Can Blogs Facilitate Students' Writing?
Revisiting the Use of Blogs in EFL Writing Instruction

D Inayati
Universitas Brawijaya

{dianina@ub.ac.id}

Abstract. The integration of blog into foreign language learning and writing instruction in particular has received tremendous attention among researchers and teaching practitioners. This type of web 2.0 technology is considered suitable for pedagogical writing practices due to its multimodality features that promote multi-way interactions and collaborations. However, some issues emerge regarding its integration, one of which includes its effectivenes in improving students' writing. This paper thus aims to critically review the use of blogs as a pedagogical tool for writing in an English as a Foreign Language (EFL) context and some issues regarding its use. It reflects on relevant theories and previous empirical studies on the use of blogs in writing and its potentials in facilitating students' writing. Implications on how to integrate blogs into EFL writing instruction are postulated.

Keywords: Blog, Writing, EFL, Technology Integration

1 INTRODUCTION

The emergence of web 2.0 technologies, such as blogs and social networking sites, has been of interests among EFL researchers due to their multimodality features supporting human interactions and collaborations. These two unique characteristics of Web 2.0 are essential elements in the sociocognitive perspective of language learning [1], which Kern [2] has predicted its potential in creating a revolution in foreign language instruction. Although not initially designed for pedagogical purposes, blogs have been one of the most commonly used web 2.0 technologies in language learning, particularly for reading and writing activities. Since its first launch at the end of 1990s, language researchers (e.g. in [3]; [4]; [5]; [6]; [7]) have introduced blogs in EFL learning and recommended its integration because of their unique features and benefits in facilitating learning. It is argued that blogs provide easy-to-use interface ([8]; [3]; [5]) and a space for reading and writing activities ([9]; [4]; [10]; [11]; [5]), encourage collaboration and interaction with teacher, students, and audience beyond the classroom ([9]; [5]; [12]; [13]), foster students' creativity ([4]; [14]), critical thinking ([15]; [10]), cultural competence ([9]; [16]), motivation and autonomous learning ([17]; [18]), and introduce EFL learners to a new genre of writing and different forms of literacy ([19]; [20]).

In EFL writing instruction, ample studies exploring the beneficial use of blogs in facilitating students' writing development are found. However, different findings on its effectiveness call for an in-depth analysis regarding its integration, in which this paper attempts to explore. It is aimed at critically reviewing some previous empirical studies that incorporate blogs to facilitate EFL writing instruction and particularly exploring some

important issues emerging from these studies. Acknowledging the research that has been done in this area is important to gain more understanding of the effective use of blogs in EFL writing instruction for a better learning to take place and to identify the gap for further studies within this research area. The discussion starts with language researchers' recommendation for the integration of blogs in EFL learning, followed by some important issues in blog-mediated EFL writing instruction. Reflections and implications for EFL writing instruction in the future will be elaborated at the end of the paper.

As the use of blogs in such areas as business, health, and particularly pedagogy is on the rise, there has also been a growing interest among language researchers (e.g. in [3]; [4]; [5]; [6]; [7]) to incorporate blogs into EFL writing instruction. Campbell [3], for instance, is among the first who saw the potential of blogs as a pedagogic tool and initiated the integration in EFL classes. He further classifies the pedagogical blogs according to its technical structure: a tutor blog, a learner blog, and a class blog. Johnson [5] who also recommends the application of blogs in a writing course argues that a class blog is the best option among the other blogs to be applied in language classrooms because of the space provided to organize class materials and online class journal accessible for students [21], the greater opportunities for other students to read and comment on their peer's blog [8], and thus creating a collaborative effort of an entire class [3]. Class blogs also benefit teachers and students as electronic portfolio for the students' writing, which provides easier access for teachers to control the blog and assess their writing, and for students to document, share, or comment on the content at ease ([22]; [11]). The latter is crucial since Nardi et al's study [23] reveal the failure of blog application in gaining the sense of community among students is related to the lack of opportunities given for the students to comment on their peers' blogs. Because of these potential advantages, Wu [6], furthermore, strongly encourages the integration of blogs in the Teaching of English as a Foreign Language (TEFL) which she regards as "a new promising vehicle of extreme value for TEFL" (p. 1).

The implementation of blogs integration, however, should be carefully designed and prepared to gain its optimum benefits. Thus some crucial issues related to blog-mediated writing instruction are worth discussing to ensure its effectiveness.

An assumption that blogs could improve students' writing is one of common issues in the area. A number of studies have been conducted in order to test this hypothesis. Fellner and Apple [24], for instance, focused on how students might improve their writing fluency and lexical complexity by utilizing blogs. Twenty one low proficiency Japanese language learners joining a seven-day intensive English course posted their writing onto the class blog for seven consecutive days and had their writing commented by their peers. By using ANOVA, the researchers compared the word counts between Day 2 and Day 6 blog entries, and then identified and compared the type of vocabulary the students used in Day 2 and that in Day 6 blog entries by utilizing RANGE program. The findings revealed that students' writing fluency and their lexical complexity significantly increased.

Several drawbacks are found in the study, some of which include time constrain, the small sample, and the research methodology used. Regarding the latter, the results might have been more convincing if the researchers had designed an experimental study involving, at least, an experimental and a control group. By comparing the writing performances between students who post their writing on the class blog and those who do not receive this treatment, it could be much easier to see the role of blogs in facilitating students' writing fluency and lexical complexity. The use of other CALL activities during the data collection, such as web listening and online grammar puzzles and quizzes in addition to blogs, furthermore, may obscure this

role of blogs in their writing, since it is not clear whether the improvement in their writing is related to their use of blogs or the CALL activities.

Some of these caveats, nevertheless, have been tackled in Arslan & Sahin-Kizil's [25] quasi experimental study that investigated the effect of blog-mediated writing instruction on intermediate English students' writing development. One experimental group of students (n=27) received a blog-mediated writing instruction whereas one control group (n=23) involved in a face-to-face writing instruction in the classroom. By comparing the pre- and post-writing tests of the students' writing performances in each group, it is revealed that the experimental group outperformed the control one, particularly in terms of content and organization, and thus supporting the notion on the role of audience in helping learners focus on their writing ([4]; [26]). However, this is not the case regarding the other components, such as mechanics, vocabulary, and language use, since there is no significant difference in scores between the blog-instruction students and the in-class students. This finding thus refutes Fellner and Apple's finding on the role of blogs in improving students' lexical complexity although other studies (e.g. [21]) echo their finding related to writing fluency.

However, similar to the caveat in Fellner and Apple's study, Arslan and Sahin-Kizil did not provide the same amount of exposure to the language and writing input for the two groups, which eventually blurred the causal relationship between the students' writing development and the use of blogs. Despite the use of peer and teacher feedback in the study, no information was available on whether their feedback could improve students' writing performance.

Meanwhile, a recent study by Hansen [27] comparing the effect of two types of writing assignments, blog writing assignment and research essay assignment, on students' research and writing performance reveals quite an opposing result with the previous studies. Essay tasks could be fruitful to practice students in comparing and syntesizing ideas using academic references while blog writing tasks may benefit students in communicating and summarizing (online) sources. Although he admitted that the discrepancy between these two types of assignment on the improvement of the students' research and writing performance was not clear, he highly encouraged the use of blog writing assignment as a complementary, instead of a substitute, task due to the different functions each of the assignments plays.

These drawbacks, thus, should be taken into consideration for further studies on the role of blogs in enhancing students' writing, particularly since there has been no consensus to date on the causal relationship between blogging and the development of students' writing performance ([8]; [21]; [26]; [28]). This lack of consensus may also explain an important thing reflected from these studies: that blogs may not enhance writing, but merely facilitate as a tool that could be used to help enhance students' writing. Thus, the assumption regarding the use of blogs that could improve students' writing needs further justification.

Peer review has long been investigated by EFL writing researchers as writing instruction shifted from product- to process-oriented [29]. Electronic peer feedback has attracted language researchers particularly due to their unique features in supporting the peer review activity, such as facilitating draft exchange and peer commenting [30]. Blogs is also considered since this technology has filled in the gap found in the previous technologies, such as e-mail [20].

A number of studies have incorporated blogs into peer review activity and investigated their role in facilitating this activity and students' writing [31]. In Wu's study [12], the researcher investigated the effect of peer review and teacher feedback on the EFL writers' revisions within the medium of blogs. The study incorporated seven low-intermediate students from a university in Taiwan who were selected based on the high number of feedback they received from their peers (more than two peer comments). The findings reveal that the peer feedback was less meaningful and constructive than the teacher feedback despite the one-and-

a-half-hour peer reviewing guide they received prior to the peer review activity, which eventually affected the students' revision. They argued that this poor revision might also be related to their low English proficiency. Wu, however, failed to identify the use and features of blog may also be responsible in creating the low quality feedback from the peers.

A similar finding regarding the quality of students' comments on their peer's writing is found in Pham and Usaha's [32]. Despite the great number of the comments on global areas provided by the students under study, the number of the comments that are revision oriented within the global comments were less significant. Huang [33] claims that blog interfaces seem do not ease students into highlighting their peers' mistakes, which might explain the type of comments students tend to produce. However, blogs may be more fruitful for other types of feedback such as exchanging ideas, negotiating for meaning, and responding questions. This could be an insight for teachers and/or researchers to take into account the types of writing tasks which could incoporate blogs, and the quality of students' comments on global as well as local areas and revision-oriented comments during peer feedback training.

Some of the findings in these previous studies could have been more significant if an experimental study involving a bigger sample had been conducted and more intensive peer review training had been employed. This lack of scaffolding has been fulfilled in Liou & Peng's study [31] which underscored the application of blogs as a suitable platform for peer response activity in EFL writing instruction and the essential role of computer-mediated training due to their effectiveness in helping improve the quality of students' feedback and their revision. The findings accord Dippold's [34] assertions on blogs as "potentially valuable tools for peer feedback" (p. 18) and the importance of training in blogging as well as in shaping the roles of teachers and students. Triangulation data from other resources such as interviews or questionnaires might also be fruitful in gaining more convincing results.

It is, however, unfortunate that the researchers in these studies did not make the best use of blogs despite their potential in gaining wider audience, especially since students actually "looked forward to the prospect of outside readers" [31, p. 523]. The students might have paid more attention to their writing, and thus written more carefully, if the researcher had opened the access of the blog for audience outside the classroom members, which might have led to the students' awareness of the audience, other than their teacher and their peers, who would read and comment on their blogs. This echoes Godwin-Jones' [4], Tuzi's [35], and Ducate & Lomicka's [9] arguments on the role of students' awareness for audience in shaping and sharpening their writing skills.

The next issue will attempt to explore the different kinds of process and measures that teachers and students could undergo prior to involving in blog-mediated writing instruction.

While some previous studies highlight the influential role of blogs in facilitating students' writing development and some previous strategies have been proposed for their integration into language pedagogy (see e.g. [3]; [5]; [36]; [37]), few studies focus on effective ways and processes that students (and teachers) could undergo prior to writing their own blog. Acknowledging the effective ways of introducing blogs to students is significant in identifying which way that could potentially beneficial in helping students design and write their own personal blog, subject to the personal, cultural, and social aspects.

One way is by students' observing and analyzing a native speaker's blog before writing their own blog in the target language [9]. In their mixed method research, German and French language learners were assigned to read and analyze a native speaker's blog for the duration of one semester before setting up and writing their own blogs. The findings show that preparing the students by observing and analyzing a native speaker's blog before assigning them to design their own blog was essential in helping them immerse into the nature of blogging in the

target language. This technology, furthermore, was beneficial since it promoted ownership, creativity, community, and the target intercultural knowledge.

From the teacher's perspective, understanding their beliefs and their readiness in technology integration is crucial since it also influences its effectiveness as well as students' attitude toward the integration ([39]; [37]; [40]). Ertmer et al. [40] assert a strong relationship between teachers' beliefs and attitudes toward technology integration and students' learning success as well as their technology-based teaching practices. They further argue that teachers' lack of technical and pedagogical skills is also another barrier in technology integration. Thus, it is crucial to prepare teachers with this technology integration prior to implementing it in class for students to gain its optimum benefits.

These studies have shed lights on the potential use of blogs in EFL composition courses and on the process and strategies students could use to help them better adjust with this new genre. This knowledge is also particularly essential in gaining the utmost benefits of blogs for students and in fostering their autonomous and long-life learning ([18]; [17]), as what a participant in Lamb and Arisandy's study [41] has experienced during his English self-study through OIEL (Online Informal English Learning).

One of the important factors influencing the efficacy of the integration of blogs in EFL writing instruction relies on the students' and teachers' attitudes toward the integration. Most of the studies in this area, in general, have gained positive attitudes from students ([42]; [21]; [9]; [31]; [43]; [33]; [41]; [37]) as well as teachers ([44]; [33]), although the extent for each differs, depending on the treatment that these participants received in each study and how researchers make use of the technology in the EFL writing classroom. They argued that blogs help them enjoy writing ([42]; [31]; [33]), encourage them to write more [21], foster collaboration and interactions among peers, teachers, and even a larger audience ([44]; [9]; [31]; [45]; [46]), and help them improve writing ([21]; [9]).

Interestingly, students who have a positive experience in blog-mediated writing instruction may not necessarily feel confident and motivated during the instruction due to some hindrances, such as students' poor technical skills and perceived isolation as well as teacher's poor technological pedagogical knowledge [37]. This calls for attention and careful planning from the teachers to ensure its effective integration in writing instruction.

The role of treatment provided by the researchers and how the blog is utilized in this context is crucial, particularly since this may significantly influence the students' attitudes toward the treatment as well as the technology. Lack of information on the values of blogs in EFL writing and training to familiarize the students with blogging could be some of the crucial factors affecting students' low motivation to participate in the blog writing activities, despite their positive perception toward blogs in education settings [16]. Thus to assure students' positive attitudes, it is essential for teachers to understand the characteristics of blogs [15], provide training and explanation about the purposes and benefits of using blogs in EFL writing instruction ([34]; [36]) to gain students' positive attitudes, leading to the efficacy of the integration. The writer's reflections and implications for EFL writing instruction in the future will be explained in the next section.

2 RESEARCH METHOD

Other studies (e.g. [8]; [38]) attempted to view the strategies from the students' perspective. In this qualitative study, Bloch investigated the process and strategies used by an immigrant student while using blogs during his EFL composition course. The findings revealed the student's attempts to voice ideas and shift strategies from writing a journal blog

to a rhetorical academic blog writing, regardless his de-emphasis on grammar. Since this finding cannot be generalized, teachers should take the characteristics of other EFL students into account, particularly those who do not share similar previous exposure to the target language and are not familiar with different rhetorical strategies in writing as this immigrant student, to help them smoothly shift their strategies from informal genre in blogs to an academic writing genre. Nevertheless, this study has filled in the gap on the limited qualitative research in the area, especially regarding the importance of understanding the rhetorical strategies students use in different genres of writing mediated by blogs.

3 RESULT AND DISCUSSION

The summarized studies reveal the benefits of blogs in facilitating EFL writing instruction, some of which include fostering interactivity, collaboration, scaffolding, flexibility, pace learning, student-centered activities, and students' autonomous learning [47]. Due to its benefits, blogs could be a potential pedagogical tool to be employed to facilitate blended learning in EFL writing instruction. In particular, these studies have highlighted the beneficial role of blogs as a pedagogic and computer-mediated peer review tool to facilitate students' writing, leading to students' and teachers' positive attitudes toward the integration. An important thing to note in these studies is that blogs merely perform as a tool in facilitating EFL writing instruction and do not improve students' writing. This echoes Kern and Warschauer [1] who view technology merely as a tool and does not necessarily improve learning. These studies, furthermore, emphasize the crucial role of careful planning prior to the blog application to gain its efficacy in facilitating students' writing development [37], for example, by providing sufficient scaffolding [48] to help students value the integration, which leads to students' increasing motivation and positive attitudes toward the integration. Thus, teachers play a significant role in bringing about the technology in the EFL writing to help students gain the utmost of it in facilitating their learning.

Apart from these agreements, the majority of the above studies have not exploited the most unique feature of blogs in gaining a larger audience. This may be related to the researchers' assertion regarding students' apprehension toward being approached by a larger and unknown audience [30]. This is, in fact, contrary with the students' perception toward this beyond-the-classroom audience. They are mostly excited after receiving feedback from people outside their classroom ([25]; [9]), and looking forward to getting the feedback from them [31], which reveal their positive attitudes toward having a wider audience reading and commenting on their blogs. This sense of audience is significant in helping them focus on their writing ([4]; [35]), increase their motivation to write ([17]; [18]), and foster their intercultural knowledge of the target language ([9]; [16]). However, it is argued that this open access blogs may be better applied as soon as students have already become familiar with their use in EFL writing and are confident with their writing to avoid the feeling of opposition, which may influence their attitudes toward writing in general and blogs in particular.

4 CONCLUSIONS

Additionally, careful preparation and investigation on the effective use of blogs prior to the integration in online language instruction needs to be taken into consideration for a successful language learning to take place, which was absent in some of those previous studies. Referring to the caveats in those studies, investigating the characteristics of the EFL students, such as their English proficiency, their computer literacy, their learning context, and other technical

facilities, like internet access, is also crucial prior to the application in EFL writing instruction. This sorts of knowledge will benefit teachers in identifying the type of treatment and training that EFL teachers could use to help the students deal with the use of blogs in writing, interacting with the audience, and gaining positive attitudes toward its use in facilitating their learning. Lastly, understanding the principles of blended learning is particularly essential to get the most potential use of blogs in language instruction so that their application will not merely "…renforce traditional teaching practices rather than exploring new approaches to learning [17, p. 205].

REFERENCES

[1]   R. Kern and M. Warschauer, "Introduction: theory and practice of network-based language teaching," in *Network-based Language Teaching: Concepts and Practice*, R. Kern and M. Warschauer, Eds. Cambridge: Cambridge University Press, 2000, pp. 1–19.

[2]   R. Kern, "Perspectives on technology in learnng and teaching languages," *TESOL Q.*, vol. 40, pp. 183–210, 2006.

[3]   P. Campbell, "Weblogs for use with ESL classes.," *Internet TESL J.*, vol. 9, no. 2, 2003.

[4]   R. Godwin-Jones, "Emerging technologies blogs and wikis: environments for on-line collaboration," *Lang. Learn. Technol.*, vol. 7, no. 2, pp. 12–16, 2003.

[5]   A. Johnson, "Creating a writing course utilizing class and student blogs.," *Internet TESL J.*, vol. 10, no. 8, 2004.

[6]   C. Wu, "Blogs in TEFL: a new promising vehicle," *US-China Educ. Rev.*, vol. 3, no. 5, pp. 69–74, 2006.

[7]   W. Wu, "Using blogs in an EFL writing class," in *The 2005 International Conference on TEFL and Applied Linguistics*, 2009.

[8]   J. Bloch, "Abdullah's blogging: a generation 1.5 student enters the blogosphere," *Lang. Learn. Technol.*, vol. 11, no. 2, 2007.

[9]   L. Ducate and L. Lomicka, "Adventures in the blogsphere: from blog readers to blog writers," *Comput. Assist. Lang. Learn.*, vol. 21, no. 1, 2008.

[10] R. Godwin-Jones, "Emerging technologies tag clouds in the blogospere: electronic literacy and social networking," *Lang. Learn. Technol.*, vol. 10, no. 2, pp. 8–15, 2006.

[11] R. Godwin-Jones, "Emerging technologies web-writing 2.0: enabling, documenting, and assessing writing online," *Lang. Learn. Technol.*, vol. 12, no. 2, pp. 7–13, 2008.

[12] W. Wu, "The effect of blog peer review and teacher feedback on the revisions of EFL writers," *J. Educ. Foreign Lang. Lit.*, vol. 3, pp. 125–139, 2006.

[13] J. Z. Paul and E. Friginal, "The effects of symmetric and asymmetric social networks on second language communication," *Comput. Assist. Lang. Learn.*, pp. 1–32, Feb. 2019.

[14] A. Halvorsen, "Social networking sites and critical language learning," in *Web 2.0 and Second Language Learning.*, M. Thomas, Ed. Lomdon: IGI Global, 2009, pp. 237–258.

[15] B. Dieu, A. Campbell, and R. Ammann, "P2P and learning ecologies in EFL/ESL," *Teach. Engl. Technol.*, vol. 6, no. 3, 2006.

[16] D. Soares, "Understanding class blogs as a tool for language development," *Lang. Teach. Res.*, vol. 12, no. 4, pp. 517–533, 2008.

[17] A. Alm, "Blogging for self-determination with EFL learner journals," in *Web 2.0 and Second Language Learning*, M. Thomas, Ed. New York: IGI Global, 2009, pp. 202–222.

[18] L. Murray and T. Hourigan, "Blogs for specific purposes: expressivist or socio-cognitivist approach?," *ReCALL*, vol. 20, no. 1, pp. 82–97, 2008.

[19] G. Myers, *The discourse of blogs and wikis*. London: Continuum, 2010.

[20] D. Penrod, *Using blogs to enhance literacy*. Maryland: Rowman & Littlefield Education, 2007.

[21] K. Armstrong and O. Retterer, "Blogging as EFL writing: A case study," *AACE J.*, vol. 16, no. 3, pp. 233–251, 2008.

[22] L. Ducate and L. Lomicka, "Exploring the blogosphere: use of web logs in the foreign language classroom," *Foreign Lang. Ann.*, vol. 38, no. 3, pp. 410–422, 2005.

[23] B. Nardi, D. Schiano, M. Gumbrecht, and L. Swartz, "Why we blog," *Commun. Assoc. Comput. Mach.*, vol. 47, no. 12, pp. 41–46, 2004.

[24] T. Fellner and M. Apple, "Developing writing fluency and lexical complexity with blogs," *JALT CALL J.*, vol. 2, no. 1, pp. 15–26, 2006.

[25] R. Arslan and A. Sahin-Kizil, "How can the use of blog software facilitate the writing process of English language learners?," *Comput. Assist. Lang. Learn.*, vol. 23, no. 3, pp. 183–197, 2010.

[26] R. Vurdien, "Enhancing writing skills through blogging in an advanced English as a Foreign Language class in Spain," *Comput. Assist. Lang. Learn.*, vol. 26, no. 2, pp. 126–143, 2013.

[27] H. E. Hansen, "The Impact of Blog-Style Writing on Student Learning Outcomes: A Pilot Study," *J. Polit. Sci. Educ.*, vol. 12, no. 1, pp. 85–101, Jan. 2016.

[28] J. Jose and M. J. Z. Abidin, "A pedagogical perspective on promoting English as a foreign language writing through online forum discussions," *Engl. Lang. Teach.*, vol. 9, no. 2, pp. 84–101, 2016.

[29] K. Hyland and F. Hyland, "Contexts and issues in feedback on EFL writing: an introduction," in *Feedback in Second Language Writing: Contexts and Issues*, K. Hyland and F. Hyland, Eds. Cambridge: Cambridge University Press, 2006, pp. 1–19.

[30] C. Ferry, "Online peer review to promote reader-writer interaction," *HPU TESL Work. Pap. Ser.*, vol. 7, no. 1, pp. 2–13, 2009.

[31] H. Liou and Z. Peng, "Training effects on computer-mediated peer review," *System*, vol. 37, pp. 514–525, 2009.

[32] V. P. H. Pham and S. Usaha, "Blog-based peer response for L2 writing revision," *Comput. Assist. Lang. Learn.*, vol. 29, no. 4, pp. 1–25, 2016.

[33] H. C. Huang, "Students and the teacher's perceptions on incorporating the blog task and peer feedback into EFL writing classes through blogs," *Engl. Lang. Teach.*, vol. 9, no. 11, pp. 38–47, 2016.

[34] D. Dippold, "Peer feedback through blogs: Student and teacher perceptions in an advanced German class," *ReCALL*, vol. 21, no. 1, pp. 18–36, 2009.

[35] F. Tuzi, "The impact of e-feedback on the revisions of EFL writers in an academic writing course," *Comput. Compos.*, vol. 21, pp. 217–235, 2004.

[36] S. Witte, "'That's online writing, not boring school writing': writing with blogs and the talkback project," *J. Adolesc. Adult Lit.*, vol. 51, no. 2, 2007.

[37] F.-W. Kung, "Assessing an innovative advanced academic writing course through blog-assisted language learning: Issues and resolutions," *Innov. Educ. Teach. Int.*, vol. 55, no. 3, pp. 348–356, May 2015.

[38] J. Bloch and C. Crosby, "Blogging and academic writing development," in *Computer-Enhanced Language Acquisition and Learning*, F. Zhang and B. Barber, Eds. New York: IGI Global, 2009, pp. 36–47.

[39] D. Inayati and I. Emaliana, "The relationship among pre-service EFL teachers' beliefs about language learning, pedagogical beliefs, and beliefs about ICT integration," *Din. Ilmu*, vol. 17, no. 1, pp. 83–99, 2017.

[40] P. A. Ertmer, A. T. Ottenbreit-Leftwich, O. Sadik, E. Sendurur, and P. Sendurur, "Teacher beliefs and technology integration practices: A critical relationship," *Comput. Educ.*, vol. 59, no. 2, pp. 423–435, Sep. 2012.

[41] M. Lamb and F. E. Arisandy, "The impact of online use of English on motivation to learn," *Comput. Assist. Lang. Learn.*, pp. 1–24, Feb. 2019.

[42] F. Hann, "The secret blog group as a writing motivator," in *JALT2006 Conference Proceedings*, Tokyo, 2007.

[43] G. Ahluwalia, D. Gupta, and D. Aggarwal, "The use of blogs in English language learning: A study of student perceptions," *PROFILE*, vol. 13, no. 2, pp. 29–41, 2011.

[44] B. Ray and M. Hocutt, "Teacher-created, teacher-centered weblogs: Perceptions and practices," *J. Comput. Teach. Educ.*, vol. 23, no. 1, pp. 11–19, 2006.

[45] M. J. Z. Abidin, M. Pour-Mohammadi, and F. Hamid, "Blogging: Promoting Peer Collaboration in Writing," *Int. J. Bus. Humanit. Technol.*, vol. 1, no. 3, pp. 98–105, 2011.

[46] Z. Xu, M. Banerjee, G. Ramirez, G. Zhu, and K. (Kay) Wijekumar, "The effectiveness of educational technology applications on adult English language learners' writing quality: a meta-analysis," *Comput. Assist. Lang. Learn.*, vol. 32, no. 1–2, pp. 132–162, Jan. 2019.

[47] N. Vaughan, "Perspectives on blended learning in higher education," *Int. J. E-Learn.*, vol. 6, no. 1, pp. 81–94, 2007.

[48] K. Simons and J. Klein, "The impact of scaffolding and student achievement levels in a problem-based learning environment," *Instr. Sci.*, vol. 35, pp. 41–72, 2007.