Language Studies | research article

Learner Autonomy in the Context of Web-based Simulations: Conceptions of English Instructors

Web Tabanlı Simülasyonlar Bağlamında Öğrenen Özerkliği: İngilizce Öğretim Görevlilerinin Görüşleri

Zülal Ayar 🆔 0000-0002-9029-7164
İzmir Katip Çelebi University

ABSTRACT

With the intersection of technology and teaching, especially after the pandemic, a host of research pinpointing the effects of web-based instruments on foreign language learners has gained prestige in the education paradigm. However, their focal point was chiefly on how to improve students' attainments against the challenges the pandemic has brought about. Teachers' beliefs or conceptions regarding their adoption or potential contributions to learners' features have not been explored enough by treating specific learning tool(s). To fill this chasm in the literature, the researcher recruited 31 Turkish EFL instructors to expose both their understanding of the necessity of scaffolding learner autonomy (LA) in e-tutoring and of the role of web-based simulations to support autonomy, along with revealing their reported execution. After posing online scale, which was developed by researchers in the field, and semi-structured interview questions, the participants were discovered to be aware of the importance of LA in general, yet they could not offer enough opportunities in online classes to support it due to some impeding factors. Furthermore, a moderate and significant relationship was noted between the execution of teacher behaviours and both the need for autonomy and the need to support the learning process. Still, no significant relationship was detected between instructors' age, experience, and reported behaviours to support LA. Finally, web-based simulations were considered effective due to some of their potential support for LA.

Introduction

Language teaching has always been depicted as one of the demanding occupations, given the overwhelming workload educators are supposed to take on, such as arranging and implementing intense syllabi, lesson plans, and materials to be adapted in accordance with learners' needs, expectations, and background knowledge. Particularly in the pursuit of the global pandemic, despite the limited time frame, they had to contend with more administrative tasks, a higher number of learners, and additional duties, such as announcing attendance lists on the web and checking the similarity of written student reports or exams. However, technological enhancements and computer-assisted language learning would optimise the learning process and help teachers carry out those assignments. One of these items can be characterised as web-based simulations (WBSs), which are activities where learners would conduct online tasks based

on a problem or impasse without role-plays or acts (Byrne et al. 2010). Thus, they would be expected to *simulate* a real-life situation with others (group members) or alone. The primary aim would be performing some duties, discussions (or questioning individually), and negotiations to resolve trouble in digital platforms. In fact, these attempts would also exert a direct influence on the role definitions of teachers and learners in that students may hold themselves more accountable for their own achievements throughout this process (Pacheco 2005). Nevertheless, conceptions of teachers regarding the potential impact of these web-based tools on learners' autonomy and the need for involving them in language classes should be explored thoroughly before their implementation in e-classes. This appeared as the primary motivation behind the operationalisation of the current research.

Literature Review

(Web-based) Simulations

Simulations can be interpreted as a *magic bullet* in the education paradigm, given their acceptance in distinct fields. To exemplify, Burke and Mancuso (2012) concentrated on the interconnectedness of simulations and social cognitive theory for nursing students' in-depth learning by underpinning its theoretical framework to Kolb's (1984) principles. Predicating simulations on both cognition and interactive philosophies, they especially pointed out *debriefing* to construct learners' self-regulations and efficacy. Lin et al. (2023) also mentioned simulations with the fusion of problem-based learning to highlight their efficacy on 65 medical students' knowledge with pre- and post-tests, along with identifying future doctors' experiences with them. In the end, they noted their attainments in technical and non-technical skills, such as self-confidence or teamwork. Additionally, simulations have largely been regarded as intersections within language studies due to offering real-life scenarios to students and opportunities to leverage their L2 skills (Pacheco 2005). As a case in point, Michelson and Dupuy (2014) examined L2 (French) uptake of 29 American university students after their work on simulations using experiment and control groups. They exposed an increase in the former group learners' motivation, awareness, and their amelioration in (non-)linguistic choices.

With the force of nearly all items' transition to online settings, the emergence of online simulation (integration of simulation into the multimedia-fronted net) in language teaching has not been surprising. As specified by Byrne et al. (2010), this must be rooted in its ease of use, controlled access, interoperability, cross-platform capability, wide availability, and the facility of collaboration with users. Thus, different from the former studies, Halleck and Coll-García (2011) addressed a WBS in language teaching to detect its possible effect on engineering students' intercultural awareness, overall L2 development, and critical thinking skills based on their perceptions. They based their simulation designs on problem-based learning and intercultural communication, and finally observed that they served the purpose. Yet, unexpectedly, learners volunteered to work on the upcoming tasks individually, which scholars attributed to the differences in language proficiency levels between Spanish and American participants. Similarly, Angelini and García-Carbonell (2019a) conducted a study by utilising online simulations (WBSs) to spot their support for engineering students who study English as a foreign language (EFL) to enhance their verbal competence. They revealed the significant level of progress in these learners' L2 expressions, pronunciation, and lexical and language use. Finally, the same researchers (2019b) discussed the possible growth of engineering students' writing productivity, again through WBSs in English language teaching (ELT). Written notes displaying their performance were considered as data sets to compare the effects of WBSs between learner groups. Students exposed to simulation-based instructions were seen to have improved writing skills significantly with regard to cohesion and general organisation of the text.

Learner Autonomy (LA)

Teachers' understanding and philosophy towards teaching and learning indicate their beliefs and presumptions regarding the education process. Thus, their conceptions determine and shape their teaching instructions and the rapport with students in parallel. Pedagogically, this relationship and their roles can be classified into two categories: teacher-centred and learner-centric education. The former concentrates on teachers' functions and requires them to assume the responsibility of lecturing and instilling knowledge in minds (i.e., *filling vessels*). Yet the latter mirrors the attempts of students to find ways to activate their own learning by taking risks and steering their future learning with the guidance of teachers. To that end, teachers would be expected to support their knowledge construction by designing and moderating some tasks comprising interactivity and communication. Accordingly, addressing this learner-centred philosophy from a more extensive view would lead us to predicate it on constructivist theories, given teachers' roles herein. Despite the importance of Piaget's (1971) cognitive approach, which examines how to build new knowledge via the old in an active and authentic learning process, Vygotsky's (1978) sociocultural theory regarding the teaching-learning nexus in a social phenomenon would attach utmost magnitude in this context due to its emphasis on interplays. This scholar also identifies the zone of proximal development (ZPD), indicating what learners can do with or without the scaffolding (Bruner 1974-1975) of educators and peers, within concentric circles and according to the distance between them. His definition, hinged on the term self-directed learning coined by Knowles (1975), had repercussions in the literature and paved the way for the emergence of other similar concepts following scholars' comprehensive analyses. To illustrate, Lave and Wenger (1991) introduced situated learning and explained its enhancement when students were offered the occasion of partaking in a community to practice what they learned unconsciously and gain expertise within a particular context.

Moreover, Zimmerman's (1989) self-regulated learning theory, which dwells on learners' consciousness of their weaknesses and strengths in educational studies, was immensely welcomed in the literature, given its potential contribution to learner success. Similarly, Holec (1981) and Little (1995) underlined the vitality of LA for students to maintain their studies by holding independent learning characteristics. However, considering the functions and the role of teachers in students' learning process, self-regulated learning and LA needed to be differentiated. The basic distinction can be stated in that whereas the former focuses on students' inner control and its process, the latter covers the efforts in creating knowledge and dealing with the external features, as well. Little (2004) interpreted it as the merit of students in controlling internal and external factors throughout their learning, which was, in fact, beyond the learning objectives (L2 competence) and can be achieved with teachers' scaffolding on "learning how to learn". What follows is that, this scholar reminded the role of educators in the process of LA and accentuated learner involvement and reflections, and the appropriate use of L2 in view of Holec's (1981) aforementioned ideology. While doing that, he also referred to Kolb's (1984) experiential learning and problem-based learning, considering active experimentation and experiencing the challenge of learning before sharing reflections in a community of practice. As is seen, the issue of LA evolves out of a range of theories and similar concepts not just on the ground of cognition, but also feelings and reflections, besides social factors.

Several studies have pointed out LA, particularly in language teaching, to illuminate its impact on learning or the ways it can be advanced. For instance, Basilan and Berber (2024) dwelled on the pertinence of LA as an instructional strategy while learning the target language. Yasmin and Sohail (2018) addressed the weight of referring to language teachers' conceptions about how to further students' LA and, in parallel, identify principles to make them responsible for the learning process. Having carried out interviews with 16 language teachers giving lessons to EFL classes at

the tertiary level of education, the researchers revealed the dominance of teacher-provided knowledge transfer in the courses. Thus, the importance of increasing language practitioners' awareness of LA in EFL classes was highly stressed. For the same reason, Chang (2020) scrutinised whether teachers' beliefs concerning LA and their in-class practices overlap, and to what degree they consider LA worthwhile and feature it in language teaching. This research indicated teachers' concurrence with the value of LA despite statistical distinctions between their reports and classroom practices after a mixed-method analysis. He attributed this finding to poor motivation levels of learners, their reticence, and educators' remaining under pressure with the high requirements of the profession. Borg and Alshumaimeri (2019) also investigated teacher perceptions and practices by incorporating 359 EFL instructors into their mixed-method design. Through the lens of teachers, LA was accounted as control and competence to fulfil tasks based on personal or pair-work inside or outside the learning setting, with a minimum of teacher support. They also added that scaffolding LA was what they would aspire to, and they mentioned their attempts to accomplish it in language teaching. Still, they highlighted the negative manners to its feasibility due to the curriculum, various student characteristics, and social norms, besides the constraints of institutional, sociocultural, and professional factors.

LA and (Web-based) Simulations

Some studies have associated LA with simulations in their research designs, considering their common points (e.g., experiential and problem-based learning) and potential contributions to language learning (see Byrne et al. 2010; Pacheco 2005). As a case in point, Jilani and Yasmin (2016) assessed the efficacy of simulations in cultivating 40 Pakistani university students' LA who aimed at learning English for specific purposes (ESP). Hence, through a quantitative design, these researchers investigated their beliefs about whether simulations serve as effective learning tools and boost LA or not. They reported that simulations within communicative scenarios would encourage learning and LA with the rise of their motivation, interaction with peers, and confidence in managing group work and task-based activities. In the same vein, Schormová (2017) handled the planning of simulations by presenting suggestions about how to assess students' attainments, aside from offering some simulation practices for the benefit of improving the LA of university students. Nevertheless, different from these studies, Keskitalo (2011) drew attention to the ways teachers conceptualise teaching and learning during simulation-based practices. He concluded by highlighting teachers' positive perceptions of the profits of simulations in education, considering the authentic environment they brought along with, and the occasions for LA and experiential learning. Teachers also regarded themselves as promoters of student learning by embracing a learner-centric approach and alluding to problem-based learning despite reporting varying attitudes towards learning.

After the pandemic, studies on simulations have been reoriented to web-based practices, and they were integrated into interactive activities to discuss LA and its support within the teaching-learning context. To begin, Wu and Hung (2022) detailed the influence of similar virtual reality practices via a software package on 56 elementary school EFL learners' speaking skills, assigning LA as an affective variable. Accordingly, improvements in grammar and vocabulary usage were observed in speaking performance, while no progress was recorded in LA or other language sub-skills after this experiment. Likewise, through a quasi-experiment, Tseng et al. (2019) examined the impact of a three-dimensional virtual setting on EFL learners' vocabulary enrichment from a sociocultural perspective by regarding collaboration and LA as learning factors. In the end, they underlined the power of this virtual environment, given the increase in autonomy and its contribution to keeping lexis in the memory compared to teacher-oriented language teaching. They finally suggested learners' engagement with such kinds of tasks with peers instead of working on them personally due to their advantage in the retention of vocabulary. Hong and Guo

(2025) also reviewed the impact of Artificial Intelligence (AI)-enhanced multi-display on 302 EFL learners approaching LA as one of the dependent variables of the research. They noted the meaningful progress of students in the experimental group exposed to virtual reality simulations throughout their daily language learning routines. Lastly, Cui et al. (2022) discussed students' inquiry learning in a web-based platform to see whether this setting would support their attainments, besides revealing the link between this environment and teachers in the meantime. The study resulted in portraying the effects of resorting to structure-supportive techniques on autonomous web-based learning, along with the impact of both platforms and educators on the way to scaffolding students' performances. In other words, they signified the importance of referring to LA and the role of educators in web-based learning contexts, which alone seems to foreshadow the present study.

The Current Study

The research has been orchestrated according to three conclusions deduced from the literature. Firstly, a rich seam of investigations on simulations focused on medical and engineering students' learning or other language studies, mostly to explore their efficiency in raising learners' L2 acquisitions. Some ELT practitioners also exploited these web items to note the accomplishments of EFL students or their perceptions, depending on the implementation of these tools (Pacheco 2005). Moreover, despite a host of research on LA in the EFL context in the extant literature, they have predominantly discussed teachers' beliefs and understanding of its significance in ELT, and its contributions to learning, in addition to examining their in-class practices to confirm their consistency. As for a range of studies fusing simulations or WBSs and LA in their scope, some were dedicated to ESP, the use of simulations during on-site (conventional) instructions, or were designated to offer some suggestions without conducting empirical research. Nevertheless, to the best of our knowledge, there is no, if any, research directly addressing the combination of LA and WBSs in virtual settings to reveal related views or beliefs of language practitioners affiliated with tertiary-level education institutions in the (Turkish) EFL context. Since teachers' conceptions and beliefs influence how education is conducted and consequently shape language practices, this paper has been developed in light of the following research questions:

1. Do English instructors believe that they need to support LA in virtual lessons?

2. Is there a significant relationship between the age and experience of instructors and their reported behaviours to support LA?

3. How can WBSs support LA in online classes through the lens of instructors?

Method

Participants

31 EFL instructors working in a Turkish university were incorporated into the research on a voluntary basis through convenience sampling. This university was chosen since its location would make it easier for the researcher to collect data, and the administrators were supportive of carrying out the study. As Table 1 reads, a vast majority of them were female, aged 30 to 39, and experienced with at least 20 years in teaching. Yet, male instructors and the attendees whose ages were between the ranges of 50-59, and experienced from 16 to 20 years in the profession appeared as the minority in the study.

Table 1. Demographic information of the participants

		N	%
Gender	Female	28	90,3
	Male	3	9,7
Age	30-39	16	51,6
	40-49	9	29
	50-59	6	19,4
Experience	6-10 years	7	22,6
	11-15 years	7	22,6
	16-20 years	3	9,7
	20 years or more	14	45,2
	Total	31	100

Data Collection

Having identified and shaped the basic phases of the research design, the researcher applied to the ethics committee of the university where s/he works. After obtaining the approval, s/he prepared an online questionnaire by clarifying what WBSs were with samples at the beginning to avoid any misunderstandings. The first part started with brief demographics based on multiple-choice questions. Then, after receiving the designer's consent, a 16-item survey (entitled teachers' LA support behaviours) on a five-point Likert scale developed by Oğuz (2013) in Turkish was adopted to reveal the participants' reported behaviours supporting learners' autonomy. The scale was constructed to be presented to the attendees in two distinct parts, given that one would measure the level of necessity of their behaviours, whereas the other would gauge the levels of their execution. The scale consists of one dimension (i.e., performance and necessity) and three factors entitled support for emotions and opinions (1st factor), support for the process of learning (2nd factor), and support for evaluations (3rd factor). The first factor comprises seven items, the second consists of five items, and the third involves four items.

Instructors were first informed about the scope and aims of the study by the school principal after official correspondence. In the second half of the academic year, all academic staff in the school was invited to take part in the current research via the survey link distributed by the researcher to answer Turkish questions regarding their e-teaching experiences. Reminder emails were sent three times, two weeks apart, to the staff, and a total of 31 EFL instructors volunteered to take the survey on Google Forms. Interviews held in Turkish were the other data collection instruments in that research. Interview questions were shaped by the researcher after a painstaking review of the literature and having attained the approval of an associate professor in ELT in terms of content validity. Six questions were posed to those eight volunteer interviewees who typed their email addresses at the end of the questionnaire. The questions were as follows:

1. What strategies, techniques, or teaching materials do you employ to teach English in virtual classes?

2. How can you describe LA?

3. Do you think that it is essential to consider LA in online English lessons? Why or why not?

4. Do you believe that you provide enough opportunities for learners to be exposed to LA in online lessons?

5. What do you see as the potential benefits or challenges of integrating WBSs into online English lessons?

6. Do you think that LA and WBSs have common points? If so, how can WBSs support LA?

Table 2. Interviewees

Interviewees	Age	Experience (years of teaching)
1	31	9
2	50	21
3	52	26
4	48	18
5	30	8
6	41	14
7	53	19
8	34	12

The third question was specifically incorporated to clarify their beliefs related to the requirement of addressing LA in online instructions for the first research question. The second and fourth ones were to check whether they could stand behind their claims by proving the value of LA with their e-teaching practices, or if they were really acquainted with the topic. The first interview question was to find out their current practices and their possible liaisons with the activities to support LA. In addition, it would also triangulate the quantitative analysis results belonging to the second research question. Finally, number five, but particularly six, would point to the last research question and disclose the ways WBSs could support LA in e-lessons. As was also conducted similarly in the questionnaire, the attendees were first informed about the WBSs, and some of their samples were introduced during the talks to break the ice. Thereafter, they were prompted to ruminate on in-class teaching routines during remote teaching by recalling LA in this context.

Data Analysis

After entering the data set into a software program developed for statistical analyses, the Cronbach Alpha reliability values of the dimension were identified as .846 (necessity) and .901 (execution), respectively. Moreover, in light of the skewness and kurtosis values (between -1.5 and +1.5), it was discovered that the scale was normally distributed (Patel & Read, 1996). Thus, analysis of variance (ANOVA) and Pearson correlation were utilised to see both the strength of linear correlation between variables (the dimension on the scale) and the effect of three variables (factors on the scale) on the outcome(s). As to the interviews (74.62 minutes in length in total), the dialogues were first turned into transcripts and then translated into English with the help of a colleague. The translation was made without breaking the natural form of the speech with some minimal refinement in stylistic choices, but exclusions of only some phrases, such as "hım, yeah, hıh, well, oh". Pauses or slips of the tongue were not left out of the talks, though.

Thematic analysis was conducted by two academics, one as the researcher of this study and the other as the same scholar assisting in the translation of the interviews who holds a PhD degree in ELT. They completed coding data about the last two questions individually and then examined them together in contrast. After the exchange of views, three categories were reduced to one, and five themes were turned into four by combining two similar themes into one. Hence, for the last research question, categories and themes were determined in addition to placing some excerpts (Braun & Clarke, 2006). Finally, these raters investigated the verbatim translations of the first four interview questions, particularly for the other research questions, and identified where each interviewee stood and on what grounds. They unanimously decided at what points and to what extent their value judgments were to be referred to with striking comments retrieved from the dialogues, while responding to the research questions in the discussion section. To that end, the

instructors were given numbers (e.g., I1, I2, I3,…) rather than nicknames, not only to keep their names anonymous, but to involve their quotes in the discussion.

Results and Discussion

Initially, to reveal instructors' thoughts on the necessity of promoting LA, their mean scores from the related dimension within the adopted scale were reported as follows (Table 3). Accordingly, although their overall scores for the listed items were above the average, the necessity of behaviours supporting learners' emotions and opinions was pointed out most, whereas the lowest rates were observed in support for evaluation. Thus, the table below statistically confirms that the attendees felt the need to reinforce the autonomy of language learners in digital courses, as in the work by Yasmin and Sohail (2018).

Table 3. Mean values of the participants from the scale

	Minimum Score	Maximum Score	Mean
1st factor	3,71	5,00	4,65
2nd factor	3,25	5,00	4,24
3rd factor	2,33	5,00	3,80
Total	3,32	5,00	4,23

Similarly, the analysis of the third interview question showed their positive manners relevant to considering the issue of LA while giving lessons in online settings. Similar to Borg and Alshumaimeri (2019), they mostly noted bearing the importance of learners' self-determination in mind, both in in-person and online instructions. It was such that I2, I3, I4, and I7 interpreted the pandemic as a process for learners through which they could build or enhance their autonomy by increasing responsibilities for their own learning. However, I1 said: "Universities are a very late stage in developing LA or raising awareness. That does not mean that students can never do it anymore or cannot improve themselves, yet there is not enough to familiarise or encourage them." Moreover, I6 declared:

We should support LA, but sometimes I feel we fail. We specify and embrace a method, such as the communicative approach; however, I think it does not suit our society well. We directly assume it as a way for LA without pondering it according to the audience (students' objectives, desires, or needs).

I8 also shared: "I know its value very well, but learners do not seem to think so. If they took autonomy into account or were aware of its importance to an extent, they would not be so disengaged from online classes." That being the case, these comments led us to investigate the LA in-depth to understand whether the participant instructors had a sound grasp of it in language teaching and whether they believed in the need for offering enough opportunities to expose them to autonomy. I4 and I7 were detected not to be well-versed in LA, given their trouble in describing this term during the interviews. Moreover, consistent with the findings by Chang (2020), almost all confessed that they did not provide enough opportunities for students by making them feel obliged to leverage their autonomy at least to *survive* in the learning process. They grounded it on the school policy since they did not have the field to allocate extra time or extra-curricular activities to improve LA due to the intense schedule and daily and weekly lesson plans prepared by the material unit, and no supplementary materials were allowed in the course. In addition, I1, I3, I4, I5, and I8 put it down to learner apathy, students with distinct proficiency levels in the same class despite taking the placement test, and their lack of creativity. Finally, I1 and I6 referred to the role of instructors at this point from different perspectives while commenting on the potential hurdles before LA. The former (I1) construed it as the mastery of instructors in designing, integrating with other exercises or tasks, and presenting new materials to students, whereas the latter (I6) placed nearly no responsibility on educators under the guise

that all information can be discovered with a click on the web. Taken together, instructors believe in the necessity of promoting LA in L2 teaching during e-lectures even though they largely felt they could not provide favourable circumstances to support LA due to the three foregoing basic motives (see Borg & Alshumaimeri 2019 for further discussion).

As for the second research question, the relationships of participants' demographics not just with the necessity of behaviours but their execution would be worth examining. Firstly, the findings concerning the requirement to support LA about age illustrate that three factors, that is support for emotions and opinions (F(2.28)=1.605, p>.05), for the learning process (F(2.28)=0.26, p>.05), and for the assessment (F(2.28)=0.114, p>.05) did not differ meaningfully. Similarly, the analysis of variance regarding the execution of behaviours to support LA by age displays that the first factor (F(2,28)=0.226, p>.05), the second (F(2,28)=0.101, p>.05), and the third (F(2,28)=0.28, p>.05) did not significantly alter. This indicates that all age groups had the same conceptions about paying attention to LA in e-lectures. As for their relationship with the experiences of instructors, the analysis on the necessity of LA demonstrates that support for emotions and opinions (F(3,27)=2.475, p>.05), for the learning process (F(3,27)=0.614, p>.05), and the assessment (F(3,27)=0.552, p>.05) did not significantly change with respect to the length of service in the teaching profession. Likewise, another variance analysis concerning the execution of behaviours for supporting LA according to experience announced the first factor (F(3,27)=1.033, p>.05), the second (F(3,27)=1.558, p>.05), and the third (F(3,27)=0.651, p>.05) did not differ meaningfully. In other words, as in the other factor (i.e., the ages of the participants), teaching experience would not change their thoughts regarding LA in e-teaching practices. Nevertheless, as Table 4 reads, findings according to Pearson analysis on the relationship between the necessity of supporting LA and execution of behaviours revealed that there was a moderate, positive, and significant relationship between the two (r=.584, p<.05). Besides, another moderate, positive and significant relationship was between the necessity of behaviours to support the learning process and the levels of their display for LA (r=.436, p<.05). These findings suggest that educators thought the necessity and execution of LA support behaviours, particularly in relation to emotions and opinions, and the learning process, as also reported by Cui et al. (2022), and Keskitalo (2011).

Table 4. Pearson correlation analysis

concerning necessity		concerning execution		
		1st factor	2nd factor	3rd factor
1st factor	r	,584**		
	p	,001		
	N	31		
2nd factor	r		,436*	
	p		,014	
	N		31	
3rd factor	r			,210
	p			,256
	N			31

p<.05*, p<.01**

Yet, no significant relationship was noted between the necessity of behaviours to support evaluation and their level of display (r=.21, p>.05). Put it differently, this result emphasizes that support for assessment (mean score=3,80) was not considered as pivotal as the other two factors or that feedback should be at the forefront rather than exam-type evaluations, as mentioned in

interviews (also see Table 3). As a case in point, I8 detailed it in the first interview question:

I do not make grammar the focus of lessons; instead, I especially try to refer to the vocabulary they have just learned. Furthermore, group work, dialogues, comprehension questions in reading activities, and practices at every stage of language teaching appear to be my techniques and strategies. But above all, providing feedback to learners can be regarded as the be-all and end-all.

Further analysis of this question signified a congruent result with Jilani and Yasmin (2016), Keskitalo (2011), Schormová (2017), and Tseng et al. (2019) in that I1, I3, and I5 also dwelled on process-oriented teaching rather than product-based (cf. Yasmin & Sohail, 2018). This is because they mostly resorted to question-answer, additional support for mechanical activities, the balance between input and output, the use of i-tools, digital practices for productive skills, and other similar techniques. Nonetheless, as in the work by Wu and Hung (2022), the other attendees did not share any of their attempts as exemplary of paying special regard to LA in language classes. This also affirms the positive and moderate, but not high, relationships among these factors as highlighted in the table above. Additionally, as they (I1, I3, I5, I8, and I2, I4, I6, I7) were within distinct age groups and had different lengths of teaching experience (see Table 2), this also corroborates the aforementioned findings about the detection of no meaningful distinctions between ages, the length of service in the profession, and reported behaviours.

Having identified the participants' beliefs about the need for promoting LA during remote teaching, besides their positive viewpoints, in general, towards LA in language education, their conceptions about whether and how WBSs could support LA in e-tutoring need to be addressed as well. The table below demonstrates in what ways they considered WBSs would reinforce LA throughout online instruction as a response to the third research question.

Table 5. Reasons for adopting WBSs for LA

Category	Theme	Description (from quotes)
Advantages of WBSs	Social learning tools	As social beings, humans need to interact and communicate with one another even during quarantine. As an online resource, WBSs offer an opportunity for interaction of students with themselves and their peers to advance their language learning.
	Investment for future learning	With the consciousness, awareness, and many attainments they hold through the guidance of the instructors, they can broaden their horizons. This would then contribute to their future (language) learning more than skill-based language instructions.
	A means to implicit learning	As they would feel like playing a computer game during WBSs, they will learn implicitly and unconsciously.
	A step for familiarizing with learning by doing experience	WBSs are of significance and also a utility for helping students adapt to real life from now on. For instance, sending e-mails has turned out to be a must in our lives, and they will learn it through hands-on experience based on an actual need.

Responses to the fifth interview question unearthed the potential benefits of WBSs in e-courses through the eyes of instructors. This was drastically upheld by the last question posed to them on the common points between LA and WBSs and the ways they could potentially promote autonomy. Four themes were created in light of their answers to those questions (Table 5). Accordingly, I5 underscored the profit of the pandemic on WBSs in that it would be more efficient to make them feel autonomous in the online classroom (Hong & Guo 2025; Tseng et al. 2019). On the other hand, during on-site instruction, as educators assign students almost direct responsibility for their learning, LA would remain more restricted. As WBSs were social learning tools and encouraged students to engage in unconscious learning through pair-work or teamwork (Halleck & Coll-García 2011; Hong & Guo 2025; Lin et al. 2023), learners would become accustomed to further language studies and invest in their future. On the contrary, I6 denoted the similarity between traditional in-person and online instructions in terms of implementing WBSs in lessons. As for I4, s/he claimed some common points may potentially subsist between the two, and WBSs' possible advantage would be increasing the intrinsic motivation of students, thanks to experiential learning opportunities (Burke & Mancuso 2012; Kolb 1984). I7 surprisingly explained no identical points among LA and WBSs and also added that, providing their inclusion in the courses was on the agenda, the material unit would first be supposed to consider it, and then educators could initiate their practices. Unfortunately, this comment explicates the lack of autonomy of I7 in his/her teaching principles and making related decisions, which can be deduced from his/her answers to the second interview question. In contrast, similar to the description in Table 5, I3 underlined WBSs would work for personal growth and lead them to hold visions, which would then echo in their language learning at the very least. Finally, I8 concluded:

Given its connection to real life, students can determine through WBSs what they will learn, how they would like to learn, or in what context(s) they will learn their target subjects. Otherwise, nothing could guide them to learn the subject.

All in all, identical to Cui et al. (2022) and Keskitalo (2011), the majority of participants disclosed potential support of WBSs for LA thanks to their likely contributions to their learning based on four motives.

Conclusion

The participant EFL instructors reflected their beliefs regarding the necessity of paying attention to LA during e-teaching practices and of supporting it in the context of WBSs. They declared that they could not offer enough opportunities for students to build or cultivate LA in web-based education during the global crisis. These instructors attributed this to school policy (strict norms and impositions), learner apathy (absenteeism, or reluctance to coordinate with others), and the role of instructors (adoption of teacher- or learner-centric approach). Furthermore, depending on teachers' perceptions, a moderate, positive, and significant relationship was found between the levels of need for behaviours. This was the same for their execution levels to support LA, the learning process, students' thoughts and feelings. This unearthed the instructors' wish to optimise online teaching and utilise some extra-curricular practices by concentrating on students' senses, features, and progress. Yet, no meaningful difference was observed among their ages, teaching experiences, and reported behaviours to scaffold LA in e-courses. Finally, despite some counter-claims, most participants acknowledged the potential contributions of WBSs to LA in terms of being social learning tools, a means to implicit learning, a way of practising learning-by-doing, and an investment for future learning.

As for the limitations of the study, the number of participants for both qualitative and quantitative data could be increased by incorporating more than one school into the design and

applying it on a larger scale. As an alternative, lesson records can be reached and analysed to triangulate the results through field notes and extend the scope of the research. After noting these results, an implication can be stated as signifying the variation between approaches by school principals and instructors towards managing web-based teaching and precautions to be taken for similar crises in the future (e.g., monkey pox virus or swine flu). To that end, the number of class hours could be reduced, or instructors could be given flexible hours to dedicate to activities supporting LA, thereby substituting some classes for others.

In light of the differences between their conceptions and teaching practices, instructors need to be encouraged or supported for professional development activities by the school to gain expertise in how to coordinate students in emergency remote learning and scaffold LA within the WBS context. Finally, suggestions for further analyses include carrying out a similar study to compare teachers' current understandings of LA and WBSs (in the post-global crisis) and including learners' overall L2 achievements in the research aims. Alternatively, as Dai and Ke (2022) and Rashid and Kausik (2024) laid weight on the pressing need to use WBSs as educational applications in the modern era, the modules of learning management systems and some virtual agents, such as AI-powered platforms or other machine learning systems can also be scrutinized to stimulate other research addressing technical support for boosting LA. As this study will likely be one of the first to scrutinise teacher beliefs or conceptions about LA and the role of WBSs in its enhancement through e-tutoring practices, it is hoped to clear the way for other investigations in the field of ELT.

Compliance with Ethics Guidelines

The study was approved by the Social Sciences Ethics Committee of İzmir Katip Çelebi University (no. E- 2023/14-02, August 8, 2023)

Disclosure Statement

No potential conflict of interest was reported by the author(s).

References

Angelini, M. L., & García-Carbonell, A. (2019a). Developing English speaking skills through simulation-based instruction. *Teaching English with Technology, 19*(2), 3-20.

Angelini, M. L., & García-Carbonell, A. (2019b). Enhancing students' written production in English through flipped lessons and simulations. *International Journal of Educational Technology in Higher Education*, *16*(2), 1-19. https://doi.org/10.1186/s41239-019-0131-8

Basilan, M., L. J., C, & Berber, L. V. (2024). Learner autonomy as an instructional strategy in enhancing language learning. *International Education Forum, 2*(4), 1-19. https://doi.org/10.26689/ief.v2i4.7050

Borg, S., & Alshumaimeri, Y. (2019). Language learner autonomy in a tertiary context: Teachers' beliefs and practices. *Language Teaching Research, 23*(1), 9-38. https://doi.org/10.1177/1362168817725759

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Bruner, J. S. (1974-1975). From communication to language: A psychological perspective. *Cognition, 3*(3), 255-287. https://doi.org/10.1016/0010-0277(74)90012-2

Burke, H., & Mancuso, L. (2012). Social cognitive theory, metacognition, and simulation learning in nursing education. *The Journal of Nursing Education, 51*(10), 543-548.

Byrne, J., Heavey, C., & Byrne, P. J. (2010). A review of web-based simulation and supporting tools. *Simulation Modelling Practice and Theory, 18*(3), 253-276 https://doi.org/10.1016/j.simpat.2009.09.013

Chang, L. Y. H. (2020). Taiwanese EFL language teachers' beliefs and actual practices related to learner autonomy. *TESL-EJ, 23*(4).

Cui, Y., Zhao, G., & Zhang, D. (2022). Improving students' inquiry learning in web-based environments by providing structure: Does the teacher matter or platform matter? *British Journal of Educational Technology, 53*(4), 1049-1068. https://doi.org/10.1111/bjet.13184

Dai, C. P., & Ke, F. (2022). Educational applications of artificial intelligence in simulation-based learning: A systematic mapping review. *Computers and Education: Artificial Intelligence, 3*, 100087. https://doi.org/10.1016/j.caeai.2022.100087

Halleck, G., & Coll-García, J. (2011). Developing problem-solving and intercultural communication: An online simulation for engineering students. *Journal of Simulation/Gaming for Learning and Development, 1*(1), 94-111.

Holec, H. (1981). *Autonomy in foreign language learning*. Pergamon Press.

Hong, X., & Guo, L. (2025). Effects of AI-enhanced multi-display language teaching systems on learning motivation, cognitive load management, and learner autonomy. *Education and Information Technologies*, *30*, 17155-17189. ttps://doi.org/10.1007/s10639-025-13472-1

Jilani, S., & Yasmin, M. (2016). Analyzing the effectiveness of simulation in promoting learner autonomy: Perceptions of ESP hotel management students. *Psychology, 7(*8), 1154-1162. https://doi.org/10.4236/psych.2016.78116

Keskitalo, T. (2011). Teachers' conceptions and their approaches to teaching in virtual reality and simulation-based learning environments. *Teachers and Teaching, 17*(1), 131-147. https://doi.org/10.1080/13540602.2011.538503

Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. Follett Publishing.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511815355

Lin, Y., Wang, T., Hou, Y., et al. (2023). Web-based problem-based learning (PBL) and scenario simulation teaching in airway management for undergraduate students. *Research Square,* 1-16. https://doi.org/10.21203/rs.3.rs-3136161/v1

Little, D. (1995). Learning as dialogue: The dependence of learner autonomy on teacher autonomy. *System, 23*(2), 175–181. https://doi.org/10.1016/0346-251X(95)00006-6

Little, D. (2004). Constructing a theory of learner autonomy: some steps along the way. In K. Mäkinen, P. Kaikkonen, & V. Kohonen (Eds.), *Future perspectives in foreign language education* (pp. 15-25). Oulu.

Michelson, K., & Dupuy, B. (2014). Multi-storied lives: Global simulation as an approach to developing multiliteracies in an intermediate French course. *L2 Journal, 6*(1)*,* 21-49. https://doi.org/10.5070/L26119613

Oğuz, A. (2013). Developing a scale for learner autonomy support. *Educational Sciences: Theory & Practice, 13*(4), 2177-2194. https://doi.org/10.12738/estp.2013.4.1870

Pacheco, A. Q. (2005). Web-Based Learning (WBL): A challenge for foreign language teachers. *Actualidades Investigativas en Educación, 5*(2), 1-25.

Patel, J. K., & Read, C. B. (1996). *Handbook of the normal distribution* (2nd ed.). CRC Press.

Piaget, J. (1971). *Psychology and epistemology: Towards a theory of knowledge*. Grossman.

Rashid, A.B. & Kausik, M. A. K. (2024). AI revolutionizing industries worldwide: A comprehensive overview of its diverse applications. *Hybrid Advances*, 7, Article 100277. https://doi.org/10.1016/j.hybadv.2024.100277

Schormová, Z. (2017). Simulation as a strategy for enhancing learner autonomy in developing communicative competence in ESP. In M. Pawlak, A. Mystkowska-Wiertelak, J. Bielak (Eds.), *Autonomy in second language learning: Managing the resources* (pp. 35-50). Springer. https://doi.org/10.1007/978-3-319-07764-2_3

Tseng, W. T., Liou, H. J., & Chu, H. C. (2019). Vocabulary learning in virtual environments: Learner autonomy and collaboration. *System, 88,* 102190. https://doi.org/10.1016/j.system.2019.102190

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wu, Y. H. S., & Hung, S. T. A. (2022). The effects of virtual reality infused instruction on elementary school students' English-speaking performance, willingness to communicate, and learning autonomy. *Journal of Educational Computing Research*, *60*(6), 1558-1587. https://doi.org/10.1177/07356331211068207

Yasmin, M., & Sohail, A. (2018). Learner autonomy: Pakistani English teachers' beliefs. *Bulletin of Education and Research, 40*(2), 179-194.

Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology, 81*(3), 329–339. https://doi.org/10.1037/0022-0663.81.3.329