Curriculum Research

Volume 6, Issue 4
Dec. 15, 2025

Grammatical Errors in Iranian Academic Journal Abstracts: A Surface Strategy Taxonomy Analysis

Article Type:

Original Research

Authors:

Marjan Abbasian[1]

Roya Ranjbar Mohammadi[2]

ORCiD: 0000-0003-0093-4834

Article History:

Received: 2025.09.08

Accepted: 2025.12.01

Published: 2025.12.15

Abstract

For non-native researchers, grammatical accuracy is essential for successful communication with the Academic community. Therefore, the aim of this study was to identify the types of errors found in the academic writings of Iranian researchers and their distribution. To this end, 50 abstracts were randomly selected from two Iranian academic journals to identify the possible grammatical errors. A qualitative descriptive approach was utilized to analyze these abstracts. To achieve this, Surface Strategy Taxonomy was used to detect and categorize errors into four groups: omission, addition, misformation, and misordering. As a result, 120 errors were identified in 10 abstracts out of the 50. The results showed that the most prevalent errors in academic writings were omissions, whereas additions were the least common. These findings demonstrated the importance of the Surface Strategy Taxonomy for analyzing error patterns in academic writing and highlighted the most frequent grammatical errors in several published articles. Researchers and journal editors can benefit from these results to enhance the linguistic quality of English-language abstracts.

Key Words: Abstract, Academic Writing, EFL Researchers, Error Analysis, Grammatical Errors, Surface Strategy Taxonomy

1. Department of English Language, Cihan University, Erbil, Kurdistan Region, Iraq (Corresponding Author). Email: Marjan.abbasian@cihanuniversity.edu.iq
2. Department of English, Bon.C., Islamic Azad University, Bonab, Iran. Email: royaranjbar@iau.ac.ir

1. Introduction

Academic writing is the most essential element in professional and scholarly communication, and its quality frequently depends on how accurate and clear its abstract is (Klimova, 2013). Readers can comprehend a study's contributions without reading the whole paper thanks to abstracts, which provide an overview of the study's objectives, methods, results, and implications. Meanwhile, the acceptance of articles in academic journals for non-native English speakers largely depends on grammatical accuracy (Khansir, 2022; Nameni, 2021). Although significant developments have been observed in Iranian academic publishing, authors' inadequate English proficiency often makes it difficult for them to compose linguistically accurate abstracts.

Academic writing errors seem to be more systematic than random, and by analyzing them, teaching and professional writing practices can be improved through the discovered patterns in the analysis (Corder, 1967). The writing errors of omission, addition, misformation, and misordering are the four types of grammatical errors that are categorized by the Surface Strategy Taxonomy (SST) (Dulay et al., 1982). A systematic identification and categorization of errors in written texts can be done by this framework. Interlanguage Theory (Selinker, 1972), which underpins SST, outlines how non-native authors generate a distinct linguistic system shaped by their first language and internal processes by which the error patterns can be predicted.

So far, to the best of the researchers' knowledge, most of the previous studies that have been conducted on grammatical errors have focused on theses or classroom assignments that were written by students (Ayar, 2020; Taşçı & Aksu Ataç, 2018), and the most frequent errors were reported were articles, prepositions, verb tenses, word order, and sentence structure. Only a few studies have thoroughly examined published academic abstracts by Iranian authors in different disciplines. For instance, in student-submitted journal papers that were investigated by Salehi and Bahrami (2018), it was found that the errors were mostly related to word choice, articles, prepositions, connectors, and verb tenses, suggesting L1 interference played an integral role in making such errors. Therefore, there is a noticeable research gap as their study did not investigate other academic domains or emphasize abstracts.

2. Literature Review

A precise and accurate writing can make an academic communication more effective, especially when the abstracts are clearly and accurately written (Klimova, 2013). Non-native English writers may encounter challenges in their academic writing due to differences between

their first language and English structures (Elhami & Shafiee, 2021). EFL researchers often have grammatical, syntactic, and cohesive errors that affect academic writing's clarity and acceptability (Lee & Macaro, 2021). These errors are systematic and predictable as they are caused by the individuals' interlanguage development (Ortega, 2020).

One of the essential points that non-native English authors should keep in mind is maintaining grammatical accuracy, because errors can lower the chance of publication (Elhami & Shafiee, 2021; Khansir, 2022). Suitable phraseology and vocabulary selection are another issue that EFL authors struggle with after the grammatical accuracy issue (Nameni, 2021). Based on the studies, the appropriate use of collocations, cohesive devices, and discipline-specific terminology is challenging for writers (Ayar, 2020). Fostering these skills requires targeted writing practice and extensive reading of academic materials.

Although the number of Iranian journals is increasing, the researchers encounter linguistic challenges, which means that a systematic investigation of grammatical errors in abstracts is critically needed. Additionally, studies have shown that there is a close association between the author's knowledge about genre conventions like the IMRAD (Introduction, Methods, Results, and Discussion) structure and their academic writing proficiency (Taşçı & Aksu Ataç, 2018). Acquiring these conventions in addition to grammatical accuracy greatly increase the chance of publishing in international journals for non-native researchers.

Some studies have investigated the grammatical errors in academic publications (Ayer, 2020; Salehi & Bahrami, 2018). According to Ayar (2020), the most frequent errors in the academic writings occurr with verbs, prepositions, and articles in Turkish learners' writing. Taşçı and Aksu Ataç (2018) noticed that adult learners made similar types of errors. Although these studies were beneficial and informative, they could not show professional academic writing contexts. The first (and maybe the only) part of a paper that is checked by the readers is the abstract, which is an essential part of research papers. A concise and persuasive abstract encourages the reader's decision to read the entire paper by offering a brief overview of the study's objectives, methodology, results, and conclusions. Abstracts that lack clarity may minimize the importance of the study and lower the chances of citations.

Salehi and Bahrami (2018) found errors in word choice, articles, prepositions, connectors, and verb tenses in 40 journal articles written by master's and PhD students in Iran. However, published abstracts from various fields were not investigated in the study. In EFL contexts, maintaining thoroughness, and conciseness are essential in abstract writing. In order to preserve grammatical accuracy and logical flow, researchers must reduce complicated concepts to a small number of

words (Cargill & O'Connor, 2020). Hence, it is especially important to pay attention to tenses, passive voice, and cohesive devices to maintain coherence and credibility.

Error analysis provides a suitable methodological framework for identifying, classifying, and understanding linguistic errors in written works (James, 2013; Gass & Selinker, 2008). This approach analyzes language proficiency, discovers error patterns, and supports instructional interventions (Hafsah, 2022; Richards et al., 1992). Additionally, it discusses preventive strategies, in which authors modify constructs to reduce errors instead of pursuing full precision. (James, 1998; Elyildirim, 2017; Schachter, 1974). Intralingual elements (developmental or overgeneralization errors) and interlingual influences (first-language interference) can be detected by a systematic error analysis (Corder, 1967; Selinker, 1972).

Dulay, et al.'s (1982) Surface Strategy Taxonomy (SST) is a significant model in error analysis to identify how learners modify or manipulate the surface structure of their sentences. SST defines errors according to the cognitive procedures that students use to produce a sentence, rather than dividing them solely into grammatical groups (Dulay et al., 1982). In this model, the surface-level errors are included in four primary types: First, omission is a common error among EFL learners and speakers in which they omit the essential parts of a sentence, such as articles, plural markers, auxiliary verbs, or prepositions. Due to the limited semantic weight of such grammatical morphemes that may not exist in the same form in the learners' first language, it frequently happens. Second, by adding extra components to the structure of the sentence, addition happens. Double markings, irrelevant auxiliaries, or the inappropriate use of certain grammatical structures are some types of unnecessary parts. Overgeneralization and misinterpretation among comparable structures are the common causes of additions. Third, misformation errors occur if students use morphemes or structures incorrectly. They do not add or remove anything; they just use the wrong word form, tense, or grammatical marker. The reasons for such errors are an inadequate understanding of morphological and syntactic rules. Fourth, by putting the components of a sentence in an incorrect arrangement, misordering errors arise. First language transfer can cause this type of error to happen. Thus, identifying patterns of structural deviation in academic writing and highlighting the underlying cognitive processes that influence authors' writing performance may be facilitated by using SST. The particular use of this taxonomy is for abstract analysis because all the challenges that EFL writers may encounter are highlighted by this taxonomy.

An increasing number of studies have investigated the researchers' problems in writing academic texts. In a study, Ayar (2020) analyzed the grammatical errors that he found in the

assignments of Turkish EFL students. 60 undergraduate students' essays were collected, and their errors were categorized by a descriptive error-analysis framework. According to the findings of this study, verb misuse, incorrect prepositions, and article-related errors were the most common errors. He observed that due to the negative transfer from Turkish grammar, the most significant challenge for the students was about tense consistency and the appropriate use of English articles. This study's findings suggest that such errors are evidence of more general interlingual and intralingual difficulties that EFL students frequently face. This study provided valuable information on students' writing errors, but it did not address academic or professional writings like published research abstracts, which call for a higher degree of linguistic precision. In another study, Taşçı and Aksu Ataç (2018) investigated adult Turkish EFL learners' academic writings' errors. 120 writing samples were collected from them. The samples had problems with verb tenses, prepositions, and determiners. Although adults had been studying English for many years, they still had trouble with syntactic and morphological issues. As the authors claimed, developmental issues and L1 interference were apparent in the forms of errors. Also, 40 journal articles authored by Iranian Master's and doctoral students were checked for grammatical errors by Salehi and Bahrami (2018). They used a mixed-methods approach to detect the frequent errors that were mostly related to incorrect word choice, misuse of articles and prepositions, faulty connectors, and tense inaccuracies. The researchers claimed that first-language interference was the main reason for such errors. This study examined academic writing, but not specifically the abstracts.

Grammatical errors detection has been the topic of several other studies, such as Rahman and Darus (2021), who did research on Bangladeshi postgraduate students' written abstracts. In their abstracts, sentence structure, verb forms, and article usage inaccuracies were seen frequently. In a similar vein, Aghagolzadeh and Davari (2020) examined the challenges faced by Iranian researchers in their academic English and found that L1 interference was the predominant reason for such difficulties. According to the findings of these study, it can be claimed that grammatical inaccuracies are common international problem among non-native English writers in academic composition. However, discipline-specific and context-specific research is required due to the distinctions in methodology, context, and objective.

Considering the above points, a number of limitations were found in the available literature on the EFL learners' writings. The majority of the prior studies have focused on samples of essays, theses, or classroom assignments that had been composed by students (Ayar, 2020; Taşçı & Aksu Ataç, 2018). However, professional academic writing has its own standards and demands,

which were not represented accurately in these studies. Even in Salehi and Bahrami's (2018) study on the journal articles authored by postgraduate students, they did not explicitly focus on published academic papers. Due to the importance of the abstract in research papers, it should be written accurately and concisely. In addition, with the rapid development of academic publishing in Iran, the literature shows a dearth of studies on Iranian researchers' published abstracts. There are also insufficient studies using Surface Strategy Taxonomy (SST) to analyze grammatical errors, and it is another apparent gap that was found in the literature. These deficiencies show that more targeted, context-specific studies should be done on Iranian researchers' published abstracts to check their grammatical accuracy.

To bridge these gaps, this study focused on the grammatical errors of 50 published abstracts. It used Surface Strategy Taxonomy (SST) as an analytical framework to classify omission, addition, misordering, and misformation errors systematically. Abstract is a part that has an enormous impact on grabbing readers' attention and journal acceptance decisions, and this study may be distinctive because of its focus on this less attended section of the academic papers. As the Iranian authors, journal reviewers, and academic writing instructors are eager to reduce the potential grammatical inaccuracies in academic writing and improve the quality of abstracts, they may benefit from the implications of the current study. Hence, the aim of this study was to answer the following research questions:

RQ1. What types of grammatical errors are most prevalent in research paper abstracts written by Iranian researchers?

RQ2. How are grammatical errors distributed, and what is their density across research paper abstracts?

3. Methodology

3.1. Design

This study identified and classified grammatical errors in published abstracts using a qualitative descriptive design. This design aimed to provide a thorough, transparent, and accurate assessment of an issue, rather than relying solely on theoretical conceptualization (Lambert & Lambert, 2012). This design made it possible to properly represent the occurrence of grammatical errors in actual published academic writing. This was done by using the Surface Strategy Taxonomy (SST) to identify, record, and classify errors.

3.2. Instruments

Iranian Journal of Medical Sciences and *Iranian Journal of Public Health* were the two Iranian journals that were analyzed. Fifty abstracts were randomly selected (25 from each journal) from issues published between 2020 and 2025. While all abstracts were examined, only those containing grammatical errors were analyzed in detail for classification and frequency counts. All abstracts were written by those authors whose first language was Persian. Ethical approval was not required for this study because all abstracts analyzed were publicly available, and no identifiable private information was used.

3.3. Procedure

The clarity, transparency, and reliability of this study were ensured by a well-organized data collection and data analysis procedure. Initially, a scrutinized examination of each abstract was done to detect possible grammatical errors. This analysis focused on words, phrases, or morphemes. In the next phase, those errors were classified into four groups according to the Surface Strategy Taxonomy (SST), including omission, addition, misformation, and misordering (Dulay et al., 1982). To ensure accurate classification, both researchers independently coded the errors and compared the assigned codes. By estimating the Cohen's Kappa coefficient, a value of 0.85 was obtained, and a strong inter-rater agreement was proved. The researchers discussed the inconsistent codes and reached an agreement.

Following the categorization phase, the frequency counts of category frequency were estimated, and the percentages were calculated based on the total number of errors found in the abstracts. The consistency between all the percentages and the number of observed errors was ensured by this approach. The acquired data were then displayed in tables to exhibit the distribution of errors in the categories of omission, addition, misordering, and misformation. This meticulous representation ensures the coding transparency, reliability, and clarity in the use of SST, ensuring the replicability of the study and its results.

4. Results

4.1. Overview of Errors

To address the first research question, the errors in the abstracts were identified and coded. The frequency of errors noticed in the abstract the papers for each category of errors is shown in Table 1. Although 50 abstracts were analyzed, only 10 contained grammatical errors and were used for detailed classification, and the others were error free in their abstracts.

Table 1.

Frequency of Grammatical Errors in Each Abstract

No.	Omission	Addition	Misformation	Misordering
1	4	2	6	8
2	4	0	4	0
3	18	2	2	2
4	6	4	4	2
5	8	0	2	2
6	2	0	2	0
7	2	1	3	4
8	9	1	1	1
9	3	2	2	1
10	4	0	1	1
Total	60	12	27	21

As can be seen in Table 1, omission errors were the most frequent type o error while addition errors were the least one. Table 2 also illustrates that the omission category was the most frequent while the addition category the least. Frequencies were added up across all abstracts to give a more comprehensive picture of the error rate.

Table 2.

Total frequency of grammatical error types

Error Type	Frequency
Omission	60
Misformation	27
Misordering	21
Addition	12
Total	120

As shown by Table 2, omission errors represent half of all detected errors (n = 60), confirming that missing grammatical elements were the most common structural problems in the analyzed abstracts. Addition errors were comparatively scarce (n = 12), indicating that unnecessary grammatical insertions were infrequent.

To address the second research question, error percentages were calculated using the formula:

$P = F / N \times 100\%$

Where

P = Each error's percentage

F = the error frequency

N = the sum of all errors

The grammatical error percentage was calculated by the following formula, and the results are represented in Table 3 and its corresponding figure (Figure 1). The analysis revealed that omission errors accounted for 50% of the total errors. The least percentage, which is 10% of the total, accounted for the addition error. Misformation represented 22.5% and misordering errors was the next, constituting 17.5% of the total errors.

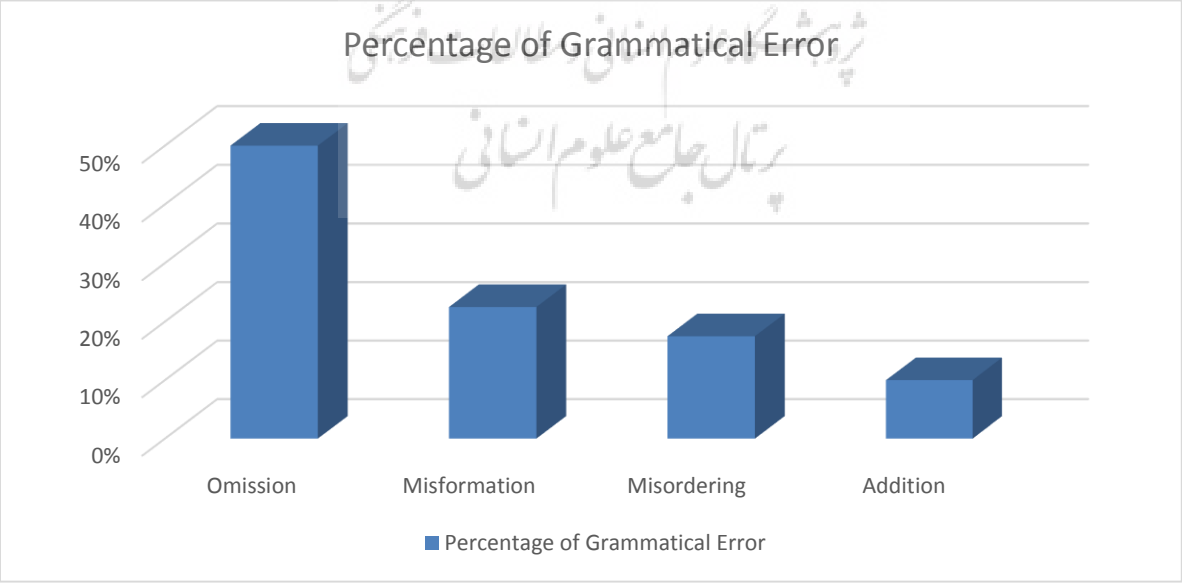
Table 3.

Percentage distribution of grammatical error types

Error Type	***Frequency***	***Percentage (%)***
Omission	*60*	*50.0%*
Misformation	*27*	*22.5%*
Misordering	*21*	*17.5%*
Addition	*12*	*10.0%*
Total	*120*	***100%***

Figure 1.

Percentage of Grammatical Errors by Type



To further illustrate each error category, sample from each group are presented below:

4.2. Errors by Category

4.2.1. Omission Errors

Sentences that lacked necessary components resulted in incomplete structures. Examples:

- **Missing Subject**
  - Original: "Analyzed the data from the study."
  - Corrected: "The researchers analyzed the data from the study."
- **Missing Verb**
  - Original: "Data collected from various sources."
  - Corrected: "Data were collected from various sources."
- **Missing Article**
  - Original: "Research highlights importance of collaboration in science."
  - Corrected: "The research highlights the importance of collaboration in science."
- **Missing Preposition**
  - Original: "Participants showed improvement test scores."
  - Corrected: "Participants showed improvement in test scores."

4.2.2. Addition Errors

The structure was broken by the addition of unnecessary items. Examples:

- **Unnecessary Modifier**
  - Original: "The results were very significant and important."
  - Corrected: "The results were significant."
- **Redundant Phrase**
  - Original: "To achieve the goal successfully."
  - Corrected: "To achieve the goal."

- **Extra Word**
    - Original: "The results were obtained from the experiments that were conducted."
    - Corrected: "The results were obtained from the conducted experiments."

4.2.3. Misformation

An incorrect term or structural form can make ambiguity. Examples:

- **Incorrect Verb Tense**
    - Original: "The researchers find that the results are significant."
    - Corrected: "The researchers found that the results were significant."
- **Incorrect Noun Form**
    - Original: "The data shows a clear trend."
    - Corrected: "The data show a clear trend."
- **Wrong Adjective Form**
    - Original: "The experiment was very success."
    - Corrected: "The experiment was very successful."

4.2.4. Misordering Errors

Clarity was impacted by improper word or sentence order. Examples:

- **Incorrect Subject-Verb Order**
    - Original: "Significant the results were."
    - Corrected: "The results were significant."
- **Misplaced Adjective**
    - Original: "The study is for future research important."
    - Corrected: "The study is important for future research."
- **Improper Adverb Placement**
    - Original: "Successfully, the method was applied in the experiment."
    - Corrected: "The method was applied successfully in the experiment."

4.3. Error Density per Abstract (Standardized per 100 Words)

A typical academic abstract is between 150 and 250 words in length. A standard density metric (per 100 words) was employed to calculate the density and create uniform comparisons.

Table 4.

Estimated Error Density per 100 Words

Abstract No.	Total Errors	Density (per 100 words)
1	20	13.3
2	8	5.3
3	24	16.0
4	16	10.6
5	12	8.0
6	4	2.6
7	10	6.6
8	12	8.0
9	8	5.3
10	6	4.0

Values in Table 4 reflect the number of errors likely to appear per 100 words. Abstract 3 exhibits the highest estimated error density (16 per 100 words), indicating substantial structural instability. Abstracts 6 and 10 show the lowest density, suggesting comparatively more grammatical control.

To have a deep understanding of the error analysis, Table 5 presents which abstracts contained which combinations of error categories.

Table 5.

Co-occurrence patterns of error categories across abstracts

Abstract No.	Omission	Addition	Misformation	Misordering	Co-Occurrence Pattern
1	✓	✓	✓	✓	All four types
2	✓	–	✓	–	Omission + Misformation
3	✓	✓	✓	✓	All four types
4	✓	✓	✓	✓	All four types
5	✓	–	✓	✓	Omission + Misformation + Misordering
6	✓	–	✓	–	Omission + Misformation
7	✓	✓	✓	✓	All four types
8	✓	✓	✓	✓	All four types
9	✓	✓	✓	✓	All four types
10	✓	–	✓	✓	Omission + Misformation + Misordering

Note. ✓ indicates the presence of a given error type in the abstract.

Most abstracts contained multiple categories of errors, demonstrating that grammatical issues rarely occur in isolation. While addition errors were present in less than half of the abstracts, omission errors could be found in all of them. This co-occurrence matrix adds analytical depth beyond simple frequencies.

5. Discussion

Article use, subject–verb agreement, and tense consistency were major error patterns that were found in the abstracts analysis. The credibility of this study is approved by the consistency between its findings and the prior studies' results. Specifically, the results of the current study align with the prior literature on EFL academic writing. For example, Al Fadda (2012) and Hyland and Jiang (2017) claimed that the most frequent error even at an advanced level is related to article use and agreement issues.

Subject-verb agreement errors occurred quite frequently, especially in sentences with long noun phrases or multiple modifiers. Biber et al. (2011) claimed that when a structure is more syntactically complex, it is more challenging for the EFL authors to attain proper subject-verb agreement, and this assertion supports the detected patterns of this study. Since the current study showed similar tendencies in published abstracts, the results broaden its generalizability. That is, complexity-related subject-verb agreement errors also occurs in formal academic publications.

Another prominent feature identified in the data was tense inconsistency. Shaw and Liu (1998) noted that conventions of tense usage vary across academic disciplines, which can lead to inconsistent tense patterns among EFL scholars. The findings of the present study support this observation. Although the intended meaning of the abstracts was generally clear, greater consistency in tense use could have improved textual clarity and cohesion. A key strength of this study lies in its focus on different disciplines within Iranian journals, allowing it to illustrate how such challenges emerge in a specific national research context—an aspect that has not always been addressed in earlier cross-national studies.

Errors related to word order, unnecessary additions, and lexical misformation occurred less frequently. As Hyland and Jiang (2017) observed, advanced writers typically have strong control over basic syntactic structures. In line with this view, the relative infrequency of these error types in the current dataset suggests that the authors are capable of producing readable academic prose, despite the presence of occasional minor grammatical issues. This finding extends the existing literature by demonstrating that grammatical competence in published EFL

writing is not uniform across all categories: while some areas reflect considerable strength, others remain problematic.

Although the findings align closely with established patterns reported in previous research, the present study contributes additional insights by focusing on published research abstracts rather than student or novice writing. This distinction represents an important strength, as it indicates that certain grammatical challenges persist regardless of authors' experience level or publication status. Moreover, the inclusion of multiple journals provides a broader perspective on linguistic accuracy within the Iranian academic context and helps identify grammatical features that recur across different disciplinary fields.

Nevertheless, the findings should be interpreted with some caution. The relatively small sample size and the descriptive nature of the analysis limit the generalizability of the results. Additionally, although error classification was based on well-established taxonomies, a degree of researcher interpretation was unavoidable when assigning specific error types. These limitations do not detract from the value of the study; rather, they highlight directions for future research and underscore the importance of examining authentic published texts to better understand persistent grammatical issues in EFL academic writing.

By comparing its findings with those of previous studies and concentrating on authentic published abstracts, this investigation contributes to a deeper understanding of recurring grammatical errors in EFL scholarly communication. While the focus on professional writing contexts offers novel insights beyond much of the existing literature, the validity of the findings is reinforced by their consistency with well-established research in the field.

6. Conclusion

In this study, grammatical errors were examined in a sample of 50 randomly selected abstracts from two Iranian academic journals. Of these abstracts, 40 were found to be free of grammatical errors, while the remaining 10 contained a total of 120 errors. Among all identified errors, omission errors were the most frequent, accounting for 60 cases (50%). These were followed by misformation errors with 27 instances (22.5%), misordering errors with 21 instances (17.5%), and addition errors with 12 instances (10%). Although most of the abstracts were error-free, the presence of grammatical errors in a number of them indicates that such issues still occur. It appears that many of the observed errors, despite their differing surface forms, may stem from multiple underlying causes. Factors such as time constraints during writing, pressure to publish,

and differences in researchers' language proficiency may have contributed to these errors. Overall, the findings provide a detailed overview of grammatical errors within a limited sample of Iranian journal abstracts. However, given the small sample size and the fact that most abstracts did not contain errors, the findings cannot be generalized to all Iranian researchers or academic journals.

The scope of this study may assist researchers in improving abstract writing. When EFL authors are sufficiently informed about common grammatical errors in academic writing, they can gain better control over their written production. Journals and academic institutions may also benefit from these findings by offering training courses that focus on complex grammatical structures and the most frequent errors in academic writing. Such initiatives may help reduce the number of grammatical errors in future submissions.

Several limitations should be considered when interpreting the findings of this study. First, only 50 abstracts from two Iranian academic journals were analyzed, which constitutes a small sample and limits the applicability of the results. Second, the study focused exclusively on grammatical errors; other important aspects such as coherence, vocabulary use, and content organization were not examined. Although the frequencies of the errors were reported, raw data for individual abstracts were not provided, which may limit transparency for replication or further analysis. Finally, because the identification and classification of errors were based on the researcher's own judgment, the possibility of subjective bias cannot be entirely ruled out, despite careful analytical efforts.

References

Al Fadda, H. (2012). Difficulties in academic writing: From the perspective of King Saud University postgraduate students. *English Language Teaching, 5*(3), 123–130. https://doi.org/10.5539/elt.v5n3p123

Aghagolzadeh, F., & Davari, H. (2020). Challenges in academic English writing faced by Iranian researchers. *Journal of English for Academic Purposes, 44*, 100829. https://doi.org/10.1016/j.jeap.2020.100829

Ayar, Z. (2020). Error analysis of Turkish learners' English paragraphs from lexical and grammatical aspects. *ELT Research Journal, 9*(2), 123–134.

Biber, D., Gray, B., & Poonpon, K. (2011). Should we use characteristics of conversation to measure grammatical complexity in L2 writing development? *Tesol Quarterly, 45*(1), 5-35.

https://doi.org/10.5054/tq.2011.244483

Cargill, M., & O'Connor, P. (2020). *Writing scientific research articles: Strategy & steps* (3rd ed.). Wiley-Blackwell.

Dulay, H., Burt, M., & Krashen, S. D. (1982). *Language two.* Oxford University Press.

Elhami, M., & Shafiee, S. (2021). Error analysis in scientific writing by non-native speakers: Issues and strategies. *Research in Language, 19*(2), 167–182.

Elyildirim, S. (2017). Avoidance strategy in foreign language production. *Sosyal Bilimler Enstitüsü Dergisi.*

Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course.* Routledge.

Hafsah, H. (2022). Grammatical error analysis in thesis abstracts: English education graduate students of UIN Suska Pekanbaru. *EJI (English Journal of Indragiri)*, 6(1), 24–37. https://doi.org/10.32520/eji.v6i1.1655

Hyland, K., & Jiang, F. (2017). Is academic writing becoming more informal? *English for Specific Purposes, 45*, 40–51. https://doi.org/10.1016/j.esp.2016.09.001

James, C. (1998). *Errors in language learning and use: Exploring error analysis* (1st ed.). Routledge. https://doi.org/10.4324/9781315842912

James, C. (2013). *Errors in language learning and use: Exploring error analysis.* Routledge.

Khansir, A. A. (2022). Error analysis and English syllabus. *LLT Journal: A Journal on Language and Language Teaching, 25*(2), 626–638. https://doi.org/10.24071/llt.v25i2.3547

Klimova, B. F. (2013). Common mistakes in writing abstracts in English. *Procedia - Social and Behavioral Sciences, 93*, 512–516. https://doi.org/10.1016/j.sbspro.2013.09.230

Lambert, V. A., & Lambert, C. E. (2012). Qualitative descriptive research: An acceptable design. *International Journal of Nursing Research, 16*(4), 255–256.

Lee, J., & Macaro, E. (2021). Linguistic accuracy in EFL academic writing: Challenges and pedagogical implications. *System, 97,* 102427. https://doi.org/10.1016/j.system.2021.102427

Nameni, A. (2021). An investigation into Iranian employees' intercultural communicative competence: Does learning English as a foreign language help? *Journal of Intercultural Communication Research. 11*(2), 1–17. https://doi.org/10.1080/17475759.2021.2006752

Ortega, L. (2020). *Understanding second language acquisition* (2nd ed.). Routledge.

Rahman, M. M., & Darus, S. (2021). Error analysis of postgraduate students' abstracts in EFL contexts. GEMA Online Journal of Language Studies, 21(1), 1–18. https://doi.org/10.17576/gema-2021-2101-01

Richards, J., Platt, J., & Platt, H. (1992). *Dictionary of language teaching and applied linguistics* (2nd ed.). Longman.

Salehi, M., & Bahrami, A. (2018). An error analysis of journal papers written by Persian authors. *Cogent Arts & Humanities, 5*(1), 1–16. https://doi.org/10.1080/23311983.2018.1537948

Schachter, J. (1974). An error in error analysis. *Language Learning, 24*(2), 205–214. https://doi.org/10.1111/j.1467-1770.1974.tb00502.x

Shaw, P., & Liu, E. T.–K. (1998). What develops in the development of second-language writing? *Applied Linguistics, 19*(2), 225–254. https://doi.org/10.1093/applin/19.2.225

Tasçi, S., & Aksu Ataç, B. (2018). Written grammatical errors of Turkish adult learners of English: An analysis. *Journal of International Social Sciences Education, 4*(1), 1–13.