

Teaching writing with wiki-based collaborative writing tasks in an EFL context at higher education

Zennure Elgün Gündüz¹

Ardahan University, Turkey

Email: zennureelgungunduz@ardahan.edu.tr

DOI: [10.35974/acuity.v8i1.2807](https://doi.org/10.35974/acuity.v8i1.2807)

Abstract

This study explored university students' attitudes towards wiki-based collaborative writing tasks and their perceptions of the effects of these tasks on their writing development in an EFL (English as a Foreign Language) context in Turkey. A total of 40 university students participated in wiki-based collaborative writing tasks. Wiki-based collaborative writing tasks enabled students to collaborate with their peers wherever or whenever they wanted, negotiate with each other, give and receive feedback, and take responsibility during the process of writing. Qualitative and quantitative data were collected during this 5-week intervention. This included two questionnaires and semi-structured interviews. Descriptive analysis and qualitative content analysis were used to analyse the data. The results indicate that the students considered wiki-based writing activities motivating, innovative and effective in their writing development in English. The research findings are discussed in terms of their implications for foreign language writing.

Keywords: *English as a Foreign Language (EFL) teaching, EFL writing, collaborative writing, wiki-based writing, web-based writing, mixed-method research*

INTRODUCTION

Although writing is generally perceived as an activity conducted by a writer working individually to produce a text, its scope has been widened by the notion of collaborative writing (Storch, 2019). Collaborative writing refers to “an activity where there is a shared and negotiated decision-making process and a shared responsibility for the production of a single text.” (Storch, 2013, p.3). Research studies have suggested that collaborative writing has positive effects on student motivation (Kowal & Swain, 1994; Swain & Lapkin, 1998); knowledge of grammar and lexis (Swain & Lapkin, 1998); quality of writing (Storch, 2005); awareness of audience (Leki, 1993); content, organization and vocabulary use (Shehadeh, 2011); ownership of the writing process and product (Storch, 2005); and knowledge building (Donato, 2004). In addition, collaborative writing process can enable learners improve their skills in guiding and supporting each other while writing (Hirvela, 1999) and use appropriate language while making meaning (Storch, 2013).

¹Corresponding Author: Zennure Elgün Gündüz, Çamlıçatak Campus, Faculty of Humanities and Letters, 2nd Floor, Department of English Language and Literature, Ardahan University, Ardahan, 75000, Turkey. Email: zennureelgungunduz@ardahan.edu.tr

Technological advancements, particularly the Web 2.0 tools, have led to developments in collaborative writing practices (Bikowski & Vithanage, 2016; Elola & Oskoz, 2010). Tools such as wikis (Elola & Oskoz, 2010; Kessler & Bikowski, 2010), chats (Elola & Oskoz, 2010), blogs (Sun & Chang, 2012), and web-based word processing (Kessler et al., 2012) provide new opportunities for collaboration in L2 writing. These opportunities involve writing, reviewing, and editing a text anytime and anywhere (Kost, 2011). These tools help learners work in collaboration and exert autonomy in the process of text production (Kessler & Bikowski, 2010), besides providing chances for negotiation (Storch, 2013), content development (Kessler, 2009), accuracy and organization (Hsu & Lo, 2018). In addition, collaborative web-based tools enable teachers track learners' collaborative writing processes and contribute to the production of the written text when necessary (Elola & Oskoz, 2010).

Literature Review

Collaborative writing refers to “an activity where there is a shared and negotiated decision-making process and a shared responsibility for the production of a single text” that leads to a collective cognition about language learning (Storch, 2013, p. 3). Collaborative learning is based on Vygotsky's (1978) sociocultural theory, which entails that learning begins in social interaction. Through social and mutual activities with a more knowledgeable person/expert, a novice person's cognitive development improves – the process called as scaffolding (Hsu, 2019). The process of scaffolding can take place among peers in pair or group work during which learners act like experts and support each other (Lee, 2008; Storch, 2002; Swain & Lapkin, 1998). Such cooperation can lead to a higher level of performance than individual work (Donato, 2004).

Through collaborative writing, students are engaged in social interaction to construct knowledge together and produce a common product (Wigglesworth & Storch, 2012). In a collaborative L2 writing situation, learners need to make decisions about the content and the language of their texts (Storch, 2005). Collaboration entails a knowledge building process in which learners try to “construct common understandings” through “constructive and creative effort” (Wells, 2000, p. 74).

As collaborative writing involves interaction of individuals and sharing of knowledge and ideas (Elola & Oskoz, 2017), learners can identify gaps in their knowledge and can learn from each other. Learners try to negotiate meaning to develop a “jointly constructed text” (Wigglesworth & Storch, 2012, p. 365). Such a learning environment supporting joint action for knowledge construction makes it superior to individual work (Wells, 2000; Elola & Oskoz, 2010). Within such a collaborative process, instructors are no longer seen as the mere sources of knowledge, transferring whatever they know to the language learners who are often in passive position receiving whatever transferred to them. Instead, learners are on the active side and they construct new knowledge through a process of negotiation, sharing, discussing and using the mediating role of language (Swain, 2000).

Technology and Collaborative Writing

The “multifaceted skills and competencies” involved in contemporary communication technologies lead researchers and educators to reconceptualize “the nature of written media and the writing activity” (Canagarajah, 2002, p. 211; Warschauer, 1996). Online tools such as chat applications and wikis enable learners to be involved in “more student-directed activities” and collaborate beyond the “four walls of classroom” for more input and output (Blake, 2008, p. 22; Hsu & Lo 2018, p. 104; Ortega, 2007). In terms of L2 writing, Web 2.0 tools offer opportunities to foster collaborative writing through interactive and social practices (Hirvela, 1999).

Wikis are one of these Web 2.0 tools providing a platform suitable for collaborative writing activities (Elola & Oskoz, 2010). Wikis are defined as “freely expandable collection of interlinked Web pages, a hypertext system for storing and modifying information - a database, where each page is easily edited by any user with a form-capable Web browser client” (Leuf & Cunningham, 2001, p. 14). As stated in the definition, a wiki has three basic functions: edit, history and discuss. ‘Edit’ function enables learners to add content, revise and modify the text; ‘history’ function gives users the opportunity to see what changes have been made by whom and when through color coding; and lastly ‘discuss’ or ‘comment’ function allows users to exchange opinions about the text through messaging (Li, 2012). Thanks to these functions, wikis can be used as a platform where learners can share information and comment on each other’s output (Lee, 2010; Lund, 2008) not only in the classroom but also outside the classroom (Parker & Chao, 2007). The asynchronous feature of wikis enables users to have more time to focus on form, organization, and accuracy and reflect upon what they and the other group members have written (Elola & Oskoz, 2010; Hsu & Lo, 2018; Lund, 2008), and it contributes to “author accountability” (Hsu, 2019, p 104). Collaborative writing via wikis has been subject to certain research studies. Most of the studies have focused on the effects of wiki-based collaborative writing on the improvement of certain aspects of L2 writing. For instance, some studies have presented that collaborative writing via wikis led to improvement in content (Kessler, 2009; Oskoz & Elola, 2010); organization (Kost, 2011; Lee, 2010; Oskoz & Elola, 2010); and accuracy (Lee, 2010). Research studies exploring the students’ perceptions of wiki-based collaborative writing in EFL setting are scarce (e.g. Shedah, 2011; Yu-Chuan Joni Chao & Hao-Chang Lo, 2011).

Research questions

The review above indicates that much research into the use of wiki-based collaborative writing tasks indicates positive outcomes on particular aspects of foreign language learning such as vocabulary, accuracy, organization, and content. Research on students’ attitudes to wiki-based collaborative writing and their perceptions of the effects of wiki-based collaborative writing on their L2 writing skills is scarce and the ones conducted on that issue have not been conducted recently. As a result, students’ perspectives about wiki-based collaborative L2 writing should be explored (Elola & Oskoz, 2010; Wang, 2014). In addition, arriving at more recent findings in different contexts to explore students’ perspectives about wiki-based collaborative L2 writing can provide practitioners with evidence about the

potential of wiki-based collaborative L2 writing and to make more informed pedagogical adjustments. For that end, this study implemented wiki-based collaborative writing tasks in a higher education setting and investigated EFL learners' attitudes towards wiki-based collaborative L2 writing and their perceptions of its effects on their L2 writing development.

The study posed the following questions:

1. What are the students' attitudes towards wiki-based collaborative L2 writing at university level?
2. What are the students' perceptions of the effects of wiki-based collaborative L2 writing tasks on their L2 writing skills at university level?

METHODS

Research design

This study was conducted as a participatory action research so that the instructor would be a part of the research trying to explore the problems and the solutions (Cain, 2011). This study employed a methodological triangulation involving more than one method to gather data in order to explore the research questions in a more detailed way (Cohen, Manion & Morrison, 2000). In order to investigate the research questions, the participants were given two questionnaires. In addition, semi-structured interviews were conducted to get a more in-depth understanding of the quantitative findings.

Context and participants

The study was conducted with an English preparatory class consisting of 40 (14 males, 26 females) students who volunteered to take part in the research study. The study utilized a convenience sample as all the participants were enrolled in English preparatory class. The participants were at the age of 17-19 and they were studying English for three months at a state university in Turkey. Each participant had learned English in formal education for at least 9 years prior to enrolling in this class. They had been admitted to the university based on their scores in a national university entrance examination, and their level of English had been determined to be B1 in the English Proficiency Exam - the EFL exam implemented by the university at the beginning of the first semester. The instructor of the writing course – who was also the researcher - had been teaching English at university level for more than 10 years.

Before the study, the researcher informed the students about the process of wiki-based writing. Informed consent from all the participants was obtained in written form. All personal data were made anonymous. Instead of video-recording, audio recordings of the interviews were taken and kept confidential as stated in the consent form.

Instruments

The researcher preferred to use methodological triangulation in order to have a comprehensive understanding of the researched phenomena (Cohen et al., 2000; Patton,

1999). Therefore, two different questionnaires were given to all the participants and semi-structured interviews with 10 randomly selected participants were conducted.

In order to explore the first research question - learners' attitudes towards wiki-based collaborative L2 writing – the first questionnaire adapted from Wang (2014) was implemented after the writing tasks were completed. The questionnaire asked the participants to express their views on collaborative L2 writing through the wiki. The questionnaire consisted of 10 items in a 5-point Likert scale (5: *Strongly Agree*, 4: *Agree*, 3: *Not sure*, 2: *Disagree*, 1: *Strongly Disagree*). First, an item pool consisting of 17 items was formed based on the literature. Then, the items were evaluated by three experts for validity and 7 items considered to be not measuring the issues addressed by the research question were removed from the questionnaire. To avoid the possibility of receiving biased answers, three items were negatively worded and they were recoded for data analysis (Baumgartner & Steenkamp, 2001). Considering the English level of the participants, the researcher translated the questionnaire into Turkish, and two experts from the Department of Foreign Languages checked the translated version to ensure clarity and face validity. Before applying it to the participants of the study, the piloting of the questionnaire was conducted with ten students who were similar to the sample group in terms of their demographic background, education, and level of English. Some changes in terms of sentence structure and vocabulary were made based on the viewpoints of the students who participated in the piloting study in order to increase the validity and reliability of the questionnaire. In order to measure the reliability of the questionnaire, Cronbach's Alpha was calculated and found to be .87, which was enough to accept it as a reliable scale.

In order to handle the second research question - students' perceptions of the effects of the wiki-based collaborative L2 writing experience on their L2 writing skills - another questionnaire was implemented at the end of the writing experience. It consisted of 17 statements with a 5-point Likert scale. 5 of the statements were taken from Wang (2014) as they addressed the participants' general impressions of the effects of the wiki-based writing on their L2 writing development. The researcher added 12 more statements, which were related to more specific aspects of L2 writing such as grammar, content, organization, and mechanics of the written text. First, the researcher formed an item pool by taking 8 items from Wang's (2014) survey and by producing 15 items based on the literature. After expert evaluation, 6 items were removed. Similar to the first questionnaire, this questionnaire was also translated into Turkish, and its piloting was conducted and some changes were made on the items to make them more comprehensible. Cronbach's Alpha was also calculated and found to be .85, which was considered enough for the reliability of the scale. It should be also noted that both of the questionnaires started with a consent paragraph indicating the research purpose, anonymity, and confidentiality for ethical issues.

In order to triangulate the findings collected from the quantitative data and get a more detailed understanding of the results from questionnaire findings, semi-structured interviews were conducted with 10 randomly selected participants. The interview was preferred because it provides in-depth information about students' attitudes and feelings, providing precise and meaningful data collection (Adams, 2015; Williams & Katz, 2001). The interview questions

explored how students perceived wiki-based collaborative writing and what they thought in terms of its effects (if there were any) on their L2 writing development. Each interview was conducted face-to-face and lasted about 10-15 minutes. Students' responses were tape-recorded and translated from Turkish to English after transcription.

Procedures

The students met for 90-minute class period per week for 5 weeks over the intervention period. Two wiki-based writing tasks were completed through group collaboration. As the participants did not have any experiences in using wikis for writing purposes, they were engaged in short practice sessions in the first week of the study. In the present study, Pbworks (www.pbworks.com) was preferred as the online wiki platform for writing tasks. During these practice sessions, the students were introduced with the functions of the wiki platform such as editing, history and comment, and they were given a short writing task as a sample to familiarise themselves with the wiki system. The instructor mentored the students during the sample writing task and guided them in terms of not only writing their ideas but also editing their peers' writings, giving feedback, checking the history function and commenting on the written product.

Following the familiarisation process, the instructor divided the class into ten groups each of which consisted of four students. A list of essay topics related to the content of their course textbook was prepared by the instructor and each group chose one topic from that pool to work on. During the writing process, the instructor also logged in the page of each group and provided feedback for writing improvement. In addition, as the wiki system provided a history facility which showed who contributed to the written product, when and how, the instructor could encourage the ones who did not do much work to collaborate more. The students worked on their first task for two weeks whenever they wanted. At the end of the writing task, the instructor provided an overall feedback and made suggestions related to their writing process and written texts through wiki system.

After the first writing task, the same students were provided with another list of essay topics and again each group chose an essay topic and wrote about it through the wiki. This time, the instructor did not interfere in the process much, but could follow the writing process of each group through the wiki. The students worked on their texts not only in the classroom but also at home, at dormitory or in a cafe. They had two weeks to complete the second task. At the end of the second task, the instructor provided feedback about their writing performance, and the students finalized their written products on the wiki based on the feedback they received and submitted their work to the instructor.

After completing the two writing tasks, the students answered two questionnaires about wiki-based collaborative writing in the classroom. 10 randomly selected students attended the semi-structured interviews, answering questions about their feelings and attitudes about wiki-based collaborative writing and their perceptions of its effects on their L2 writing development. Two research assistants who had training and experience about how to conduct interviews without any bias or judgement conducted the interviews. The researcher was not involved in the interviews to avoid researcher influence, bias or role conflict, and to prevent

students from expressing opinions to please the instructor (Stalmeijer, McNaughton & Van Mook, 2014). The researcher prepared a semi-structured interview protocol to guide the interview process. This protocol involved open-ended interview questions and reminded the interviewers to greet and extend their thanks to the participants, it also stated that the participants might be asked to clarify their statements, their names would be kept anonymous and they could check the transcription of their interviews if they wanted. The open-ended questions investigated how the students felt during wiki-based collaborative writing process, what kind of opportunities and challenges they had, how they perceived the writing process, whether they thought wiki-based writing had any effects on their L2 writing, what kind of effects it had on their L2 writing (if it had any). All the interviews were conducted face-to-face and they were tape-recorded after obtaining permission from the participants. The interviews were conducted in Turkish to help the students better express their feelings and opinions in their native language. Each interview lasted 10-15 minutes. The interviews were transcribed by the two research assistants.

The role of the instructor (also the researcher) in this study was as a facilitator and mentor as there was basically a student-centered and collaborative learning environment. Students were involved in a learning process and completed the assigned tasks collaborating with each other through the wiki-system. When they encountered any problems, the instructor provided them with necessary support and solutions to continue the task.

Data analysis

The quantitative data from the questionnaires were analysed with Statistical Package for Social Sciences (SPSS) version 20. As Likert scale data are analyzed at the interval measurement scale, the statistics recommended for analyzing the data from the current questionnaires include the mean for central tendency (Boone & Boone, 2012). Therefore, descriptive statistics, mean scores, standard deviations, and the percentage of responses for each item in both of the questionnaires were calculated .

In order to collect and analyze the interview data, thematic analysis was conducted. The thematic analysis procedures suggested by Braun and Clarke (2006) were followed. These procedures consist of six steps: (a) familiarizing yourself with your data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes and (f) producing the report (p. 87). The researcher collaborated with the two research assistants for the thematic analysis in order to ensure the correctness of the themes found in the data. The themes that emerged from the interview data were used to address the research questions and elaborate on the findings from the questionnaires.

RESULTS

This study explored the students' attitudes to wiki-based collaborative L2 writing and their perceptions of the effects of wiki-based collaborative L2 writing on their L2 writing skills. For each research question, quantitative findings from the questionnaires will be presented and then qualitative findings from the interviews will be provided.

Before presenting the research findings, it should be noted that at the beginning of the research study, the researcher asked the participants whether they had been involved in collaborative writing activities beforehand, and it was found out that none of them had had such an experience. In addition, the participants were asked whether they had used wikis for writing purposes, and they stated that they had never written anything on the wiki platform. Therefore, it could be inferred that students did not have any idea about wiki-based collaborative L2 writing and their perceptions of wiki-based collaborative writing tasks would be built from their experiences during the present study.

RQ1: What are the students’ attitudes towards wiki-based collaborative L2 writing at the university level?

The first questionnaire was designed to explore participants’ attitudes towards wiki-based collaborative writing. The results indicate that students had a positive attitude towards using the wiki system for L2 writing ($M = 4.25$, $SD = 0.74$). The results from the first questionnaire are presented in Table 1.

Table 1. Students’ attitudes towards wiki-based collaborative L2 writing

Number	Statements	Mean	SD
1	I feel comfortable with using the wiki system to interact with my peers to write in English	4.32	.75
2	I do not feel relaxed while writing via the wiki system.	4.25	.67
3	The wiki platform is interesting and innovative.	4.51	.78
4	I enjoy performing group-writing tasks via the wiki.	4.43	.74
5	Wikis are not simple to set up.	4.10	.69
6	Wikis are functional to organize the text.	3.84	.80
7	It is easy to learn and work with wikis.	4.01	.73
8	Using wikis improves my motivation to write in English.	4.37	.82
9	I do not enjoy writing with peers via the wiki.	4.40	.79
10	I feel self-confident to write in English via the wiki.	4.27	.65
	Overall	4.25	.74

$N=40$

The results from the first questionnaire revealed that students felt comfortable ($M = 4.32$) and relaxed ($M = 4.25$) while using the wiki system for L2 writing. They found it innovative ($M = 4.51$) and enjoyable (items 4 and 9, average $M = 4.41$). The students found using the wiki-system to be motivating ($M = 4.37$) and improving their self-confidence ($M = 4.27$). In terms of some technical properties of the wiki-system, the students found it easy to set up ($M = 4.10$) and work on it ($M = 4.01$). The item with the lowest mean is the one stating that wikis are functional to organize the text (item 6, $M = 3.84$).

Overall, the students enjoyed wiki-based collaborative L2 writing and they expressed positive attitudes to using the wiki system for collaborating with their friends to produce texts in English.

Further exploration during the interviews revealed that students had positive attitudes towards using the wiki-system for collaborative L2 writing. The interview data collected to explore the first research question in more detail were categorized under three themes: (a) students' feelings about the wiki-based collaborative L2 writing, (b) students' opinions about the accessibility of the wiki system, and (c) students' opinions about their motivation and self-confidence.

The interview results show that all of the interviewed students had positive feelings about using the wiki system to collaborate with their peers for writing in L2. Some responses from the students are given below. To protect the students' anonymity, their names are indicated by numbers.

I feel less stressed when I write through the wiki because I can cooperate with my friends and we can exchange our ideas in order to produce a better outcome. (S3)

Using wikis to cooperate with my peers and to see their comments is quite interesting and enjoyable. (S4)

Regarding the students' opinions about the accessibility of the wiki system, 70% (7 out of 10) pointed out that they found it easy to use the wiki. However, some students stated that they sometimes encountered some technical problems in terms of formatting the text. As an example, the following comment can be given:

I liked working with the wiki, but it was not always possible to format the text however we wanted. Sometimes, we wanted to indent a paragraph or justify the text, but it was not possible. (S2)

This finding from the interviews can provide an explanation for the fact that the item 6 (Wikis are functional to organize the text) on the questionnaire had a relatively lower mean (3.84). As the wiki system did not permit the students to apply some formatting properties, they may have expressed partial agreement on that item.

With regard to the students' motivation and self-confidence in L2 writing through the wiki, 80% of the participants found it motivating to work with the wiki. They stated that they felt more motivated to write in English via the wiki system, as it was enjoyable to use the wiki system to produce a text with their friends. 70% stated that they felt more self-confident while trying to share their opinions with their friends and to contribute to the improvement of their texts. The following statements can be given as examples:

In our previous writing courses, I used to feel reluctant to write in L2; it was like a burden for me. However, when I was writing with my friends through the wiki, it was enjoyable. I felt more motivated to log in the wiki, add some sentences and review the entries of my peers and edit them when necessary. (S1)

I enjoyed using the wiki when writing in English. It was not like an obligatory task that we had to fulfill, instead it was like a game. It is really a very innovative opinion to write through the wiki system in our English writing courses. I felt motivated to produce something in English with my friends. In addition, I should say that I felt much more self-confident to contribute to the writing product of our group. (S3)

Using the wiki to write in English was like making puzzles. You know, we tried to combine some pieces of ideas to make a whole, which was quite enjoyable and motivating. (S7)

Regarding the first research question, it may be inferred that the responses obtained from the interviews supported and validated the questionnaire findings. Students considered wiki-based collaborative L2 writing to be an enjoyable, comfortable, innovative and motivating experience.

RQ2: Students' perceptions of the effects of wiki-based collaborative L2 writing on their L2 writing skills

The second questionnaire was designed to survey students' perceptions of the effects of wiki-based collaborative writing on their writing skills in L2. The questionnaire consisted of 17 items on a 5-point Likert scale. Out of the 17 items, the first 5 items were about participants' general impressions of the effects of the wiki-based collaborative writing on their L2 writing. 3 items (items 6, 7, and 8) investigated participants' perceptions of the effects of the wiki-based collaborative writing on their use of grammar while writing. 3 items (items 9, 10, and 11) investigated participants' perceptions of the effects of the wiki-based collaborative writing on their ability to improve the content of their writing. 3 items (items 12, 13, and 14) investigated their perceptions of the effects of the wiki-based collaborative writing on the organization of the text. 3 items (items 15, 16, and 17) investigated participants' perceptions of the effects of the wiki-based collaborative writing on their use of the mechanics while writing.

To explore the second research question, the mean score, standard deviation, and the percentage of responses for each item were calculated. Analysis of the second questionnaire yielded positive results ($M = 4.13$, $SD = .78$). The results from the second questionnaire are summarized in Table 2.

Table 2. Students' perceptions of the effects of the wiki-based collaborative L2 writing on their L2 writing skills

Items	Students' perceptions of the effects of wiki-based collaborative writing on	M	SD
1, 2, 3, 4, 5	their L2 writing in general sense	4.32	.82
6, 7, 8	their use of grammar while writing	4.12	.78
9, 10, 11	the content of their writing	4.36	.75

12, 13, 14	organization of their texts	3.65	.84
15, 16, 17	their use of mechanics	4.21	.71
	Total	4.13	.78

Regarding the participants' general impressions of the effects of the wiki-based collaborative writing on their L2 writing, the average percentage of *strongly agree* and *agree* responses for the first 5 items in the survey was 84.3% ($M = 4.32$, $SD = 0.82$), illustrating an overall agreement with the potential of wiki-based collaborative writing for improving L2 writing skills.

The analysis of the items investigating students' perceptions of the effects of the collaborative wiki-based L2 writing on more specific aspects of L2 writing yielded that there was an overall agreement with the potential of collaborative wiki-based writing for improving different aspects of L2 writing. When the students were asked if collaborative wiki-based L2 writing could be useful for improving their use of grammar rules while writing in English, students' responses were mostly positive (82.4%). The mean values of items 6, 7, and 8 indicated that the students paid attention to their use of grammar and they corrected grammatical errors while writing via the wiki system ($M = 4.12$, $SD = 0.78$). 85.2% of the participants agreed that collaborative writing through the wiki had positive effects on improving the content of their writing ($M = 4.36$, $SD = 0.75$). The mean values of items 12, 13, and 14 indicated a moderately positive agreement with the effectiveness of the wiki-based L2 writing for improving the organization of their texts ($M = 3.65$, $SD = 0.84$). 83.4% of students answered the items (15, 16, and 17) about the effects of using wikis on their use of mechanics positively ($M = 4.21$, $SD = 0.71$).

The interview findings related to the second research question provide further explanation about students' perceptions of the effects of wiki-based collaborative writing on their L2 writing. The students were asked whether they thought wiki-based collaborative writing had any effects on their L2 writing during the semi-structured interviews. The students' responses were coded under the theme "students' general impressions of the effects of the wiki-based collaborative writing tasks on their L2 writing." The students stated that asynchronous nature and the basic functions of the wiki platform, such as editing, commenting and history, enabled them to collaborate with their peers easily. They felt that they were working in an authentic situation as they were trying to produce a joint text negotiating about what to write or how to write. In addition, they stated that using the wiki promoted accountability as they shared the responsibility for the outcome. 80% of the students (8 out of 10 interviewees) emphasized that wiki-based L2 writing gave them a chance to give and receive feedback so that they could become aware of their weaknesses in L2 writing, and they could notice the gaps in their knowledge in which they should improve themselves. They put forward that when they were revising their peers' work, they could see different ways of expressing a piece of thought or feeling, which, as they indicated, had a positive effect on their writing skills in L2. Some statements to illustrate the participants' general impressions may be as following:

As we all try to produce a common piece of writing, I felt more responsible towards my peers; therefore, I tried my best to contribute to the writing process, I

tried to correct the errors and make good sentences. That effort helped me improve my writing skills. (S.4)

We often had to discuss about the best way to express an idea. I believe such a negotiation process helped us to notice the gaps in our knowledge and do our best to improve our writing. (S.9)

All of the group members engaged in writing via the wiki. We felt that we were working in a real life situation. It was like preparing a text for a website. (S. 10)

Within the scope of the second research question, students' perceptions of the effects of using the wiki system on their use of grammar, content, mechanics and text organization while writing in English were also investigated through the interviews. Students' responses were categorized as students' perceptions of the effects of the collaborative wiki-based L2 writing on their (1) use of grammar, (2) content development, (3) use of mechanics, (4) text organization. 8 out of 10 interviewees thought that wiki based collaborative L2 writing gave them opportunity to pay attention to the correct use of grammar. They indicated that they tried to notice the errors and correct them while writing, which had positive effects on their use of grammar rules while writing. All of the interviewed students agreed that wiki-based writing tasks were beneficial for them in facilitating the content development of their texts. They stated that the negotiation process via the wiki system enabled them to elaborate on the content of their texts. In terms of the use of mechanics, 7 students stated that they became more aware of the use of mechanics in order to increase the comprehensibility of their sentences and to prevent any misunderstandings. All of the students agreed that wiki-based L2 writing provided them with the opportunity to organize their thoughts and write them in a systematic way although 5 of them emphasized that the wiki-system did not let them apply some formatting features on their texts, such as justifying the text or inserting links. Below are responses to the interview questions investigating students' perceptions of the effects of the wiki-based collaborative L2 writing on their use of grammar, content, mechanics and text organization:

When I was writing individually, it was difficult for me to come up with new ideas to write about. However, when I was writing with my friends on the wiki system, I could find out new ideas to develop the content of our writing. (S.2)

When we were writing through wikis, I always felt the responsibility that I should try to notice the errors and correct them to contribute to our group's writing. That helped me pay more attention to the use of grammar rules, vocabulary and mechanics. In addition, my peers also corrected my errors, which contributed to my knowledge of English grammar and vocabulary definitely. (S.3)

When we were writing through wikis, the fact that you could see all the corrections or edits from your peers enabled me to notice the deficits in my knowledge of grammar, content, punctuation or vocabulary. (S.5)

When we were writing through the wiki, we sometimes could not apply some formatting features to our texts. This was a limitation for us. However, in terms of organization of ideas and content, using wikis helped us a lot, as all of us could edit the text easily. (S.6)

Regarding the structure of the text, there were some limitations on the wiki system. Overall, it was very useful for us to improve our sentences in terms of grammar, content, and even mechanics. (S.9)

To sum up, the responses obtained from the semi-structured interviews supported the questionnaire findings. The results suggest that students experienced an enriched learning environment and they had positive impressions of the effects of wiki-based collaborative L2 writing tasks on their L2 writing skills.

DISCUSSION

The purpose of this study was to explore EFL students' attitudes towards wiki-based collaborative writing tasks and their perceptions of the effects of these tasks on their L2 writing in a tertiary-level EFL class in Turkey. Several major findings were obtained. First, the results showed that the participants showed a positive attitude towards wiki-based collaborative L2 writing. They found the use of wikis for L2 writing purposes interesting, enjoyable and innovative. They stated that they felt comfortable collaborating with their peers via the wiki platform. In addition, the students regarded the use of wikis motivating to engage in L2 writing and to become active producers of knowledge instead of being passive learners. These results indicate that wiki-based collaborative L2 writing tasks can increase student motivation and engagement in L2 writing courses. The findings are attributed to the basic properties of the wiki platform - such as its asynchronous nature, editing, history and commenting functions - which enabled the learners to interact with each other on a digital platform and experience something new. As the students have the opportunity to give feedback and edit the text, they can feel that they contribute to the outcome; therefore, they become more and more motivated and engaged in learning process (Kowal & Swain, 1994).

The positive attitudes of the students are also attributed to the nature of collaborative writing. Collaborative learning entails that students share their knowledge and experiences with their peers; they guide and negotiate with each other in order to complete a task. Such a joint action helps the students develop social skills, a sense of belonging and accountability in group work, which contributes to student motivation and engagement (Morris, 2011; Mulligan & Garofalo, 2011; Wigglesworth & Storch, 2012).

The reasons for students' positive feedback may be related to the authentic writing environment provided by collaborative wiki-based tasks for the students. The results suggest that students recognized the connection between the writing tasks and authentic settings. They stated that they felt they were working on a task in a real-life setting and had confidence and enthusiasm to express their ideas in English. That is, using English as a medium to express their thoughts in a meaningful context could lead to positive attitude development (Hung, 2011; Swain, 2000).

Wiki-based collaborative writing tasks encouraged learner autonomy, playing an active role in learning/writing and engaging in social interaction. Students reported that they enjoyed producing collaborative texts on the wiki platform and felt more comfortable sharing their innovative thoughts with their peers. Instead of being in a passive position, they were involved in writing process actively giving and receiving feedback, revising and editing the text, and sharing their opinions. These results are consistent with the opinions of Morris (2011), who suggested that working in teams helped students to share their creative thoughts with their friends and become autonomous learners.

With regard to the second research question on the students' perceptions of the effects of the wiki-based writing on their L2 writing skills, the research results yielded that students held positive impressions of the effects of wiki-based L2 writing on their L2 writing skills. Most of the students agreed that wiki-based collaborative writing had the potential to improve their L2 writing skills. One of the reasons for students' positive impressions of the effects of the wiki-based collaborative L2 writing can be explained with Vygotsky's (1986) social constructivism theory. As social constructivism theory suggests, students constructed their knowledge through engaging social interaction, sharing opinions and guiding each other. Wiki-based group collaboration enabled the learners to advance their ZPD with the support and scaffolding of their more capable peers, as suggested by Vygotsky (1978). Wiki-based collaborative writing tasks enabled the students work together to discuss how to express their ideas correctly and find solutions through group collaboration so that they could have the chance to develop their ZPD and go beyond their current level. The findings are also consistent with those in previous studies (Joni Chao & Lo, 2011; Storch & Wigglesworth, 2007; Swain & Lapkin, 1998) on the effects of social interaction and cooperation in learning, indicating that group collaboration can lead to higher levels of performance than individual work.

Students had positive impressions of the effects of the wiki-based collaborative writing tasks on their L2 writing performance because these tasks provided them with the opportunities to experience the dynamics of group interaction to produce a written text in English. They engaged in social interaction, gave and received peer feedback when they found any errors in the texts, and supported each other. Students' active engagement and positive impressions of wiki-based writing experiences yield that such peer collaboration activities can contribute to cognitive outcomes and motivate students to complete group tasks. Hence, the students stated that wiki-based collaborative writing tasks had positive effects on improving the grammar, content, organization and mechanics of their texts. These results are consistent with those in other wiki-based studies on learning English (Kessler & Bikowski, 2010; Oskoz & Elola, 2010) which indicated the positive feedback of implementing wiki-based tasks in educational contexts.

Pedagogical implications

The study reveals several pedagogical implications for EFL teachers. One implication can be that with the integration of wiki-based collaborative tasks in writing courses, the students were given the opportunity to discuss, give/receive feedback, and negotiate on the text. They

were active during the process of writing a text in English and they took the responsibility for their own learning, which led to learner autonomy. As indicated by the social constructivism theory, students could scaffold each other in order to go beyond their current level and to construct knowledge together. As a result, they could have the feeling of achievement, which could contribute to the development of positive attitudes towards learning.

Another implication of this study can be the idea that integrating wiki-based collaborative tasks into writing course syllabus can provide students with an innovative and creative learning experience, which can lead to increased learning engagement and motivation. EFL learners' language proficiency and L2 writing skills can be stimulated through student-centered course designs supported by technology.

Finally, through wiki-based writing tasks, students had the chance of using English outside classroom. They could engage in writing tasks in real-life settings for a meaningful purpose. When learning becomes meaningful, then it can be expected that students will become more enthusiastic about writing in English.

As the findings of the study suggest, students were inspired by the wiki-based writing tasks as they expressed that these tasks were innovative and enjoyable, which is an important factor for engagement in learning. University students were motivated to use a wiki system for L2 writing and they were positive about using technology for their writing courses. Therefore, it can be inferred that technology integration can lead to positive outcomes in L2 writing development.

CONCLUSION

The results of the study indicate that integrating wiki-based collaborative writing tasks in English writing classes could foster student motivation and engagement. Students could experience authentic practice to collaborate with their peers and express their thoughts in real-life settings through meaningful tasks. Specifically, students considered wiki-based collaborative writing tasks to have positive effects on their L2 writing development as they thought that peer scaffolding and peer feedback enabled them to go beyond their current level. The findings align with social constructivism, suggesting that knowledge is constructed through social interaction by sharing ideas and experiences in an interactive way.

Although the findings of this study provide implications for L2 writing contexts, certain limitations should be considered. First, the sample size in the current study was limited to 40 preparatory class students in Turkey; therefore, it may not be possible to generalize the research findings to other educational settings with different characteristics. A long-term research period with a larger sample size could increase the generalizability of the results. Second, the study focused on learners' perceptions of the wiki-based collaborative L2 writing tasks and their perceptions of its effects on their writing development; it did not investigate the effects of wiki-based collaborative writing tasks on improving English writing proficiency. Learner perceptions and attitudes are of great significance in determining the effectiveness of any method or technique; however, future studies may examine whether wiki-based tasks have significant effects on writing skills of EFL students through long-term

experimental research designs. Finally, the study investigated students' perceptions of wiki-based collaborative writing tasks in relation to only L2 writing. Future studies could apply wiki-based collaborative tasks in order to address four language skills in EFL classrooms.

The results of this study show that students were more motivated about writing in English. They became more engaged in L2 writing activities through wiki-based collaborative writing, stating that they found wiki-based tasks innovative, interesting and authentic. Wiki-based tasks provided learners with a meaningful and dynamic context in which they collaborated to produce a common text. Hence, wiki-based collaboration among L2 writers has the potential to provide benefits for students.

Acknowledgments

I would like to thank all the students who participated in this study, the faculty for assisting with data collection and analysis.

REFERENCES

- Adams, W. C. (2015). Conducting semi-structured interviews. In K. E. Newcomer, H. P. Hatry, and J. S. Wholey (Eds.), *Handbook of Practical Program Evaluation*. 4th ed., 492-505. Jossey-Bass.
<https://doi.org/10.1002/9781119171386.ch19>
- Aydın, S. (2014). Wikis as a tool for collaborative language learning: Implications for literacy, language education and multilingualism. *Sustainable Multilingualism*, 5, 207-236.
- Aydın Z. & Yıldız, S. (2014). Using wikis to promote collaborative EFL writing. *Language Learning & Technology*, 18(1), 160-180.
- Baumgartner, H., & Steenkamp, J.-B. E. M. (2001). Response styles in marketing research: A crossnational investigation. *Journal of Marketing Research*, 38(2), 143-156.
<https://doi.org/10.1509/jmkr.38.2.143.18840>
- Bikowski, D. & Vithanage, R. (2016). Effects of web-based collaborative writing on individual L2 writing development. *Language Learning & Technology*, 20(1), 79-99.
https://scholarspace.manoa.hawaii.edu/bitstream/10125/44447/1/20_01_bikowskivithanage.pdf
- Blake, R. J. (2008). *Brave new digital classroom: Technology and foreign language learning*. Washington, DC: Georgetown University Press.
- Boone, H.N & Boone, D. A. (2012). Analyzing Likert data. *Journal of Extension*, 50(2), 1-5.
<http://www.joe.org/joe/2012april/tt2p.shtml>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Cain, T. (2011). Teachers' classroom-based action research. *International Journal of Research & Method in Education* 34 (1), 3-16. <https://doi.org/10.1080/1743727X.2011.552307>
- Canagarajah, A. S. (2002). *Critical academic writing and multilingual students*. Ann Arbor, MI: The University of Michigan Press. <https://doi.org/10.3998/mpub.8903>
- Cohen, L., Manion, L. & Morrison, K. (2000). *Research methods in education*. 5th ed., London: Routledge. <http://dx.doi.org/10.4324/9780203224342>
- Çelik, Ş. S. & Aydın, S. (2021). Wiki effect on EFL writing motivation: An experimental study. *Language and Technology*, 3(1). 32-47.

- Donato, R. (2004). Aspects of collaboration in pedagogical discourse. *Annual Review of Applied Linguistics*, 24, 284-302. <https://doi.org/10.1017/S026719050400011X>
- Elola, I., & Oskoz, A. (2010). Collaborative writing: Fostering foreign language and writing conventions development. *Language Learning & Technology*, 14(3), 51-71. https://scholarspace.manoa.hawaii.edu/bitstream/10125/44226/1/14_03_elolaoskoz.pdf
- Elola, I., & Oskoz, A. (2017). Writing with 21st century social tools in the L2 classroom: New literacies, genres, and writing practices. *Journal of Second Language Writing*, 36, 52-60. <https://doi.org/10.1016/j.jslw.2017.04.002>
- Hirvela, A. (1999). Collaborative writing instruction and communities of readers and writers. *TESOL Journal*, 8, 7-12. <https://doi.org/10.1002/j.1949-3533.1999.tb00169.x>
- Hsu, H.C. (2019). Wiki-mediated collaboration and its association with L2 writing development: An exploratory study. *Computer Assisted Language Learning*, 32(8), 945-967. <https://doi.org/10.1080/09588221.2018.1542407>
- Hsu, H.-C., & Lo, Y.-F. (2018). Using wiki-mediated collaboration to foster L2 writing performance. *Language Learning & Technology*, 22(3), 103-123. <https://doi.org/10.10125/44659>
- Hung, S.-T. (2011). Pedagogical applications of vlogs: An investigation into ESP learners' perceptions. *British Journal of Educational Technology*, 42(5), 736-746. <https://doi.org/10.1111/j.1467-8535.2010.01086.x>
- Joni Chao, Y.-C. & Lo, H.-C. (2011). Students' perceptions of wiki-based collaborative writing for learners of English as a foreign language. *Interactive Learning Environments*, 19(4), 395-411. <https://doi.org/10.1080/10494820903298662>
- Kessler, G. (2009). Student-initiated attention to form in wiki-based collaborative writing. *Language Learning & Technology*, 13(1), 79-95. https://scholarspace.manoa.hawaii.edu/bitstream/10125/44169/1/13_01_kessler.pdf
- Kessler, G., & Bikowski, D. (2010). Developing collaborative autonomous language learning abilities in computer mediated language learning: Attention to meaning among students in wiki space. *Computer Assisted Language Learning*, 23(1), 41-58. <https://doi.org/10.1080/09588220903467335>
- Kessler, G., Bikowski, D., & Boggs, J. (2012). Collaborative writing among second language learners in academic web-based projects. *Language Learning & Technology*, 16(1), 91-109. https://scholarspace.manoa.hawaii.edu/bitstream/10125/44276/1/16_01_kesslerbikowskiboggs.pdf
- Kost, C. (2011). Investigating writing strategies and revision behavior in collaborative wiki projects. *CALICO Journal*, 28(3), 606-620. <https://doi.org/10.11139/cj.28.3.606-620>
- Kowal, M., & Swain, M. (1994). Using collaborative language production tasks to promote students' language awareness. *Language Awareness*, 3(2), 73-93. <https://doi.org/10.1080/09658416.1994.9959845>
- Lee, L. (2008). Focus on form through collaborative scaffolding in expert-to-novice online interaction. *Language Learning & Technology*, 12(3), 53-72. https://scholarspace.manoa.hawaii.edu/bitstream/10125/44155/1/12_03_lee.pdf
- Lee, L. (2010). Exploring wiki-mediated collaborative writing: A case study in an elementary Spanish course. *CALICO Journal*, 27(2), 260-276. <https://doi.org/10.11139/cj.27.2.260-276>
- Leki, I. (1993). Reciprocal themes in ESL reading and writing. In Carson, J.G., Leki, I. (Eds.), *Reading in the Composition Classroom*. Heinle & Heinle Publishers, Boston, 9-25.
- Leuf, B., & Cunningham, W. (2001). *The wiki way: Quick collaboration on the web*. Upper Saddle River, New Jersey: Addison-Wesley.
- Li, M. (2012). Use of wikis in second/foreign language classes: A literature review. *CALL-EJ*, 13, 17-35. http://callej.org/journal/13-1/Li_2012.pdf
- Lund, A. (2008). Wikis: a collective approach to language production. *ReCALL*, 20(1), 35-54. <https://doi.org/10.1017/S0958344008000414>

- Morris, C. (2011). Social constructivism and tourism education. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 10(2), 103-108. <https://doi.org/10.3794/johlste.102.385>
- Mulligan, C., & Garofalo, R. (2011). A collaboration writing approach: Methodology and student assessment. *The Language Teacher*, 35(3), 5-10. https://jalt-publications.org/files/pdf-article/art1_13.pdf
- Ortega, L. (2007). Meaningful L2 practice in foreign language classrooms: A cognitive-interactionist SLA perspective. In R. M. DeKeyser (Ed.), *Practice in second language: Perspectives from Applied Linguistics and Cognitive Psychology*, 180-207. New York, NY: Cambridge University Press. <https://doi.org/10.1017/CBO9780511667275.011>
- Oskoz, A., & Elola, I. (2010). Meeting at the wiki: The new arena for collaborative writing in foreign language courses. In M. Lee & C. McLaughlin (Eds.), *Web 2.0-based E-learning: Applying social informatics for tertiary teaching*, 209-227. Hershey, PA: IGI Global. <https://doi.org/10.4018/978-1-60566-294-7.ch011>
- Parker, K. R., & Chao, J. T. (2007). Wiki as a teaching tool. *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 57-72. <https://doi.org/10.28945/3131>
- Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, 34, 1189-1208. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1089059/pdf/hsresearch00022-0112.pdf>
- Shehadeh, A. (2011). Effects and student perceptions of collaborative writing in L2. *Journal of Second Language Writing*, 20(4), 286-305. <https://doi.org/10.1016/j.jslw.2011.05.010>
- Stalmeijer, R. E., McNaughton, N., & Van Mook, W. (2014). Using focus groups in medical education research: AMEE guide No. 91. *Medical Teacher*, 36(11), 923-939. <https://doi.org/10.3109/0142159X.2014.917165>
- Storch, N. (2002). Patterns of interaction in ESL pair work. *Language Learning*, 52(1), 119-158. <https://doi.org/10.1111/1467-9922.00179>
- Storch, N. (2005). Collaborative writing: Product, process, and students' reflections. *Journal of Second Language Writing*, 14(3), 153-173. <https://doi.org/10.1016/j.jslw.2005.05.002>
- Storch, N. (2013). *Collaborative Writing in L2 Classrooms*. Bristol, Blue Ridge Summit: Multilingual Matters. <https://doi.org/10.21832/9781847699954>
- Storch, N. (2019). Collaborative writing. *Language Teaching*, 52(1), 40-59. <https://doi.org/10.1017/S0261444818000320>
- Storch, N., & Wigglesworth, G. (2007). Writing tasks: The effects of collaboration. In M. P. Garcia Mayo (Ed.), *Investigating tasks in formal language learning*, 157-177. London: Multilingual Matters.
- Sun, Y. & Chang, Y. (2012). Blogging to learn: Becoming EFL academic writers through collaborative dialogues. *Language Learning & Technology*, 16, 43-61. https://scholarspace.manoa.hawaii.edu/bitstream/10125/44274/1/16_01_sunchang.pdf
- Swain, M. (2000). The output hypothesis and beyond. In J. Lantolf (Ed.), *Sociocultural theory and second language acquisition*, 97-114. Oxford, UK: Oxford University Press.
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *The Modern Language Journal*, 82(3), 320-337. <https://doi.org/10.1111/j.1540-4781.1998.tb01209.x>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and language*. MIT Press.
- Wang, Y.-C. (2014). Using wikis to facilitate interaction and collaboration among EFL learners: A social constructivist approach to language teaching. *System*, 42, 383-390. <https://doi.org/10.1016/j.system.2014.01.007>

- Warschauer M. (1996). Computer assisted language learning: An introduction. In Fotos S. (ed.) *Multimedia language teaching*, 3-20. Tokyo: Logos International.
<http://www.ict4lt.org/en/warschauer.htm>
- Wells, G. (2000). Dialogic inquiry in education. Building on the legacy of Vygotsky. In C. Lee & P. Smagorinsky (Eds.), *Vygostkian perspectives on literacy research. Constructing meaning through collaborative inquiry*, 51-85. Cambridge, UK: Cambridge University Press.
- Wigglesworth, G. & Storch, N. (2012). What role for collaboration in writing and writing feedback. *Journal of Second Language Writing*, 21(4), 364-374, <https://doi.org/10.1016/j.jslw.2012.09.005>
- Williams, A., & Katz, L. (2001). The use of focus group methodology in education: Some theoretical and practical considerations. *International Electronic Journal for Leadership in Learning*, 5(3), <https://journals.library.ualberta.ca/iejll/index.php/iejll/article/view/496>
- Yu-Chuan Joni Chao & Hao-Chang Lo (2011) Students' perceptions of Wiki-based collaborative writing for learners of English as a foreign language, *Interactive Learning Environments*, 19:4, 395-411, DOI: 10.1080/10494820903298662