Wikis in Language Learning: Merits and Limitations

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ARTICLE INFORMATION	ABSTRACT
	This study comprehensively reviews the literature associated with the implementation of wikis in an educational context, primarily concerning learning and teaching languages. The study proceeds by presenting wikis and their main theoretical background in a brief overview. After that, a discussion of the most recent empirical studies is presented, followed by an exploration of the merits and the limitations of using wikis in an educational setting. The paper concludes that wikis have a positive impact when it comes to improving learners' knowledge of various aspects of language, enhancing their autonomy, learning perceptions, and motivation to learn. As a beneficial digital tool, wikis can effectively improve students' language learning, which is achieved via critical thinking, negotiation of meaning, and collaborative learning, to name a few aspects. Having said this, limitations exist, all of which should be taken seriously by both administrators and teachers alike to maximise wikis' benefits. Yet, it is increasingly evident that, in this context, wikis' positives far outweigh their minuses. A number of practical recommendations are offered at the end of this paper to guide teachers, educators, and researchers.

1. Introduction

Due to COVID-19, educational systems are radically changing across the globe. Indeed, education is being taught online with increasing frequency, as part of the 'new normal'. Web 0.2 applications, too, are being used more widely, as they offer many applications that are beneficial. For example, they enable effective learning with regard to the foreign language learning process and collaborative learning in second language acquisition (Lantolf & Thorne, 2006).

Originating from a Hawaiian word, "Wiki" essentially means "quick". Therefore, wikis are a fast way to create a collaborative group (Davies, Pantzopoulos, & Gray, 2011). Users can create Wikis to both share content and co-construct information (Pellet, 2012). As such, various wiki applications, namely MediaWiki, Wikispaces, and PBwiki, were used in enterprise from the early 2000s. Later, they were frequently adopted in education, particularly education with pedagogical implications. Wiki is the easiest and simplest online applications (Al-Johali, 2019). Parker and Chao (2007) defined wiki as "… a collective website where a large number of participants are allowed to modify or create pages using their Web browser". In 1995, Ward Cunningham developed the first wiki; it was created as a collaborative tool, an arena that allowed discussion, and a composition system (Leuf & Cunningham, 2001).

However, it is important to study the applications, and both the benefits and limitations of this collaborative learning tool in order to fully understand how to effectively implement it (Ucan & Webb, 2015). This article, then, offers a review of the literature related to the implementation of wikis across education, particularly language learning. First, an explanation, specifically of its theoretical background, is presented, followed by a review on other empirical studies that have focused on wikis. I proceed to discuss the primary benefits and limitations of using wikis in an educational setting. This article concludes by suggesting an array of practical recommendations for researchers, teachers, and educators.

2. Theoretical Foundations Underpinning Wikis
In this section, I explain the theoretical framework, specifically how wikis are used in foreign language leaning. Research on the effects of wikis, pertaining to their use in language learning, support a wide range of language learning theories. These include: Collaborative Learning, Sociocultural Theory, and Autonomy.

Collaborative Learning: Collaborative learning involves a constructive, active process, where knowledge is created and subsequently transferred in a social activity (Swain, 1995). To Vygotsky (1978), collaborative learning assists pupils through what is known as the zone of proximal development (ZPD), bridging the space between what they can achieve alone and in company. This, in turn, will allow them to build skills and knowledge, work independently, and complete the given task.

It is important to note that a shift in learning is occurring, specifically through students engaging in a collective activity (Sotillo, 2002). Wells (1999) notes the benefits of this shift, namely that a student's participation within a group facilitates their natural language production. Indeed, information and ideas shared by learners in a collaborative community turn into beneficial sources of information for all students within a class. Dearstyne (2007) affirms that the pooling of students' ideas generates creativity, which leads them to reflect, react, and, perhaps most importantly, develop their insights, which have been challenged, thus enabling them to contribute new thoughts, too. In addition, via this mode of learning, students have the ability to make materials that reveal what they have learnt. This further allows them to find connections between their course content, schemata, and personal experiences. Students, then, create camaraderie and develop trust, contributing to a common goal, when they create wikis (Matthew, Felvegi, & Callaway, 2009). The relatively advanced technology of wikis further supports group efforts: users can work together to alter a shared text (Kessler, 2009). Another benefit is that wikis are able to identify students' strengths and weaknesses, allowing them to improve their language skills and performance. They also enable interaction amongst participants when it comes to both feedback and revisions (Dippold, 2009).

Sociocultural theory: A sociocultural view of language, also known as constructivism, acknowledges that new knowledge can be acquired via human social interaction (Lantolf, 1995). This theory is generally understood to mean "knowledge is constructed through social interactions with family, friends, teachers and peers" (Bates, 2019, p. 19).

It is a modern trend in foreign language learning and second language acquisition that focuses on learners' participation in a joint activity, effectively replacing the individual mode of learning, which was used prior to this (Firth & Wagner, 2007). Furthermore, technology-supported collaborative learning, in addition to collaborative and cooperative learning, tend to be, for the most part, constructivist, originating from a sociocultural perspective (Lantolf & Thorne, 2006). In constructivism, learning is constructed in a social setting via "competent participation in the discourse, norms, and practices associated with particular communities of practice" (Kuiper & Volman, 2008, p.224). After that, learners are able to construct new knowledge built on their prior knowledge (Kuiper & Volman, 2008).

In addition, this approach provides learners with the following opportunities: (1) to develop a link between their past and new experiences, (2) to interact with the environment, and (3) to develop the ability to acquire new knowledge through collaboration with others, all within a meaningful context (Willis, Stephens, & Matthew, 1996). Furthermore, this mode of learning places an emphasis on reflection, using new knowledge in a constructive manner, and critical thinking (Tynjal, 1998). Here, education is centred on learning; therefore, teachers are, in essence, facilitators, whose primary role is to guide learners to increase their knowledge whilst exploring their environment (Farabaugh, 2007).

Autonomy: The autonomy of language learners has attracted researchers and educators' attention, especially in technology-assisted learning environments. Benson (2001) defines learner autonomy as follows: "the capacity to take control over one's own learning" (p. 2). Hence, learners edging towards autonomy were believed to be able to determine their goals and targets, select appropriate methods, and manage and assess their learning (Holec, 1981). However, this emphasises the teachers' roles and support in enhancing learners' autonomy by engaging them more effectively (Arnold, Ducate, & Kost, 2012; Benson, 2001; Dam, 2018).

There is a consensus among literature that technology is now seen as having the ability to create various opportunities for independent interaction and practice (Palfreyman & Benson, 2019). According to Littlewood (1996), an autonomous learner has the "(a) the ability to engage in independent work; and (b) the ability to use appropriate learning strategies, both inside and outside the classroom" (p. 431). So, Godwin-Jones believes that (2003) "wikis are intensely collaborative"; however, this

huge affordance of "such a system only works with users serious about collaborating and willing to follow the group conventions and practices" (P.15).

3. Empirical Studies on Wikis (from 2010 to 2020)

As they are technological tools, wikis foster language learning in various ways, although they have only recently been integrated into an educational setting. Indeed, much literature has attested to the positive effects of this tool in this context. After all, wikis offer educational merits, potentially improving language learning, and further attract the attention of both researchers and teachers. Here, I review some related empirical research that has been conducted within the last ten years, all of which are presented by theme. Within each theme, studies will be presented in a chronological order.

A close examination of the existing field of literature on wikis showed that the majority placed an emphasis on how they can promote and enhance collaborative writing. Bradley, Lindstrom, and Rystedt (2010) explored how wikis improved group interaction in an advanced English for Specific purposes course for Swedish engineering students, specifically the ways in which they led to the exchange of peer responses and actively promoted language learning, to name a few examples. The researchers concluded that wikis facilitated the writing process. Further, they improved students' collaboration, co-operation, and interaction.

Similarly, Lee (2010) conducted a study that explored how wikis aided team writing. The study used thirty-five ESL beginner learners, whilst data was compiled via the use of surveys and wiki pages. From the interviews, it was found that wikis invariably have positive effects on learners, specifically regarding their writing skills, particularly in relation to organisation of content, plus accuracy. Additionally, Wichadee (2010) conducted a quantitative study, exploring the writing abilities of thirty-five EFL learners, all of whom were students at a Thai university. Wichadee found that the post-test mean score was significantly higher than the pre-test mean score; therefore, wikis have a positive effect on the participants' writing skills of students. Other studies, too, affirm the positive effects of wikis on writing skills via teamwork. These include Nami and Marandi (2014) , Alghasab and Handley (2017) and Ma (2020).

Lin and Yang (2011) explored whether wiki technology, specifically in relation to peer review and collaboration, could improve the writing skills of thirty-two EFL students. Based on a sociocultural framework, the researchers examined learners' attitudes towards the usefulness of wiki in a writing task. The results suggested that the participants had a positive attitude about using peer feedback and wiki to accomplish their writing project. However, it should be mentioned that they experienced psychological and functional obstacles, nonetheless. In addition, the students progressed more in style and grammar mechanics than in content and organisation. In a similar fashion, Pifarre and Fisher (2011), in a small-scale study, studied how writing, specifically in a wiki environment, could potentially cater for and support learners' revision strategies, for example. There were twenty-five participants in this study, all of whom were native speakers of the Catalan language and primary school students. The study's findings revealed that participants, as writers and readers, were placed in a setting that encouraged them to talk about their arguments and ideas. Ultimately, this was beneficial, for they developed both their revision and evaluation skills.

Wikis also increase engagement in writing stages, as research has revealed. Nakamaru (2012) conducted a quantitative study, where forty-seven advanced EFL learners were enlisted as participants. The study's findings demonstrated that there existed a positive, strong association between students' engagement in wiki and their final exam scores. Yet, activities enabled by technology did not always lead to increased student participation.

Wikis positively improve the knowledge of students, too. Pellet (2012) conducted a qualitative study. It explored whether or not wiki could be seen as a collaborative tool in thirty university-level French learners' results. The students created a wiki and worked in unison to create content. Conclusions demonstrate that wikis are capable of enhancing both knowledge and learning outcomes.

In a more contemporary study, Zou, Wang, and Xing (2016) examined the online language exchange programme between the UK and China, exploring the effect of a collaborative task in error correction in a EFL course at an international university in China. The researchers concluded that learners gave positive feedback on using Wikis, specifically for collaborative learning, which enabled them to practise their writing skills in English. In particular, students enjoyed peer-marking. Furthermore, according to the results, the students' writing skills improved.

In a recent study, Akbari and Erfani (2018) conducted an experimental study to compare between the effect of two online tools: wikis and e-portfolios on learners' writing skills. The participants, who were 81 EFL learners in a secondary school in Iran, divided into three groups: two experimental groups for wiki and e-portfolio, and one control group (i.e. paper-based classroom). It was found that using wiki and e-portfolio as a tool in classroom had a significant impact in improving learners' writing skills compared to the traditional classroom. The study also revealed that wiki was more effective in enhancing learner' English writing than e-portfolio.

In addition to enhancing learners' writing skills, research shows that wikis contribute to students' grammar knowledge as well. For example, Castañeda (2011) examined fifty-seven foreign language undergraduate students' differences in levels of achievement when it came to learning the preterit and imperfect aspects of Spanish. The researcher found that no major differences existed between video/photo blogs and wikis in relation to students' production level. Having said this, in the recognition level, significant differences were found. Most importantly, it was found that technology, including wikis and blogs, facilitated both learning structures and teaching.

Moreover, from an alternative perspective, Hsu (2019), explored a group construction of a wiki by non-native speaker English learners, who worked in self-selected groups to complete a writing task. Findings, from this mixed methods research, revealed that the participants tended to focus on grammatical aspect and accuracy of their texts as opposed to word choice
Exploring the reading aspect of wikis, Kuteeva (2011) set out to find how a collaborative tool like wikis were implemented, specifically in a course that focused on English advanced communication, where learners were involved in reading and writing texts in a meaningful context. All of the texts that were published by fourteen ESL university learners, who used the wiki and studied the same effective communication in English course, were examined for interactional meta-discourse resources and reader-oriented features. The findings revealed activities spawned by the wiki led students to improve their grammar, take note of the organisation of the text, and study structural coherence.

It was found that wikis also improve students' speaking skills. Indeed, Dehaan, Johnson, Yoshimura, and Kondo (2012) studied the use of wikis as a learning management system, as they were hoped to increase the oral communication abilities of Japanese students. The participants partook in a variety of experiential learning cycles, which included planning, observing, and taking part in their respective performances, which were recorded and downloaded to the wiki, where the teacher proceeded to distribute online feedback. The subsequent analysis demonstrated that the use of technology, including video cameras and wiki, improved the confidence and independence of the learners. The authors stated these features could be incorporated within teaching to improve the oral communication development of language learners.

Awada and Diab (2018), in a new study, experimentally examined the effectiveness of wiki and Google Earth 81 EFL learners' in speaking skill. The study's findings were procured via mixed-methods design, and these further showed that wiki and Google Earth were able to enhance learners' speaking skills and their motivation towards in learning. The study also concluded that wiki facilitated collaboration learning among participant, while Google earth enhance their critical thinking skills.
Wikis also enhance learners' perceptions and motivations towards language learning, as evidenced by the literature. There exists a general consensus that learners primarily have positive perceptions and motivations towards wikis when they use them in language learning. Franco (as cited in Miyazoe & Anderson, 2010), for example, tested wikis for EFL learners with low-intermediate level of English in a language school in Brazil. His intention was to examine peer-correction, specifically within groups, and it was found that students were receptive to the wikis. Further, wikis helped them to improve their language acquisition.

Moreover, Chao and Lo (2011), via a questionnaire, examined fifty-one students' opinions of whether or not wiki was perceived to help in group writing. It was found that learners showed a positive attitude towards the use of the wiki in collaborative writing. This, in turn, had a positive effect on their motivation. Chao's and Lo's (2011) findings reflect those of other studies, all of which reveal the positive effects of wiki on the motivation and attitudes of learners (Li & Zhu, 2011; Lund, 2008). All of these findings helped to spread the use of wikis across educational settings. It is important to note that wikis help teachers, too (Li & Zhu, 2011). After all, teachers appreciate how wikis enable them to assist their students when it comes to helping them to improve their social skills, alongside their learning outcomes (Kessler & Bikowski, 2010). Unlike the aforementioned studies, a study by Woo, Chu, Ho, and Li (2011) investigated the use of wikis within a primary school in Hong Kong. The researchers investigated the perceptions of thirty-eight students and their teachers regarding the use of wikis, and

how they affect revision processes. It was concluded that wikis can benefit different age groups and have a wide array of uses, which can be utilised within an educational setting.

In addition, Ozkan (2015) investigated EFL learners' perceptions about using wikis as cooperative and collaborative tools in a blended course design. The study's participants, composed of forty-four non-English majors attending their first year at university, used blogs and wikis throughout a one-semester compulsory English language education course. Data was collected via a questionnaire with all of the participants, and interviews with fifteen participants. Although they do provide advantages, it was found that wikis and blogs have some concerns such as casing discomfort for some learners when their contribution to text is deleted or edited by others in group.

Importantly, it has been found that wikis can foster students' autonomy. Indeed, a significant amount of research has shown how they allow language learners to develop independence. Furthermore, Kessler and Bikowski (2010) investigated the collaboration of forty EFL pre-service teachers via wikis on a sixteen-week online course. Findings revealed the following: participants benefit from opportunities to practice autonomy when it takes place in a flexible learning environment.

Arnold et al. (2012) analysed the virtual revision and writing behaviours of university students across three universities. A total of fifty-three university language learners were used in the study. They created wiki pages about a novel that had been studied in class. Here, students' revisions were analysed, specifically in terms of collaboration and cooperation. It was found that wikis have very good potential when it comes to students completing both independent and collaborative work. Having said this, teacher guidance and clear instructions are required, too.

Learners' critical thinking levels could also be enhanced by the use of wikis. In this respect, Davies et al. (2011) conducted a case study involving a total of twenty-seven postgraduate students, all of whom created an online community, to reflect upon their assessments and learning. It was found that wiki-writing assignments aided the participants when it came to improving their critical thinking about what they had learned, and further improved the ways in which they assessed themselves.

Woo et al. (2011), in a small-scale study, explored how the wiki's key attributes could potentially improve the collaborative writing projects of primary school EFL learners in China. The results showed that the participants were encouraged by two attributes in particular: group work and peer interaction. Further, three key areas were identified where wikis fostered creative problem-solving and critical thinking and helped to improve collaborative writing: namely, the technological, social, and educational areas.

4. Using Wiki as a Tool in Education: The Merits

In comparison to other Web 0.2 tools, the use of wikis within educational systems are comparatively new (Parker & Chao, 2007). Yet, as has been detailed in previous sections, wikis offer a wide array of educational benefits for both teachers and learners. For example, wikis are dramatically increasing in popularity in language learning: after all, the majority of research on them is influenced by various theories in language learning. These include, for instance, Learner's zone of proximal development (ZPD), sociocultural theory (Lantolf & Thorne, 2006), and autonomous learning (Benson, 2001; Littlewood, 1999). There is some evidence that social interaction facilitates the acquisition of new knowledge (Lantolf & Thorne, 2006). It has been argued that social interaction in a learner's ZPD may lead to language learning (Vygotsky, 1978). As such, wikis, specifically via their collaborative feature, can improve learning. Woo et al. (2011) mentions the importance of scaffolding, too, citing it as a main aspect in fostering collaborative learning and hence promoting learners' autonomy.

Learners must have a comfortable environment to guide and interact with one other in order for social interaction and scaffolding to occur (Li & Zhu, 2011). The inclusive nature of wikis, specifically as Web 0.2 social software, helps when it comes to achieving the aforementioned targets (Lund, 2008). The potential strength of wikis – particularly when it comes to learning through interaction, in addition to scaffolding – is due to the fact that they are able to unite users who may not be in close proximity to one another. Indeed, this allows them to share content, interact with one another, and scaffold.

Wikis possess certain uses that make them powerful in language learning. To lend credence to this point, wikis have a structure, primarily: "Edit," "History," and "Discuss". The "Edit" enables wiki users to revise or make amendments to text, hyperlinks, or images; the "History" function records all of the changes made, with the colour coding indicating inserts and texts, whilst "Discuss" allows users to collaboratively communicate via messages about the revisions and content of the web pages (Lee, 2010). Wikis, then, are incredibly useful tools that benefit educators and learners, specifically in foreign language learning (Lee, 2010).

Wikis have different features that, in turn, allow students to improve their learning. For example, wikis enhance collaboration and further support collective work ((Lund, 2008). Wikis, too, allow users to work on, alter, and synthesise content easily, as the platform is easily accessible (Lee, 2010). As such, wikis are, undeniably, a simple, easy way to participate in collaborative projects outside of the classroom, thus enabling users to enhance their writing skills and autonomy.

In an educational setting, wikis allow students to learn and contribute to academic discussions, as they are a source of information, which is further evidenced in Pellet's (2012) study. Wikis, then, are an effective way to teach English for Specific purposes (ESP) and Academic purposes (EAP) (Lee, 2010).

Wikis are interesting, supporting two modes of interaction, which are document mode and thread mode. Document mode occurs when all of the users take part in creating the same document, which results in teamwork, symbolising how students' different beliefs and knowledge come together (Leuf & Cunningham, 2001). Thread mode occurs when wiki is used as platform for students to share their thoughts. Here, users have the option to contribute their thoughts, which is achieved by writing comments whilst retaining the original message. These examples elucidate how wikis can improve how students develop meaning and understanding, hence positively affecting language learning (Ozkan, 2015), plus critical thinking (Woo et al., 2011).

Wikis are an effective educational tool due to their easy-to-use nature. After all, no training is required, but this is also the reason why some educators consider them to be an inaccurate resource of information, especially when they are used for educational purposes (Lee, 2010; Li & Zhu, 2011). Unlike other more complex social media, such as Facebook, wikis have far more limited display features and setting options, therefore involving minimal clicking (Nami & Marandi, 2014). Further to this, a primary benefit of wikis is how they enable users to take advantage of various modalities, including, for example, audio, animation, and video, to name a few. This allows them to easily communicate with their peers in a meaningful manner, which is something that text-only activities do not always achieve (Lund, 2008).

This ease of use, then, ensures that wiki is available to all ages. Yet, the vast majority of the studies, according to the literature review, were conducted with high school students or learners in higher education (Lee, 2010). Literature, however, reveals that wikis can benefit most learners, for their collaborative features allow students to learn and interact in a foreign language in settings outside of the classroom. Further, it is worth noting that the use of technology typically keeps students motivated, therefore eradicating boredom.

5. Using Wikis as Educational Tools: Limitations
Wikis provide learners with a chance to improve their education, as they are, in essence, a pedagogical tool. Yet, it would be remiss not to state that a number of studies report some negatives associated with their use. For instance, due to the fact that wikis can be manipulated and edited, security, reliability, and trustworthiness have all been cited as concerns (Lee, 2010). However, it should be noted that this issue can be fixed, specifically by changing the settings to users only (Lund, 2008). Furthermore, wiki content is not assessed for correctness, as they are open source. So, there is a risk that learners may learn incorrect information. Having said this, many wiki applications enable the administrator to moderate content (Li & Zhu, 2011). However, malware is an additional problem that could damage devices. Indeed, users can include virtually anything in their work, so they may inadvertently use links to websites containing malicious codes.

A major concern when it comes to using wikis is that users' content can be deleted, as leaders are able to delete the group work. Indeed, this has been reported as a major issue that prohibits collaboration (Nami & Marandi, 2014; Wichadee, 2010). Yet, it can be solved: the user need only revert to the original, track changes, and, finally, make any necessary revisions (Wichadee, 2010).

Additionally, it is important to note that some learners may be aware of, and uncomfortable with, collaborative learning, so they may experience difficulties when working in groups. They could be unwilling to change others' efforts, or feel nervous about sharing their own (Lund, 2008; Nami & Marandi, 2014; Ozkan, 2015). Moreover, wikis, alongside other Web 0.2 tools, must have a decent technological infrastructure, as poor technology and any accompanying breakdowns could potentially cause students to lose interest, as evidenced in Chao's and Lo's (2011) study. It is also crucial to note that not all students have unlimited access to technology and the Internet, which consequently hinders the accessibility and overall effectiveness of wiki in language learning.

6. Recommendations for Teachers, Teacher Educators, and Researchers

As we enter the 'new normal' era, teachers must consider effective ways to engage their students via online activities. Wikis are an ideal solution, as they are a tool that can be used to increase learners' engagement, develop their writing skills, increase their engagement, and lift their motivation levels. For Matthew et al. (2009), teachers should understand that, via collaborative writing, wikis have the ability to empower them, turning them into facilitators. This means that they can enable students to learn and grow within a controlled learning environment, consequently raising their levels of participation (Weimer, 2002). Teachers, then, should appreciate the value that wikis offer to their students (Al-Johali, 2019; Lipponen, 2002).

As discussed, wikis have advantages, but teachers should still take into account their issues in order to successfully use them (Ducate, Anderson, & Moreno, 2011). Indeed, it has been found that some students are hesitant to allow others to view their incomplete work (Zorko, 2009), revise each other's work (Ozkan, 2015), or are poor with technology, meaning they are unmotivated to use wikis. It is therefore important that teachers choose a user-friendly wiki interface that is easy to navigate (Zorko, 2009). Further, learners should be taught how to use the tool (Al-Johali, 2019; Cole, 2009; Kessler & Bikowski, 2010), design suitable activities that engage them in collaboration (Larusson & Alterman, 2009), and teach students how to work collaboratively (Al-Johali, 2019; Anzai, 2009; Bradley et al., 2010). In order to do so, and prior to beginning the project, a practice 3 task should be held within the class by the teacher. Instructions should be presented in a clear manner, with a focus on students completing activities of a communicative nature (Bradley et al., 2010; Ozkan, 2015; Wang, 2019). Lastly, and crucially, teachers must ensure that they provide regular feedback that will motivate their pupils (Bonk, Lee, Kim, & Lin, 2009; Godwin-Jones, 2003; Ma, 2020; Zorko, 2009).

It is also crucial that teachers are conscious of the limitations of wikis and consequently attempt to remove them. As discussed, educators are able to edit text and restrict editing to certain users (Lund, 2008) which, in turn, can address the primary problem that wikis are easily manipulated and edited (Lee, 2010). In addition, an educator, acting as an administrator, should moderate any incorrect content, as wiki content is open source (Li & Zhu, 2011). For malware and security problems, educators must create a blacklist of malware sites that contain potentially harmful links (Aydin, 2014). Teachers and educators should further be aware that unintentional edits or deletions are able to be fixed (Bold, 2006), as wikis allow users to locate original work and any accompanying changes (Lee, 2010).

Although technology often presents obvious benefits, teachers are typically oblivious to the full range of benefits that it could provide them (Al-Johali, 2019). As such, it is important that programmes for teachers are reorganised, following scientific and academic developments. For example, they should be redesigned to cater for both digital immigrants, who are a population that must learn to take advantage of the benefits of modern technology, and digital natives, who are accustomed with, and are able to use, technology (Aydin, 2014).

Further research, specifically on the impact of wikis in language learning, is necessary. After all, studies reveal that aspects of language remain limited. As evidenced in the above discussion, the majority of empirical research has focused on students' writing skill, which is due to the written nature of wikis. Additional investigation, then, is necessary to explore the effect of wikis on other language skills and components, which include listening, speaking, grammar, vocabulary, and reading.
Regarding the age of the participants, the research has tended to focus on older participants studying higher education. Therefore, research conducted in the future must analyse what ways young learners could use and benefit from wikis. The current lack of research pertaining to the effectiveness of wikis amongst younger learners could be due to the fact that wikis require mature learners with technological know-how. Yet, as the upcoming generation has been branded "digital natives," this should no longer be a problem for those with Internet connection and the appropriate equipment.

7. Conclusion

Wikis are effective learning and teaching tools. Firstly, most research on wikis has been shaped by a range of contrasting EFL/ESL theories. These offer great opportunities for learners to collaborate and challenge each other, which, in turn, enables them to improve their language learning and self-regulate their learning. Secondly, a major benefit of wikis is their ease of use, which both enhances students' autonomy and motivates them. Indeed, wiki is seen as a powerful digital tool that can be utilised to radically improve learners' language. As such, the pluses of using wikis in education far outweigh the minuses. The vast majority of education institutions across the world are moving to online teaching due to the Covid-19 era. As an EFL teacher, it is my personal contention that other educators should also use wikis to improve their students' education. Ultimately, this will improve their independence, whilst maximising their learning from beyond the classroom.

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