

**Evaluating Grammer Development Through Longitude
Error Analysis Of English Major Students**

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ABSTRACT**

This paper analyzes the errors generated by 179 English major students registered in the second semester 2005 in Al-Azhar University - Gaza in a grammar test comprising 59 questions covering 13 problematic grammatical categories. The results of the statistical analysis reveal that there is a natural development in the students' control of the grammatical items tested as the students move to the upper levels. However, it has been discovered that there is a gap at the third level, where the grammar teachers should review tenses, articles, and comparatives before they get into the contents of the grammar course. First level students have shown good results on the test due to the efforts they exerted while preparing for the high school general certificate exams. The analysis has also shown statistically significant differences between the performance of males and females in

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favor of the females. The paper suggests some recommendations for the improvement of the students' performance in English grammar.

Review of Related Literature

Error Analysis has been conducted by many researchers to find out the cases and the frequency of these errors. According to Richards et. al. (1996:127), error analysis has been conducted to identify strategies which the learners use in language learning, to track the causes of learners' errors, to obtain information on common difficulties in language learning or on how to prepare teaching material. In the same track, Michaelides (1990:30) concludes in his study that the systematic analysis of students' errors can be of great value to all those concerned, i.e., the teacher, the student, and the researcher. It can offer the teacher a clear and reliable picture of his students' knowledge of the target language. When the students attempt to correct errors, they are encouraged to use their power of reasoning and reformulate new hypotheses in accordance with the facts and nature of the target language. Michaelides (1990:29) found out that the errors generated by his students fall into eight domains according to seriousness and frequency of occurrence: wrong word order, wrong use of tenses, misuse of prepositions, misuse of articles, omission of indirect object pronouns etc. The current study adds a new dimension to the study of errors in that it attempts to investigate the persistence and behavior of errors in the students' performance across 4 class levels of English learning, and between gender. Therefore, it is utterly essential to review the available literature on error analysis conducted to describe the English language performance of Arab EFL learners.

Willcot (1972:73) conducted an error analysis study to discover some of the problems that native speakers of Arabic had with the syntax of written English. Willcot's findings showed that definiteness errors were the most frequent. They were 55% more than verb problems, 75% more than noun problems, etc. In another study, Scott and Tucker (1974:186) examined the errors generated by 22 Arab students enrolled in the first semester of a low-intermediate intensive English course at the American University of Beirut with the purpose of describing the approximative system, and identifying the source and type and frequency of the generated errors. Their results revealed that verbs, prepositions, articles, and relative clauses were the students' most frequent errors. In the area of verbs, for

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example, they calculated 19% of the finite verbs used in the students' writings were erroneous. Auxiliaries and copula were also very frequent errors. Many similar studies were conducted to investigate certain types of errors; Willcot (1978:80) investigated errors Arab students make in the area of definiteness. Abbot (1980:127) investigated the errors generated by Arab students in the area of restrictive relative clauses. The study revealed that 57% of the attempted relative clauses were erroneous. The types of errors committed were: repetition of relative pronoun subject, repetition of relative pronoun object, wrong selection of relative pronouns and using redundant prepositions. Likewise, Kharma (1981:339) examined the errors generated by his Arab students in the use of the English definite articles. Kharma's results revealed that the majority of errors occurred in the use of "the" instead of "no articles" and vice versa. Some of these errors were attributed to Arabic language interference, others to wrong learning strategies or overgeneralization, etc. Many error Analysis studies are conducted after researchers have noticed that the students generate a large number of errors in syntax; El-Sayed (1982:73) revealed that the subjects of his study generated 1140 errors: 640 errors were in verbs and verbals, 159 errors in pronouns, 143 in articles, and the rest were nouns, prepositions, and adjectives.

Likewise, in his discussion of the difference between English and Arabic with regard to the definite articles, Al-Johani (1982:259-260) claims that the shared characteristics between the two languages make the concept of the definite articles and their uses in both languages very easy and should not cause any serious problems. However, this is not true, since there are many differences in how the articles in both languages are coded and used. In this regard, Kharma & Hajjaj (1989:151-152) and Farhat (1994:47) attribute many of the article errors to mother tongue interference.

Abu-Jarad (1983) tested the use of English tenses in the English language performance of 30 Palestinian students and found out that tense shift was a major problem facing the students. Verb formation and copula redundancy were also among the serious errors that needed immediate intervention by the teachers. In another study, Abu-Jarad (1986) analyzed the relative clauses and the verb tense of 32 Palestinian university students. The analysis of the verb phrases in the subjects' interlanguage indicated that the subjects' shift of tense was a result of using English tense morphology to express an aspectual system similar to that of the Palestinian Arabic. The subjects of his study also inappropriately selected the English relative pronouns when they wrote English, or they inserted a resumptive pronoun

whenever the predicate of the sentence was an adjective, noun, or prepositional phrase.

Radwan (1988) examined the types of grammatical and lexical errors in the nominal group. The result of his study showed that the errors made in the use of articles had the highest percentage. This was followed by relative-clause errors, genitive errors, number errors, word class errors, and then other miscellaneous errors. On the other hand, Dessouky (1990:195) found that similar errors occur in all levels of these subjects, but the difference was in the frequency of their occurrence. The hierarchy of errors generated by her students was: spelling, verb tense, and prepositions. Likewise, Farhat (1994:47) found the same types of errors generated by his Sudanese students but with different order and frequency of occurrence: Articles errors constituted 35.9%, tense errors 30.9%, concord errors 24%, pronominal errors 5.1%, copula omission errors 1.5%, adverb positioning errors 1.1% and adjective positioning errors 0.6%.

Belhaaj (1997:120) investigated the errors his students generated in the translation papers. The result of the study showed that the grammatical errors generated by the students were arranged according to their frequency as follows: verb formed tense errors, relative clause, adjective errors, preposition errors, noun errors, article errors, and miscellaneous.

The importance of this research paper is that it describes a cross-level investigation of errors to examine the acquisition of English grammar across the four levels of the Department of English, Al-Azhar University -Gaza. It also aims at pinpointing some English language segments that ought to be of immediate concern to teachers in the department.

Research Questions

The research aims at answering the following questions:

1. Are there any statistically significant differences in the performance of the students in the four levels on the grammar test?
2. Which grammatical category received the highest number of errors?
3. Are there any similarities or differences in the type of errors committed by the students at the four levels?
4. Do students at the four levels reveal similar or different performance on the 13 grammatical categories included in the test?
5. Which errors are the most frequent across the four levels?
6. Were the errors committed by each student level identical with those committed by the students at the other levels?

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Research Hypotheses:

- The performance of the students at the four different levels is different.
- Some errors persist throughout the four levels.
- There are no statistically significant gender differences in the performance of the students at the four levels.
- There is no statistically significant correlation among the various investigated grammatical categories.

Subjects Of The Study:

The population of the study consists of 179 students selected randomly from the four levels of the English Department students. The female students constitute 65% of the subjects of the study, while male students constitute 44%. These figures are selected based on the real size of the students' population in the Department of English. The subjects of this study have a homogenous pre-university and university background. They had almost the same type of education before joining Al-Azhar University – Gaza, where they study 4 English grammar courses; one course a year. To get a complete picture of the grammatical competence of the students, data was collected at the end of the second semester of the academic year 2001.

Distribution Of Subjects

Table (1)
Number and Gender of Students who Participated from Each Level.

LEVEL	SAMPLE	MALE	FEMALE
1 st level	41	12	29
2 nd level	38	17	21
3 rd level	61	33	28
4 th level	39	17	22
Total	179	79	100

Research Tools

A- Preliminary Instrument

The researcher has prepared and conducted several written tasks at the beginning of the first semester of the academic year 2000 with the aim to discover and categorize the most common errors committed by the students of the Department of English, Al-Azhar University – Gaza. Among the most frequent errors detected by the researcher were: articles, adverbs, pronominal reference, comparatives, reported speech, concord, tense shift, modality, past continuous, present perfect, past perfect, wrong tense, and prepositions.

B. The Instrument

To answer the research questions, an achievement test comprising 59 multiple choice questions has been designed and administered by the researcher to test the subjects' ability to understand and use the above-mentioned 13 categories correctly. These categories have been taught to the students in all the grammar courses taught at the Department of English (Grammar I, II, III, and IV). Since the test is an achievement test, it cannot be experimented with any other group of students. Therefore, as a regular test, this tool may include simple items as well as difficult ones. The achievement test has been offered to the subjects at the four levels in a session lasting for 60 minutes, and under the supervision of the researcher and a number of his colleagues. The researcher has gone through the students' answers and assigned number (1) for the correct item and number (0) for the wrong one. The grade of every student was calculated by counting the correct answers.

English Language Test

The achievement test includes the following grammatical items:

1. Articles, (questions 1-5)
2. Adverbs, (questions 6-9)
3. Pronominal reference, (questions 10-15)
4. Comparatives, (questions 16-19)
5. Reported speech, (questions 20-23)
6. Concord, (questions 24-28)
7. Tense shift, (questions 29-32)
8. Future Tense (Modality), (questions 33-36)
9. Past continuous, (questions 37-40)
10. Present perfect, (questions 41-45)
11. Past perfect, (questions 46-49)

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12. Wrong tense, and (questions 50-53)
13. Prepositions. (questions 54-59)

In order to avoid (avoidance errors) that are considered one of the weaknesses of error analysis, according to Schachter (1974:211-212), the researcher has chosen to follow the TOFEL style in testing the students' performance on the 13 grammatical items.

Data Analysis

To test the value and significance of the subjects' performance, the following statistical procedures have been used:

- Descriptive statistics such as frequency percentages, means and standard deviations,
- One-way analysis of variance to measure the differences in the students' performance over 13 grammatical problematic categories, according to class observations made by the researcher and colleagues.
- **t-test** for two independent samples to measure the difference in the means of the subjects' performance in relation to gender.

Discussion Of Findings

To test the differences in the performance of the students at all class levels in the English Department, the researcher has calculated and compared the mean scores of the students' performance on the 13 problematic grammar items.

Table (2)
Mean Score of the Students' Performance on All Grammatical
Items
Tested at All Class Levels

NO.	Grammatical Item	Level 1	Level 2	Level 3	Level 4
1	Articles	2.27	1.79	1.34	1.31
2	Adverbs	1.32	1.84	1.92	2.72
3	Pronominal reference	2.61	2.82	3.03	3.82
4	Comparative	0.78	0.97	1.03	1.33
5	Reported Speech	2.27	1.76	2.19	2.62
6	Concord	2.19	2.00	2.66	2.95
7	Tense Shift	1.71	1.23	2.27	2.23

8	Future Tense	1.88	1.18	2.66	1.46
9	Past continuous	2.15	1.63	2.33	1.97
10	Present Perfect	2.71	1.97	3.18	2.87
11	Past perfect	2.02	1.68	2.64	2.03
12	Wrong Tense	1.95	1.68	2.57	2.31
13	Preposition	1.98	2.00	2.68	2.56

To have a clear view of the students' performance at the four levels, the researcher has compared the mean scores of the students' performance on the multiple choice test prepared for this purpose. Table (2) shows that on the grammatical item (GI) (1), "articles", the first-level students have scored higher than the students in the other three levels. This striking result shows that an additional focus should be given to the use of English articles at the other three levels. The reason that first-level students have scored highly on this item is due to the intensive effort they exerted while prepare for the high school examination (Tawjihi). The other possible explanation is that the grammar course, Grammar 1, focuses on the parts of speech and tenses. This suggests the teachers should review parts of speech and tenses before they go into the details of the next grammar course. The mean scores of GI 2, 3, and 4 show a regular and a natural development in the students' performance level. Level 4 students have demonstrated a better performance level than the other levels.

The mean scores of GI 5 show that level 1 and level 4 students have scored higher grades than level 2 and level 3 students. The majority of the items show that the performance level of level 2 students is quite unsatisfactory; they have scored lower than the other students on 9 grammatical items. This indicates that more focus should be placed on the teaching methodology and material used with level 2 students.

From the mean scores of level 4 students, it can be inferred that more attention should be given to the teaching of articles, comparatives and the tenses because the mean scores of the subjects of this study do not show any improvement in the students' performance on the grammatical categories tested.

To analyze the differences among the students' performance in relation to class level, one-way analysis of variance test was used in order to find any differences among the four class levels surveyed.

Table (3)

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ANOVA Results with LSD (Least Significant Difference) Results

	<u>Sum of squares</u>	<u>d.f.</u>	<u>Mean square</u>	<u>F</u>	<u>Sig.</u>
Between Groups	1836.6	3	612.19	9.66	.000
Within Groups	11085.4	175	63.35		

Table (3) shows that the analysis reveals a statistically significant difference at the significant level $p=0.05$ in the performance of the subjects that is due to the difference in the study level. In order to know the significance of these differences a multiple comparison has been conducted following Sheve test. The results appear in table (4):

Table (4)
Descriptive Data and Differences among Faculties
Based on Scheffe Method

<u>Level</u>		<u>Mean Difference</u>
1	2	3.3
	3	- 4.5 **
	4	- 4.35 *
2	3	- 7.85 *
	4	- 7.65 *
3	4	0.197

* means significant

Table (4) shows that there are statistically significant differences in the students' performance related to study level. There are differences between level 1 and level 3 in favor of level 3. There are also statistically significant differences between level 1 and level 4 in favor of level 4, between level 2 and level 3 in favor of level 3, and between level 2 and level 4 in favor of level 4. There are no statistically significant differences between level 3 and level 4.

To answer the second question of this study: "Which grammatical category received the highest number of errors?"

Table (5)

<u>No.</u>	<u>Grammatical Category</u>	<u>Mean</u>	<u>S.D.</u>	<u>Percent</u>
1.	Articles	1.64	1.32	32.85
2.	Adverbs	1.94	1.24	48.5
3.	Pronominal reference	3.06	1.55	51.7
4.	Comparatives	1.03	0.93	27.50

5.	Reported speech	2.21	1.11	55.25
6.	Concord	2.47	1.18	49.5
7.	Tense shift	1.91	1.16	47.75
8.	Future Tense (Modality)	1.91	1.27	47.75
9.	Past continuous	2.06	1.19	52.5
10	Present perfect	2.75	1.13	55
11	Past perfect	2.16	1.04	54
12	Wrong tense	2.18	1.16	55
13	Prepositions	2.35	1.33	39.2

Table (5) shows that the subjects' best performance was on the fifth category "direct and indirect speech", and the tenth category "present perfect", the thirteenth category "prepositions". The subjects' percentile on these categories was (55.25), (55), and (55) respectively. The weakest performance was on the fourth category "comparatives", the first category "articles". The subjects' percentile on these two categories was (27.5) and (32.85) respectively. The rest of the categories were acceptable, as they fall within the range of good performance.

To answer the third question of this study: "Were the errors committed by males the same as those committed by females?"

Table (6)
T-test for Two Independent Samples

Sex	N	Mean	S.D.	t-value	D.F	Sig
Male	79	25.29	9.29	2.41	177	.017
Female	100	28.97	7.64			

The results of the t-test show that there is a statistically significant difference at $p= 0.05$ related to gender. This significant difference shows that females have a much better performance over the 13 grammatical categories tested. This result contradicts with the second research hypothesis. This result indicates that females are more motivated to learn English than males. This also justifies why they always have a higher grade-level on their GPA than male students do.

It must be noted here that this result is not expected because both male and female students are taught English at equally the same methodology and by using the same textbooks. At the university level, they

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are also taught by the same teacher using the same textbook for all the students in the same major.

Conclusion

The findings of the study show that there is an increasing weakness in the use of articles among level 2, level3, and level4 students. This indicates that the grammar teachers do not review what the students took before in the grammar courses. This result suggests that grammar teachers must put more emphasis on the use of the article system in English and they must preferably compare it with the use of articles in Arabic. Therefore it is advisable that grammar teachers conduct a diagnostic test before they begin teaching the English articles. This test can be applied before grammar teachers attempt to explain any grammatical issue. The study also shows that the students have demonstrated clear weakness in the use of the irregular comparatives which should be given more attention in the future grammar courses. The students have shown gradual-but unsatisfactory-development in the use of adverbs; for the mean scores of the first three levels indicate that more attention should be given to the use of adverbs.

In the area of tense, the students in level 1 and level 2 have made more tense shift and future tense errors than the students in the upper two levels. It is clear from the analysis of the data that errors get less frequent as students move to upper levels. This can be considered as part of the gradual development of the students' English interlanguage towards English language. However, this area must be one of the concerns of the grammar teachers in Al-Azhar University. As for aspect, level 2 students show remarkable weakness which indicates that they are experiencing certain difficulties in the formation of the progressive and the perfective aspects. Grammar teachers who teach level 2 must give more attention to the formation of progressive and the perfect aspect and give more in class written and oral exercises. In the case of tense choice, level 1 and level 2 students have shown significant weakness.

The mean score of the other tested grammatical items show gradual improvement in the performance of the students as they move from one level to the other. The most serious weakness has been found in the performance of level2 students who have scored lower than all other class levels on 9 of the grammatical items tested.

The comparison of the scores has shown significant differences among the students' performance due to class level. This indicates that the

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students' performance improves as they move from one level to another. The exception is related to level 2 students who seem to have a problem that needs to be tackled in a separate study which takes into consideration a number of affective and cognitive variables. In general, the differences in the students' English language performance are always in favor of the above level. It is worth mentioning that the differences between the performance of level3 and level4 students is not statistically significant.

As for the students' best performance on individual categories, the statistical analysis reveals that the students have good command over the use of the reported speech, present perfect, and prepositions. The students' weakest control was over the articles and irregular comparatives. The study also shows that females' performance has been much better than the males' performance on all the grammatical items tested.

Recommendations

Based on the analysis of the students' performance on the grammar test, the researcher has proposed the following recommendations:

- Grammar instructors should conduct a pretest before they begin their grammar course. This will help them identify the grammatical areas that need immediate intervention and detailed explanation.
- More attention should be given to the use of articles in English at the four student levels. Grammar instructors should concentrate on points of similarities between Arabic and English concerning definiteness and indefiniteness because they are easy to master by the students. They should also clarify the difference between countable and uncountable nouns through detailed drills due to their close relation with the use of the indefinite article.
- Grammar exercises should be provided extensively and intensively to level 2 students. Grammar instructors should explain the relevant grammatical issue and provide the students with an adequate number of situational meaningful drills until the students overcome the difficulty.
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- More attention should be given to male students without undermining the attention that is given to female students. Al-Azhar University does not have a co-education program that allows males and females to sit in one class.

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- Error Management should be a collective effort; for frequent errors should be collected by other instructors in the department and reported to grammar instructors should concentrate on points

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