



Hierarchical analysis of the prevalent essay writing errors among major English students

Faiz Hamarai^{1*}, DAbdalla Ahmed²

¹Department of English, College of Arts, King Faisal University, Saudi Arabia. ²Department of Quantitative Methods, School of Business College, King Faisal University, Saudi Arabia.

Corresponding author: Faiz Hamarai (Email: <u>fhamarai@kfu.edu.sa</u>)

Abstract

This study aims to investigate the common errors made by Saudi EFL major students in essay writing and identify the possible sources of these recurring errors. By examining the specific linguistic challenges faced by these students, the study provide s insights into the underlying factors affecting their writing proficiency. A total of thirty essays written by thirty English major students were analyzed. The students were divided statistically into two groups using hierarchical cluster analysis (HCA), and their essays were assessed for various types of errors, including syntax, cohesion, grammar, and punctuation. A comparative analysis was conducted to determine the frequency and distribution of these errors across the two groups. The results indicate that syntax-related errors are the most prevalent, whereas cohesion-related errors occur the least frequently. Notably, the first group accounted for 77% of the total errors, while the second group contributed 23%, highlighting a significant discrepancy in writing proficiency. The findings suggest that students struggle primarily with sentence structure, grammar, and punctuation, which adversely affect their writing quality. Based on these insights, the study recommends the implementation of targeted remedial programs to address these issues and enhance students' overall writing proficiency, ultimately leading to improved academic performance in English.

Keywords: EFL students, Hierarchical analysis, Prevalent essay writing errors.

DOI: 10.53894/ijirss.v8i2.5094

Funding: This work was supported by the deanship of scientific research, vice presidency for graduate studies and scientific research, King Faisal University, Saudi Arabia (Grant Number: KFU250793).

History: Received: 20 January 2025 / Revised: 19 February 2025 / Accepted: 24 February 2025 / Published: 4 March 2025

Copyright: \bigcirc 2025 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<u>https://creativecommons.org/licenses/by/4.0/</u>).

Competing Interests: The authors declare that they have no competing interests.

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Publisher: Innovative Research Publishing

1. Introduction

Writing in English is essential for EFL students in various aspects of life, including communication, education, business, and culture. Essay writing, in particular, requires not only a strong vocabulary but also a solid grasp of grammar (Qamariah and Wahyuni [1]). Hamer [2] identifies several factors that make EFL writing a crucial area of study, including reinforcement, language development, learning style, speaking, listening, and reading. Proficiency in writing enables students to express

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

their thoughts, ideas, opinions, and information clearly and cohesively. In modern times, the ability to write effectively in English has become increasingly important, as writing is the primary mode of formal learning in books, newspapers, and online articles (Singh, et al. [3]). Strong essay writing skills are essential for academic success, helping students with research papers and exams. When students demonstrate a deep understanding of a topic, construct coherent arguments, and present persuasive ideas, they enhance their academic performance. However, both native and non-native English speakers often struggle with writing due to various challenges. Rass [4] argues that writing is a complex skill requiring students to manage multiple aspects, including content, structure, audience, word choice, spelling, and capitalization. Common difficulties include grammar and spelling errors, as well as a lack of coherence and cohesion. Despite the importance of essay writing for EFL students, many find it to be a significant challenge. In light of these challenges, this study aims to conduct a hierarchical analysis of the most common essay writing errors among Saudi major English students at the English Department, College of Arts, King Faisal University.

2. Literature Review

Writing an essay for major English students is a significant and effective language skill, but it is often overlooked by EFL teachers and students alike. Du [5] thinks that writing is neglected because it is one of the hardest skills for EFL students to learn. He believes that writing is often not given the time and effort it deserves. Of course, there is agreement that English writing is a challenge for both EFL teachers to teach and for EFL students to learn. Ge [6] believes that many non-native English teachers find teaching writing to be a challenging task. This is because it presents challenges as it necessitates not just an understanding of grammar and spelling, but also a grasp of vocabulary and the ability to think creatively. According to Rivers [7], writing in the language becomes more difficult when it involves composing meaningful language chunks. It is undeniable that writing an essay is crucial for EFL university students, as it enables them to articulate their thoughts and perform well in examinations. EFL major students at the university level frequently experience difficulties and challenges, as well as have unfavorable attitudes toward English essay writing tasks and assignments.

2.1. Writing Errors' Sources and Types

Students studying English as a foreign language (EFL) should possess a high level of proficiency in writing in general and in essay writing in particular, as writing is an important productive language skill. The fact is that this skill is essential for the production of written communication and for academic writing, including but not limited to letters, essays, documents, articles, journal articles, project reports, and theses. Fareed, et al. [8] think that writing plays an essential role in the formation of language that is used for the global transmission of information. However, EFL students avoid writing assignments because they are a fraid of making errors and appearing foolish. Scholars have cited multiple causes of the writing errors EFL students usually make. For instance, Stenson [9] believes that students make writing errors because of their inability to fully master the target grammar; the demands of the learning and teaching environment are normal problems. Interlingual and intralingual errors are mentioned by Brown [10] as the main causes of writing errors. Rahmatunisa [11] investigated Indonesian EFL students' struggles to write argumentative essays. His study explored that EFL students face problems with linguistics, cognition, and psychology. Other patterns of difficulty in writing for English language learners (EFL) have been identified. In Ahmed [12], it was reported that Egyptian students experienced difficulties in maintaining coherence and consistency in their essay writing. According to Al-Jaro, et al. [13], "Yemen EFL students attributed the errors and failures in their writing to the traditional ways and methods used by the writing instructors in the teaching of writing at the University of Sanaa." Belkhir and Benyelles [14] reported on the essay writing challenges of EFL learners and sources at the University of Tlemcen. They found that the students struggled with coherence and cohesion in their essays due to a lack of reading, a lack of first language transfer, and poor writing practice.

2.2. Previous Studies

Nenotek, et al. [15] conducted a study to explore the common difficulties in academic essay writing among university students in Indonesia. The study identified significant challenges in areas such as content (e.g., thesis statement development), organization (e.g., logical sequencing), discourse (e.g., cohesion and transitions), and mechanics (e.g., punctuation and citation). The study emphasizes the importance of structured feedback to improve students' writing skills.

In a mixed-methods study, Alfaruqy, et al. [16] aimed to pinpoint errors in essay writing among first-year EFL students. The research revealed that sentence structure was the most common issue (60.41%), followed by grammar (16.88%) and mechanics (13.1%). The researchers recommended customized resources and responses to tackle these issues.

Current issues of writing among Saudi EFL learners were investigated by Alzamil [17]. The researcher highlighted problems such as limited vocabulary, frequent grammar errors, and difficulty in consistency and cohesion. Research has shown that providing targeted comments to students is necessary to overcome these obstacles and can significantly improve your writing skills.

Challenges in writing topic sentences were investigated by Yassin and Hamed [18]. In his study, the researcher identified recurring difficulties Saudi undergraduate students face in crafting argumentative essays. According to the study problems such as imprecision, wordiness, and shaky grammar were found. The researcher highlights the importance of addressing foundational issues in academic writing instruction.

2.3. Significance of the Research

This study aims to contribute to the field of error analysis by examining the most common errors made by Saudi EFL learners and exploring their roots. The findings will offer valuable insights that can inform the development of more effective

instructional materials and teaching strategies. Coursebook designers may benefit from these insights by tailoring content to better address learners' challenges, while educators can use the findings to identify and resolve grammatical and languagerelated difficulties in their instruction. Additionally, this research may provide practical recommendations to help EFL students overcome obstacles in essay writing, ultimately enhancing their overall language proficiency.

2.4. Objectives of the Study

Analyzing the essay errors produced by EFL students is essential, as these errors reflect their language development and learning progress. Therefore, the primary objective of this study is to examine and evaluate the errors made by EFL students in their essay writing. Additionally, the study aims to identify the root causes of the most common errors, with the goal of either effectively addressing these issues or minimizing their occurrence. By achieving these objectives, the study seeks to enhance the learning experience and support students in improving their writing proficiency.

2.5. Research Questions

- The research aimed to address the following questions:
- 1. What types of errors do EFL Saudi students frequently make in their essay writing?
- 2. What are the possible sources of these recurring errors among Saudi EFL students?
- 3. based on the study's findings, what strategies can EFL instructors implement to help reduce or overcome these errors?

3. Methodology

The study methodology includes a detailed explanation of the participants, data collection instruments, and data analysis procedures. To achieve the study's objectives, thirty English essays were written by thirty EFL students during the 2023-2024 academic year at the English Department, College of Arts, King Faisal University, Kingdom of Saudi Arabia.

Cluster analysis is a multivariate statistical technique that classifies data into distinct groups based on similarities and differences. It is divided into two main types:

- 1. Hierarchical Cluster Analysis (HCA)
- 2. Non-Hierarchical Cluster Analysis

In this study, the first type, Hierarchical Cluster Analysis (HCA) was utilized.

Originally developed for biological classification, cluster analysis is widely applied across various disciplines. Classification, in its broadest sense, involves identifying relationships among data points and organizing them in a meaningful and structured manner [19]. Unlike other multivariate statistical analyses, HCA does not consider the physical location of data points but instead relies on correlations between variables [20].

Cluster analysis serves as a data reduction technique, grouping cases, observations, or variables into homogeneous clusters that differ from one another [21]. The characteristics of an effective cluster include:

High homogeneity – Strong similarity among members within the same cluster.
 High heterogeneity – Clear distinction between different clusters [22].

In this study, the Euclidean distance is used as the primary distance metric for cluster analysis. Euclidean distance is a widely applied measure that calculates the straight-line distance between two points in a multidimensional space. For clustering, the following linkage methods are employed:

1. Single Linkage – Measures the minimum distance between points in different clusters.

2. Complete Linkage – Measures the maximum distance between points in different clusters.

3. Average Linkage – Computes the average distance between all points in different clusters.

These methods help determine cluster formation and structure based on similarity patterns among data points. Meanwhile, Ward's method is the squared Euclidean distance. Suppose there are two objects with $\mathbf{x} = (x_1, x_2, ..., x_n)$ and

 $\mathbf{y} = (y_1, y_2, \dots, y_n)$, then the Euclidean distance between the two objects is

$$d(x,y) = \sqrt{\sum_{i=1}^{n} (x_i - y_i)^2} = \sqrt{(x - y)^t (x - y)}$$
(1)

Where:

d(xy): Distance between x object and y object.						
<i>n</i> :	Number of variables.					
<i>x</i> :	Data from the x object on the i variable.					
<i>y</i> :	Data from the y object on the <i>i</i> variable.					

There are 5 methods contained in the Hierarchical Cluster analysis, including the following

3.1. Single Linkage

The distance between two clusters (uv) with w using single linkage is determined by:

$$d(uv.w) = \min\{d(uw).d(vw)\}$$

Where:

d(uv.w): Distance between cluster (uv) and cluster w. min $\{d(uw), d(vw)\}$: Nearest neighbor distance between clusters u and w or between clusters v and w.

3.2. Complete Linkage

The distance between two clusters (uv) with w using complete linkage is determined by: $d(uv.w) = \max \left\{ d(uw).d(vw) \right\}$

(3)

(2)

max $\{d(uw), d(vw)\}$: The longest distance between clusters u and w or between clusters v and w

3.3. Average Linkage

The distance between two clusters (uv) with w using average linkage is determined by:

$$d(uv.w) = average\{d(uw).d(vw)\}$$
(4)

Where:

average $\{d(uw), d(vw)\}$: the average between clusters u and w and clusters v and w or

$$d_{(uv.w)} = \frac{n_u n_{uw} + n_v n_{vw}}{n_u + n_v}$$
(5)

3.4. Ward's

The distance between two clusters (uv) with w using ward's is determined by:

$$d_{(uv.w)} = \frac{\{(n_u + n_w)d_{uw} + (n_v + n_w)d_{vw}\} - n_w d_{uv}}{n_u + n_v + n_w}$$
(6)

Where:

$d_{(uw)}$:	Distance between cluster u and w .
$d_{(vw)}$:	Distance between cluster v and w .
$d_{(uv)}$:	Distance between cluster u and v .
$n_{(uv)}$:	The number of objects in cluster v .
n_w :	The number of objects in cluster w .

3.5. Centroid

In this method, the distance between two clusters is the distance between the two centroid clusters. The centroid is the average position in a cluster, which is derived by averaging all members of a given cluster. The centroid is only calculated when objects are merged, so every time the members increase, the centroid will change [22]. The results of calculations using the formula above will produce clusters that will be visualized through a dendrogram.

Selecting the best method and conducting cluster profiling. The selection of the best cluster method will be based on the ratio of the inter-cluster standard deviation (sw) to the inter-cluster standard deviation (s_b) . The smaller the value of the standard deviation ratio obtained, the better the cluster produced by a cluster method. The formula used is: [23]. $rasio = \frac{s_w}{w}$

(7)

3.6. Data Analysis

sb

The data was analyzed using SPSS program by hierarchical cluster analysis (HCA).

St.	Errors related to	Errors related	Interlingual	Intralingual	Grammar	syntax	vocabulary	spelling	punctuation	Verb form
	coherence	to cohesion	transfer	transfer						and word order
1	6	4	5	4	4	7	5	7	5	6
2	3	5	3	3	3	3	3	3	3	3
3	7	6	8	5	4	6	5	4	6	5
4	4	4	5	6	5	6	5	4	2	3
5	2	3	2	2	2	2	2	2	2	2
6	9	6	9	9	9	9	9	9	9	9
7	5	4	5	5	5	5	5	5	5	5
8	6	4	6	6	6	6	6	6	6	6
9	3	5	3	3	3	3	3	3	3	3
10	4	5	4	4	4	4	4	4	4	4
11	6	4	6	6	6	6	6	6	6	6
12	7	5	7	7	7	7	7	7	7	7
13	2	3	2	2	2	2	2	2	2	2
14	5	4	5	5	5	5	5	5	5	5
15	8	6	8	8	8	8	8	8	8	8
16	4	4	4	4	4	4	4	4	4	4
17	3	4	3	3	3	3	3	3	3	3
18	5	3	5	5	5	5	5	5	5	5
19	2	3	2	2	2	2	2	2	2	2
20	8	6	8	8	8	8	8	8	8	8
21	6	4	6	6	6	6	6	6	6	6
22	4	3	5	6	6	5	3	2	5	4
23	3	2	3	3	3	3	3	3	3	3
24	0	2	0	0	0	0	0	0	0	0
25	3	2	3	3	3	3	3	3	3	3
26	2	4	2	2	2	2	2	2	2	2
27	5	3	5	5	5	5	5	5	5	5
28	6	5	6	6	6	6	6	6	6	6
29	3	5	3	3	3	3	3	3	3	3
30	6	4	6	6	6	6	6	6	6	6

Table 1. Distribution of the types of the common writing errors made by each student.

The Table 1 shows the number of errors for each student in each type of error under study, where the numbers from 1-30 represent the students, and there is student No. 24 who has no errors except in Errors related to cohesion.

Table 2.

Correlations between common writing errors.

		Errors Related to	Errors Related to	Interlingu	Intralingual Transfer	Grammar	Syntax	Vocabulary	Spelling	Punctuation	Verb Form
		Coherence	Cohesion	Transfer	Transier						Order
Errors related to	Pearson Correlation	1	0.675**	0.986**	0.938**	0.931**	0.975**	0.974**	0.950**	0.975**	0.982**
coherence	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Errors related to	Pearson Correlation		1	0.678**	0.602**]	0.580**	0.628**	0.651**	0.614**	0.636**	0.632**
cohesion	Sig. (2-tailed)			.000	.000	0.001	0.000	0.000	0.000	0.000	0.000
Interlingual	Pearson Correlation			1	.955**	0.934**	0.967**	0.954**	0.893**	0.954**	0.946**
transfer	Sig. (2-tailed)				.000	0.000	0.000	0.000	0.000	0.000	0.000
Interlanguage	Pearson Correlation				1	0.993**	0.959**	0.958**	0.888**	0.928**	0.934**
transfer	Sig. (2-tailed)					0.000	0.000	0.000	0.000	0.000	0.000
Grammar	Pearson Correlation					1	0.945**	0.956**	0.901**	0.942**	0.949**
	Sig. (2-tailed)						0.000	0.000	0.000	0.000	0.000
syntax	Pearson Correlation						1	0.966**	0.943**	0.929**	0.959**
	Sig. (2-tailed)							0.000	0.000	0.000	0.000
vocabulary	Pearson Correlation							1	0.974**	0.946**	0.976**
	Sig. (2-tailed)								0.000	0.000	0.000
spelling	Pearson Correlation								1	0.922**	0.974**
	Sig. (2-tailed)									0.000	0.000
punctuation	Pearson Correlation									1	0.985**
	Sig. (2-tailed)										0.000
Verb form and	Pearson Correlation										1
word order	Sig. (2-tailed)										

Note: **. Correlation is significant at the 0.01 level (2-tailed).

From the Table 2:

All correlations between variables are positive and highly significant at a significance level of 0.01, as the significance value is equal to 0.000. This indicates very strong relationships between all variables related to the types of common writin g errors made by students.

Table 3.

Descriptive Statistics.

	Number of errors	Mean	Std. Deviation
Errors related to coherence	137	4.5667	2.12835
Errors related to cohesion	122	4.0667	1.17248
Interlingual transfer	139	4.6333	2.15732
Intralingual transfer	137	4.5667	2.09570
Grammar	135	4.5000	2.08029
syntax	140	4.6667	2.13886
vocabulary	134	4.4667	2.08001
spelling	133	4.4333	2.16051
punctuation	134	4.4667	2.12916
Verb form and word order	134	4.4667	2.09652
Total	1345		

The Table 3 explains that the average common writing errors are very close. The lowest average was errors related to cohesion, equal to 4.0667, with a standard deviation equal to 1.17248, and it had the lowest number of errors, equal to 122 errors. The highest average was syntax, equal to 4.6667, with a standard deviation equal to 2.13886, and it had the highest number of errors, equal to 140 errors. The difference between them reached 0.6.

3.7. Hierarchical Cluster Analysis

The proximity matrix, or the so-called Euclidean distance squared, was used to find the relationship between the students' errors as shown in Table 1. The smaller the distance the closer the units are, and the larger the distance indicates the far between the units.

Table 4.

Stage	Cluster (Combined	Coefficients	Stage Cluster	First Appears	Next
2 mge	Cluster 1	Cluster 2		Cluster 1	Cluster 2	Stage
1	21	30	.000	0	0	5
2	9	29	.000	0	0	11
3	18	27	.000	0	0	14
4	23	25	.000	0	0	17
5	8	21	.000	0	1	10
6	15	20	.000	0	0	18
7	13	19	.000	0	0	9
8	7	14	.000	0	0	14
9	5	13	.000	0	7	13
10	8	11	.000	5	0	12
11	2	9	.000	0	2	15
12	8	28	1.000	10	0	19
13	5	26	1.000	9	0	21
14	7	18	1.000	8	3	20
15	2	17	1.000	11	0	17
16	10	16	1.000	0	0	20
17	2	23	7.750	15	4	21
18	6	15	9.000	0	6	29
19	8	12	9.800	12	0	22
20	7	10	10.500	14	16	23
21	2	5	11.333	17	13	27
22	1	8	16.500	0	19	25
23	4	7	17.167	0	20	24
24	4	22	18.286	23	0	26
25	1	3	22.571	22	0	26
26	1	4	28.969	25	24	28
27	2	24	66.800	21	0	28
28	1	2	96.568	26	27	29
29	1	6	195.543	28	18	0

The Table 4 indicates the steps for grouping students' errors into clusters based on a proximity matrix Table 1. The cluster combined column indicates the presence of pairs of students according to the distance between them, which appears in the coefficients column, where find that students 21 and 30 have a distance of zero in the coefficients column, while in the next stage column, the number 5 shows that one of the two students will appear in step No. 5 (row 5 shows student 21). In the last row, stage 29, there is a pair of students, 1 and 6. Between them, the largest distance in the coefficient's column is 195.543. In the Stage Cluster First Appears column, the number 28 appears. In the Cluster 1 column, this means that the last appearance of student number 1 is in step 28. The number appears as 18 in column cluster 2. This means that the last appearance of student No. 6 was in step 18. The same explanation can be applied to the rest of the steps in the Table 4.



The Figure 1 shows that there were four clusters that brought together different groups of students in the first stage, then three clusters in the second stage, and then two main clusters in the last stage. We also note that students No. 3 and No. 16 they both each fall into a group by themselves.

Cluster Membership)		
Case	Clusters 4	Clusters 3	Clusters 2
1	1	1	1
2	2	2	2
3	3	2	2
4	1	1	1
5	2	2	2
6	1	1	1
7	1	1	1
8	1	1	1
9	2	2	2
10	2	2	2
11	1	1	1
12	1	1	1
13	2	2	2
14	1	1	1
15	1	1	1
16	4	3	1
17	2	2	2
18	1	1	1
19	2	2	2
20	1	1	1
21	1	1	1
22	1	1	1
23	1	1	1
24	2	2	2
25	1	1	1
26	2	2	2
27	1	1	1
28	1	1	1
29	2	2	2
30	1	1	1

Table 5. Cluster membership.

The Table 5 shows that the process of classifying students took place in three stages, and it also shows the members of each group (cluster):

The first cluster (Clusters 4): The students were grouped according to their similar characteristics into four groups, as the third and fourth groups each contained one student. This means that the cluster has no trace and can later be merged into another cluster, and this is what happened in the second clustering process (Clusters 3). Cluster 3, which contains one student (Student No. 3), merged with group 2, and group 4, which contains one student (Student No. 16), merged into group 3. In the process of the third and final cluster (Clusters 2), group 3 merged with group 1 due to the short distance between them, and there are now only two clusters: group 1, which includes 19 members (students), and group 2, which includes 11 members (students).

There is a correspondence between the results of the previous figure and the previous table in terms of student classification.

Table	6.
-------	----

Agglomeration schedule.

Cluster 1			Cluster 2		
Student	Number Of	Percentage	Student	Number of	Percentage
	Errors			Errors	
1	53	5.13%	2	32	10.29%
4	44	4.26%	3	56	18.01%
6	87	8.41%	5	21	6.75%
7	49	4.74%	9	32	10.29%
8	58	5.61%	10	41	13.18%
11	58	5.61%	13	21	6.75%
12	68	6.58%	17	31	9.97%
14	49	4.74%	19	21	6.75%
15	78	7.54%	24	2	0.64%
16	40	3.87%	26	22	7.07%

Cluster 1			Cluster 2		
Student	Number Of	Percentage	Student	Number of	Percentage
	Errors			Errors	
18	48	4.64%	29	32	10.29%
20	78	7.54%	Total	311	100%
21	58	5.61%	Mean	2	28.27
22	43	4.16%			
23	29	2.80%			
25	29	2.80%			
27	48	4.64%			
28	59	5.71%			
30	58	5.61%			
Total	1034	100%			
Mean	5	4.42			

The Table 6 shows that students who belong to the first cluster have higher writing errors than students who belong to the second cluster.

The total number of errors in the first cluster was 1,034, with a mean of 54.42. The total number of errors in the second cluster was 311, with a mean of 28.27. The difference between the two means is 26.15.



Student classification percentage.

The Figure 2 shows the percentage of errors in each group according to classification in the cluster analysis, where the percentage of errors for the first group was 77%, while the percentage of errors in the second group was 23%.





Figure 3 shows student numbers in the form of hanging columns, and the columns between them that do not have a number represent the distance between one student and another, which is also represented by a curve.

The minimum distance between student number 28 and student number 30 is due to the rectangle between them extending to the bottom of the table, or the curve whose height is almost non-existent between them.

The longest distance is between Student No. 2 and Student No. 16, where the gap between them is very short, and the vertex of the curve is high.

4. Findings

- 1. The most common errors among students are syntax errors, while the least common errors are those related to cohesion.
- 2. The analysis showed very strong correlations between all types of common writing errors made by students.
- 3. The students were classified in terms of common errors into two groups, where students in the first group had a higher percentage of errors than those in the second group.
- 4. The percentage of errors for the first group was 77%, while the percentage of errors for the second group was 23%.

5. Recommendations

In light of the researchers' findings, the following recommendations can help language teachers and students overcome or at least minimize some of the most common essay-writing challenges.

- 1. Language teachers should include lessons on using cohesive devices such as transitions and conjunctions for effective essay writing.
- 2. Workshops should be organized to enhance students' understanding of sentence structure, grammar, and proper use of punctuation.
- 3. Peer review sessions where students focus specifically on improving cohesion in each other's writing should be implemented.
- 4. Language teachers should arrange tutoring sessions to address individual weaknesses.
- 5. Remedial programs should be created for the students, focusing on their high-error areas.
- 6. Language teachers should regularly assess and track the writing progress of their students to ensure their improvement.
- 7. Detailed feedback on students' writing should be assigned to develop self-awareness.
- 8. Regular and frequent writing practice should be assigned to help students develop proper writing techniques.

References

- [1] H. Qamariah and S. Wahyuni, "An analysis of students' grammatical errors in writing English text in the second grade students of Smk-Smti Banda Aceh," *Getsempena English Education Journal*, vol. 7, no. 1, pp. 58-71, 2020. https://doi.org/10.46244/geej.v7i1.1041
- [2] J. Hamer, *How to teach English*. UK: Pearson Longman, 1998.
- [3] C. K. S. Singh, A. K. J. Singh, N. Q. A. Razak, and T. Ravinthar, "Grammar errors made by ESL tertiary students in writing," *English Language Teaching*, vol. 10, no. 5, pp. 16-27, 2017. https://doi.org/10.5539/elt.v10n5p16
- [4] R. A. Rass, "Education challenges face Arab students in writing well-developed paragraphs," *English Language Teaching*, vol. 8, no. 10, pp. 49-59, 2015. https://doi.org/10.5539/elt.v8n10p49
- [5] J. Du, Non-native English-speaking engineers' writing at the workplace. Shanghai Jiao Tong University Press; Springer. https://doi.org/10.1007/978-981-15-1983-3, 2020.
- [6] G. Ge, "A strategic approach to teaching English writing," *CELEA Journal*, vol. 28, no. 6, pp. 110-116, 2005.
- [7] W. M. Rivers, *Teaching foreign language skills*. Chicago: The University of Chicago Press, 1981.
- [8] M. Fareed, A. Ashraf, and M. Bilal, "ESL learners' writing skills: Problems, factors and suggestions," *Journal of Education and Social Sciences*, vol. 4, no. 2, pp. 81-92, 2016. https://doi.org/10.20547/jess0421604201
- [9] N. Stenson, *Induced Errors. In J. H. Schumann and N. Stenson (eds.) new frontiers in second language learning*. Massachusetts: Newbury House Publishers, 1994.
- [10] D. H. Brown, *Principles of language learning and teaching*. White Plains, N.Y: Longman, 2000.
- [11] W. Rahmatunisa, "Problems faced by Indonesian EFL learners in writing argumentative essay," *English Review: Journal of English Education*, vol. 3, no. 1, pp. 41-49, 2014. https://doi.org/10.25134/erjee.v3i1.113
- [12] A. H. Ahmed, "Students' problems with cohesion and coherence in EFL essay writing in Egypt: Different perspectives," *Literacy Information and Computer Education Journal*, vol. 1, no. 4, pp. 211-221, 2010. https://doi.org/10.20533/licej.2040.2589.2010.0030
- [13] M. S. Al-Jaro, A. M. Al-Quiadhi, and K. Y. Ramadhan, "The effect of prewriting techniques on Yemeni EFL tertiary learners' writing skills," *Academic Journal of Humanities and Social Sciences Buriram Rajabhat University*, vol. 8, no. Special, pp. 111–126, 2016.
- [14] A. Belkhir and R. Benyelles, "Identifying EFL learners essay writing difficulties and sources: A move towards solution the case of second year EFL learners at Tlemcen University," *International Journal of Learning, Teaching and Educational Research,* vol. 16, no. 6, pp. 80-88, 2017.
- [15] S. A. Nenotek, Z. A. Tlonaen, and H. A. Manubulu, "Exploring university students' difficulties in writing English academic essay," *Al-Ishlah: Jurnal Pendidikan*, vol. 14, no. 1, pp. 909-920, 2022. https://doi.org/10.35445/alishlah.v14i1.1352
- [16] D. Alfaruqy, H. Setyawan, and T. N. Rohman, "Exploring first-year EFL students' problems in essay writing," *ELE Reviews: English Language Education Reviews*, vol. 2, no. 1, pp. 1-12, 2022. https://doi.org/10.22515/elereviews.v2i1.4453
- [17] J. A. Alzamil, "Saudi EFL learners' writing challenges: A study of common issues and feedback effectiveness," *International Journal of English Linguistics*, vol. 10, no. 2, pp. 32-41, 2020. https://doi.org/10.5539/ijel.v10n2p32

- [18] O. Yassin and P. K. Hamed, "Difficulties Saudi undergraduate male students encountered in topic-sentence writing and Bloom's cognitive competencies they relate to: A case study of PMU," *World Journal of English Language*, vol. 13, no. 2, pp. 1–12, 2023. https://doi.org/10.5430/wjel.v13n2p1
- [19] S. Saraçli, N. Doğan, and İ. Doğan, "Comparison of hierarchical cluster analysis methods by cophenetic correlation," *Journal of Inequalities and Applications*, vol. 2013, pp. 1-8, 2013. https://doi.org/10.1186/1029-242X-2013-203
- [20] T. Koutsos and G. Menexes, "The role of spatial autocorrelation in spatially correlated data for hierarchicalcluster analysis," *Data Analysis Notebooks*, vol. 20, no. 1, pp. 109-119, 2024.
- [21] O. Yim and K. T. Ramdeen, "Hierarchical cluster analysis: Comparison of three linkage measures and application to psychological data," *The Quantitative Methods for Psychology*, vol. 11, no. 1, pp. 8-21, 2015. https://doi.org/10.20982/tqmp.11.1.p008
- [22] N. Satyahadewi, S. J. Sinaga, and H. Perdana, "Hierarchical cluster analysis of districts/cities in North Sumatra province based on human development index indicators using pseudo-f," *Barekeng: Journal of Mathematics and Its Applications*, vol. 17 no. 3, pp. 1429–1438, 2023. https://doi.org/10.30598/barekengvol17iss3pp1429-1438
- [23] M. Musa and S. I. Fallo, "Hierarchical cluster analysis on people's welfare in southeast sulawesi province," *Barekeng: Journal of Mathematics and Its Applications*, vol. 17, no. 2, pp. 1163-1172, 2023. https://doi.org/10.30598/barekengvol17iss2pp1163-1172