



**PRODUCT-BASED, PROCESS-BASED, AND
GENRE-BASED INSTRUCTIONS IN EXPOSITORY WRITING:
FOCUSING ON EFL LEARNERS' PERFORMANCE
AND STRATEGY USE**

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Abstract:

This explanatory sequential mixed methods study compared the effects of three different approaches to writing (product, process, genre) in the quantitative phase. In the qualitative phase, it focused on the type and frequency of strategies employed by learners in each group by employing think-aloud protocols. Three intact groups ($n_1=25$, $n_2=23$, $n_3=24$) who were selected based on convenience sampling took part in the study. The participants had taken an essay writing course in the fifth semester of their study in English Translation. First, the participants took a Nelson English language proficiency test and then sat for a writing pretest. Content Scoring Guide (Ashwell, 2000) was the rating scale for scoring the essays. The inter-rater reliability between the two raters ($r=0.75$) showed that they were consistent in their scoring. After verifying the homogeneity of the groups regarding language proficiency and writing ability, the researchers assigned them randomly to three types of writing instruction; namely product-based, process-based, and genre-based groups. The treatment took 12 sessions, and distinct techniques related to each writing approach were employed in the classes. After the treatment, the participants took a writing posttest. The two raters scored the essays (inter-rater reliability=0.79). The results of the one-way ANOVA revealed a statistically significant difference between the groups. Scheffe post hoc test showed that the genre-based group outperformed the other two groups. However, no significant differences were found between the product-based and process-based groups. In the

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second phase of the study, 12 participants (four individuals from each group) participated in the think-aloud sessions to clarify the type of strategy they used while writing. Mu's (2005) taxonomy of ESL writing strategies was employed as the criterion for classifying the strategies. The study has implications for language teachers and educators who are seeking the best way to teach writing. Syllabus designers can also benefit from the findings when developing materials for writing classes.

Keywords: expository writing, genre-based approach, process-based approach, product-based approach

1. Introduction

The writing skill has been studied from various perspectives, and the three approaches to teaching writing; that is, product-based, process-based, and genre-based have been the source of a considerable number of studies. For example, Nunan (1991) and Ruiz-Funes (2001) have explored the impacts of the product-based approach while Cavkaytar, (2010) and Murray (1993) have examined the effects of the process-based approach on the overall writing performance of learners and specific features of writing. Also, Luo and Huang (2015) have investigated genre analysis to illustrate the patterns, structures, and moves in a particular genre while Ahn (2012), Elashri and Ibrahim (2013), and Reppen (2002) have focused on the relationship between a specific genre and writing pedagogy. However, it seems that only a little attention has been paid to the comparative impacts of the three approaches on learners' expository writing performance.

The origin of product-based approach emanates from the conditional reflex of Pavlov's behaviorism (Ting, 2010) that proposed the idea of stimulus and response as the primary source of learning. In the product approach, learners begin with a pre-writing, continue with writing, and finish with revising their composition (Tangpermpoon, 2008). Kroll (1990) points to four steps in the product-approach consisting of "*presentation of rules for writing, demonstration of a text for discussion, analysis, having learners write based on the text, and correction of the learners' paper*" (p. 130). Writing courses which follow the product approach are teacher-centered with little interaction among the learners (Mourssi, 2006). This approach views writing as a product which is learned through imitation, copying, and modifying the given models, and needs to be assessed by teachers' explicit feedback. Accuracy in employing lexicon, grammar, and transitional words are among the features which the approach emphasizes. In a product-based writing class, the instructor provides a topic, and the students write their ideas individually, give their writings to the teacher who assesses them by giving general comments. Therefore, almost no interaction takes place, or no sufficient feedback is provided (Mourssi, 2013). As Haiyan and Rilong (2016) mention, one criticism against product-based writing instruction is that it considers writing as the final result.

Process approach, however, emerged out of the communicative theory focusing on thinking and creating ideas, writing, and revising, which are the result of student-centered classes (Rashtchi & Ghandi, 2011). Theoreticians of process approach focused on writers rather than their products (e.g., Sommers, 1980; Zamel, 1982). The approach was not interested in imitating models but aimed to promote the creativity of writers and the development of proper and sufficient writing practices (Tribble, 1996). Writing in the process-based approach is not considered as a linear and straightforward activity which is composed of independent steps; but is regarded as a set of interactive processes (Alodwan & Ibnian, 2014). Schmitt (2002) believes that the approach has redefined writing as a recursive, explanatory, and generative process. As such, a comprehensive process-writing practice, as White and Arndt (1991) suggest, can involve several stages consisting of “*discussion (class, small, group, pair), brainstorming and notetaking, asking questions, fast writing, selecting ideas, establishing viewpoints, drafting, and self-evaluation*” (p. 7).

The term ‘genre,’ according to Paltridge (2014) and Swales (2001), was proposed in the 1980s, first in L2 and then in English for Specific Purposes (ESP). According to Hyland (2003), genre theory aims to explore how individuals use language to “*orient to and interpret particular communicative situations*” and how to use this knowledge for “*literacy education*” (p. 22). From a genre-based view, people-in the real world-write to accomplish purposes; they write in different contexts and use different styles rather than one universal one (Badger & White, 2000). Genre-based pedagogy has been practiced most successfully in Australia with primary, secondary, and immigrant language learners as well as academic writing (Swales, 1990). Horowitz (1986) claims that genre-based writing instruction is a response to process writing since the latter could not fulfill the needs for writing in academic contexts. Hyland (2003) also believes that after 30 years of pedagogical orthodoxy, the focus of L2 writing, influenced by process theories, has shifted from formal views of writing to a genre-based approach. Later, in 2007, Hyland introduced more practical ways for teachers to plan, sequence, support, and assess learning in genre-based pedagogy. The approach uses a teaching-learning cycle and encourages strategies such as modeling texts and joint and independent construction (Firkins, Forey, & Sengupta, 2007).

Through a brief overview, it becomes evident that in most cases, Vygotsky’s collaborative learning and Bruner’s scaffolding views are the backbones of the classroom tasks adopted by genre-based approaches (Hyland, 2007). Since actual classroom pedagogy and the arrangement of instructions are significant preoccupations for the second language writing instructors (Byrnes & Manchón, 2014), the cycle suggested by Feez (1998) is the framework for designing lesson plans in a genre-based writing class. In the course of this cycle, learners progressively take more charge of their writing while gaining a better self-assurance through the stages. The cycle allows the repetition of any stage whenever needed for improving a student’s complete independence in writing (Devitt, 2004).

The purpose of the present study was to compare the effects of product-based, process-based, and genre-based instructions on expository writing of EFL learners. The

researchers were interested in exploring strategic processes learners went through in each of the approaches. The study is significant since previous studies have not compared the effects of the three approaches on L2 learners' expository writing in one single study. Additionally, the writing strategies used by L2 learners in each approach have not been compared previously. The researchers believe that the comparison can give insight into the most useful approach in the writing classes, and can assist teachers in preparing efficient lesson plans and employing efficient strategies.

2. Literature Review

2.1 Product-based L2 Writing Instruction

A product-based writing class is a traditional one where standard model texts are used to guide students to write similar texts. In this type of instruction, learners follow a model or sample to compose a new product (Hasan & Akhand, 2010). According to Tangpermpoon (2008), this approach seems beneficial for students for learning the rhetorical patterns, using appropriate vocabulary and grammar, and developing an awareness of the writing structures. The majority of the literature related to product-based writing has examined the difference between the effects of employing the product approach with other approaches. For example, Safari and Bagheri (2017) investigated the writing performance of second language learners on the strategies they employed in IELTS writing and found the supremacy of the process over the product strategy. Ruiz-Funes (2001) studied the participants' written products and found no significant correlation between the quality of the participants' writing products and the difficulty level of the task in the second language. Based on a review of a comparison between the product-focused and the process-focused approaches in writing, Haiyan and Rilong (2016) found that learners not only showed great interest in reading materials, but also employed in their writing what they had learned during reading specifically regarding the choice of vocabulary, coherence, and tense of verbs. Also, Pasand and Haghi (2013) used a process-product approach and concluded that completing an incomplete model instead of copying it improves learners' writing ability.

2.2 Process-based L2 Writing Instruction

The process approach applies different tasks and skills such as planning, collaborative discussion, and drafting, and pays less attention to learners' knowledge of grammar (Badger & White, 2000). The approach emphasizes the process that writers go through from the beginning to the end of the written product. The learners have the opportunity to learn in stages and experience a variety of techniques and strategies while using their teachers' or peers' assistance. For example, in their study, Rashtchi and Beiki (2015) showed that learners were more successful in writing classes when peers rather than teachers, implemented brainstorming activities. One reason for such finding was the gradual involvement of the participants in the writing activity attributed to the process-based approach.

Many process-based studies have focused on the use of metacognitive skills. For example, implementing the approach and focusing on metacognitive skills, Bengisu and Seyit (2016) found that teaching such skills could result in significant progress of the learners' narrative writing. Also, Lam (2015) examined the impact of explicit teaching in process-oriented pedagogy on learners' writing, metacognitive information, and self-regulation. He found that the participants' level of self-regulation increased in accomplishing various writing tasks. Mourssi (2013) showed that in process-based writing instruction, teacher's metalinguistic feedback helps learners write more accurately and fluently. Sarhady (2015), Alodwan and Ibnian (2014), and Akinwamide (2012) also, found that the process-based writing instruction was more beneficial than the product-based for improving writing ability.

2.3 Genre-based L2 Writing Instruction

Genre-based writing, as Hyland (2016) argues, is explicit, systematic, needs-based, and involves consciousness-raising tasks. Not only are language, content, and context collaborated in genre-based pedagogy, but also this type of instruction elaborates upon the use of each genre in communication (Leki, Cumming, & Silva, 2008). As such, the structures of the target language for a specific context are explained explicitly, which heightens L2 learners' awareness of the social setting, purpose, and audience of the text (Gebhard & Harman, 2011). Besides, genre pedagogies gradually build the learners' confidence to become independent writers through guidance and support they receive from their teachers and the interaction with peers (Yasuda, 2011).

Many researchers investigated the role of the genre-based approach in writing and found promising results. For example, Hyejeong (2012) measured L2 primary schoolers' writing ability after applying the cycle of genre approach and found that students' awareness of various organizations for different communicative purposes and confidence level had increased. In a fifteen-week writing course, Yasuda (2011) performed a study on Japanese undergraduate students' awareness, linguistic knowledge, and writing competence in an e-mail writing class and found that the participants' final e-mails showed their awareness and understanding of the genre. Han and Hiver (2018) traced processes of motivational change for middle school language learners in a genre-based writing class and observed learners' improvement in self-regulation and self-efficacy.

Some other studies employed a combination of genre approach with one of the approaches (product or process). For example, Zhang (2018) showed that the participants' self-efficacy and self-confidence had improved due to experiencing process-genre academic writing pedagogy. In another study, Karimpour and Karkia (2016) focused on summary writing and realized that the combination of genre and process approaches could enhance learners' rhetorical organization. In a review and through examining previous studies in the ESP genre-based writing classrooms, Cheng (2006) found that being a learner in a second language genre-based classroom has complexities which need attention. Pujianto and Ihrom (2014) manipulated a mixture of process and genre approach and reported the advantage of the combination for L2

students' report writing; however, they found that low-achieving students needed extended modeling and teacher-student conference stages.

2.4 Expository Writing

The purpose of expository writing is to provide information and explanation about a particular subject. Textbooks, essays, and many of the articles published in magazines are expository texts (Richards & Schmidt, 2002) and consist of the sub-divisions of "*type/contrast, classification, illustration, sequence, enumeration or collection, problem-solution, and process description*" (Weaver & Kintsch, 1991, p. 238). Most studies on expository writing are related to different methods and models of instruction (Birjandi & Malmir, 2011; Chandrasegaran, 2013; Olinghouse & Wilson, 2013). Also, several studies have examined various writing features in expository writing. For example, Rashtchi and Mohammadi (2017) employed different types of tasks to teach lexical bundles and examine the effect of instruction on university students' academic writing. Through a three-phase study, they found that cloze tasks could boost EFL learners' academic writing. In another study, Meisuo, (2000) conducted a study on cohesive features employing Halliday and Hasan's (1976) taxonomy of cohesive devices and framework analysis and found that using the devices did not affect the quality of writing. Expository writing has been compared with other types of writing, as well (Hall-Mills & Apel, 2013; Koutsoftas & Gray, 2012; Rahimi, 2011). Rahimi (2011), for example, compared the use of sentence connectors in argumentative and expository writing and concluded that they were significantly more frequent in argumentative than in expository essays.

2.5 Writing Strategies

Second language writing has developed increasingly, and one of the most influential factors in the process and product of writing has been the strategies used by writers. A primary study on ESL writing strategies has been done by Arndt (1987), who proposed eight categories of "*planning, global planning, rehearsing, repeating, rereading questioning, revising, and editing*" to code the strategies that the students applied in their writing (as cited in Mu, 2005, p. 6). Sasaki (2000), in research on Japanese ESL students' writing strategies, introduced eight major categories of "*planning, retrieving, generating ideas, verbalizing, translating, rereading, evaluating, and others.*" However, most researchers divide the writing strategies into cognitive and metacognitive. Cognitive strategies, as argued by Wenden (1991), are "*mental operations or steps used by learners to learn new information and apply it to specific learning tasks*" (as cited in Mu, 2005, p. 6). Cognitive strategies contribute to the employment of metacognitive strategies, which assist learners in regulating their learning. Metacognitive strategies consist of planning, evaluation, and monitoring, and cognitive strategies comprise clarification, retrieval, resourcing, deferral, avoidance, and verification. The present study, as Table 1 shows, utilized the taxonomy of ESL writing strategies introduced by Mu (2005).

Table 1: Taxonomy of ESL Writing Strategies

Writing Strategies	Sub-strategies	Speculation
Rhetorical Strategies	Organization	Beginning/development/ending
	Use of L1	Translate generated idea into ESL
	Formatting/Modelling	Genre consideration
	Comparing	Different rhetorical conventions
Meta-cognitive Strategies	Planning	Finding focus
	Monitoring	Checking and identifying problems
	Evaluating	Reconsidering written text, goals
Cognitive Strategies	Generating ideas	Repeating, lead-in, inferencing, etc.
	Revising	Making changes in plan, written text
	Elaborating	Extending the contents of writing
	Clarification	Disposing of confusions
	Retrieval	Trying out ideas or language
	Rehearsing	Getting information from memory
	Summarizing	Synthesizing what has been read
	Communicative strategies	Avoidance
Reduction		Giving up some difficulties
Sense of readers		Anticipating readers' response
Social/affective strategies	Resourcing	Referring to libraries, dictionaries
	Getting feedback	Getting support from professor, peers
	Assigning goals	Dissolve the load of the task
	Rest/deferral	Reducing anxiety

The objective of the present research was to examine which instructional approach (product-based, process-based, or genre-based) was more useful in enhancing the process description type of expository writing. Thus, the researchers designed an explanatory sequential mixed methods design in which the researcher “*first conducts quantitative research, analyzes the results and then builds on the results to explain them in more detail with qualitative research*” (Creswell (2014, p. 15). The qualitative phase extended the treatment and explored the most frequent strategies that the learners used while they were engaged in each of the approaches. The following research questions portray the quantitative and qualitative phases.

RQ1: Do product-based, process-based, and genre-based writing instructions have different impacts on Iranian EFL learners' expository writing?

RQ2: What strategies do Iranian EFL learners use while they are engaged in genre-based, process-based, and product-based approaches to writing?

3. Method

3.1 Participants

The participants were 72 Iranian senior EFL learners in three intact classes ($n_1=25$, $n_2=23$, $n_3=24$) who were selected based on convenience sampling. They were studying English Language Translation at Islamic Azad University, North Tehran Branch, and had taken an essay writing course in the fifth semester. The male and female participants' age range was between 19 and 25 years. At the onset of the study, the participants took a Nelson English language proficiency test and then sat for a writing pretest. After ensuring that the groups were homogeneous regarding the level of language proficiency and writing ability, the researchers assigned them randomly to three treatment conditions; namely product-based, process-based, and genre-based groups.

3.2 Instruments and Materials

As the first instrument, the researchers used Nelson English Language Proficiency Test (section 300D) to examine whether the participants were at the same level of language proficiency before the advancement of the study. The test had 50 multiple-choice items, including vocabulary, grammar, cloze passage, and pronunciation. The reliability of the test using Cronbach's alpha was 0.82.

The next instrument was a 200-words writing pretest on "*carpooling, recycling, and planting trees are all activities that are good for the environment. Write an essay convincing reader to actively participate in one of these activities.*" The writing posttest, the third instrument, was used to measure the effectiveness of the treatment. The topic of the posttest was "*describe techniques or methods that could help teachers do their job more effectively.*"

Content Scoring Guide proposed by Ashwell (2000) was used to score the essays. It is a 20-point scale analytical assessment scale which measures five aspects of the learners' performance; namely, communicative quality, organization, paragraphing, cohesion, and relevance and adequacy. It also includes five bands defining various levels of the students' command of writing (Appendix A).

Two university instructors took part in scoring the participants' writings in the pretest and posttest. Together with one of the researchers, they studied and discussed Ashwell's scheme before scoring the writings. Afterward, they discussed and scored eleven expository essays written by the participants and scored them according to Ashwell's Content Scoring Guide. Inter-rater reliability indices for the writing pretest and posttest, computed by Pearson's r , were 0.75 and 0.79 respectively. The researchers selected all writing topics from sample 6 scores of model expository writing essays from 501 Writing Prompts (2003).

3.3 Procedure

3.3.1 Quantitative Phase

The three groups were taught by a colleague who is an English language teacher at Islamic Azad University, North Tehran Branch. The treatment took 12 sessions of about 90 minutes. When treatment was over, the participants sat for the writing posttest.

3.3.1.1 Product-based Writing Group

In the product-based group, the teacher taught expository writing according to the steps introduced by Kroll (1990). The instructor started teaching writing by presenting the overall rules for writing and highlighted the features of expository writing and then demonstrated a text sample. In this step, the instructor analyzed the sample text, giving details about the structure, vocabulary, and design of the writing sample. He wrote some rules of writing on the board while the students were taking notes. They were free to ask questions whenever they thought the explanations were not clear enough. Afterward, the learners started to write an expository essay on a selected topic. The learners wrote their essays individually and were not allowed to seek help from their peers or the dictionary. After 30-40 minutes, the teacher collected the students' essays, corrected them, and gave them back the subsequent session. The teacher's corrections included grammatical errors, vocabulary use, mechanics, coherence, cohesion, and the type of written comments were in an imperative form (Rashtchi & Mirshahidi, 2012). There was no cooperation or collaboration between the learners, and the teacher gave feedback on the writings. The members of the group revised their essays after receiving the teacher's feedback. The focus of instruction was on the end product of the students' writings.

3.3.1.2 Process-based Writing Group

In this group, the teacher followed the steps suggested by White and Arndt (1991). Firstly, he provided the class with an expository writing topic. Then he put the students in pairs to discuss the topic for about 10 minutes-what they understood from the topic, the related keywords, the scope of the writing, and the like. Next, the learners shared their ideas in small groups that were set by the teacher to brainstorm, write notes, and ask questions about the given topic. The students practiced fast writing collaboratively, and then wrote rough drafts in groups in 20 minutes and had another 20 minutes to read the other groups' compositions and negotiate about the essays written by other groups. As the next step, they self-evaluated, edited, and revised their drafts. Before writing the final drafts individually, which took 20-30 minutes, in 10-minute teamwork; they self-evaluated and edited the draft they had written collaboratively. The instructor collected the final drafts and gave feedback on them. The teacher intervened in the classroom process whenever necessary to guide, correct, and answers questions.

3.3.1.3 Genre-based Writing Group

The genre-based group practiced expository writing according to the stages introduced by Feez (1998). The teacher made provisions for genre-based instruction on expository

writing to be given through active teacher-led intervention and assistance. This assistance was removed as learners became familiar with the instructional techniques as well as with the various aspects of the genre of expository writing. As the first step, the teacher built the context in about 15 minutes, generally describing the genre of expository writing. Then he presented two or three models to the class, grouped the students, and the learners deconstructed the sample text in groups with the step-by-step guidance of the teacher. The participants had to extract the type of vocabulary and grammar and rhetorical patterns used in the text. Then each group discussed their knowledge of the sample text with the entire class and received peer and teacher feedback. This stage involved discussing and analyzing expository texts, their particular purposes and structure, and their unique language features. The teacher tried to raise the learners' consciousness and help them in discussing the features of the text and analyzing it. This stage aimed to develop a metalanguage awareness regarding the genre of expository writing. In the second stage, participants experienced scaffolded instruction and did a joint construction of a text. The learners practiced essay writing through the joint efforts; that is, they prepared drafts in groups of three or four under the supervision of the teacher. Then they composed an essay together on a topic. Afterward, they evaluated the other groups' essays. During the classroom procedure, the teacher mainly assisted the learners in their choice of structure, vocabulary content, and organization. Next, the learners had 20 minutes to construct another writing in their groups, and after evaluation and peer feedback, they handed in their second drafts to the teacher. The teacher read the essays to the class and commented on their strengths and weaknesses. The comments addressed the genre of expository writing and related features, patterns, and structures.

3.3.2 Qualitative Phase

In the qualitative phase, the researchers employed think-aloud protocols for data collection. Bowles (2010) believes that it is not informative enough to solely count on the final production of the learners to understand the actual processes going on in their minds. Therefore, researchers benefit from other alternative measures like verbal reports to extract the mental processes of language learners. Verbal reports can be elicited in two different ways; either when the learner is completing a task (concurrent) or when the s/h had completed the task (retrospective).

In the present study, data were collected in three sessions and lasted about 30–45 minutes. Twelve participants, four of each group who had the highest scores in the posttest were selected to participate in the think-aloud procedure. Every session, the participants were provided with explanations on think-aloud procedures, before the verbalization of their thoughts. The researchers used both concurrent and retrospective reports and asked two learners from each group to participate in any of the data elicitation types. The three topics for writing essays during the think-aloud procedure were *“describe the perfect menu for a picnic at the beach, Explain how different modern life would be without computers, and Describe a major environmental problem and what you believe should be done about it”* with a minimum word limit of 150 words. The participants could

express their thoughts either in Persian or English. The think-aloud data was tape-recorded while the participants were engaged in writing. During the concurrent verbal reports, the teacher only intervened when the participants became silent. Under such condition, the teacher reminded the participants to continue verbalizing what they were thinking about while they were doing the task. The researchers transcribed the think-aloud audio files. Then they extracted the processes the participants had gone through while writing each essay.

4. Results and Discussion

4.1 Quantitative Analysis

As stated above, a Nelson general proficiency test ensured the researchers about the participants' homogeneity. Table 2 shows descriptive statistics. The results of the skewness (obtained from dividing statistic by standard error) signifies the normality of the distribution of the scores in each of the groups (Product-based group=0.15, Process-based group=0.411, Genre-based group=0.027; all three ratios falling within ± 1.96).

Table 2: Descriptive Statistics of the Nelson Test

	N	Min.	Max.	Mean	SD	Skewness	
						Statistic	Std. Error
Product-based	25	37.00	43.00	40.1200	1.56312	-.073	.464
Process-based	23	37.00	43.00	39.6522	1.61270	.198	.481
Genre-based	24	38.00	42.00	40.0833	1.21285	-.013	.472

The result of the Leven test showed that the variances of the three groups were homogenous [$F(2, 69) = 0.967, p = 0.385$], and one-way analysis of variance (ANOVA) could be run. As shown in Table 3, there was no statistically significant difference between the groups [$F(2, 69) = 0.734, p = 0.484$] regarding the level of English proficiency before the treatment.

Table 3: One-way ANOVA of the Groups on Nelson Test

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.184	2	1.592	.734	.484
Within Groups	149.691	69	2.169		
Total	152.875	71			

As descriptive statistics obtained from the writing pretest (Table 4) indicates, the means of the product-based group ($M=11.56, SD=1.15$), process-based group ($M=11.08, SD=0.94$), and genre-based group ($M=11.54, SD=0.93$) were close to each other.

Table 4: Descriptive Statistics of Writing Pretest

	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Product-based	25	11.5600	1.15758	.23152	11.0822	12.0378	10.00	13.00
Process-based	23	11.0870	.94931	.19794	10.6764	11.4975	10.00	13.00
Genre-based	24	11.5417	.93153	.19015	11.1483	11.9350	10.00	13.00
Total	72	11.4028	1.02997	.12138	11.1607	11.6448	10.00	13.00

Since the assumption of the homogeneity of variances [$F(2, 69) = 2.061, p = 0.135$] was met, one-way ANOVA could be run. As Table 5 shows, there was no statistically significant difference between the writing performance of the groups before the treatment [$F(2, 69) = 1.61, p = 0.206$].

Table 5: One-way ANOVA for Writing Pretest

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.375	2	1.688	1.618	.206
Within Groups	71.944	69	1.043		
Total	75.319	71			

The skewness ratio obtained from the scores of the writing posttest (Table 6) shows that the distribution of the scores in the three groups was normal (0.14 falling between ± 1.96).

Table 6: Descriptive Statistics for all Groups

	N	Min.	Max.	Mean	SD	Skewness	
						Statistic	Std. Error
Writing Posttest	72	11.00	17.00	14.0556	1.19728	.042	.283
Valid N (listwise)	72						

Table 7 indicates the descriptive statistics obtained from administering the writing posttest. The means of the product-based group ($M = 13.48, SD = 1.04$), process-based group ($M = 13.69, SD = 0.87$), and genre-based group ($M = 15, SD = 1.06$) shows an increase from the writing pretest to the posttest. Moreover, the result of the Levene's test [$F(2, 69) = 0.422, p = 0.657$] showed that the variances of the groups were homogeneous and the parametric test of ANOVA could be performed.

Table 7: Descriptive Statistics for each Group

	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Product-based	25	13.4800	1.04563	.20913	13.0484	13.9116	11.00	15.00
Process-based	23	13.6957	.87567	.18259	13.3170	14.0743	12.00	15.00
Genre-based	24	15.0000	1.06322	.21703	14.5510	15.4490	13.00	17.00
Total	72	14.0556	1.19728	.14110	13.7742	14.3369	11.00	17.00

A one-way ANOVA was conducted to explore the impact of the three types of treatment on the writing ability of the participants. There was a statistically significant difference at the $p < 0.05$ level in writing scores for the three groups $F(2, 69) = 16.30$, $p < 0.001$. The effect size, calculated using eta squared, was 0.32 showing a large effect size (Cohen, 1988, pp. 284-7), enabling the researchers to conclude that 32% of the change in the participants' writing performance was due to the treatment (Table 8).

Table 8: One-way ANOVA, Writing Posttest

	Sum of Squares	df	Mean Square	F	Sig.	Eta Square
Between Groups	32.668	2	16.334	16.308	.000	0.32
Within Groups	69.110	69	1.002			
Total	101.778	71				

Post hoc comparisons using Scheffe test (Table 9) signified that the mean of the genre-based group ($M=15$, $SD=1.06$) was statistically different from the product-based group ($M=13.48$, $SD=1.04$) and process-based group ($M=13.69$, $SD=0.87$) while no significant difference was observed between the product-based and the process-based group.

Table 9: Scheffe Test for Multiple Comparison, Writing Posttest

(I) Writing Treatments	(J) Writing Treatments	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Product-based	Process-based	-.21565	.28916	.758	-.9391	.5078
	Genre-based	-1.52000*	.28600	.000	-2.2355	-.8045
Process-based	Product-based	.21565	.28916	.758	-.5078	.9391
	Genre-based	-1.30435*	.29203	.000	-2.0350	-.5737
Genre-based	Product-based	1.52000*	.28600	.000	.8045	2.2355
	Process-based	1.30435*	.29203	.000	.5737	2.0350

*The mean difference is significant at the 0.05 level.

4.2 Qualitative Data Analysis

For providing a clear picture of the strategies utilized by the participants, the researchers, following Mackey and Gass (2005) used frequencies since *“numerical descriptions can make it readily apparent ... why researchers have drawn particular inferences”* (p. 182). The researchers transcribed the 12 participants' think-aloud audio files and extracted the strategies that they had employed while writing essays according to the *“taxonomy of ESL writing strategies”* (Table 1).

Table 10 shows the most and the least commonly used strategies extracted from the think-aloud protocols of the product-based group. The participants mostly employed cognitive and communicative strategies in dealing with the expository essay writing tasks. However, communicative strategies were about 24% less frequent in comparison with cognitive strategies, and rhetorical strategies possessed the least frequency of use in this group.

Table 10: Frequency of Strategies in Product-based Group

Strategies	Frequencies (%)
Cognitive	53%
Communicative	29%
Meta-Cognitive	13%
Rhetorical	5%

Table 11 indicates the strategies extracted from the think-aloud protocols and the frequency of each among the participants of the process-based group. Communicative strategies had the highest frequency of use, and meta-cognitive strategies also accounted for a high proportion, although less than the former one. On the contrary, the participants did not show much interest in using cognitive strategies.

Table 11: Frequency of Strategies in Process-based Group

Strategies	Frequencies (%)
Communicative	43%
Meta-Cognitive	29%
Social/affective	11%
Rhetorical	10%
Cognitive	7%

As Table 12 illustrates, the two most commonly employed strategies applied by the genre-based group were rhetorical and meta-cognitive. Some strategies, such as cognitive and communicative, appeared less frequent in this group.

Table 12: Frequency of Strategies in Genre-based Group

Strategies	Frequencies (%)
Rhetorical	55%
Meta-Cognitive	26%
Social/affective	10%
Cognitive	5%
Communicative	4%

4.3 Discussion

The present study investigated the comparative impact of product-based, process-based, and genre-based writing instructions on EFL learners' L2 writing performance and the strategies they employed while writing. The results were in favor of scaffolded

genre-based writing instruction. The analysis of the content of the writing posttests of the genre-based group verified the merits of the approach stated in the literature (Kongpetch, 2006; Chen & Su, 2011; Lin, 2006). That is to say; the content of the essays was more relevant to the topic, and the participants had selected more appropriate vocabulary and had less grammatical mistakes than the product-based and process-based groups. Also, the participants of the genre-based group finished writing posttest in a shorter time compared to the other two groups. The analysis of the writing posttests showed that the genre-based group's essays were much more relevant to the topic and more explicit in stating the purpose than the other two groups. These findings are consistent with the results of the previous studies on genre-based writing (e.g., Ahn, 2012; Cheng, 2006; Hodges, 2017; Hyland, 2007; Karimpour & Karkia, 2016; Paltridge, 2014).

Surprisingly, the results of the post hoc test showed no significant difference between the performances of the product-based and process-based groups. This finding can lead to the assumption that the explicit teaching of rules in product approach is as useful as the implicit techniques employed in the process approach. Although many studies, in comparison between the product and process approaches, have shown the prominence of the process approach (e.g., Akinwamide, 2012; Alodwan & Ibnian, 2014; Mourssi, 2013; Sarhady, 2015) this study showed that providing samples of excellent writing, analysis of format of an essay, teacher's imperative feedback, and re-writing could be as effective as cooperative writing (Rashtchi, 2007) and self-evaluation and revision (Rashtchi & Ghandi, 2011). As Guan (2015) puts forth, both product and process approaches have their merits and demerits, and some aspects of product approach like imitation and practice, as argued by cognitive psychology, conform to the processes learners need for learning to write. This discussion can lead to the assumption that genre-based approach possesses the characteristics of both process and product approaches; that is, similar to product approach, it is explicit, focuses on form and function (Tardy, 2011) and meanwhile, like process approach, it is meaningful and advocates writing in cycles. However, its superiority arises from its characteristic of relating the use of language to a social context (Coffin & Donahue, 2012).

In the second phase, the findings indicated that the participants of the genre-based group employed rhetorical strategies more than the product-based and process-based groups, especially the sub-strategy of *use of L1* while the most frequent writing strategies used by the product-based group were cognitive strategies particularly revising and elaboration. The process-based group used *revising* and *rehearsing* cognitive sub-strategies more than the other strategies, and *avoidance* and *reduction* were the two communicative sub-strategies they employed. It can be inferred that by strategies of avoidance and reduction, the student-writers attempted to either remove a problem from the text or paraphrase their sentences or phrases to avoid a problem. However, the learners of the genre-based group almost used all sub-strategies in the meta-cognitive strategy category equally. They used planning, monitoring, evaluating to find focus, identify problems, and reconsider written text goals, respectively.

Interestingly, both the most and the least used sub-strategies of this group were in the same category of rhetorical strategy.

5. Conclusion

The findings of the study showed the efficacy of the genre-based approach. The learners, using this approach, could produce more coherent essays, and were more successful in communicating their viewpoints. However, product and process-based approaches, also, were practical since the comparison of the means obtained from the writing pretests and posttests showed an increase in the performance of the participants. Additionally, the study signified that manipulating writing approaches can result in the employment of different types of strategies. Thus, teachers, when selecting between product or process approaches, should consider the type of strategies they intend to promote in their learners. A study which integrates the three approaches to teach writing in comparison with each of the approaches could be illuminating for teachers and practitioners. Considering learners' personality types, needs, and preferences can have a decisive role in the type of approach manipulated in the writing classes.

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Appendix A: Content Scoring Guide

16–20	<p>The writing displays an ability to communicate with few or no difficulties for the reader.</p> <p>The writing displays a logical organizational structure that enables the message to be followed easily.</p> <p>Each paragraph has a single purpose and sub-topic.</p> <p>Ideas flow smoothly and there is an effective use of transition markers to link ideas both within and between paragraphs.</p> <p>The writing represents a relevant and adequate answer to the task set with adequate detail to support the points being made.</p>
11– 15	<p>The writing displays an ability to communicate although there is an occasional strain for the reader.</p> <p>The writing is organized well enough for the message to be followed throughout.</p> <p>One or two of the paragraphs may have mixed purposes or sub-topics.</p> <p>The ideas generally flow fairly smoothly, but sometimes transition markers are lacking or inappropriate.</p> <p>For the most part answers the task set, though some irrelevance and inadequate coverage of the task may be apparent.</p>
6 –10	<p>The writing displays a limited ability to communicate that puts a strain on the reader throughout.</p> <p>The writing lacks a clear organizational structure, and the message is difficult to follow.</p> <p>Most paragraphs have mixed purposes or sub-topics, and paragraph boundaries may be inappropriate or lacking.</p> <p>The ideas only occasionally build on one another and few, if any, appropriate transition markers are used.</p> <p>The writing is frequently irrelevant to the task set and only partially covers the task.</p>
1 –5	<p>The writing displays little or no ability to communicate.</p> <p>Little or no organizational structure or message is recognizable.</p> <p>The paragraphs have no obvious purpose, and paragraph boundaries are apparently arbitrarily decided if present at all.</p> <p>The ideas almost never build on one another, and appropriate transition markers are not used.</p> <p>The writing bears almost no relation to the task set and represents a totally inadequate answer.</p>

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