Wiki Effect on EFL Writing Motivation: An Experimental Study

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Abstract

The number of studies carried out on the use of wikis on English as a Foreign Language (EFL) writing motivation has remained scarce. To be more specific, very little attention has been paid to the effects of wikis on EFL writing motivation in the Turkish EFL context. Therefore, the object of this study is to investigate and depict the effects of the wiki-based writing environment in terms of EFL writing motivation in the Turkish EFL context. Data were gathered via two research tools consisting of a background questionnaire and a motivation questionnaire. After the tools were administered to 42 EFL learners in control and experimental groups, the data collected were statistically analyzed. Results imply that wiki-based online writing environments contribute to a higher level of motivation and enjoyment among learners. It is suggested that wiki as an appropriate tool to increase learners' EFL writing motivation should be integrated into the EFL learning process, and the advantages it supplies should not be ignored but exploited by the teachers.

Keywords: English as a foreign language; wikis; writing; motivation

Introduction

Writing in EFL is an essential practice for academic and professional improvement for which various approaches and techniques have been developed. The ability to write proper English is a fundamental aspect regarding success at all levels of education and professional context. Advancing in EFL writing also opens up several opportunities and plays an important role in EFL learning. Furthermore, writing in EFL includes the appropriate use of lexical and grammatical forms, syntactic patterns, correct punctuation, and using linguistic knowledge effectively. Various approaches, methods, techniques, procedures, and techniques for contributing learners to become competent and proficient language users considering writing skills have been developed. While prior theories have mostly focused on structures and correctness within the context of traditional approaches, the focus has subsequently changed from learning and applying rules to fluent use, continuous development, and collaborative learning.

Writing has become so sophisticated that several problems have occurred so far in putting ideas coherently (Al Seyabi & Tuzlukova, 2014). For instance, psychological obstacles such as students' lack of motivation, awareness, and interest occupy an important place in advancing writing skills (Mohamed & Zouaoui, 2014). Motivation is a principal affair in fostering EFL literacy including various psychological, social and cognitive features, among which motivation ranks as one of the most important. That is to say, one of the problems restraining writing proficiency is learners' motivation

in EFL writing. Defined as the choice of persistence and effort paid on a certain movement by Dörnyei and Ushioda (2013), motivation is very important in meeting the requirements of writing successfully or unsuccessfully. It is also acknowledged as being positively and dominantly related to achievement in EFL writing (Masgoret & Gardner, 2003). Thus, having been undervalued in the past, the importance and the definition of language learning motivation need to be expanded and straightened (Warschauer, 1996).

The other key issue affecting EFL writing is the learning environment where learning takes place. Namely, the learning environment plays an important role in students' achievement, behavior, motivation, affective state, attendance, and well-being (Higgins, Hall, Wall, Woolner, & McCaughey, 2005). Creating an anxiety-free and psychologically safer classroom atmosphere (Oz, Demirezen, & Pourfeiz, 2015). The recent improvements of the digital world have made it necessary to provide learners with online learning and practicing environments, which was already shown to be leading to more achievement in writing, increased motivation, sense of self-sufficiency, and self-esteem (Bahous, 2011). Therefore, EFL teachers and curriculum designers cannot properly respond to learners' needs if they ignore new electronic developments. In order to overcome problems stemming from traditional approaches, the necessity of accessing the limitless resource, motivational factors, web-based learning environments need to be implemented. Among several online tools, wiki serves as an ideal environment for collaborative information exchange and writing (Leuf & Cunningham, 2001).

Theoretical framework

EFL writing requires an environment and approach to learning, while ESL writing takes place mostly in an acquisition-like process, which gives rise to a number of standpoints between ESL and EFL writing. Through the chronological development process, the emphasis of the writing process has changed from simply sentence forming to guided-composition writing (Ku &Chen, 2015). Chronologically, four separate points, *form-focused*, *reader-dominated*, *process-based,* and *content-based approach,* in second language writing have appeared and still manipulate current writing guidance (Raimes, 1991). First, within the years the 1950s and 1960s, when the Audio-lingual Method was the most frequently used type of instruction, writing was generally based on sentence drills and linguistic forms. The components of writing being conspicuous in this term were accuracy, sentence combining, and rhetorical structures. The form-focused approach in writing presents exact instruction, meaning-focused tasks, monitoring, and finally leads deduction. Second, reader dominated approach appeared in the 1980s. With interest in writers' actual writing proficiency, instead of *accuracy* and *process, meaning*, *invention,* and *various outline* became the new concerns (Raimes, 1991). The writer's intention is to meet a learner's expectation and satisfy by writing. The core principles are the theme and the reader's pleasure in reading and writing. Within this approach, the reader has the role of standing for all society, for whom the writer inscribes. Within the scope of this approach, learners are encouraged and allowed enough time for composing drafts, revising, and providing feedback by teachers and other learners (Raimes, 1992). Third, the process-based approach emerged in the 1970s, perceived as the duration of composing characteristic meaning and focusing on how students write step by step. In this regard, writing consists of cognitive practices like structuring, *drafting, brainstorming, peer-reviewing, evaluating,* and *revising* by breaking down the attention from the final product to smaller steps. In contrast to form-focused writing and teacher-centered instruction, learners can sketch, discuss, and have mind mapping and self-evaluation. Instead of forming totally correct sentences, it is aimed that learners can monitor their own learning and progress. This approach emancipates writing activity from being linear by leading it to *recursive* (Raimes, 1985).

From the standpoint of autonomous and collaborative learning, technology-based language learning is enhanced by a process-based approach. Within this approach, students are required to be included

in the process of composing a well-prepared piece of work, directing from pre-writing and feedback drafts. By writing as part of the process-based approach, learners are anticipated to be active learners, planners, enactors, and sharers of their knowledge with other participants. At the end of the process, learners' writing skills, drafting strategies, and reflecting their opinions are aimed to improve. Forth, having stemmed from the 1980s, the content-based approach is mostly based on academic achievement and the theme of the written task. It is originally a response and restocking of a process-focused approach. Learners within this scope generally have higher language knowledge. Writing is based on a significant academic specialty study, viewed as a tool for inducing understanding of this content. That kind of instruction boosts *thinking*, *researching*, and *writing skills* required for academic writing assignments (Shih, 1986).

Derived from the Latin word *movere*, motivation indicates a period starting with a necessity and leads to behavior that directs an individual towards succeeding in a goal (Melendy, 2008; as cited in Babaee, 2012). Motivation is intrinsically a psychological driver and inspiring, stirring, and encouraging action (Gilakjani et al., 2012). Being one of the contributors of motivation in language learning, Gardner (1985) makes discrimination between *instrumental* and *integrative motivation* (Jun Zhang & Xiao, 2006). According to Gardner (1985), integrative motivation includes the learner's own interest and enthusiasm in language learning, whereas instrumental motivation is about the exogenous factors like profiting, having a better social status, and passing exams. However, since this type of discrimination does not strongly influence classroom-based motivation, Dörnyei (1994) proposes the terms as *intrinsic* and *extrinsic motivation.* Intrinsic motivation means finding the activity entertaining, exciting, and satisfying to do. Without being manipulated by any external stimulation, the student's desire to learn comes from within (Kost, 2003). Intrinsic motivation is presupposed to have three items: learning, achieve and experience (Vallerand, 1997), and is directly the answer to the question related to EFL proficiency, in which learners are interested and want to learn much more in order to achieve a higher level. Extrinsic motivation is defined as doing something by believing that it is significant, worthy, and thinking about an activity as bringing valuable effects and results (Ryan &Deci, 2000). Extrinsic motivation in language learning contains a separate outcome, expecting a high profit and status, being praised, or refraining punishment.

First introduced with WikiWikiWeb by Ward Cunningham in 1995, wikis are web pages through which individuals, corporations, millions of people can share information (Chatfield, 2009). Stemmed from the Hawaiian *wiki-wiki* (quick) word*,* it is easy to stir unexplored authors to appear (Richardson, 2010). They have been essentially formed to collaboratively add and create enlightening documents (Warschauer & Grimes, 2007). Unlike weblogs, wikis have formal language encouraging users to edit, revise and rewrite to create coherent and comprehensive texts. In this global world where new knowledge is produced in every split second, wikis enable all humans to be autonomous writers and explorers. Being one of the Web 2.0 tools, wikis are always on, approachable, and right beside a browser and an internet connection. The potentiality of wikis for teaching is implied by Ward Cunningham, who speculated that *the blogosphere is a community that might produce a work, whereas a wiki is a work that might produce a community* (Warschauer & Grimes, 2007, p. 12). In this sense, wikis as educational tools in EFL learning serve as fruitful materials which improve basic language skills. Several advantages can be ordered for the use of wikis in EFL writing. First, as an additional teaching tool, wiki-oriented writing tasks can be completed during the course or after school, which shows flexibility in time. Second, EFL writers are given the responsibility and autonomy to look for the scope, learn and perform the language. In other words, a wiki writer is a single person being in charge of determining, typing, and checking the content. Third, the teacher can easily monitor all the writing progress that learners make, and feedback is handily and immediately given. What is more, writers have the chance to self-evaluate themselves properly. Fourth, by requiring only a personal computer and an internet connection, wiki-based writing tasks do not cost much. Additionally, in this era that is becoming more technological day by day, learners and teachers do not have difficulty in obtaining a PC and an internet connection. Fifth, as well as publishing entries, EFL

teachers and learners have the chance to see their rights and wrongs, which lifts the effectiveness of this educational tool. That is, due to being read and edited by other users readily, learners' self-reliance is increased, leading to gaining credibility. Last, in a stress-free environment without being observed by their teacher and peers outside the class, EFL learners can create their best text and develop teamwork (Chatfield, 2009). As a result, using wikis in EFL writing is a reasonably rewarding experience for both learners and teachers due to providing academic autonomy, credibility, self-evaluation, and practicality.

The use of wikis in language learning is inclusive of some certain and fundamental learning theories; *Constructivism, Collaborative Learning, Situated Cognition, Autonomous Learning, and Self-determination Theory*. First, Constructivism implies that learning is performed by constructing and reinterpreting knowledge via socio-cognitive experiences (Larochelle et al., 1998). In terms of Constructivism, learners both construct their knowledge thanks to the interaction with other learners and are actively involved in the learning process, as it is based on learning as sense-making, inventing, conceptualizing, and evaluating knowledge (Piaget, 1955; as cited in Oldfather et al., 1999). In other words, writing via wikis corresponds with Constructivism which focuses on explanation, alteration, and rebuilding information socially. Second, Collaborative learning is to work together during the whole process of learning as a group. Grounding on Constructivism, collaborative learning assigns learners the role of researchers, and learners construct knowledge actively rather than just absorbing knowledge passively. In an environment based on collaborative learning, every student's idea is the new and available source for other learners in the classroom (Matthew et al., 2009). The use of collaborative learning is advantageous in EFL learning in terms of supplying extensive input and output, providing a proper classroom climate, and leading learners to gain autonomy and independence (Zhang, 2010). In this framework, wikis are well-known collaborative teaching tools that motivate various users to add, edit, and share content and increase interaction socially. With the extensiveness of technology and online web tools, collaboratively learning via wikis has caught on with learners and teachers. In this sense, wikis, intrinsically created for collaboration, tempt learners to create, edit, and share anytime with anyone. Situated cognition is the third theoretical background, meaning that learning is based on new situations and dialogues both socially and psychologically (Brown, Collins, & Duguid, 1989). In this perspective, practicing teaches effectively and practicing with the community is the aimed learning atmosphere (Brown & Duguid, 2001). Thus, learners form, adapt, and compose their own knowledge by observing, simulating, and collectively exercising, as cognition and learning are such interlinked acts that meanings are socially constructed, and skills are acquired by experience (Hung & Chen, 2001). That is, situated cognition is mainly based on authentic problem solving and problem-solving via communication, likewise creating wiki is also an authentic act, which is the reason for choosing this theory as a framework (Matthew & Felvegi, 2009). Forth, autonomous learning is mainly about engaging to the period and content psychologically. This term was used firstly by Holec (1981) as *the charge of learning* associated with second language learning (as cited in Macaskill & Denovan, 2013). As an addition to Holec's (1981) definition, autonomous learning is mainly about engaging to the period and content psychologically. Fifth, self-determination theory deals with the route of behavior and utilizes motivational elements to regulate *cognitive, affective, and behavioral* factors (Deci & Ryan, 1985, p. 7). Wikis, as one of the collaborative and motivational Web 2.0 tools, provide learners with social interaction and cooperation, enhance motivation, serve as the instrument increasing competence and provoke a desire to learn.

Review of literature

Studies seeking to find out the effects of a process-oriented approach in learners' writing proficiency mostly indicate that process-based instruction leads learners to have higher writing performance. For example, Abbate-Vaughn (2006), by using process-oriented instruction, put forward that prospective teachers were highly helped by drafting, constructing, reconstructing, and peer-reviewing. Bayat

(2014) looked into the effectiveness of this approach on writing achievement and anxiety. It was found that the writing process had a considerable effect on success and anxiety. Some other studies, on the contrary, show that the process-oriented writing approach is deficient in enhancing learners' writing skills. For instance, Barnhisel et al. (2012) suggested that less attention was paid to writing pedagogy and communication drawbacks owing to results like overwork, which labeled the process-oriented approach as being largely unsuccessful. Finally, a recent study by Kalan (2015) reflected that writing could not be turned into a single codified process.

Studies focusing on the relationship between motivation and writing mostly highlight that motivation is a prerequisite for enhancing writing skills. For example, Öztürk (2014) addressed attitudes and motivation as key factors in the successful second language learning process. At the end of the study, it was found that there was a considerable positive relation between learners' attitudes and language learning motivation. In addition, Ruan (2014) aimed to describe EFL learners' metacognitive awareness. Research also focused on online technology affecting second and foreign language writing and learners' motivation. For example, Lin and Griffith (2014) reviewed the related literature to examine the effectiveness and shortcomings of online technology in second and foreign language writing instruction. It was revealed that while interaction, motivation, and participation increased, anxiety levels decreased. Moreover, Shih (2011) integrated online tools into English writing classes and found that learners improved their English writing skills by both class instruction and cooperative learning. Meanwhile, students' interest and motivation rose. There is a limited number of studies indicating no relationship between motivation and writing proficiency. For instance, Zhang and Guo (2012) aimed to analyze the relevance between English writing and motivation. It was found that students were not self-efficient in terms of English writing though they had high motivation. The correlation analyses showed that English writing motivation, self-efficacy, and English writing proficiency were highly related to each other for English major freshmen, but not for sophomores.

Studies seeking out the effects of Web 2.0 tools and wikis focus on various issues. For instance, Liu et al. (2009) conducted a study by reviewing the literature on the use of Web 2.0 tools in higher education. It was concluded that wiki was one of the most commonly discussed technological tools in contemporary literature and could enhance teaching and learning. Turgut (2009), in the light of the findings, asserted that writing as a part of a group led learners to become better writers, feel more confident, and develop their ability to think up interesting ideas. Woo et al. (2011) claimed that the tracking feasibility of wiki assisted teachers in providing feedback and endorsement, which contented students during their writing process. In a recent study, Sun and Qiu (2014) found that learners admired wiki for enhancing their motivation and the experimental group achieved much more than the control group in terms of performance outcomes. Moreover, Aydin and Yildiz (2014) detected more accurate use of grammatical rules, more attention paid to meaning rather than structure by the learners, and advanced writing performance. According to Sleeman (2015), most of the weaker students actively joined online activities to improve their writing skills and felt more confident by using wikis and forums for writing practice. In terms of pieces created by learners, Chin et al. (2015) reflected that the quality of written products was generally enhanced.

Studies conducted on the use of wikis on motivation in EFL writing found wikis to be effective in terms of fostering motivation. For example, Franco (2008) aimed to check whether students' writing skills would be developed through wikis or not. It was revealed that a growing interest in being bound up to an online group led learners to have higher degrees of motivation. Moreover, Ducate et al. (2011) implemented the wiki on three foreign language classes at the university. Findings obtained from a post-experimental questionnaire showed positive effects of wikis on learners' motivation to write in EFL. Furthermore, Wang (2014) introduced and applied wikis in an EFL writing class. Findings indicated that wikis increased learners' motivation to learn English and increased their writing confidence. For learners, the wiki was engaging, challenging, and interesting as a teaching and learning material. Kontogeorgi (2014) explored the use of wikis in developing students' writing

skills in the EFL classroom. The findings revealed that for electronic literacy and motivation, wikis effectively make a significant contribution to learners' collaboration, teacher and peer feedback. Additionally, Chen et al. (2015) stated that motivation was the most substantial factor related to encouraging effective collaboration in performing wiki writing tasks. Moreover, Ozdemir and Aydin (2015) reviewed the studies on the effects of wikis on motivation and found that wiki is an effective instrument to enhance motivation in EFL writing.

From the review of studies on writing approaches, certain conclusions can be reached. First, research focusing on the effects of the process-oriented approach in learners' writing proficiency shows that process-based instructions cause learners to have better writing performance. On the one hand, process-based composing upgrades writing, creative thinking, expressing ideas, and conveying meaning; on the other hand, research indicates that the process approach is not sufficient for improving learners' writing skills and addressing central issues in ESL / EFL writing. Second, there is a considerable positive connection between learners' attitudes and motivation, whereas motivation is one of the major variables affecting EFL learners' writing competence. Research also shows that, among the types of motivation, especially intrinsic motivation is primary consideration having an impact on learners' writing achievement. Third, wikis are effective tools for collaborative activities, writing, organizing, editing, and sharing. Research also shows that social interactions among learners are strengthened; learning skills, generating ideas and evaluating writing improve. However, it is evident that any empirical research focusing on the effects of wikis on EFL writing motivation in global and local contexts has not yet been conducted. Thus, it is essential to focus on the writing approaches and the effects of wikis on writing achievement motivation in the EFL learning process.

Overview of the present study

Learners, teachers, and scholars agree that most people all over the world cannot reach the expected level of proficiency in English, although English is the most common foreign language at every level of education (Karahan, 2007). Although many studies have been conducted on EFL writing proficiency, numerous problems owing to cognitive, affective, and social factors remain to be solved. With the advent of technology, investment in educational technology integration into the teaching and learning process is encouraged immensely. Despite these investments, there is still an inadequate proper improvement. In a broader perspective, some of the reasons hindering the desired objectives in teaching and learning EFL is teachers' ineffectiveness such as lack of competency and confidence in using technological tools (Aydın, 2014); limited learning activities in terms of four skills, lack of practice and motivation (Solak & Bayar, 2015); students with different language levels, learning styles and cultures and the use of traditional language exams rather than alternative assessment methods (Han & Kaya, 2014) can be ordered. By keeping these concerns in mind, the study has two aims. First, the study aims to examine the level of EFL writing motivation Turkish EFL learners have towards writing. The second purpose of the study is to compare the effects of the traditional learning environment and wiki-based online learning environment in due course of EFL writing motivation. Thus, the current study aims to answer the following question:

- Does the use of wikis in EFL writing have any influence on EFL writing motivation?

Method

Participants

The students who participated in the study were 42 pre-service English teachers studying at the ELT Department of Necatibey Education Faculty at Balikesir University, Turkey. All the students were non-native speakers of English and shared the same native language, Turkish. The group included 31 (73.8) females and 11 (26.2) males. The difference between the number of female and male students

was due to a reflection of the overall gender distribution in the department. The mean age of the participants was 20 in the range of 18 and 42. Since advanced writing class was taught during the first year, all of the participants were freshmen. Participants were also at the advanced level of English, as they all studied EFL at high school, where they chose the English department and were taught intensively by taking nearly 12-hour English courses a week. In addition, as participants had already attended the course Computer, they were familiar with basic computer skills.

Before attending university, students' language proficiency was evaluated by FLE which is officially administered once every year by Student Selection and Placement Center (ÖSYM). This test was composed of 80 questions in total including six vocabulary and 10 grammar questions, five cloze and eight sentence completion tests, 12 translation sentences from Turkish into English and English into Turkish, 15 comprehension and interpretation according to contexts, five re-formed sentences, five paragraph completion tests, five situation-oriented questions, five dialog completion and five omitting irrelevant sentences. The mean score of the participants' academic score which was obtained from the official examination results, was 2.73, ranging from 0.00 to 4.00.

Tools

For the purpose of obtaining data from the participants, two tools were used in the study. First, a background questionnaire was used in an attempt to collect information about participants' age, gender, and academic achievement scores. Second, Payne's (2012) AWMQ with 37 items being a Likert scale was used with the aim of ascertaining participants' motivation levels (never = 1, rarely = 2, sometimes = 3, usually = 4, always = 5).

Procedure

The first step of the study was ensuring the participants about the confidentiality of their answers, personal information, and involvement in the study. The next step was informing participants about the importance, purposes, procedure of the present research. Both control and experimental groups were acquainted with the importance and role of writing skills in learning EFL. During the first session for each group, phases of coming weeks were expanded. For the control group, the working schedule and the process including pre-test and assigned pen-paper writing tasks after learning structural characteristics of essay types and post-test, were clarified. During the first course of the experimental group, pre-test administration, wiki-based tasks, and post-test were explained. For this purpose, a classroom was created on Wikispaces (www.wikispaces.com), and learners were illuminated by how to use Wikispaces, create an account, submit the task, share, edit a page, make changes, give peer feedback and save those changes.

This experimental study is composed of a three-step procedure: (1) administration of background questionnaire and AWMQ, (2) practice, (3) administration of AWMQ. In the third week of the spring semester of 2015, the background questionnaire and AWMQ were delivered. After placing participants according to the results obtained from AWMO in control and experimental groups, four-week writing instruction about process-based writing instruction was given within the practice process. The tasks of the control group were based on traditional pen-paper writing, whereas the ones in the experimental group were online submissions via wiki. Two groups were included in the same process in terms of writing instruction. As a final step, two groups were compared according to the post-test that was conducted at the end of the semester.

Pre-test administration

Before the instruction process, participants were grouped as control and experimental groups. To have demographic information about participants, a background questionnaire inquiring

participants' age, gender, and academic achievement score was administered. After the background questionnaire, the next step was administering AWMQ which included 37 items evaluating learners' motivation levels regarding EFL writing. Participants were asked to mark the most appropriate choice for them after reading each statement. While doing this, their motivation levels were taken into consideration, and both groups were composed in a balanced way in terms of their eagerness to get through and learn.

Practice

The instruction process included four weeks of lecturing, assigning, and submitting tasks within the scope of the process-based writing approach. Phases of writing included brainstorming, planning, drafting, writing, peer review, editing, and rewriting. At the beginning of each course, the instructor described the principal steps of an essay type. Students chose their pairs and practiced on the topics and tasks.

Table 1. Instruction process for control and experimental groups

Weeks	Tasks	Grammar	Vocabulary	Process
Week 1	Writing a process essay: Organizing a process essay Creating a text including subsequent steps	Using transition words and subordinators	Using correct time adverbials and conjunctions	
Week 2	Writing an extended definition: Peculiar features of an extended definition	Using contrast and concession connectors		Brainstorming Outlining Planning First draft Peer feedback Second draft Teacher feedback Final draft
Week 3	Writing a persuasive essay: Using evidence to support an argument	Using noun clauses	Using statistics, comparisons, personal examples, quotations, explanations, and analysis	
Week 4	Writing a cause-and-effect essay	Using, grouping, and ordering cause-and-effect statements Using simple past tense appropriately	Using coordinating conjunctions, subordinators, and transitions	

Post-test administration

After four weeks of instruction, learning, and practicing four different essay types, the post-tests were administered at the last stage of the research. AWMQ consisting of 37 items that evaluates learners' motivation relating to EFL writing, was administered and responded by all participants in a pen-paper environment not to be hindered by any other technical problems.

Data analysis

After the post-test was administered, Statistical Package for Social Sciences (SPSS) was utilized for analyzing data collected. First, minimum and maximum values of participants' ages and mean scores

were computed. Second, the numbers and percentages of participants' gender were computerized. Third, mean scores, minimum and maximum values, and standard deviation were calculated in terms of academic achievement scores. For pre-and post-tests, the reliability coefficients of AWMQ in Cronbach's Alpha and percentages of variance were calculated as shown in Table 2. The reliability of the pre-test was 0.92, and the percentage of variance was 76.75. Furthermore, the reliability of the post-test was 0.94 and percentage of variance was 80.34.

Table 2. AWMQ reliability of the pre- and post-tests

Reliability coefficients (Cronbach's Alpha)		% of the Variance
Pre-test	0.92	76.75
Post-test	0.94	80.34

Results

Instruction effect on writing motivation

As shown in Table 3, in terms of post-test results consisting of participants' perceptions and attitudes towards writing, they seem to have both intrinsic and extrinsic motivation. It was found that five items were significantly correlated when the pre- and post-test results were compared. For instance, the values regarding enjoying writing and liking to write down their thoughts significantly increased (p=.00). Moreover, the participants' motivation to write in their classes considerably increased (p=.01). Another improvement was in participants' perceptions that their beliefs about the easiness of writing good essays increased significantly (p=.01). Additionally, participants' beliefs about writing more than the minimum on writing assignments considerably improved (p=.02).

Table 3. Pre- and post-test comparison of the items in AWMQ for the control group

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
				Lower	Upper			
I enjoy writing.	.66	.79	.17	.30	1.02	3.83	20	.00
I like to write down my thoughts.	.61	.86	.18	.22	1.01	3.28	20	.00
I write more than the minimum on writing assignments.	.52	.98	.21	.07	.97	2.44	20	.02
It is easy for me to write good essays.	.42	.74	.16	.08	.76	2.63	20	.01
I revise my writing before submitting an assignment.	-.47	.67	.14	-.78	-.16	-3.21	20	.00
Being a good writer is important in getting a good job.	-.33	.73	.15	-.66	-.00	-2.09	20	.04
I am motivated to write in my classes.	.47	.81	.17	.10	.84	2.68	20	.01

According to the findings presented in Table 4, eight items were correlated, and there were significant improvements in the values of these items. First, there existed to be a considerable

increase in motivation to write in classes and willingness to participate in written online discussions (p=.00). Second, in terms of enjoying writing (p=.04) and creative writing assignments (p=.02), there were considerable improvements. Third, appreciating feedback from an instructor on their writing (p=.03), classes that require much writing (p=.03), and others to read what they wrote (p=.03) were significantly correlated. In addition, the ease of choosing the right word (p=.03) was considerably correlated.

Table 4. Pre- and post-test comparison of the items in AWMQ for the experimental group

| | | Paired Differences | | | | | | |
| | | | Std. Error Mean | 95% Confidence Interval of the Difference | | | | Sig. (2-tailed) |
	Mean	Std. Deviation		Lower	Upper	T	Df	
I enjoy writing.	.47	1.03	.22	.00	.94	2.11	20	.04
I like to participate in written online discussions.	1.09	1.57	.34	.37	1.81	3.18	20	.00
I like to get feedback from an instructor on my writing.	.47	.98	.21	.02	.92	2.22	20	.03
I enjoy creative writing assignments.	.47	.92	.20	.05	.89	2.35	20	.02
I like classes that require a lot of writing.	.47	.98	.21	.02	.92	2.22	20	.03
I like others to read what I have written.	.52	1.07	.23	.03	1.01	2.22	20	.03
Choosing the right word is easy for me.	.42	.8	.18	.03	.82	2.25	20	.03
I am motivated to write in my classes.	1.38	1.20	.26	.83	1.92	5.26	20	.00

Wiki effect on writing motivation

To analyze differences between the control and experimental groups, pre-test and post-test scores for both groups were compared. Within this context, it was found out that five items were significantly correlated in terms of the scores gathered from control and experimental groups. The items having significant differences were stated appreciating feedback from an instructor on their writing (p=.01), easily focusing on what they are writing (p=.05), thinking that spelling is easy (p=.01), revising their writing before submitting an assignment (p=.04), and choosing to write an essay rather than answering multiple-choice questions (p=.03). The significance level of the items indicated a strong correlation being equal to lower than .05.

Table 5. Comparison of the pre-test items in AWMQ for control and experimental groups

	Group	Mean	Std. Deviation	Std. Error Mean	F	Sig.
I like to get feedback from an instructor on my writing.	Control	3.61	.74	.16	6.41	.01
	Experimental	3.19	1.16	.25		
I easily focus on what I am writing.	Control	3.23	1.30	.28	3.86	.05
	Experimental	3.52	.87	.19		
Spelling is easy for me.	Control	3.23	1.26	.27	6.29	.01
	Experimental	3.66	.73	.15		
I revise my writing before submitting an assignment.	Control	4.28	.95	.20	4.33	.04
	Experimental	4.19	.67	.14		
I would rather write an essay than answer multiple choice questions.	Control	2.85	1.42	.31	4.92	.03
	Experimental	2.33	.91	.19		

After the experiment, the post-test scores for the control and experimental groups were compared in order to find out the differences. As it is seen, the two items were significantly different with regard to motivation in writing. The items that were strongly correlated were that they revised their writing before submitting an assignment (p=.01) and that being a good writer was important in getting a good job (p=.05). Apart from these items, there was no statistically substantial distinctness between the scores of control and experimental groups.

Table 6. Comparison of the post-test items in AWMQ for control and experimental groups

	Group	Mean	Std. Deviation	Std. Error Mean	F	Sig.
I revise my writing before submitting an assignment.	Control	3.20	.67	.14	6.54	.01
	Experimental	3.80	1.24	.27		
Being a good writer is important in getting a good job.	Control	3.66	1.31	.28	3.98	.05
	Experimental	4.09	.88	.19		

Conclusions and Discussion

At the end of the study, three conclusions were obtained. The first conclusion is that process-based writing instruction in a traditional writing environment has both positive and negative effects in terms of writing motivation. On the one hand, the process-based writing approach in a traditional environment increases learners' motivation concerning enjoying writing, carrying off writing assignments, and writing more than the minimum. On the other hand, revising before submitting and considering writing as significant are affected negatively; the participants' level of motivation also decreases. The second conclusion of the study is that the process-based writing approach in a wiki-based learning environment has considerable effects on learners' motivation to write in EFL. For instance, learners' enjoyment in writing, participating in online discussions, getting feedback, composing creative assignments, and attending classes requiring writing is enhanced. Moreover, choosing and using correct words becomes easier with the help of the wiki-based online writing environment. Additionally, EFL writers feel more motivated to write in their classes by means of a

wiki-based writing classroom. The last conclusion is that wiki-based and pen-paper writing classes have certain similar and different effects when they are compared in terms of learners' writing motivation. For instance, traditional and wiki-based writing classes seem similar in terms of enjoying writing and being motivated to write in their classes. However, it was concluded that pen-paper writing increases motivation in terms of writing down thoughts readily and more than the minimum on writing assignments. On the other hand, it has no effect when appreciating being a good writer and the rate of revising assignments before submitting were considered. What is more, a wiki-based writing class motivates students in terms of participating in written online discussions, getting feedback from an instructor and others, creative writing assignments and classes that require a lot of writing.

Pedagogical implications and practical recommendations

Several pedagogical implications can be presented. The study provides evidence that the wiki-oriented writing environment strengthens learners' level of motivation. Similar findings were reached in the previous research. For example, the use of wikis is claimed to increase writing achievement and enhance writing confidence (Ducate, 2011; Franco, 2008; Kontogeorgi, 2014; Ozdemir & Aydin, 2015; Wang, 2014). Furthermore, this study concludes that wikis encourage effective collaboration, which Ku and Chen (2015) also find.

Regarding the findings, it can be suggested that teachers can carry out process-based writing instruction to increase learners' writing performance either in traditional or online environments. Both wiki-oriented and pen-paper writing tasks in the process-based approach encourage and challenge learners and increase their writing confidence. In terms of increasing learners' level of motivation in EFL writing classes, wikis that are easily, freely, and newly accessible tools can be applied. As a final point, it can be inferred that both pen-paper and wiki environments influence and inspire learners to exert effort and pay more attention.

Some practical recommendations can be put forward in consideration of the conclusions. First of all, media literacy and effectively educating teachers to use digital media in class should be compulsory in teacher training programs. Only when equipped with the required knowledge to implement technological tools and applications in a writing course will pre-service and experienced teachers professionally be developed for teaching today's generation, digital natives born into a digital world. Second, wiki existing as an advanced technology tool ought not to be ignored by teachers but benefited from the advantages it serves. By incorporating wiki into the course structure to give and accept homework, provide feedback by both teachers and peer, correct errors, make corrections and teach in this way, teachers can enable learners to develop higher writing proficiency levels. Third, teachers also need to integrate process-based writing instruction into their traditional teaching environment to enhance learners' writing achievement and motivation. Fourth, as being indispensable for EFL learning, the teachers should take the learners' motivations seriously. Both inside and outside of the classroom, teachers need to motivate learners and provide new opportunities.

When it comes to curriculum designers and material developers, more attention should be paid to the supportive impacts of process-based writing instruction, and new integrated environments should be considered. Specifically, for advanced level EFL learners who have to focus on complicated structures to write well-developed essays and academic writing, process-based writing instruction needs to be incorporated into the teaching and learning process. Furthermore, concerning writing in EFL, policymakers need to be concerned about preparing and re-orienting the schools and learners for 21st-century education in a digital era and look over recent research on the use of digital media such as wikis. It is noteworthy that curriculum designers need to pursue a policy, make supportive plans, and fund-raise to make impressive wikis in EFL classes. In addition, curriculum and material

developers should include wikis to writing course plans to provide learners with the power and opportunity to share ideas with others and influence thoughts.

Limitations and recommendations for further research

Several limitations can be noted. First of all, this study is limited to 42 freshmen students studying at the ELT Department of Necatibey Education Faculty at Balikesir University, Turkey. Second, this study is limited to the experimental research process, including pre-test and four-week administration, and post-test. Third, the study is limited to investigating EFL writing motivation. Moreover, the tool for collecting data is limited to AWMQ (Payne, 2012).

Some practical recommendations for further research can be put forward. To begin with, further research should investigate the relevance of wikis between psychological, social, and individual variables on influencing the writing achievement and motivation of EFL writers. Namely, the effects of wikis on psychological aspects including learners' emotions, affective variables, self-consciousness, self-assurance, and self-sufficiency, should be the subject of further discussion. Researchers also need to focus on the effects of wikis on other writing approaches, including form-focused, reader-dominated, and content-based approaches and environmental effects on the aforementioned approaches. The impacts of other writing environments, either online or traditional, on motivation need to be the focus of further studies. Furthermore, studies should be based on the recent tools of technology including blogs, podcasts, and other Web and Web 2.00 tools, as considerable gaps exist in related literature. Issues such as competence of information technologies, drawing advantage from and familiarity with the Internet, academic score, and their relationship between EFL writing achievement and motivation must be focused on. Moreover, qualitative studies should be carried out to determine imperfections and obtain open-ended comments in terms of learners' motivation and achievement.

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