

Examining the Role of Native Language Interference in English Learning: A Quantitative Study of Azerbaijani EFL Learners

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ABSTRACT: This study examines the phenomenon of language interference between Azerbaijani and English in the context of language teaching. The aim of the research is to identify major types of interference and analyze their impact on English language learning among Azerbaijani students. The study adopts a quantitative descriptive research design based on survey data collected from 102 Azerbaijani EFL university students. The findings reveal that first language interference significantly affects learners' ability to produce grammatically and structurally accurate English sentences. Grammatical interference was identified as the most frequent type, followed by lexical and syntactic interference. Additionally, word order differences between Azerbaijani and English were found to be a major source of difficulty. The results also indicate that students perceive explicit instruction on language interference as beneficial for improving language accuracy. The study highlights the importance of addressing interference through targeted teaching strategies and provides empirical evidence for cross-linguistic influence in second language acquisition.

Keywords: Language interference, Azerbaijani-English, Error analysis, EFL learners, Language teaching, Survey research.

I. INTRODUCTION

Language interference is a central issue in second language acquisition, particularly in contexts where learners rely heavily on their first language during the learning process. Interference occurs when linguistic structures from a native language are transferred into a target language, often resulting in errors at lexical, grammatical, and syntactic levels [1, 2]. This phenomenon is especially evident in Azerbaijani-English language contact due to significant structural differences between the two languages. In foreign language learning environments, learners frequently apply native language rules unconsciously, which leads to systematic deviations from target language norms [2, 3]. Grammatical differences such as tense formation, subject-verb agreement, and article usage, as well as syntactic differences like word order, create notable difficulties for Azerbaijani learners of English. As a result, interference becomes one of the main sources of persistent learner errors in both written and spoken language production [4, 5].

Although the concept of interference has been widely discussed in theoretical linguistics and second language acquisition studies, many existing studies remain predominantly descriptive and lack empirical validation in specific educational contexts [6]. In particular, limited research has focused on Azerbaijani learners from a data-driven perspective, especially through survey-based approaches that capture learners' perceptions and experiences [7]. Recent studies have highlighted the importance of empirical and learner-centered approaches in understanding language learning challenges and improving instructional practices

[5-9]. These perspectives emphasize the need to investigate how learners perceive interference and how it affects their performance in real classroom settings. Therefore, the present study aims to examine the role of language interference in English language learning among Azerbaijani students by combining theoretical analysis with empirical survey data. The study specifically seeks to identify the most frequent types of interference and evaluate their impact on language accuracy in the teaching process. This study addresses the following research questions:

- What types of language interference are most common among Azerbaijani EFL learners?
- How does first language influence English sentence formation?
- What difficulties do learners face due to interference?
- How do learners perceive instructional practices related to interference?

II. LITERATURE REVIEW

Language interference and error analysis have been extensively studied in the field of second language acquisition. Previous research has demonstrated that learners frequently transfer linguistic structures from their first language to the target language, resulting in systematic errors at different levels of language use. According to [10] first introduced the concept of language interference, emphasizing that cross-linguistic influence occurs when languages come into contact. Then, study [11] developed the concept of interlanguage, suggesting that learners construct a transitional linguistic system influenced by their native language. These theoretical perspectives have formed the foundation for subsequent research in error analysis and second language learning.

Numerous studies have focused on identifying and classifying learner errors. Study [12] established that errors are not random but systematic and can provide valuable insights into the learning process. In this context, error analysis has been used to examine the role of interference in producing grammatical, lexical, and syntactic deviations from target language norms. In applied linguistics, several empirical studies have shown that grammatical interference, particularly in areas such as tense usage, subject–verb agreement, and article systems, is one of the most persistent challenges for learners of English. Syntactic interference, especially differences in word order between languages, has also been identified as a significant source of difficulty in language production. Recent research has increasingly emphasized the importance of empirical and learner-centered approaches in language education. For example, study [5] highlight the role of pedagogically adapted instruction in addressing learner difficulties and improving language performance in specialized educational contexts. Their findings indicate that understanding learner needs and challenges is essential for effective language teaching.

Despite these contributions, existing studies often rely on limited datasets or theoretical discussion and lack sufficient empirical validation, particularly in specific linguistic contexts such as Azerbaijani–English language learning. There is a noticeable gap in research that systematically combines theoretical frameworks with survey-based learner data to analyze interference patterns. Therefore, the present study builds upon previous research by integrating theoretical insights with empirical evidence collected from Azerbaijani EFL learners. This approach allows for a more comprehensive understanding of how language interference affects learning in real classroom settings.

III. METHODS

In this section, the research design, participants, research instruments and procedures of data collection and analysis will be explained. The research methodology has been chosen to investigate into the role of first language transfer in learning English by Azerbaijani learners of EFL systematically. In order to studies the learner's experiences in learning English objectively and study the learners' transfer pattern, a quantitative descriptive method has been used in the collection and analysis of empirical data. Moreover, the process of ensuring the reliability, validity and ethical issues will be provided as well.

1. RESEARCH DESIGN

This study adopts a quantitative descriptive research design to examine the influence of first language (Azerbaijani) interference on English language learning among university-level EFL learners. The descriptive design is appropriate for identifying patterns of language interference and analyzing learners' perceptions based on systematically collected survey data. This approach allows for the systematic examination of learner responses and provides measurable evidence of cross-linguistic influence in English language acquisition. The study is guided by the following research questions:

- What types of language interference are most common among Azerbaijani EFL learners?
- How does the first language influence English sentence construction?
- What difficulties do learners experience due to language interference?
- How do learners perceive instructional practices related to interference?

2. PARTICIPANTS

The study involved 102 Azerbaijani university students learning English as a foreign language. The participants were selected using convenience sampling from different academic levels (primarily first- and second-year students). The participants demonstrated varying levels of English proficiency, ranging from beginner to intermediate. This diversity allowed the study to capture a broader range of learner experiences and interference patterns. All participants were native speakers of the Azerbaijani language.

3. DATA COLLECTION INSTRUMENT

Data were collected using a structured questionnaire specifically designed for this study. The survey consisted of both Likert-scale and multiple-choice items. The Likert-scale questions used a five-point scale: (1) Strongly disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly agree. The questionnaire focused on the following areas: (i) perceived influence of Azerbaijani on English learning, (ii) frequency of direct translation from the native language, (iii) identification of interference types (lexical, grammatical, syntactic), (iv) perceived difficulties in language production, and (v) learner attitudes toward instructional practices.

The survey instrument contained 8 main items and was designed to align with the research objectives and theoretical framework.

4. PROCEDURE

The questionnaire was administered electronically via an online survey platform. Participation was voluntary, and respondents completed the survey individually. Participants were given sufficient time to respond to all questions. The data collection process ensured consistency in administration and minimized external influence during response recording.

5. DATA ANALYSIS

The collected data were analyzed using descriptive statistical methods. Frequency counts and percentage distributions were used to summarize participant responses and identify dominant patterns of language interference. The results were presented in tabular and graphical form to ensure clarity and facilitate interpretation. The use of quantitative summaries allowed for systematic classification of interference types and supported the empirical validity of the study.

6. RELIABILITY AND VALIDITY

To ensure reliability, the questionnaire was standardized, and all participants were exposed to the same set of items under similar conditions. The internal consistency of the questionnaire was maintained through structured item design. Content validity was ensured by aligning the questionnaire items with established theories of language interference, interlanguage, and error analysis. The use of consistent analytical procedures further strengthened the reliability of the findings.

7. ETHICAL CONSIDERATIONS

All participants provided informed consent prior to participation in the study. Participation was voluntary, and respondents were informed about the purpose of the research. The data were collected

anonymously and used solely for academic research purposes. No personal identifying information was recorded, ensuring confidentiality and ethical compliance.

IV. RESULT

This section presents the findings of the study based on responses collected from 102 Azerbaijani EFL university students. The results are organized according to the research questions and analyzed using frequency and percentage distributions.

1. TYPES OF LANGUAGE INTERFERENCE

The distribution of interference types reported by the participants is summarized in Table 1. As shown in Table 1, grammatical interference is the most frequent type (47%), followed by lexical interference (34%) and syntactic interference (19%). These findings indicate that structural differences between Azerbaijani and English primarily impact learners at the grammatical level.

Table 2. Distribution of language interference types.

<u>Interference Type</u>	<u>Number of</u>	<u>Percentage</u>
Grammatical	48	47
Lexical	35	34
Syntactic	19	19
Total	102	100

2. INFLUENCE OF FIRST LANGUAGE

The second research question examined how Azerbaijani influences English sentence formation. The survey results show that 73% of participants agreed or strongly agreed that their first language influences the way they construct sentences in English. This finding highlights the strong presence of cross-linguistic transfer in learner language production.

3. TRANSLATION DEPENDENCY

The third research question focused on identifying the specific difficulties learners experience due to interference. A total of 65% of participants reported that differences in word order between Azerbaijani and English create challenges in sentence construction. This suggests that syntactic interference, although less frequent overall, remains a critical issue in language production. In addition, 68% of learners indicated that they frequently rely on direct translation from Azerbaijani when writing in English. This behavior contributes to the occurrence of interference-related errors.

4. WORD ORDER DIFFICULTIES

The fourth research question examined learners' perceptions of instructional practices related to language interference. The results show that 72% of participants believed that explicit teaching of language interference helps improve their English accuracy. Furthermore, 75% of respondents expressed a need for more classroom activities specifically designed to address interference-related errors.

5. INSTRUCTIONAL PERCEPTIONS

The study also examined learners' perceptions of teaching practices. The results show that 72% of respondents agreed that explicit instruction on language interference improves their English accuracy. In addition, 75% of participants expressed the need for more classroom activities specifically designed to address interference-related errors.

6. VISUAL REPRESENTATION OF FINDINGS

The overall distribution of interference types is illustrated in Figure 1. Figure 1 visually demonstrates the dominance of grammatical interference in comparison to lexical and syntactic interference. The graphical

representation supports the statistical findings presented in Table 1 and highlights the relative differences among categories.

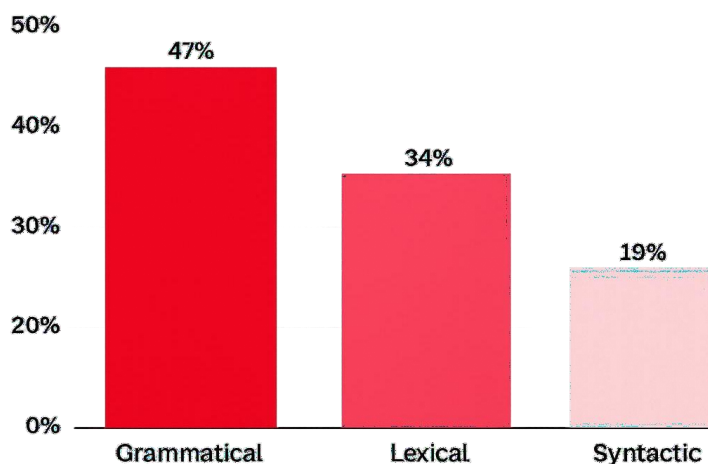


FIGURE 1. Distribution of interference types among participants.

7. SUMMARY OF FINDINGS

The findings clearly demonstrate that language interference is both systematic and pervasive among Azerbaijani learners of English. The predominance of grammatical interference, combined with high levels of translation dependency, confirms that first language plays a central role in shaping learner performance. The frequency-based descriptive analysis allows for a structured classification of interference types and provides empirical support for the conclusions of this study.

V. DISCUSSION

The findings of this study provide important insights into the role of language interference in English language learning among Azerbaijani EFL students. The results demonstrate that interference is not only present but also systematic and consistent across learners, supporting existing theoretical perspectives on cross-linguistic influence. One of the most significant findings of the study is the dominance of grammatical interference. This result aligns with previous research in second language acquisition, which suggests that structural differences between the first language and the target language often led to persistent grammatical errors. In the Azerbaijani–English context, differences in tense usage, subject–verb agreement, and article systems appear to create significant challenges for learners.

The findings also confirm [11] interlanguage theory, which explains that learners develop a transitional linguistic system influenced by their native language. The high percentage of students reporting reliance on direct translation further supports this claim, indicating that learners frequently transfer Azerbaijani structures into English production. This process leads to systematic deviations rather than random errors, as originally proposed in error analysis theory [12]. Although syntactic interference was reported less frequently, it remains a critical issue, particularly in relation to word order differences between Azerbaijani and English. The data indicate that a substantial proportion of students experience difficulties in constructing grammatically correct sentences due to these syntactic differences. This finding supports the argument that even less frequent interference types can have a significant impact on language accuracy.

Another important aspect of the study is the learners' perception of instructional practices. The majority of participants agreed that explicit teaching of language interference contributes positively to their language development. This finding highlights the importance of pedagogical awareness and structured teaching strategies in addressing interference-related errors. Similar conclusions have been reported in recent educational research, which emphasizes the need for learner-centered instruction and context-specific

teaching approaches [5]. These findings suggest that incorporating targeted activities focused on interference can significantly improve learners' performance. Overall, the results of the study confirm that language interference is an inherent and unavoidable aspect of second language learning. However, with appropriate instructional strategies and awareness, its negative impact can be minimized. The integration of empirical data with theoretical frameworks provides a more comprehensive understanding of how interference influences language acquisition in real classroom contexts.

VI. CONLUSSION

This study has examined the role of language interference in English language learning among Azerbaijani EFL students by combining theoretical insights with empirical survey data. The findings confirm that language interference is a significant and systematic factor influencing learners' performance. The results demonstrate that grammatical interference is the most dominant type, followed by lexical and syntactic interference. These findings indicate that structural differences between Azerbaijani and English, particularly in grammar and word order, present major challenges for learners. The study also highlights that a considerable number of learners rely on direct translation from their first language, which contributes to the persistence of interference-related errors. Another important contribution of the study is the identification of learners' perceptions regarding instructional practices. The findings reveal that students recognize the importance of explicit teaching of language interference and express a need for more targeted classroom activities to address such challenges. By integrating empirical data with established theoretical frameworks in second language acquisition, this study provides a clearer understanding of how cross-linguistic influence operates in real educational contexts. The results contribute to the field of applied linguistics by offering both theoretical insights and practical implications for language teaching. Overall, the study emphasizes that while language interference is an inevitable aspect of second language learning, its negative effects can be minimized through effective pedagogical strategies and increased awareness among both teachers and learners.

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Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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