

Investigating the Effect of Genre-Based Pedagogy on English for Specific Purpose Learners' Reading Comprehension

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Abstract: There has been a considerable interest in the genre-based approach to the teaching of language since the mid 1980. Different researchers report the effect of genre instruction on student's comprehension and point to the positive effect of it on the understanding of text structure. Genre is essentially defined in terms of the use of language in conventionalized communicative settings. The present study attempted to scrutinize the effect of genre-based pedagogy on English for specific purpose learners' reading comprehension as well as the interaction between their reading comprehension achievement and their general English proficiency. To examine the corresponding hypotheses, a sample of 150 BA students attending English for specific purpose classes in the field of computer engineering was selected. The rationale behind selecting subjects suitable for this study was to select homogeneous subjects regarding their language proficiency. On the basis of the subjects' scores on a standard GEP test (i.e. a 1961 version of Michigan test), those subjects who scored between 50-100 on the Michigan test were assigned to high proficiency level and those subjects who scored between 0-50 were considered to low proficiency level. Then each level again randomly divided into an experimental group and a control group. The instructional procedures went on six sessions before the post-test was administered. Due to the specific nature of the research questions, a factorial design was considered to be appropriate. Thereby, a two-way ANOVA was selected for the analysis of the results. The investigation reveals that genre-based pedagogy has a significant effect on English for specific purpose learners' reading comprehension and proves the interaction between English for specific purpose learners' reading comprehension achievement and their general English proficiency.

Key words: Genre-based pedagogy · Reading comprehension · English for specific purpose (ESP) · General English proficiency (GEP)

INTRODUCTION

One of the young and developing branches of English language teaching is English for Specific Purposes (ESP). ESP is a kind of English language teaching/learning approach which is designed to meet the student's specific requirements at tertiary level or vocational/occupational institutions. Over recent years, ESP has emerged as a particular subdivision of the general activity of teaching English to speakers of other languages. Strevens [1] defines ESP and states that it devised in order to meet the learners' special needs and related in theme and topics to the learners' designed occupations or areas of study. This area (ESP) as Strevens [2] states, builds on English for general

purposes and is aimed at preparing students for the English used in special contexts. Unlike general English, it focuses on the learners' communicative needs and it may involve a detailed analysis of the language which takes place in a special occupation or activity. On the other hand, unlike GEP, ESP is not thought as an end in itself, but it is as an essential means in order to clarify goals of reading. Philips [3] states that the element that distinguishes ESP from GEP is learner's purpose, a purpose that is not restricted to linguistic competence alone but that involves the mastery of language skills in which language forms an integral part. Thus, ESP differs in selection of skills, topics and languages from GEP. Since the early 80s, applied linguists and language teachers, especially those concerned with the teaching of

ESP, have shown a great deal of interest in genre-based approaches to the analysis of written and spoken discourse. Genres are realized through registers and registers, in turn, are realized through language.

On the other hand in many parts of the world, reading a foreign language is highly important to academic studies, professional success and personal development. The most popular and powerful view of reading in ELT is the psycholinguistic model which Goodman [4] called it 'psycholinguistic guessing game'. This process as Goodman [4] states is the best way of developing information. In this process, the readers sample the text, make hypotheses about the forward parts and make new hypotheses for further reading. Reading in a second language is influenced by factors which are considered different from factors in first language. Grabe [5] divides these factors into four parts: "L₂ acquisition and training, background differences, language processing differences and social context differences" (p.386). Shih [6], Richards and Renandya [7] state that reading for the purpose of acquiring strategies requires thought and practice in a content approach. It seems, when a student tries to think with a content-based strategy, he increases his metacognitive control over reading and studying process, so that later, he can use these strategies in academic content classes.

To provide more insights into the subject matter, in the following sections, first of all, the most important definitions of reading and its different models are discussed; then, the instances of schema, academic reading and ESP with its different types are presented. The next section will deal with different approaches to the analysis of texts including register, discourse analysis and genre analysis.

What is Reading ?: One of the most fundamental skills in second or foreign language learning contexts is reading. Chastain [8] states that reading is a receptive skill in which the reader receives a message from a writer. On the other hand, he states that, it is also considered as a decoding skill in which the reader arrives at the meaning of the message. It is obvious that for many people, reading is an activity which can take place on different forms. Scholars have offered different perspectives which have led to different conceptualizations of reading.

Goodman [4] states that reading is not solely a process of exact identification of letters, words and ultimately sentences leading to comprehension built from letters to words to phrases and to sentences. Falk [9] and Carrell and Eisterhold [10] consider reading as the

interaction that occurs between the reader, the text and the interpretive process. Falk [9] explains this interaction and states that it occurs at least three levels: "visual processing, linguistic processing and content processing" (p.387).

Thus, reading involves the application of elements such as context and purpose along with knowledge of grammar, context, vocabulary, discourse conventions, graphemic knowledge and metacognitive awareness in order to develop an appropriate meaning.

On the other hand readers rely on their prior Knowledge and world experience when trying to comprehend a text. This organized knowledge, that is accessed during reading comprehension, is called schema (plural schemata). Schema theorists have advanced our understanding of reading comprehension by describing how prior knowledge can enhance a reader's interaction with the text. Researchers have emphasized the need for schema activation before reading. Brown [11] states that "new information is fitted into existing schema; if there is no particular fit, low-grade information is lost" (p.192).

Research on the processing of written texts has focused particularly on general knowledge (schemata) and information about typical text structures. Carrell [12] is the first person, who draw a distinction between content and formal schemata. She states that formal schemata refer to background knowledge of the formal rhetorical organizational structures of different types of a text. Background knowledge of the content area of a text is called 'content schemata'. The next type of schema or background knowledge, which a reader brings to a text, is content schema. Carrell [13] states that

"content is a stronger source of elaboration and distortions than form and indeed, inferential statistical analysis confirms this impression" (p.474). Content schemata affect reading comprehension to a greater extent than formal schemata. Thus, when both content and rhetorical forms are factors in ESL reading comprehension, Carrell [13] states that content is generally more important than form.

The Analysis of a Text

Register Analysis: The theoretical base underlying much of the material already produced for EST is the notion of register analysis. The concept of register is a contextual category. This term, at first, was identified as a name given to a variety of language distinguished according to its use. Halliday [14] defines register and states that the forms of language are shaped by key features of the surrounding social context such as field (the activity

going on), tenor (the relationships between participants) and mode (the channel of communication). Carrell [13] states that this contextual category provides a correlation between linguistic features and recurrent situational features. The aim of register analysis is the selection and presentation of these lexical and syntactic features, which occur commonly in passages of English dealing with specialist topic. The motive behind register analysis was to make the ESP course more relevant to the learners' needs. Hutchinson and Waters [15] point to the academic interest in the nature of English prose and emphasize the materials which develop information about language forms and meet learners' needs in science studies.

Within the area of register analysis, the researchers have restricted themselves to quantitative selections and presentations of lexical and syntactic features at sentence level. Richards and Webber [16] define scientific register and distinguish it from other registers because of having a number of words or phrases in a particular way. This term, at first was considered in terms of lexico-grammatical terms, but later, semantic and semiotic terms also were taken into consideration. This kind of analysis has been the subject of many criticisms. Mackay and Mountford [17] state that this kind of analysis failed to satisfy the learner's needs in communicative settings.

On the other hand, both Swales [18] and Widdowson [19] agree on the so-called inadequacies of register and report a new way for language analysis. Swales [18] uses the concept of genre in order to pay attention to the role of contextual factors and emphasizes the role of communicative purposes through a text. Bhatia [20] also gives some comments on disability of register and points out to the role of genre as the essential factor in revealing the social purposes. He states that "analysis of varieties or registers on their own reveals very little about the ways in which social purposes are accomplished" (p.18). All these shortcomings of register analysis, or in Bhatia's [20] term surface-level descriptions, gave rise to a more powerful approach to text analysis, namely genre analysis. But, before going to genre analysis, a sketchy review of discourse analysis approach seems in order.

Discourse Analysis: In the history of linguistics, the analysis of language has undergone two main changes. The first one, that is concerned with the form of language, is the formal approach. This approach focuses on the grammatical aspects of language and it is restricted to the description of linguistic form. The second approach which is in contrast with formal approach and focuses on the analysis of language in use is discourse analysis.

Discourse analysis has stored attracting attention since 1970s and is a reaction to the traditional forms of linguistics (formal, structural linguistics).

In linguistics, discourse analysis has been given different names, such as: text linguistics, text analysis, conversational analysis, rhetorical analysis, functional analysis and clause-relational analysis. If we are to accept the functions of discourse proposed by Brown and Yule [21], we can argue on the point that the purpose of this branch of linguistics is understanding the structure of the language and the function that it serves in the expression of content. Discourse analysis deals with units of language larger than the sentence and pays attention to the concerns of social, cultural, educational questions and formalistic aspects of language.

Discourse analysis provides an appropriate means in order to describe the structures and functions of language within utterances. Thus, it shifts attention from words in isolation to words within a context.

Leech [22] pragmatically defines discourse analysis as "the study of the general conditions of the communicative use of language" (p.10). Along the same line, Horsella and Sinderman [23] identify the organizational patterns in texts and specify the linguistic means in order to determine patterns which would form the syllabus of ESP course.

The basic premise, as for pedagogical implication, is that the difficulties of non-native learners of ESP arise from their inability to understand the rhetorical acts to comprehend the total discourse in paragraphs even when they understand all vocabulary in the text.

Genre Analysis: Since the early 80s, applied linguists and language teachers, especially those concerned with the teaching of ESP and EAP, have shown a great deal of interests in genre-based approaches to the analysis of written and spoken discourse.

Genre is the French term commonly used to indicate that, texts can be categorized into groups which have common characteristics. Traditional definitions of genre focused on textual regularities. Halliday [14] for instance, describes genre as a language event in which the configuration of contextual features come together. Genre analysis, according to this view, is the study of how the contextual parameters, discourse structures and language interrelate. Brown and Yule [21] argue that genre may differ in their formal characteristics such as paragraph structures, thematic sequences, the stereotyped ordering of events in time and the distribution of sentence types. They also indicate that differences in genre affect how individuals interpret discourse.

Genre analysis grows from perceived shortcomings of earlier discourse studies, particularly through their lack of a socio-rhetorical dimension. The main difference between genre analysis and discourse analysis is that genre analysis does not include the spoken form and in contrast with discourse analysis, which describes the relations that are in all texts, it only focuses on individual texts. Genres are realized through registers and registers in turn are realized through language. Swales [18] states that register imposes constraints at the 'linguistic level of vocabulary and syntax'; whereas genre constraints operate at 'the level of discourse structure'. He argues that genre unlike register can be defined in completed text or texts and it clarifies conditions for beginning, continuing and ending a text. Thus, genre represents complete structured texts, whereas registers represent generalizable stylistic modes. On the other hand, if the communicative success exists with text, it requires genre and register.

A number of definitions have been influential in the area of genre analysis, notably those of Martin [24] and Swales [18]. Martin [24: 25] describes genre as "a staged, goal-oriented, purposeful activity in which speakers engage as members of our culture". Swales [25,26], whose research has been seminal in shaping genre theory in ESP, describes genre as 'communicative events' and states:

A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community and thereby constitute the rationale of the genre. The rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived focused on comparable rhetorical action. In addition to purpose, examples of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience [30, 58].

For Swales, genre is exemplified by the 'Research Article Introduction (RAI)', viewed in terms of 'moves', which represents the writers' social purpose and comprising 'steps', which are optional textual elements. Thus, the structure of the RAI is considered to be as follows:

- Move 1. Establishing a territory
- Move 2. Establishing a niche
- Move 3. Occupying the niche

- The elements of move 1 are:
- Step 1: Claiming centrality
- Step 2: Making topic generalization
- Step 3: Reviewing items of previous research where each step may or may not appear in any specific textual instance [30].

Within the last two decades genre has been considered in ESP as a tool for developing L1 and L2 instruction by a number of researchers such as Swales [18,26,27] Hammond [28], Cheng, A. [29, 30] and Bhatia [20].

In the analysis of texts, many ESP scholars have paid particular attention to explaining the formal characteristics of genre, while focusing less on the specialized functions of texts. A number of researchers, for example, have used structural move analysis to describe global organizational patterns in genre such as experimental research articles [18, 27], master of science dissertation (Hopkins and Dudley-Evans, [31], business letters (Bhatia, [20] and university lectures, [32]. Other researchers such as Hanania and Akhtar [33]; Swales [18]; Salager-Meyer [34] have looked at sentence level grammatical features, such as verb tense, hedges and passive voice, in these text types.

It seems, the main aim of the researchers in the application of genre, is to help students gain awareness of the communicative purposes and linguistic features of texts that they read and write in their professions. For example, Swales [18] discusses classroom tasks used in his article in order to develop the ability of EFL students in writing of the genre of request letters to academics. He states that 'Research Articles Introduction' is the best means of representing the writers' social purposes.

Although much research particularly in ESP has discussed how genre can be used as pedagogical tool, little work has actually investigated the impact of genre-based pedagogy in the classroom context. So this study may be considered one of the first attempts made to examine the effect of genre-based pedagogy on ESP learners' reading comprehension.

Therefore, to achieve the purpose of this study the following main questions were proposed:

- *Does genre-based pedagogy have any significant effect on ESAP learners' reading comprehension?*
- *Is there any interaction between ESAP learners' reading comprehension achievement and their general English proficiency?*

Table 1: The Distribution of Subjects' Across Groups and Levels

	LP cont.	HP cont.	LP exp.	HP exp.	Total
N	38	37	44	31	150

Methodology

Subjects: From BA students, who were attending ESP classes in the field of computer engineering at Sharif University of technology in Tehran-Iran and Islamic Azad University in Karaj-Iran, a sample of 150 students on the basis of their GEP and ESP reading comprehension ability were selected. The rationale behind selecting subjects suitable for this study was to select homogeneous subjects regarding their language proficiency. On the basis of the subjects' scores on a Michigan test, they were divided into two proficiency levels: high proficiency level (HPL) and low proficiency level (LPL). Those subjects who scored between 50-100 on the Michigan test were assigned to high proficiency level and those subjects who scored between 0-50 were considered to low proficiency level. Then each level again randomly divided into an experimental group and a control group. Table 1 indicates the distribution of subjects' across groups and levels.

In order to further ensure the homogeneity of the subjects in the above-mentioned control and experimental groups in each level, on the basis of their GEP and ESP reading comprehension ability, a two way ANOVA was performed.

Instrumentation: In order to conduct this study, three sets of tests (i.e. a proficiency test and ESAP pre and post tests) and set of reading comprehension articles were used.

In order to ensure the homogeneity of the groups before the treatment and in order to determine the level of the students in terms of their proficiency, a conventional standard GEP test (i.e. a 1961 version of Michigan test) was administered to all the subjects.

The second test used as pre-test was an ESP reading comprehension achievement test. This test, which was validated against a standardized ESP test (i.e. IELTS) conducted before the treatment of experiment to see whether there is any difference between control and experimental groups of each level on the basis of their reading comprehension ability. The last test was an ESAP post-test based on genre-based reading instruction. This test was based on two computer articles: 'A Software Engineering Curriculum Model' and 'Software Technology for Scientific and Engineering Applications' taken from journals and written by 'Thomas B. Hilburn and Donald J. Bagert'[35] and 'Mark A. Holthouse and

Table 2: Descriptive Statistics for the ESAP Pre-test

	X	SD	V	R	K	N
Pilot study	9.75	5.64	31.84	0.85	30	50

Table 3: Descriptive Statistics for the ESAP Post-test

	X	SD	V	R	K	N
Pilot study	10.38	6.77	45.85	0.82	30	21

Stuart G. Greenberg' [36] respectively, in 1999 and 1978. The criterion for these articles, which were chosen, was their readability grades.

Pilot Study: A pilot study was conducted to estimate the Reliability and Validity of the teacher-made ESAP tests of reading comprehension. For this purpose, 53 male and female students for pre-test and 21 male and female students for post test at Iran university of Science and Technology in Tehran and Islamic Azad university in Yazd were selected. In order to find subjects with similar characteristics, as those of the testees in the main study, a Michigan test was administered to the test takers.

After scoring the test papers, we went through the conventional item analysis procedures to refine the items of inadequate discrimination indices and item facility levels. Then, to estimate the reliability of the tests, the KR-21 formula was applied. In order to validate the mentioned tests, they were validated against a standardized ESP test i.e. IELTS which was given also to the mentioned subjects. The correlation coefficient between IELTS test and teacher-made tests were 0.82 for ESAP pre-test and 0.89 for ESAP post-test. This showed that the tests enjoyed acceptable validity and reliability levels. The following tables (Table 2 and 3) illustrate the descriptive statistics for the teacher-made ESAP pre and post tests in the pilot study.

Procedures: To accomplish the purpose of this study, the following procedures were followed.

In the main phase of the study, the first test to be administered was the standard Michigan test which was taken by all the 150 subjects. Because the rationale for administering the Michigan test was to select the subjects with necessarily the same proficiency level, 150 students were chosen from among the mentioned subjects. On the basis of the subjects' performances as measured by the Michigan test, they were divided into two proficiency levels; namely, high and low.

Then, the subjects of each level were randomly assigned to an experimental and a control group. The descriptive statistics for the Michigan test will be introduced in the next session.

Then, in order to determine the homogeneity of subjects in each group on the basis of their reading comprehension ability, an ESAP reading comprehension test was employed. The instructional procedures went on for six sessions before the post-test was administered. It should be mentioned that there were two teachers who instructed with the same instructional procedures to the mentioned groups. It means that each teacher had a control and an experimental group. Subjects of the experimental groups in each level were supplied by the mentioned research articles. These articles, which were prepared in the complete form, were taught on the basis of genre-based pedagogy. They were practiced by the teachers for six sessions and covered by them one by one. First, the teachers activated students' background knowledge about the main idea of the articles, then, by clarifying the main idea of the articles and by identifying their different sections (i.e. Abstract, Introduction-Background, Method, Result and Discussion) they helped students to get the conceptual knowledge of the texts. Having introduced these articles without any distortions or manipulations, at the end of each article, the teachers again referred back to the moves and then discussed about the whole idea of the article.

For the control groups, the instructional procedures were different. For these groups, the usual method of reading instruction used in universities was practiced. To this end, the mentioned articles were presented without highlighting the hierarchical and generic structure of the text. These articles were introduced in separate independent sections. Each of them divided into three parts (see Appendix B.2). Then, in each session each part was introduced to the students without any special background about the previous or forward moves. These activities were followed by teaching the meaning of words, explaining the structural points where needed and translating different parts without any attempting to establish coherence between different parts of the articles.

Design: Due to the specific nature of the research questions, a factorial design was considered to be appropriate. Thereby, a two-way ANOVA was selected for the analysis of the results. The two independent variables were: a) proficiency with two levels; high and low and b) availability of schematic knowledge regarding genre-based pedagogy with two levels: with genre-based pedagogy and without genre-based pedagogy. The dependent variable was the reading comprehension scores. The schematic representation of this study is as follows:

Data Analysis: In order to test the hypotheses and null-hypotheses of this study, some statistical analyses were conducted. The data analysis procedures included the following steps: first the basic descriptive statistics; i.e., the mean, standard deviation, minimum and maximum scores, were calculated. Also, the correlation coefficient of teacher made test with IELTS test was determined. Then, the inferential statistics, two-way ANOVA, was run by the researcher, using SPSS/PC computer program.

RESULTS AND DISCUSSION

Initially, the main assumptions which were developed about the homogeneity of two the experimental and control groups prior to treatment in the two levels were:

- There is no significant difference between the mean scores of the high proficiency groups (both experimental and control).
- There is no significant difference between the mean scores of the low proficiency groups (both experimental and control).
- There is a significant difference between the high and the low proficiency groups' mean scores (both experimental and control).

Table 4: Schematic Representation of the Study

	Control	Experimental
High	Treatment without considering genre-based pedagogy	Treatment according genre-based pedagogy
Low	Treatment without considering genre-based pedagogy	Treatment according genre-based Pedagogy

Table 5: Descriptive Statistics for Michigan Test

Proficiency	Groups	Mean	S	V	N	Minimum	Maximum
Advanced	Exp.	62.54	7.37	54.31	31	50.00	73.00
	Cont.	63.56	11.76	138.29	37	50.00	94.00
Low	Exp.	33.00	7.56	57.15	44	19.00	47.00
	Cont.	35.10	7.51	56.4	38	22.00	45.00

Table 6: Two-way ANOVA, Proficiency by Groups

Source of variation	Sum of squares	D.F	Mean squares	F Observed	F Critical
Proficiency	31054.74	1	31054.74	425.87	3.92
Groups	97	1	97	1.33	3.92
Proficiency × groups	10.88	1	10.88	0.14	3.92
Within	10646.33	146	72.92		
Total	42292.14	149	283.84		

Table 7: The Post-hoc Scheffe's Tests for Michigan Test

Comparison	Observed Difference	Critical Difference	Significant
Adv. Cont. VS Low Exp.	32.2	5.38	*
Adv. Cont. VS Low Cont.	30.25	5.56	*
Adv. Exp. VS Low Exp.	29.96	5.65	*
Adv. Exp. VS Low Cont.	28.01	5.83	*

* Denotes significant difference at .05.

Table 8: Two-way ANOVA for the ESAP Pre-test

Source of Variation	Sum of squares	D.F	Mean squares	F observed	P	F critical
Group	2.660	1	2.660	.180	.660	3.92
Proficiency	3458.520	1	3458.520	242.900	.000	3.92
Proficiency × Group	.027	1	.027	.002	.960	3.92
Residual	2078.780	146	14.230			
Total	5546.960	149	37.220			

Then, in order to give a general picture of the proficiency test, the descriptive statistics were employed. Table 5 displays this general picture.

To check the above assumptions, a two-way ANOVA was run (Table 6). The F observed value for the effect of the proficiency level is 425.87, which at 1 and 146 degrees of freedom is much greater than the critical value of F, i.e. 3.92. Thus, it can be concluded that there is a significant difference between the mean scores of the high and low proficiency groups.

The F observed value for the effect of the grouping variable is 1.33 which at 1 and 146 degrees of freedom is much lower than the critical value, i.e. 3.92. It can be concluded that there is no significant difference between the mean scores of the experimental and control groups before treatment. The F observed value for the interaction between proficiency and grouping variable is 0.14 which at 1 and 146 degrees of freedom is lower than the critical value of F i.e. 3.92, leading to the conclusion that there is no interaction between the two variables.

In order to discover how the levels of one independent variable influence performance on the dependent variable, in addition to ANOVA a Scheffe's test is also needed. In this study, the results of the post-

hoc Scheffe's tests indicate that all of the above mentioned assumptions are met. (Table 7)

In order to determine the homogeneity of subjects in each group on the basis of their reading comprehension ability, a two-way ANOVA was run. (Table 8) The F observed value for the effect of the grouping variable, is. 18, which at 1 and 146 degrees of freedom is much lower than the critical value of F, i.e. 3.92. It can be concluded that there is no significant difference between the experimental and control groups of each level before the treatment.

The F observed value for the effect of the proficiency level is 242.9. This amount of F at 1 and 146 degrees of freedom is much greater than the critical value of F, i.e. 3.92 at .05 level of significant, leading to the conclusion that there is a significant difference between high and low proficiency levels. The mean scores for the high and low proficiency levels were 18.84 and 9.18, respectively. The F observed value for the interaction between proficiency level and grouping variable is. 002, which at 1 and 146 degrees of freedom is lower than the critical value of F, i.e. 3.92. It can be concluded that there is no interaction between proficiency level and grouping variable before the treatment.

Table 9: Descriptive Statistics for the ESAP Pre and Post Tests

Tests	Groups		Mean	SD	V	Maximum	Minimum	N
Pre-test	High	Exp.	18.920	4.963	24.630	9.00	24.00	31
		Cont.	18.720	4.634	21.480	9.00	24.00	37
	Low	Exp.	9.310	2.690	7.240	5.00	15.00	44
		Cont.	9.020	2.620	6.890	3.00	17.00	38
Post-tests	High	Exp.	23.580	4.551	20.710	14.00	30.00	31
		Cont.	15.130	2.083	4.342	4.00	15.00	37
	Low	Exp.	13.750	3.335	11.120	7.00	20.00	44
		Cont.	5.078	2.398	5.750	000.00	11.00	38

Table 10: Two-way ANOVA for the Post-test

Source of Variation	Sum of squares	D.F	Mean squares	F observed	P	F critical
Group	4372.01	1	4372.01	434.55	.000	3.92
Proficiency	2026.44	1	2026.44	201.41	.000	3.92
Group by Proficiency	210.43	1	210.43	20.91	.000	3.92
Residual	1468.88	146	10.06			
Total	7637.89	149	51.26			

Table 11: The Post-hoc Scheffes' Tests

Comparisons	Observed Difference	Critical Difference	Significance
Adv.Exp.post-Low cont.post	18.50	2.16	*
Adv.Exp.post-Adv.cont.post	13.44	2.18	*
Adv.Exp.post-low Exp. Post	9.86	2.10	*
Low.Exp.post-low cont.post	8.67	1.98	*
Low.Exp.post-Adv cont.post	3.61	1.99	*
Adv.cont. post-low cont. post	5.06	2.06	*

* Denotes Significant differences at .05

Table 12: The Exact Calculation of the Post-hoc Scheffe's Tests

\bar{X}_1	\bar{X}_2	N ₁	N ₂	Observed Difference	Critical Difference	Significance
23.58	5.08	31	38	18.51	2.16	*
23.58	10.14	31	37	13.44	2.18	*
23.58	13.75	31	44	9.86	2.10	*
13.75	5.08	44	38	8.67	1.98	*
13.75	10.14	44	37	3.61	1.99	*
10.14	5.08	37	38	5.06	2.06	*

* Denotes significant differences at .05

Regarding the distribution of raw scores in each group, it was for the researcher to determine the descriptive statistics for the ESAP pre and post tests (Table 9).

Then, in order to examine the first hypothesis, i.e. the effect of genre-based pedagogy on ESAP learners' reading comprehension again a two way ANOVA was run (Table 10). The F observed value for the effect of the grouping variable, is 434.55. This amount of F at 1 and 146 degrees of freedom is greater than the critical value of F, i.e. 3.92. This indicates that the experimental groups performed better than the control groups on the post-test and consequently, the first null-hypothesis was rejected.

The F observed value for the effect of the proficiency level is 201.41.

This amount of F at 1 and 146 degrees of freedom is greater than the critical value of F, i.e. 3.92 at

.05 level of significance. This finding indicates that the proficiency level has a significant impact on subjects' performance on post-test. Thus, the second null-hypothesis which states that there is no interaction between ESAP learners' reading comprehension achievement and their general English proficiency was rejected.

And, at last, the F observed value for the interaction between the proficiency level and the grouping variable is significant at .05 levels. The F observed value, 20.91 exceed the critical value, 3.92 at 1 and 146 degrees of freedom. This finding indicates that there is an interaction between the two variables before the treatment.

The significant one-way and two-way F values necessitate the application of the post-hoc Scheffes' tests to probe the exact location of differences between the means (Table 11).

By rejecting both of the mentioned null-hypotheses, it seems clarifying the purpose of the reading is the essential factor in developing second or foreign language contexts. As mentioned in the previous parts, EFL students can highly benefit from overall organization and discourse structure of the reading in order to develop the communicative ideas or events through a text. Researchers show that identifying the organization of a text is the best way in influencing the comprehension of the text. Cook [37] points to the schema knowledge and states that the key words or phrases during a text are the main aids in activating the schemata knowledge. Likewise, Christen and Murphy (38) point to the value of providing activities or strategies in activating prior knowledge and report three possibilities for it. They state that this activity can build readers' background knowledge and activate them in order to increase learners' attention before reading and, at last, guides them during reading and provides review after reading. In order to carry out the organizational texts and to help in organizing students' mind, research article as Holmes [40] states is the best device for activating readers' background knowledge in order to recreate their intending meaning. Holmes [39] states that 'Research Article' consists of a standard pattern of organization such as " Introduction-Background, Method, Result and Discussion with a number including Hypotheses sections between the Background and the Method sections" (pp.327-8). In other words, while experimental groups of each level in this study supposed to receive research articles with the organizational moves, they performed better than control groups of each level, who received the same articles in a distorted form. In studies of ESL reading development, Hewings and Henderson [40] and Hyon [41] report the effect of genre instruction on students' comprehension and state that it has a positive effect on the understanding of text structure and reading comprehension.

With respect to the second research question, whether there is any interaction between ESAP learners' reading comprehension and their general English proficiency, it was observed that the related null hypothesis also was rejected and it again emphasized increasing the reading ability of ESAP students' through appropriate methods (in this study genre-based approach). Hammond [29] points to genre-based instruction and states that "it involves classroom discussion of text structure of how to best begin and end a text, of what to put in the middles and of how best to organize information" (p.173). To sum up, reading is a process that involves the application of elements such as

context and purpose along with knowledge of grammar, context, vocabulary, discourse conventions, graphemic knowledge and metacognitive awareness in order to develop an appropriate meaning

CONCLUSION AND IMPLICATION

This study intended to investigate the effect of genre-based pedagogy on ESP learners' reading comprehension. The finding of this research paved the way for acceptance of the belief that giving background knowledge of a text through introducing the generic structure of a research article has a significant impact on ESP learners' reading comprehension in a foreign or second language. Most writers conclude that we really know little about the reading process and perhaps less about what should be done in foreign or second language study to facilitate it. In order to develop this process this study served implications for ESP course-designers, textbook writer, teachers and students.

To overcome the ESP teachers also by asserting the main points of the text and giving directionality to the learners' perception and ideas by introducing different moves of articles before instruction can lead, to a great extend, to success in their reading comprehension.

And at last ESP learners should know how to get the general idea of a text by attending to its different moves in order to reach to the communicative purposes during a text.

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