sentence elements signify” (p.29). The authors claim that grammar is the structural underpinning for understanding, expressing, and responding to meaning inside sentences. This knowledge enables language users to be more precise, recognize ambiguity, and use a larger range of expressions. Similarly, the Common European Framework of Reference (CEFR), released in 2001 by the Council of Europe, defines grammar as a set of principles that govern the construction of phrases and sentences in order to express meaning in a language.

As mentioned by Hans and Hans (2017), proper grammar is necessary for understanding English as a second language as well as for learning a new language because all languages follow grammatical patterns, regardless of the language. Grammatical abilities are beneficial in all elements of life, from schooling to leadership and from social interactions to work prospects. Their importance at home cannot be overstated since children learn their grammatical patterns from their caregivers and other members of their household. Furthermore, according to Minasyan and Midova (2016), grammar is inextricably linked to the meaning and effect of what we write and say; it provides individuals with the vocabulary necessary to discuss one’s choices, preferences, mood, and tone. Individuals employ a variety of phrase patterns, vocabulary levels, and structures in response to various conversation settings. As a result, a sufficient degree of grammatical competence enables individuals to use the 5Cs rule, which ensures that communication is clear, correct, concise, coherent, and cohesive.

Metalinguistic awareness, on the other hand, is described as the recognition that an individual possesses the capacity to modify language in a number of ways, that he or she possesses the capacity to manipulate language. Metalinguistic awareness, as defined by the Oxford Dictionary, is the capacity to detach oneself from the substance of communication in order to reflect on and adjust the structure of language. According to Altman et al. (2018), metalinguistic awareness, which requires the speaker to pay attention to the structure and form of the language, develops in the late stages of language acquisition, around the age of 5–6, and builds on previously acquired linguistic knowledge. Possessing a strong sense of metalinguistic awareness is a necessary component of multilingual competency since it separates speakers of several languages from those who only speak one or two languages. Language awareness refers to a speaker’s capacity to approach and see language abstractly, as well as to examine and grasp the language as a system or entity capable of manipulation and control (Hofer & Jessner, 2019). Aside from those, metalinguistic development has been found to be associated with language usage and cognitive development as well as reading ability, academic accomplishment, environmental stimulation, intelligence quotient, and play (Chen, 2016).
Purposes of the study
Generally, this study aims to assess the grammatical competence of Saudi EFL learners. It specifically aims to: (1) describe the Saudi EFL level of awareness in developing grammatical forms, (2) assess Saudi EFL students’ level of performance in grammar learning, (3) test the difference in the level of student’s awareness and performance in grammar learning when grouped according to genders.

Methods
Study design and participants
This study employed a descriptive quantitative survey and comparative research design. It applied descriptive and inferential statistics to analyze the data. The participants of the study were 50 Saudi EFL students sampled from the population of 120 students of EFL at Qassim University, Saudi Arabia. Only students of English who enrolled in the grammar course were included in the study. Other students of English were excluded. Sample size was determined through the online sampling calculator Raosoft. Raosoft calculator was used to ensure the representativeness of the sample in variables like (various level of students, i.e., high, medium and low; motivation, i.e., high motivated and less motivated; and background rural and semi-rural) to the whole population of the study; this helped the researcher to generalize the findings.

Ethical considerations
Before undertaking the study, the researcher received a confirmation of ethical approval from the Scientific Committee in the Department of Curriculum and Instruction, College of Education, Qassim University, dated March 6, 2022. The study protocol including ethical consideration was submitted to and approved by the Scientific Committee of the English Department. Furthermore, the researcher explained to the students the purpose of the study and took an oral informed consent from them to take part in the study at hand. In most Saudi academic institutes in general and at Qassim University in particular, participants’ consent is usually expressed verbally. The researcher decoded the students’ agreement to take part in the study under the theme “we agree to participate in the study and share our attitudes/views with the researcher”. This study only used gender as a variable, considering that there are conflicting studies on the result of gender differences in language learning. Figure 1 presents the sampling characteristics as to gender variables.

Instrumentation and procedure
To collect data for this study, research tools were developed, adopted, and updated. Students, professors, and administrators were provided with a cover letter via email that explained the description and function of the instruments in plain language. A confidentiality clause was also inserted to safeguard the gathered data. This study employed a self-made research tool to ascertain the Saudi EFL students’ level of awareness of grammatical forms. The tool was validated by a content expert to identify the grammar content learning focus of Saudi EFL students. Before the tool was used, it was subjected to pilot testing in a group not included in the study.

![Figure 1. Gender variable of the respondents.](image-url)
In like manner, the grammar learning performance test was prepared by the researcher. The tool consisted of 25 main items and each item has four sub-items under it. Thus, the total number of items of the test on grammar learning was 100. Students took the grammar test in paper copy. Before any data were collected, it was authorized by two Arabic-speaking professors who are EFL instructors in two public universities. As a result, they were checked to see whether they fit the underlying constructs and if their language level corresponds to the students’ proficiency. After surveying, they agreed that the test items were appropriate, although they suggested a few changes to make the text easier to comprehend. In gathering the data, proper scheduling and coordination were coordinated with the university authorities. The full test items administered online in the survey can be found in the Extended data (Alharbi, 2022b).

The setting of the study was the English department, College of Education, Qassim University, Saudi Arabia. Students appeared in the final grammar examination in, December, 2021, and their results from the exam were used by the researcher to report the students’ performance level in grammar. Moreover, all the variables, outcomes, and other diagnose criteria were explained and clarified along the study parts.

Data analysis
Data were analyzed through quantitative research data interpretation via SPSS, (version 23). For descriptive statistics, the frequency and parentages were used, while for inferential statistics, the use of independent sample t-test was used to assess the difference of students’ attributes when grouped according to their gender. It is common to use the independent samples t-test to determine the following: Disparities in the mean values between two groups in this study gender was taken. Before the use of the t-test, the following were the assumptions followed: (1) the measurement scale of the study, (2) the utilization of random sampling, (3) the normality of data distribution, and (4) the adequacy of the sampling size of the study.

Results
Saudi EFL level of awareness in developing forms
Table 1 and Figure 1 present the Saudi EFL learners’ level of awareness in the eight selected grammatical forms viz., article, preposition, number of noun, tense, concord, case, irregular verb (Alharbi, 2022a). Results revealed that students are aware of their level of grammatical forms. Looking intently at the data, they were very aware of learning the concept of singular/plural nouns and tenses as a component essential to developing their language skills. In like manner, they remarkably rate themselves aware of the concept of articles, prepositions, concord, possessive case, and irregular verbs. This indicates that the Saudi EFL learners manifest a favorable level of awareness in developing grammatical forms.

Legend: 4.20-5.00 (Very Aware); 3.40-4.19 (Aware); 2.60-3.39 (Moderately Aware); 1.8-2.59 (Not aware); 1.0-1.79 (Not at all)

<table>
<thead>
<tr>
<th>Forms</th>
<th>Mean</th>
<th>SD</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>3.43</td>
<td>0.45</td>
<td>Aware</td>
</tr>
<tr>
<td>Prepositions</td>
<td>3.47</td>
<td>0.34</td>
<td>Aware</td>
</tr>
<tr>
<td>Singular/Plural nouns</td>
<td>4.31</td>
<td>0.23</td>
<td>Very Aware</td>
</tr>
<tr>
<td>Tenses</td>
<td>4.28</td>
<td>0.45</td>
<td>Very Aware</td>
</tr>
<tr>
<td>Concord</td>
<td>3.47</td>
<td>0.45</td>
<td>Aware</td>
</tr>
<tr>
<td>Possessive case</td>
<td>3.45</td>
<td>0.26</td>
<td>Aware</td>
</tr>
<tr>
<td>Irregular verbs</td>
<td>3.65</td>
<td>0.56</td>
<td>Aware</td>
</tr>
<tr>
<td>Grand mean</td>
<td>3.72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend: 4.20-5.00 (Very Aware); 3.40-4.19 (Aware); 2.60-3.39 (Moderately Aware); 1.8-2.59 (Not aware); 1.0-1.79 (Not at all).

Saudi EFL students’ level of performance in grammar learning
Table 2 and Figure 2 present the Saudi EFL students’ level of performance in grammar learning taken from their academic performance during the conduct of the study. It is noteworthy to showcase that the students have a mean grade of 86.57 or satisfactory performance in EFL learning as back up with a frequency of 93 and percentage of 35.77%. The least contributor of the study were those students who have outstanding performance in grammar learning. This finding showed that Saudi EFL learners are still on the level of moving towards mastery of grammar learning.
Test of Difference on the level of awareness and grammatical competence when grouped according to sex

Table 3 and Figures 3 and 4 present the test of difference on the level of awareness and grammatical competence when grouped according to gender. When taken individually, the level of awareness of students in developing grammatical forms showed that women have higher self-assessment compared to men. This showed that there is a significant

<table>
<thead>
<tr>
<th>Level</th>
<th>Grading scale</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>90-100</td>
<td>20</td>
<td>7.69</td>
</tr>
<tr>
<td>Very satisfactory</td>
<td>85-89</td>
<td>54</td>
<td>20.77</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>80-84</td>
<td>93</td>
<td>35.77</td>
</tr>
<tr>
<td>Fairly satisfactory</td>
<td>75-79</td>
<td>69</td>
<td>26.54</td>
</tr>
<tr>
<td>Poor</td>
<td>Below 75</td>
<td>24</td>
<td>9.23</td>
</tr>
</tbody>
</table>

Mean grade=86.57 (Satisfactory).

Table 3. Test of difference on the level of awareness and grammatical competence according to gender.

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>Difference</th>
<th>t-ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness in developing grammatical forms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.12</td>
<td>0.72</td>
<td>1.17</td>
<td>0.002**</td>
</tr>
<tr>
<td>Female</td>
<td>3.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of grammatical competence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>83.45</td>
<td>2.81</td>
<td>25.73</td>
<td>0.004*</td>
</tr>
<tr>
<td>Female</td>
<td>86.26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All other variables are not significant.
**=significant at 0.05 level; ns=not significant at 0.05 level.

Figure 2. Saudi EFL level of awareness in developing grammatical forms.

Figure 3. Saudi EFL learners’ level of grammatical competence.
difference in the awareness of the students when grouped according to gender, as evidenced with the p-value of 0.002. As to the level of grammatical competence of the students, it also showed that female students performed better than the male students, as shown with the computed p-value of 0.004. This finding generally implies that in this study, grammar competence and level of awareness are being favored by Saudi EFL female learners compared to their male counterparts.

Discussion

This study tried to uncover some queries including the Saudi EFL learners’ level of awareness in developing grammatical forms and level of performance in grammar learning. It also explored the gender difference so far as grammar learning in the Saudi context is concerned. The results of the study showed that the Saudi EFL learners manifest a favorable level of awareness in developing grammatical forms while they were still transitioning towards mastery of English grammar. Finally, grammatical competence and level of awareness are being favored by Saudi EFL female learners compared to their male counterparts. Some authors have added the necessity for cognitive control or purposeful control as a secondary ability to the concept of grammatical awareness. Grammatical awareness is the ability of a language user to analyze the grammatical structure of a sentence (Marzulina, 2019; Moore, 2021; Wyatt & Dikilitas¸, 2021). When it comes to grammatical awareness, the capacity to generate grammatically correct phrases at an early age is not considered evidence. Tactical knowledge of language frequently leads to correct output without the need for conscious thought about it. As a consequence, generative grammar proficiency does not necessarily represent grammatical awareness in terms of tacit comprehension of the language grammar. The value of grammatical awareness research in language education cannot be overstated, even though it is not a new field of study. A study by Marzulina (2019) found that students in an English master’s teacher education program had improved grammatical skills. According to the findings of this research, raising students’ levels of awareness is beneficial in developing analytical mindsets that lead to more effective teaching approaches.

Teachers’ understanding and knowledge of grammar rules and terminology are crucial in resolving students’ grammatical issues in class (Almakroob & Al-Ahdal, 2020; Alkhudiry & Al-Ahdal, 2020; Al-Ahdal & Hussein, 2020). This shows that language training should put stronger emphasis on grammatical exposure since participants in the study lacked fundamental grammar understanding. Further study on the grammatical awareness requirements of English language educators is also recommended by the author. Developing grammatical awareness in college can enable future English teachers better guide their students through a foreign language grammar system and help them write better.

Students’ beliefs and attitudes regarding grammar learning may impair their capacity to develop grammatical awareness (Amadi, 2018; Magulod Jr, 2018; Magulod, 2018; Qindah, 2018). According to Yurdagül and Öz (2018), learners’ beliefs not only affect their approaches to language learning but also affect the way they respond to instructional activities. As a result, it is safe to assume that teachers’ negative views about grammar education will have a similar effect in the future. On the other hand, future educators’ positive attitudes about grammar may help them become more grammatically aware. Schuman claims that emotions have an influence on pupils’ ability to learn. This is particularly true for students who are learning a second language. A positive attitude toward grammar increases the likelihood of learning a new language and improving grammatical awareness. This is true for both children and adults (Torres & Alieto, 2019).

This study confirmed the previous finding that Arabic language students have satisfactory grammar learning performance (Alharbi & Meccawy, 2020; Al-Hazzani & Altalhab, 2018; Ali et al., 2019; Almuhammadi, 2020; Khan et al., 2018). These studies were confident that students had learned enough morphological and syntactic information in grammar to be
able to pronounce words, write sentences, and correct grammatical faults on their own. The result of the gender difference in grammar awareness and performance surfaced in this study in favor of female respondents. This finding is significant since studies on gender differences in students’ attitudes regarding language learning have been limited and reported mixed findings. For this reason, further investigation is needed to have a deeper understanding on the matter. Prior research on gender discrepancies in university students’ language attitudes (Chuang et al., 2018; Stanikzai, 2020) need be examined to determine whether they hold true in a Saudi context.

Consequently, this study fills a major gap in the body of evidence on the linguistic beliefs of EFL learners in the local Saudi environment. Gender disparities in English as a foreign language grammar, listening, and writing proficiency have been linked to multiple intelligences, but the conclusions are contradictory, according to research. When it comes to language success and intellect types, no significant differences were found between male and female participants (Sun et al., 2019). This means that students can communicate with others because they naturally comprehend the grammatical system of that language while studying the phonological, structural, and semantic systems of language should be the focus of grammar learning (Yeh et al., 2018).

Conclusion
This study addresses the research gap in the Saudi context concerning the grammatical competence of Saudi EFL learners, and the outcomes of this research imply that Saudi EFL learners exhibit sufficient performance in grammar learning. The present study described the Saudi EFL level of awareness in developing grammatical forms. It also assessed Saudi EFL students’ level of performance in grammar learning. Finally, it quantitatively explored the gendered differences in the grammar learning of Saudi context. The results of the present study show that the Saudi EFL learners manifest a favorable level of awareness in developing grammatical forms while they manifest that the Saudi EFL learners were still on the level of progressing towards mastery of grammar learning. Finally, grammar competence and level of awareness are better favored by Saudi EFL female learners compared to their male counterparts.

The results will have an effect on both the teaching environment and the training environment for these individuals. There are various factors that might hinder future English language teachers’ ability to build grammatical awareness. It is necessary for teachers to take grammar classes in this setting, and this leaves them with a limited understanding of grammatical terms, particularly in the case of male students. In light of these conditions, it is possible that English language teachers are not developing their grammatical awareness to their maximum potential. Despite this, studies have revealed favorable links between students’ growing grammatical understanding and their future success. Saudi EFL students may have a better chance of developing grammatical awareness and completing academic writing assignments if they think grammar is crucial on the road to becoming communicative competent and have some good attitudes towards grammar. As to the limitation of this study, it considered only gender as a variable on language learning difference in grammar. Hence, other variables need to be researched in future investigations.

Data availability
Underlying data

Extended data

This project contains the following extended data:
- Level of awareness survey and grammar test

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).
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