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The Impact of a Process-oriented Writing Training on EFL Writing Anxiety

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Abstract: The present study aims at investigating the effectiveness of the process-oriented writing approach in reducing Moroccan EFL students' writing anxiety. It examines the three dimensions of writing anxiety namely behavioural, cognitive and somatic, unlike previous studies that dealt with it as a holistic entity, which adds more layers to EFL writing research and instruction. To this end, the participants were divided into two groups, experimental and control. For six months (two hours per week), control group students received academic argumentative writing instruction following their normal writing classes, while experimental group students were taught academic argumentative writing based on the process writing model. To collect the relevant data, all participants were asked to fill in Cheng's (2004a) second language writing anxiety inventory before and after the treatment. The analysis of the collected data revealed that the experimental group participants showed notable lower mean values of somatic and behavioural anxiety after the treatment than the control group subjects, which provides evidence that the process-oriented approach is effective in reducing EFL writing anxiety. In the light of these findings, some pedagogical recommendations were suggested.
Keywords: Behavioural, cognitive and somatic anxiety, EFL writing anxiety, process-oriented writing approach.

1. INTRODUCTION

According to Daly and Miller (1975a), many people may not perfom well in writing due to an apprehension or anxiety they feel towards writing. This feeling of apprehension or anxiety can be attributable to the complexity of the writing skill that "implies a high degree of self-regulation of cognition, emotion, and behaviour" (Kellogg, 2008, p. 11). Due to these challenges that student-writers encounter, the present researcher, throughout her teaching experience in one of the 'Classes Préparatoires aux Grandes Ecoles' (CPGE, henceforth) centers, has often realized Moroccan EFL students' lack of motivation for writing tasks that they consider as arduous and stressful undertakings, hence the anxiety or the apprehension they feel towards writing. These feelings of anxiety, which may bring about their failure, can partly be attributable to their lack of knowledge about the writing process and the writing problem-solving strategies. In this regard, a number of studies have provided support for the process writing approach as an effective method that can alleviate EFL writing anxiety, hence the present researcher's interest in contributing yet another study to this line of research in the Moroccan EFL context. In fact, research on EFL writing anxiety has been neglected by writing researchers in Morocco (Abouabdelkader & Bouziane, 2016), thereby the researcher's willingness to fill in the empirical gap in writing research and instruction in this context. Generally,

the present study is an attempt to contribute to L2 writing anxiety/apprehension research that remains quite scant compared to L1 writing anxiety/apprehension studies (Kurt & Atay, 2007). It is in this sense that the present paper gains its significance. The terms "anxiety" and "apprehension" are used synonymously in this paper.

The present study, therefore, aims at examining the effectiveness of the process-oriented writing approach in alleviating the writing anxiety of EFL Moroccan students in CPGE. To this end, it seeks answers to the following questions:

a) What is the level of writing anxiety of EFL Moroccan students in CPGE?
b) To what extent does the process-oriented writing instruction reduce the writing anxiety of Moroccan EFL students in CPGE?

2. LITERATURE REVIEW

2.1. Writing anxiety

The idea that people differ in how they feel about writing is an old one (Daly & Wilson, 1983). Teachers and educators have always noticed that some students like writing more than others do but it is until the 70s that systematic research on writing apprehension or writing anxiety started (Daly & Wilson, 1983).

This concept of writing apprehension was first introduced by Daly and Miller (1975 a) to refer to "a person's general tendencies to approach or avoid situations perceived to demand writing accompanied by some amount of evaluation" (Daly, 1978, p. 10). Likewise, Bloom (1985) defines writing anxiety as a set of feelings, beliefs and behaviours that affect a person's ability before, while or after doing a written task. According to theses definitions, writers' emotional state interferes with their cognitive functioning. In their research, Smith and Renk (2007) found that anxiety is one of the important predictors of academic-related stress experienced by college students. Accordingly, writing anxiety may cause a lot of stress to student-writers.

This apprehension is often manifested in the behaviours apprehensive writers show as they write, in the beliefs they hold about their writing, and in their written products (Faigley *et al.*, 1981). Apprehensive writers continually fail to submit compositions (Daly & Miller, 1975a). In graduate programs, this is a persistent problem for 50% of doctoral students who give up primarily at the dissertation writing stage (Onwuegbuzie & Collins, 2001). Writing anxiety that many graduate students experience when faced with the task of writing a dissertation is one of the many reasons for this problem (Wynne *et al.*, 2014). Apprehensive writers would also do almost anything to avoid careers or studies that demand a lot of writing (Daly & Miller, 1975a). Writing anxiety, therefore, impacts their occupational and academic choices (Daly & Shamo, 1976 & 1978). When they cannot escape writing, however, they will express their unhappiness, finding it extremely frightening (Daly & Miller, 1975a), displeasing and effortful (Faigley *et al.*, 1981). "They expect to fail in writing, and logically they should since they seldom engage in it" (Daly & Miller, 1975a, p. 244). Their self-concept as well as self-confidence are often low (Cheng, 2002; Cheng *et al.*, 1999; Reeves, 1997; Zhang, 2011). They struggle while writing though they are intellectually capable of doing that (Bloom, 1985; Bobanović, 2016). Contrariwise, low apprehensive writers "tend not to avoid situations that demand writing, are confident in their abilities to write, and frequently enjoy writing" (Faigley *et al.*, 1981, p. 4).

Differences between high and low apprehensives are also revealed through the analysis of their writing samples. Research on students writing performance showed that low apprehensives outperform high apprehensives in terms of both quality and quantity. High anxious writers' products are shorter, less developed, syntactically less mature and lower in overall quality than those written by low anxious writers (Cheng & Tsai, 2009; Daly, 1977; Daly & Miller, 1975c; Faigley *et al.*, 1981; Garcia, 1977; Lee & Krashen, 1997 & 2002). This seems quite reasonable since writing apprehension implies negative thoughts about writing that may drain cognitive resources available for the writing task (Cheng, 2004a; Cheng & Tsai, 2009). Similarly, Research exploring the effects of writing apprehension on students' writing competency revealed that high apprehensive students score lower on standardized tests of writing-related skills (such as the Scholastic Attitude Test and the American College Test) than low apprehensives (Daly, 1978; Daly & Miller, 1975b; Faigley *et al.*, 1981). Writing anxiety, therefore, is associated adversely with writing performance.

Nevertheless, writing anxiety may accompany a person all his/her life despite advanced levels of language (especially writing) competence as it is the case of Reeves (1997). She admits that she herself still feels apprehensive despite her degrees and publications and claims that "both high achieving and low achieving writers can be apprehensive. Even teachers are apprehensive. Even professional writers are apprehensive" (Reeves, 1997, p. 44).

Overall, writing apprehension/anxiety is a serious problem facing not only second/ foreign

language learners but also first language learners. As far as L2 learners are concerned this writing anxiety may stem from a variety of factors that can be related to the instructional requirements and practices of different academic contexts, personal beliefs about writing and learning to write, self-confidence and self-perceived competences and interpersonal threats (Cheng, 2004b). In other words, EFL writing anxiety may be an outcome of one or a combination of factors that can be related to oneself, to one's social/academic environment, or to one's writing task.

According to Cheng (2004a), this feeling of writing anxiety can be reflected in three ways: somatic, cognitive or behavioural. Somatic anxiety refers to the physiological aspect of apprehension experienced by student writers as revealed, for example, by a rapid heart rate, breathing difficulties, sweating, shaking, headaches, nervousness and tension. Cognitive anxiety refers to one's mental thoughts such as negative expectations, concern about performance, and worry about others' opinions (Cheng, 2004a), whereas behavioural anxiety refers to avoidance, withdrawal, and procrastination in completing writing assignments. According to research, cognitive anxiety is the most common type of writing apprehension among EFL students (e.g., Jebreil *et al*., 2015; Rezaei & Jafari, 2014; Tsiriotakis *et al*., 2017). All these types of writing apprehension create difficulty in the process of learning and producing a writing paper in the target language. Writing anxiety may have, therefore, detrimental effects on students' writing achievement, functioning as a barrier towards effective writing, and other more serious consequences (Daly & Miller, 1975a).

EFL teachers, therefore, should be aware of the fact that many EFL students feel apprehensive towards writing and would do almost anything to avoid it. They should provide them with the necessary support that can help them cope with their writing unease. The process approach to writing instruction may help them in this mission, as research demonstrates. In her experimental study, Stapa (1994) found that the process-oriented approach to writing instruction was considerably more effective in reducing the writing apprehension of Malaysian EFL university students than the traditional approach. A more recent experimental study conducted by Akpinar (2007) reached the same results; Turkish EFL university students who received process-oriented writing instruction experienced less writing apprehension than the participants who received product-oriented writing instruction. The same results were reached by Bayat's (2014) study that investigated the effect of the process writing approach on writing success and

anxiety of first-year students studying preschool teaching at Akdeniz University, Faculty of Education, Turkey. Another study conducted by Sugita (2003), investigating the effect of the process writing approach on the writing apprehension of Japanese college students from the gender perspective and from writing achievement, revealed that the process writing approach was effective in reducing writing apprehension and it was more beneficial to female subjects than males. In addition, the enjoyment of writing of both high and low achieving writers and of male as well as female students increased whereas their negative perceptions of writing were decreased. The study also found that high achieving writers became less apprehensive to express themselves in writing.

2.2. The process-oriented approach to writing instruction

The planning- translating- reviewing framework proposed by Flower and Hayes (1981) remained the most widely accepted and adopted process-writing model by second language writing teachers (Hyland, 2003). While planning writers try to guide themselves on how to proceed in their composing process, setting their goals, generating ideas and relevant information, and making an initial outline. This outline remains subject to constant change throughout the writing process when need arises. After putting a rudimentary plan, writers move to the second process, translating, in which they start writing the first draft, concentrating on getting ideas down on paper, without bothering themselves with the accuracy of expression. Finally, reviewing takes place where writers rewrite and refine their first drafts by making the necessary changes or modifications while reconsidering the objectives set previously at the planning stage, rethinking about the topic and the audience and paying attention to both fluency and accuracy. However, revision should not be considered "as a unique stage in composing, but as thinking process that can occur at any time a writer chooses to evaluate or revise his text or his plans" (Flower & Hayes, 1981, p. 376), leading him to constant planning and reconsideration of what he wants to say. Obviously, these writing processes do not occur in a linear fashion. Instead, they are recursive and interdependent (Flower & Hayes, 1981; Harris *et al*., 2009). Throughout all these writing processes, writers rely on their long-term memory in which they have "stored knowledge, not only of the topic, but of the audience and of various writing plans" (Flower & Hayes, 1981, p. 369). In addition, in process writing classroom activities, the teacher's role is to guide students in the areas in which they need help, provide them with feedback, focus on what students do while writing, and may address

students' weaknesses at the end of the writing session.

After several years of empirical research and drawing on other writing researchers' work and theories, Hayes (2012) published a new version of the 1980s-writing model, in which he responded to both critiques of the original model and to new ideas. It is, in fact, "the latest in a sequence of writing models proposed by Hayes and his colleagues over more than 30 years" (Hayes & Olinghouse, 2015, p. 481).

This most recent model (Figure one) comprises three levels. The control level, as the name suggests, incorporates factors that form and guide the writing act. The process level comprises external and internal factors. It includes the inner cognitive processes involved in the writing act and the environmental components, both social and physical, that affect them. The resource level embraces functions that are important not only for writing but also for other human tasks (Hayes & Olinghouse, 2015).
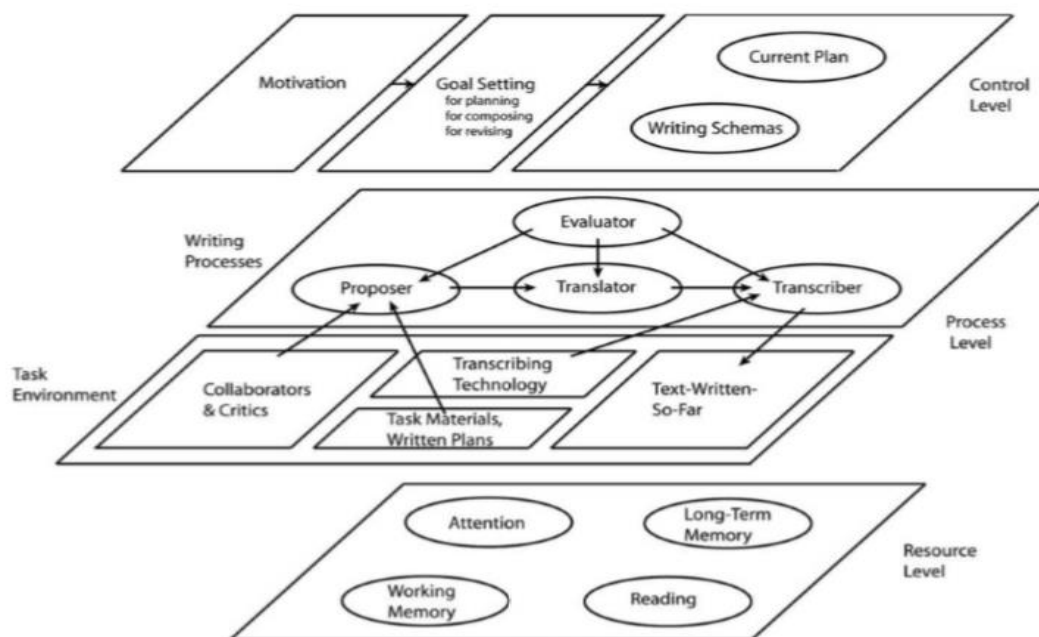

Figure 1: Hayes' (2012) writing model

Hayes' (2012) process model describes accurately what goes on at each stage of the writing process, integrates fully the cognitive, social, internal and external factors that impact writing and has brought new implications for EFL process-oriented writing instruction (Kadmiry, 2021). It considers motivation as a requisite to writing development, urges the building or the improvement of writing schemas, which can be done through explicit instruction, stresses the importance of collaborators and critiques in writing outcomes and highlights the role of reading for good writing (Kadmiry, 2021).

3. METHODS
3.1. Participants
Convenience sampling was used to select subjects who participated in the present study. The entire study group consisted of 64 participants (34 females, 30 males) who were first-year EFL students, studying maths and physics at a CPGE center, Rabat- Morocco, where they were supposed to spend two years to be able to join one of the Moroccan or French engineering schools. Their age

ranged from 17 to 19 years old, and they were admitted in CPGE due to their good ranking in the entrance selection based on their overall achievement results in the baccalaureate exam. Some of them, coming from private schools, have been studying English since they were in primary school. Others, on the other hand, who came from public schools, did not study English until they reached the last year of middle school. This explains the reason why students in the same class exhibit different English levels. They belonged to two intact classes that were randomly assigned to either an experimental (33 students) or control group (31 students).

3.2. Instruments
To assess students' writing anxiety, the study adopted Cheng's (2004a) Second Language Writing Anxiety Inventory (SLWAI, henceforth), which is composed of 22 items. It was chosen because it was designed with reference to second language learners, its total scale as well as its individual subscales have good reliability and

adequate validity (Cheng, 2004a) and it offers a three-dimensional conceptualization of writing anxiety- somatic anxiety (seven items), cognitive anxiety (eight items), and avoidance behaviour (seven items). The questionnaire follows a five-point Likert response scale ranging from: 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree; uncertain), 4 (agree), to 5 (strongly agree). This research instrument was piloted before its use in the main study.

3.3. Procedures

The present study adopted the quasi-experimental research design. Two intact classes participated in this study and the researcher implemented all experimental procedures.

3.3.1. The pre-treatment phase

Prior to treatment, a one-hour session was devoted to pre-testing. All participants of the experimental and control groups were assigned a writing task to accomplish. Then, they were asked to fill in Cheng's (2004a) SLWAI to measure their EFL writing anxiety prior to the treatment.

3.3.2. The treatment phase

The treatment phase lasted six months (2 hours per fortnight) during which the experimental group students were taught argumentative writing based on the process-oriented writing approach, while the control group subjects were taught the same writing genre following their normal writing classes. Each group received nine training sessions.

The experimental group

After being sensitized to the importance of writing strategies that form the writing process structure, students were engaged in a variety of planning activities and were trained on how to revise, edit and evaluate their compositions. Process-oriented writing instruction adopted in the present study, which was adapted from Hyland (2003) and Seow (2002), is the same as the one implemented by Kadmiry (2021). It incorporated four basic writing stages namely, planning, drafting (writing), revising (redrafting) and editing, and other external stages - building writing schemas, responding (sharing), evaluating and post-writing.

Building writing schemas

In the first session of the intervention, the teacher (the researcher) began the writing course by building and improving students' writing schemas of the argumentative genre, as recommended by their educational program, through explicit instruction. In each session, the teacher reminded the students of the characteristics and features of this writing genre and suggested a new writing topic as a class activity.

Pre-writing: planning

The planning stage incorporates goal-setting, idea generating and organizing. While setting goals, students were urged to define the rhetorical problem, or simply to read carefully the writing assignment, to understand the topic and to determine the rhetorical situation (argumentative essays) and the audience. Then, students were invited to generate ideas about the writing topic through group/ whole class brainstorming or semantic mapping and after that, they made an initial outline about the organization of their writing.

Writing/ Drafting

Once sufficient ideas and information about the writing topic were gathered and an elementary plan was put at the planning stage, students moved to the second stage, writing, in which they started writing the first draft. At this level, students concentrated on writing ideas and organizing information without bothering themselves with the accuracy of expression.

Peer/ teacher responding

Once students produced the first draft and before proceeding to the revision stage, they exchanged their copies and expressed their reactions to each other's products in small groups or in pairs, with the aid of a checklist, including questions proposed by Seow (2002) and other ones suggested by the researcher. The teacher (the researcher) supervised and participated in the responding process by (1) providing the necessary help to students to be able to react effectively and evaluate each other's writings successfully or by (2) expressing her opinion directly about students' writings. The remarks students received helped them revise their initial drafts.

Revising

In light of the feedback provided in the previous stage, students revised what they had produced. They were required to focus on the global content and the organization of ideas to ensure an effective communication between them and their readers and to avoid any misunderstanding or confusion.

Editing

After revising their essays in terms of content and structure, students still needed to edit their drafts to make sure they were clear, concise, and error-free. At this stage, students were engaged in tidying up and refining their texts by making the necessary changes or modifications so that to be ready for evaluation. They edited their final drafts in terms of grammar, spelling, punctuation, diction, sentence structure with the help of a checklist, including questions proposed by Seow (2002) and other ones suggested by the researcher.

Evaluating

Once students felt satisfied with their final drafts after revising and editing them, they were invited to evaluate each other's essays in pairs or in groups. They had to examine relevance, development and organization of ideas, format or layout, grammar and structure, spelling and punctuation, appropriateness of vocabulary, and clarity of communication. They were issued the criteria for evaluation with a grading scale to assign a grade. The teacher (the researcher) supervised the 'evaluating' process, and provided students with the necessary support to do this task effectively.

Post-writing

Post-writing in process writing procedures refers to "any classroom activity that the teacher and students can do with the completed pieces of writing" such as "publishing, sharing, reading aloud, transforming texts for stage performances, or merely displaying texts on notice-boards" (Seow, 2002, p. 319). In the present study, sharing, reading aloud and displaying texts on the classroom notice-board were the main and possible post-writing activities.

The intervention provided students with a welcoming environment where they were allowed to discuss and share their thoughts and feelings about writing and what they were writing about. Students were assigned some reading documents related to the writing topics to gather enough information beforehand and they worked in pairs or in groups to help them capitalize on each other's knowledge and skills; they were encouraged to ask each other for information and to evaluate each other's work. Throughout all the experimental procedures, the teacher (the researcher) guided the students in the areas in which they needed help, provided them with feedback throughout the writing act and focused on what students were doing while writing.

The control group

The control group participants, on the other hand, were taught argumentative writing following their normal writing classes. In the first session, the teacher (the researcher) presented the characteristics and features of the argumentative genre to students, as recommended by their educational program, through explicit instruction and gave them a model essay to analyze and follow, highlighting some grammatical points (such as cohesion, coherence, paragraphing) and content (such as arguments and examples). Then, the teacher suggested a writing topic to write an argumentative essay on, based on the model text analyzed and the required structure and organization, after a classroom brainstorming on that topic. The teacher urged students to revise and edit their final products, but did not give them any guidance or instruction in this regard. Instead, she provided help whenever asked or need arose. Then, students submitted their essays to the teacher for evaluation. Sometimes, they exchanged their essays for peer-evaluation, instead. The following session, the teacher gave the graded essays back to students, including short written remarks about what was good and what needed to be improved in subsequent writing attempts.

3.3.3. The post-treatment phase

After the intervention was conducted, a one-hour session was devoted to post-testing to assess the impact, if any, of the treatment on the experimental group's EFL writing anxiety. All participants of both groups were assigned a writing task to accomplish. Then, they were asked to fill in Cheng (2004a)' SLWAI again.

Data obtained from both pre- and post-tests were analysed statistically through the SPSS.

4. RESULTS

To measure the initial level of subjects' writing anxiety, and to answer the first research question, descriptive statistics were conducted on the data obtained by Cheng's (2004a) SLWAI that was administered to all participants prior to the treatment. Table 1 summarizes the results.

Table 1: Descriptive statistics for writing anxiety of both the control and experimental groups before the treatment

		N	Minimum	Maximum	Mean	Std. Deviation
Control group	Writing Anxiety	31	1.41	4.18	2.93	.62
	Somatic	31	1.29	4.14	3.03	.70
	Behavioural	31	1.00	4.00	2.76	.86
	Cognitive	31	1.50	4.63	2.99	.86
Experimental group	Writing Anxiety	33	2.05	4.59	2.98	.61
	Somatic	33	1.29	5.00	3.03	.90
	Behavioural	33	1.43	4.43	2.83	.78
	Cognitive	33	1.88	4.50	3.07	.77

Table 1 shows that the participants of both the control (M=2.93, SD=.62) and experimental (M=2.98, SD=.61) groups exhibited a moderate level of writing anxiety prior to the treatment. For the control group, somatic anxiety ranked first (M=3.03, SD=.70), followed by cognitive anxiety (M=2.99, SD=.86) then avoidance behaviour (M= 2.76, SD=.86). For the experimental group, on the other hand, cognitive anxiety (M=3.07, SD=.77) ranked first, followed by somatic anxiety (M=3.03, SD=.90) then avoidance behaviour (M=2.83, SD=.78).

To compare the participants of both the experimental and control groups in terms of writing anxiety prior to the treatment, the independent samples t-test was applied to the pre-writing anxiety mean scores of both groups. The purpose of the independent samples t-test was to find out whether there were any statistically significant differences between the writing anxiety levels of both groups. Table 2 summarizes the results.

Table 2: Results of the independent samples t-test on the SLWAI mean scores of the experimental and control groups prior to the treatment

	Group	N	Mean	Std. Deviation	Mean difference	t	df	Sig. (2-tailed)
Writing Anxiety	Experimental	33	2.98	.61	.05	.336	62	.738
	Control	31	2.93	.62				
Somatic	Experimental	33	3.03	.90	-.00	- .010	62	.992
	Control	31	3.03	.70				
behavioural	Experimental	33	2.83	.78	.07	.342	62	.734
	Control	31	2.76	.86				
Cognitive	Experimental	33	3.07	.77	.08	.409	62	.684
	Control	31	2.99	.86				

As Table 2 reveals, there were no significant differences between the two groups in terms of the three types of writing anxiety, namely somatic anxiety (t(62)=-.010, p=.992), avoidance behaviour (t(62)=.342, p=.734) and cognitive anxiety (t(62)=.409, p=.684). Consequently, there were no significant differences between the mean scores of the control (M=2.93, SD=.62) and experimental (M=2.98, SD=.61) groups on their overall writing anxiety prior to treatment; t(62)=.336, p=.738.

To answer the second research question, which aimed at measuring the effect of the process-oriented writing instruction on students' writing anxiety, the independent samples t-test was conducted. This statistical tool was used to compare the experimental and control groups in terms of their overall writing anxiety after conducting the treatment and to see if there would be any significant differences in the levels of the three types of writing anxiety. The findings are summarized in Table 3.

Table 3: Results of the independent samples t-test on writing anxiety mean scores of both groups after the treatment

	Group	N	Mean	Std. Deviation	Mean difference	t	df	Sig. (2-tailed)
Writing Anxiety	Experimental	33	2.47	.34	-.27	-2.14	62	.036
	Control	31	2.74	.64				
Somatic	Experimental	33	2.22	.48	-.46	-3.00	62	.004
	Control	31	2.68	.72				
Behavioural	Experimental	33	2.22	.40	-.32	-2.07	62	.043
	Control	31	2.55	.80				
Cognitive	Experimental	33	2.96	.65	-.03	-.18	62	.856
	Control	31	3.00	.83				

It is clear from the table above that there is a significant difference between the experimental (M=2.47, SD=.34) and the control (M=2.74, SD=.64) groups with regard to their overall writing anxiety after the treatment; t(62)=-2.14, p = .036. More specifically, they significantly differ on somatic anxiety (t(62)=-3.00, p = .004) and avoidance

behaviour (t(62)=-2.07, p = .043). However, there is no significant difference between the two groups on cognitive anxiety; t(62)=-18, p = .856. The process-oriented writing instruction, therefore, significantly reduced students' writing anxiety as concerns somatic anxiety and avoidance behaviour.

5. DISCUSSION

The present study investigated the effect of the process-oriented writing training on Moroccan EFL students' writing anxiety. The findings obtained from data analysis revealed statistically significant differences between the experimental and control groups on writing anxiety after the treatment. More specifically, in the final measurement participants in the experimental group showed notable lower mean values of somatic anxiety and avoidance behaviour than the control group, a finding that can largely be attributed to the content of the intervention training the experimental group benefited from. However, no statistical differences were revealed between the two groups concerning cognitive anxiety after the treatment. These findings support the effectiveness of the process-oriented writing training in reducing two aspects of EFL writing anxiety, namely somatic and behavioural anxiety, but not the cognitive anxiety aspect. There are many possible explanations for these results.

One of the major factors contributing to writing anxiety is the lack of topical knowledge. Students feel frustrated and apprehensive when they are assigned unfamiliar writing topics (Cheng, 2004b; Zhang, 2011). In other words, writers may experience anxiety if their prior knowledge about the writing topic is insufficient or inadequate. This explains why the experimental group's writing anxiety in the present study significantly decreased after the treatment, unlike that of the control group. The process-oriented instruction provided the experimental group participants with the opportunity of enriching their topical knowledge through reading assignments. The latter may have minimized their "fear of having nothing intelligent to say" (Cheng, 2004b, p. 55). Participants in the experimental group apparently became well informed about the writing topics they were assigned, hence less apprehensive. The control group subjects, however, were not provided this opportunity, and this may be one of the factors that explain the non-significant decrease of their writing anxiety after the treatment.

In addition to a lack of topical knowledge, personal beliefs about writing are one of the major sources of writing anxiety (Cheng, 2004b). For example, many students feel apprehensive because they misunderstand the writing process; they think "good writers get it right on the first draft" (Lee & Krashen, 1997, p. 28). Holding such a belief, student writers become extremely preoccupied by correctness and accuracy to the extent that they may not dare to write for fear of being ridiculed, or try to avoid writing whenever possible, experiencing thereby avoidance behaviour, one of the three types of writing anxiety (Cheng, 2004a). In the present

study, the process-oriented writing approach seemed effective in reducing this type of anxiety since it may have contributed to the correction of wrong beliefs about writing, such as the one mentioned above, that the experimental group students may have had before the treatment. By being engaged in the writing process, urged to focus on fluency more than accuracy in the first draft, required to revise and write multiple drafts and asked to delay editing till the end, the experimental group participants have internalized the natural writing process. They have become fully aware that the initial drafts tend to be full of mistakes, misspelled words and incomplete or poorly formulated sentences, and that through revision and editing these drafts are gradually refined, knowing thereby that they are not supposed to get it right from the very beginning. It can be concluded, therefore, that through the process-oriented writing training, the experimental group participants have become well informed about writing, unchained from their wrong beliefs and views, unlike the control group, which may have contributed to the decrease of their writing anxiety, especially avoidance behaviour and somatic anxiety. Instead of feeling apprehensive and trying to avoid writing whenever possible, the experimental group students have apparently developed the ability to approach writing tasks efficiently (in a more natural way) and with more self-confidence.

Students may also feel apprehensive towards writing because they tend to believe that writing seems like an insurmountable task, requiring long time, huge efforts, and extensive training that exceeds the one offered by writing classes (Cheng, 2004b). This belief can be attributable to the complexity of the writing skill that "implies a high degree of self-regulation of cognition, emotion, and behaviour" (Kellogg, 2008, p. 11). It seemed that this complexity of the writing skill was better dealt with by the process-oriented writing instruction, since it helped reduce the experimental group's writing anxiety, than by the control group's writing instruction. The process-oriented approach did not require the experimental group participants to deal with the writing task as a whole but instead it broke it down into smaller steps that seemed more manageable and easier to tackle and complete, making thereby writing less intimidating. By breaking down writing into clear and well-defined tasks each with specific goals, the process-oriented instruction seemingly helped the experimental group students get a better picture of how they would bring their products to life and cleared up the mystery they may have had about writing before the treatment, alleviating thereby their writing anxiety, especially somatic anxiety and avoidance behaviour. They had enough guidance on

how and when to move smoothly from one step to another from the beginning till the end, and on what to focus on at each stage, which may have been reassuring and encouraging. Feeling that they were making progress in a meaningful way and achieving goals in each stage, the experimental group students may have even enjoyed writing. The control group students, on the other hand, although they might have had a clear vision of what their products should look like when they were done, may still have felt apprehensive because they may have got lost along the way since they were left to their own devices in the process-product journey.

In addition, the positive learning environment where the experimental group worked is another possible factor that helped reduce the participants' writing anxiety. For instance, responding activities, where peer feedback was emphasized, urged students to work together as learning collaborators to make their initial drafts more mature pieces of writing. These activities have apparently mitigated the writing anxiety of the experimental group participants who might have realized in the process that other students were experiencing the same writing difficulties just like them (Kurt & Atay, 2007).

The present study's findings corroborate those of other studies that investigated the impact of the process-oriented instruction on EFL students' writing anxiety (e.g., Akpinar, 2007; Bayat, 2014; Stapa; 1994; Sugita, 2003). These studies dealt with writing anxiety as a holistic entity, unlike the present study that took into account its three dimensions: somatic, cognitive and behavioural, as suggested by Cheng (2004a). One of the findings of the present study is that although the process-oriented training that the experimental group received was effective in reducing the participants' somatic and behavioural anxiety, it did not succeed in lessening their cognitive anxiety. Students having this type of anxiety fear negative evaluation of their written products and worry about what others can say about their performance, which may be attributed to two main factors. The first factor is related to teachers' harsh criticism. Many students become highly apprehensive after receiving unpleasant and negative teacher feedback to their past writing tries (Daly & Wilson, 1983; Reeves, 1997). The second factor is competition among peers and comparison of their writing performance that may trigger writing anxiety especially for those who underperform, which may lower their self-esteem (Cheng, 2004b). Since these two factors are prevalent in the educational context, it is not surprising to find that this type of writing anxiety, cognitive anxiety, is the most common one among EFL students as revealed by different previous studies (eg., Jebreil, *et al.*, 2015; Rezaei & Jafari, 2014; Tsiriotakis *et al.*, 2017), hence would logically be the most difficult to tackle. The case of CPGE students is in fact even intense since they live under much academic stress and competitiveness and are always preoccupied with the high scores they are required to obtain in their final exam, including English writing, to be eligible to one of the prestigious engineering or business schools. It seems thus the process-oriented training is effective in alleviating only the two superficial types of writing anxiety namely somatic anxiety, which is physical and behavioural anxiety, which is attitudinal, but fails in easing the third type, cognitive anxiety, which is much deeper.

6. CONCLUSION

To sum up, the effect of the process-oriented approach on EFL students' writing anxiety has been reported and explored by previous literature (e.g., Akpinar, 2007; Bayat, 2014; Stapa; 1994; Sugita, 2003). All the previous studies, similar to the present study, provided support for process writing approach as a method that can alleviate EFL writing anxiety as a holistic concept. Teachers, therefore, are urged to opt for process-oriented writing instruction since it provides a supportive learning environment where students and teachers interact around writing and collaborate with each other, which can mitigate students' EFL writing anxiety hence driving them towards peak writing performance. A detailed analysis made by the present study, on the other hand, revealed that the process-oriented writing instruction was effective in reducing only two types of writing anxiety namely, somatic and behavioural anxiety. It did not succeed, however, in lessening cognitive anxiety. In this regard, the present study suggests for further research to conduct a longer and perhaps more individualized type of training to mitigate this type of writing anxiety among this population. In addition, it would be more insightful for further studies to use mixed methods combining both qualitative and quantitative research methods to ensure a better and deeper understanding of how students perceive and benefit from the process writing approach, and, consequently, how the latter affects their writing anxiety. Moreover, since the current study is limited in scope, focusing on only one specific genre, argumentative writing, it would be more interesting for further studies to measure the interaction between the process approach and writing anxiety with regard to other writing genres. Further research may also explore the underlying factors behind writing anxiety experienced by EFL students especially in Morocco given the absence of such research in this context.

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