-------------------------------------------------------------------------------------------------------------------------------

# Integrating Interactive E-Learning Tools in Teaching ESL

Maya Bazhouni[*]

*Lebanese University, Beirut, 00961, Lebanon*

*Email: mayabazhouni@outlook.com*

**Abstract**

This paper presents the findings of contemporary investigations that sought to examine the effectiveness of e-learning English tools, disadvantages of digital learning applications, and the perceptions of ESL students/teachers who have incorporated these web-based resources to facilitate language learning proficiency. This literature review discusses in detail language-learning applications including the WebCT (Web Course Tools), Elluminate, MOODLE, Blackboard (Wimba), and Voki tools, with the primary goal of understanding particular functionalities and how they can be modified to suit the context of language learning. The study confirms that most of these resources allowed students to record their voice messages, receive synchronous feedbacks from tutors, hold online peer discussions, and privately consult the tutors. In the conclusion, it was revealed that these language-learning applications significantly improved language study outcomes for international or ESL students. The study implication is identified as the need to conduct an exploration that examines ESL students' perceptions regarding the benefits of Voki, Wimba, MOODLE, Elluminate, and WebCT.

*Keywords:* e-learning tools; language learning; assessment; feedback.

## 1. Introduction

The recent developments in the capability and interactivity of educational technologies and multi-media have stirred up calls for the creation and use of virtual learning tools, which could significantly boost several language skills. The global standards of the English language have deteriorated over the past years, with learners gradually losing necessary oral skills due to distortion of basic pronunciation and lack of usage [1].

------------------------------------------------------------------

* Corresponding author.

Integrating interactive e-learning tools can offer demotivated students more interactive and engaging pathways through which they can learn. Nevertheless, research has revealed that teachers must be conversant with the handling and management of these resources in order to achieve maximum benefits for ESL students. According to [1], applying Information Communication Technology tools enhances students' chances of improving the quality of classroom teacher-student interaction and developing language competency. Improvements in the delivery of English language lessons, especially for ESL students are mandatory, considering the growing concerns about the diminishing degree of language proficiency among technical learners. E-learning tools, including WebCT, Blackboard, MOODLE, and Voki, are useful resources for learners seeking to advance their language proficiencies. The main advantages provided by these digital resources include enhanced levels of student engagement and increased opportunities for socialization, particularly for students with below-average interpersonal skills [2]. Over the years, fears regarding the acceptance of these tools have continued to build up as learners, specifically those undertaking technical courses, demonstrate a low-key acceptance of emerging innovations. However, the trend has particularly been encouraging for ESL language students who have had the opportunity of using graphic enhanced or text-based interactive e-learning tools. The primary objective of this paper will be to evaluate the current level of e-learning tools integration by language teachers in higher institutions of learning. The investigation will also explore various challenges that affect the implementation of e-learning support tools in promoting language competencies among college students.

## 2. Interactive E-Learning Tools for Teaching ESL Learners

A study conducted by [1] that sought to investigate the detrimental impacts of deteriorating English writing, and speaking skills among Malaysian college students, revealed that dwindling communicative capability negatively impacts on the country's financial, trade, education, and organizational competitiveness. According to a 2004 School Certificate Examination Report on English Language, it was confirmed that a significant number of the ESL learners in Malaysia had poor language presentation and writing skills, which could be resolved by applying interactive e-learning tools [1]. Educational researchers also confirmed the importance of ICT-assisted teaching in removing barriers associated with space and time. Additionally, e-learning has the potential of enabling students to improve their thought processes, communication skills, motivation, and behaviors, thus enhancing their autonomy while learning. Reference [3] carried out an exploration that focused on establishing the impact of e-learning tools in enhancing students' motivation. According to [3] even though numerous e-learning tools have been in use for almost a decade, there are inadequate investigations that focus on the role of these digital study assistants to improve the motivation levels among learners. Reference [3] define e-learning as "any learning that involves using the Internet or intranet". The authors provide evidence that incorporating e-learning tools in education significantly improved the level of motivation among Carnegie Mellon University (CMU). The investigators focused on Egyptian institutions of higher learning, which faced numerous obstacles relating to the adoption of educational language technologies. Reference [3] cited that Egyptian universities have implemented the use of MOODLE e-learning platforms to provide a way for the application of asynchronous web-based modules. However, little has been done to determine how these e-learning possibilities affect learners' motivation. The use of web-based learning in modern classrooms has become particularly beneficial in learning settings where the student-teacher ratio is significantly high. For this reason, instructors have continually advocated for higher learning institutions to acquire interactive contents to improve the process

of learning. The effect of wikis and blogs on enhancing students' collaboration has also been extensively researched and confirmed to have a positive impact. The main challenge with the implementation of e-learning procedures has been the increasing focus on developing additional ESL teaching technologies, without paying attention to the best ways of customizing their application to suit specific learners' needs. Reference [3] have also referred to past findings which analyzed the positive impacts of e-learning tools in higher education. The investigators revealed that there had been a 12% to 14% increase in the rate of enrollment for online learning [3]. The main reason for the growing popularity of e-learning is the increased flexibility and convenience that it offers students in terms of saving time and space. Moreover, learners are able to share crucial information in a cost-efficient, timely, and reliable manner. Reference [4] presented an analysis of several e-learning tools which include Course Management Systems (CMS), Internet, WebCT, MOODLE, Blackboard (Wimba), Voki, and data or overhead projectors. These digital learning aids are currently being used by academics to enhance the efficiency of knowledge transmission for a large number of students. Reference [4] define CMS as "a web-based system with a database back-end" (p. 2). The leading role of the CMS tool is to enable instructors to retrieve web resources for learners while supporting effective management of classroom tasks and activities. These researchers, however, note that the efficacy of these tools in increasing students' outcomes depend on instructors' understanding of the strengths and weaknesses of these learning aids.  The investigators compared and contrasted these digital learning applications in terms of their key aims, advantages, and disadvantages. According to [4], additional technical developments that have facilitated the functionality of these tools include the ability of higher learning institutions to install corporate intranet. Other factors that support the growing use of technologically assisted instruction include the constantly falling prices of Internet bundles and the formulation of regulatory standards including the ADL initiative and the Aviation Industry Computer-based Training Committee [4]. In the United States, e-learning systems and technologies have been widespread, especially when compared to regions such as Germany, France, and the United Kingdom. Besides, there are numerous institutions in Jordan which have implemented students and staff portals to be used for administrative and academic purposes. Universities such as Hashimate and Petra use Blackboard and MOODLE to effectively present new content to learners [4]. Other activities that learners can access through these portals include Arabic and English language tests, grade authentication, latest news distribution, e-salary disbursement for works, and distance learning.  Nevertheless, issues such as convenience, flexibility, usability, and security of digital learning have influenced the performance of the e-learning platforms [4]. These universities have also installed relevant security measures to protect the merging, distribution, and analysis of crucial information resources within departments. The main advantages of e-learning tools, as discussed by [4] include supporting diversified teaching techniques, improved student realization, enhanced visual stimulation, and increased student engagement. Nevertheless, other factors which may hamper the effectiveness of these technological tools include the need to formulate practical guidelines that would ensure students make the most out of these technologies. In other instances, educators have demonstrated increased anxiety and reluctance to implement digital learning models.

## 3. Critical Review of WebCT, Elluminate, MOODLE, Blackboard (Wimba), Voki

Reference [5] conducted an exploration to investigate the impacts of using the CMS in an Anatomy and Physiology class with a student population of 242. The goal of this investigation was to uncover whether

WebCT could enhance learners' autonomy and facilitate crucial information access while improving academic achievements using the students' self-test. The findings of the exploration revealed that using WebCT significantly increased learners' scores, therefore necessitating the use of CMS features, grade-books, and self-tests that are expert-system administered. According to [5], instructors can supplement their lectures to offer individualized and interactive support for their students. Having a hand on experience and laboratory management skills can only meet students' educational need to a particular extent. Nevertheless, understanding technical subject matters such as physiology may require educators to offer expert opinions to evolving questions raised by hundreds of learners, which can only be achieved using tools such as MOODLE.

## 4. WebCT Digital Language Learning Resource

Reference [6] discusses WebCT as an e-learning tool that has been widely used to support online language development, especially following the increasing adoption of the World Wide Web (WWW). As defined by [6], WebCT refers to "a web-based technology that allows an instructor to upload his or her teaching materials to a designated web page". WebCT was first created and tested in the Department of Computer Science at the University of British Columbia, as a tool that enables teachers to enrich the learning process by incorporating visual presentations, lectures, exam materials, and course rubrics [6]. Numerous globally established academic institutions have confirmed opportunities for the application of WebCT to improve reading and writing performances, particularly for international and ESL students. Besides, accredited colleges and universities which have implemented these technologies have noted the increased efficiency of one-on-one interactions, content delivery procedures, distant learning, and course management systems.  According to [5], the Information Technology department at the College of St. Scholastica recently implemented the use of a CMS function known as the WebCT. The WebCT allowed tutors to create and modify a highly secure website known as the "shell." The platform automatically generated powerful tools such as course materials, outlines, self-tests, recommended teaching strategies, and study outlines for learners and tutors within specific faculties. The main advantage of WebCT for the College of St. Scholastica has been its ability to improve students' outcomes and engagement for both online and on-site courses. Lastly, the researchers also noted that classrooms containing a relatively low number of students could benefit more from WebCT, as compared to those in densely populated classes.  After the adoption of WebCT in numerous universities and colleges globally, the tool was advanced to enable tutors to manage learners' grades, place study calendars, presentations, revision questions, and reading lists. The platform has eliminated the need for physical interactions for students and tutors who have been limited by geographical barriers, thus allowing instructors to administer exams online and track learners' academic performances in particular subjects [6]. WebCT has also provided non-English speaking students with an opportunity to study the language at their pace, due to the ease of accessing study materials and practice quizzes after the scheduled teaching sessions. Despite the advantages provided by WebCT, Reference [7] notes that the main disadvantage with the tool as a language learning resource is a hardware limitation considering that the e-learning resource only operated using the UNIX OS (Operating System). Therefore, tutors of higher academic institutions which are unwilling to purchase UNIX enabled servers may not benefit from the functionalities that the software offers. Another WebCT problem identified by [7] is its overreliance on frames, which are often challenging to navigate and may require additional storage space. Thus, tutors must ensure that students have the recommended computing power before installing WebCT applications as the primary digital

language learning tools.

## 5. MOODLE E-Learning Tool

Reference [8] scrutinized the appropriateness of MOODLE as a digital learning tool that could promote performance and participation among students undertaking an educational psychology course. The researcher defined MOODLE as a "software program for electronic or "e-learning," a category of programs that are variously identified as "Course Management Systems" (CMS), "Learning Management Systems" (LMS), or "Virtual Learning Environments" (VLE)" [8]. The primary study questions included examining the roles of students as users in adopting e-learning technologies and their perspectives on the effectiveness of MOODLE as a digital instruction tool. The descriptive research findings revealed that MOODLE enhanced learners' motivation by enabling interactive and visual information-sharing. The most significant facilitator of the increasing adoption of MOODLE by both public and private institutions is the Internet. Nevertheless, Reference [8] maintained that no digital education tool should be used as a substitute for critical thinking and traditional teaching sessions. Different classroom operation techniques, including quizzes, scheduling, and assignments, can be delivered to learners through modular features that are supported by MOODLE [8]. MOODLE can also be used by instructors to organize distance learning classes, whether on a full or part-time basis. The versatility achieved using MOODLE also enables tutors to create learning curves that exhibit learners' performance during and after the course. Reference [8] also states that MOODLE integrates numerous modules, such as chat, forums, and wikis, which facilitate content sharing.

## 6. Voki E-Learning Application

The use of Voki has also gained popularity as an e-learning Web 2.0 tool that can be used by educators to create customized avatars which can be embedded into wikis or blogs. An article by [9] analyzed the role of Voki in enhancing the learning and teaching of the English language, in addition to improving learners' communication skills. According to the researchers, "the online application Voki is one of the tools that have proved to be relevant and efficient for English language learning since it promotes learning that is active, collaborative, constructive, authentic, and goal oriented" [9]. As more people continue to embrace learning technologies, professional and social communications remain critical to education. Voki offers an enjoyable and powerful pathway for English reading practice by enabling students to speak and record their voices. While investigating the effectiveness of Voki as an e-learning tool, Reference [9] differentiate the numerous language development functionalities that the application offers. Voki allows users to socialize with fellow learners over the web regardless of their geographical locations. These language learning opportunities have enhanced students' creativity, engagement, and motivation as learners increasingly become the initiators of learning processes that divert from the conventional class-based and teacher-centered instruction techniques. Voki has, therefore, contributed to students' gaining a sense of individual responsibility in their language proficiency and development. Nonetheless, Reference [9] cite several challenges that affect the use of Voki by teachers as an e-learning resource; however, the investigators maintain that the identified issues can quickly be resolved using particular web-based tools. The first problem experienced by educators who use Voki is making socially uncomfortable learners speak in front of their classmates, as this is the key to English writing and speaking

development. Thus, the application of Voki in English language education is an excellent way by which novices and tutors create and modify content through autonomous collaborations, which cater to personal and collective study needs. Reference [9] maintain that:The opportunity to change the speech pronounced by a Voki character allows students to practice their fluency and pronunciation. If students record their own voices rather than type what's to be said, they can play recordings back to themselves and practice their delivery in a safe, unthreatening way.

## 7. Elluminate E-Learning Resources

Among the latest developments of Computer-Mediated Communication (CMC) infrastructures is the Elluminate e-learning resource [10]. Reference [10] state that CMC systems can provide real-time or synchronous communications through video-conferencing platforms, instant messaging functionalities, and Voice-over-Internet Protocols. Moreover, ESL students and their instructors can also interact via the asynchronous media, including Elluminate, which allows both learners and instructors an opportunity to transmit images, audio clips, and videos in a two-way format. Moreover, Elluminate enables tutors and ESL students to gain familiarity with various levels of digital peer interactions. According to [10], "there are three formats for webinar-session delivery: (a) presenter vs. multiple participants from one site; (b) presenter vs. multiple participants from multiple sites; and (c) multiple participants from one site vs. multiple participants from one or multiple sites". Therefore, the ability of this platform to facilitate the sharing of course-relevant materials, while improving teacher-student socialization cannot be undermined. As observed by [10], the integration of Elluminate as a digital learning tool has five key advantages. First and foremost, this webinar application is affordable in terms of purchase and implementation, as compared to digital language learning tools such as the WebCT. Moreover, Elluminate provides an easy-to-use interface that can be supported by broadband network connections, video or audio capture devices, and personal computers. Furthermore, English language teachers can provide real-time feedback, revision questions, and study guidelines to learners, alongside relevant multi-media demonstrations as extra support for below-average learners. Lastly, lecturers can appoint peer tutors who will distribute or explain the scholarly concepts for students who missed the active learning sessions. Further studies to understand the role of the Elluminate webinar tool as a digital study platform should focus on the perceptions of ESL and International students' viewpoints of potential ways through which the application can be useful in supporting language learning. Reference [10] point out that "educators and trainers need literature that emphasizes research and examines the selection of appropriate webinar-related pedagogies".

## 8. Wimba or Blackboard E-Learning Tools

The last e-learning resource for language competency development that will be reviewed in this paper is the Wimba web-based resource, which is commonly referred to as the Blackboard. Reference [11] presented a tabulated review of the Blackboard, which provided the minimum hardware, software, and platform requirements that must be met by digital language instructors seeking to implement this language-learning resource. In the discussion, Reference [11] defined Blackboard or Wimba as "a component of the Wimba Collaboration SuiteTM 6.0, which is a set of tools for online communication that combines a series of interactive technologies for Voice Authoring, Voice Board, Voice Podcaster, Voice Presenter, and Voice E-

mail". The application facilitates the incorporation of video or audio media to delayed-time communications. However, the main advantage of the Blackboard has been the ease of association with other e-learning tools, including WebCT, MOODLE, and Angel [11]. The commonly used language-teaching functionality is the Wimba Voice, which provides lecturers and students with the ability to engage through oral instruction and social collaborations. Additionally, these features support the creation of Computer Assisted Language Learning (CALL) assignments that are aimed at developing students' pronunciation, speaking, and listening abilities. The Wimba Voice Board (WVB) facilitates student-tutor discussions by enabling members of a classroom to post voice or text messages [11]. The subsequent online communications offer learners a chance to socialize with their colleagues, consequently improving real-life interpersonal relationships. In addition, the WVB can support private chats for learners who would like to ask for confidential course-related assistance from teachers or fellow classmates. Because of its interactivity, WVB is usually applied for audio journals, powerpoint presentations, focus group discussions, and individual feedback. Reference [11] also states that the Wimba Voice Authoring (WVA) supports the one-way communication between ESL students. Moreover, the WVA has an easy-to-navigate interface through which language learners can develop their speech by speaking and recording audio conversations and listening to them. According to [11], even though the Blackboard, also called Wimba, e-learning tool was not initially created and developed to facilitate language learning, it has proven effective in supporting tasks designed for language development. The Wimba applications discussed herein operate under the notion that "the most useful for guidance concerning how CALL tasks might promote second language learning are the cognitive and social processes through which learners acquire a second language" [11]. The efficiency of CALL assignment accomplishments is highly reliant on factors including their linguistic outputs, opportunities for peer interactions, and the inputs they require for maximum productivity. The Wimba or Blackboard tool is an appealing component to language practitioners as it provides multiple options for both synchronous and asynchronous communications [11]. Moreover, ESL students who major in learning the English language can align text messages with voice feedbacks. However, instructors must understand the theoretical and practical relevance of different Wimba tools before using or encouraging their adoption among learners as a way of ensuring purposeful or meaningful end-results for international and ESL students.

## 9. Enhancing the English E-Learning Teacher Preparation

The online context of education has necessitated the need for advanced teaching and learning approaches that are slightly different from those adopted in traditional classrooms. Educators who plan to incorporate the language e-learning tools and applications discussed in this paper should have technical skills as their first level of competencies. These abilities will include the expertise to handle necessary hardware including headsets, soundcards, mouse, projectors, and keypads, alongside the technical capacity to manage issues with plug-ins, Internet browser downtimes, firewalls, and ISP connections. Most importantly, since WebCT tools used browser interfaces, educators applying these resources should know how to resolve browser issues. In most instances, these capabilities are often taken for granted, and most institutions leave instructors to cope through various challenges. Digital teachers must be able to operate particular software, such as Yahoo Messenger, Elluminate, MOODLE, Skype, Wimba, Course Management Software, and WebCT. Moreover, instructors who use online language learning resources must understand the advantages and disadvantages of functionalities that offer communication activities. As emphasized by [12], it is imperative that teachers understand the capability of

communication resources including e-mails, bulletin boards, and chat rooms, alongside how their uses can be modified to increase the overall language learning outcomes. Teachers must also test the compatibility of advanced communication innovations when used with video or audio conferencing applications. However, Reference [12] observes that digital language educators must be aware of constraints such as cost issues associated with each e-learning resource. Moreover, each digital tool has its advantages and disadvantages, for instance, although free software including the ICQ chat resource can be downloaded in Spanish, Dutch, Arabic, Chinese, and French, it does not restrict the sending or receiving of unsolicited messages among users. Therefore, students who have been subscribed to these online learning applications are likely to receive spontaneous emails that are not beneficial to their language development course. According to [12], the improved strategies of teaching that are facilitated by e-learning platforms have mainly focused on communication, content development, and social interactions, which are the main facets of a language masterpiece. Reference [12] introduces the concept of Computer Assisted Language Learning (CALL), which incorporates several digital language learning tools. Although the use of CALL, just like other online learning tools has been confirmed to enhance students' performance and engagement, there are minimal investigations that focus on the role of the teacher in promoting efficiency.

In most instances, academic institutions often assume that instructors who can deliver content in traditional classrooms are equally qualified to guide international and ESL learners in using e-learning tools for language development purposes. Reference [12] study on necessary skills required by contemporary tutors determined that digital learning educators should "have a paradigm shift in perceptions of instructional time and space, virtual management techniques and ways of engaging students through virtual communications, in addition to the communication skills already required for general effective classroom teaching". Moreover, the author also noted that online language tutors must have different sets of competencies that distinguish them from digital educators handling other subjects. Inappropriate applications of non-verbal cues have also hampered the effectiveness of e-learning tools in digital English language classes.

## 10. Study Limitations

The comprehensive review of existing pieces of literature has provided evidence supporting the integration of e-Learning tools, mainly WebCT, MOODLE, Elluminate, Blackboard (Wimba), and Voki, in teaching English to ESL students. Nonetheless, the study has various limitations. First, a large share of the appraised studies highlights the role of student motivation to embrace online interactive tools in boosting English competence and articulacy. However, the present research did not consider student perceptions towards e-Learning tools as a key variable that determines the effects of WebCT, MOODLE, Elluminate, Blackboard (Wimba), and Voki on ESL learning. Second, the methodological quality of most of the studies are questionable.

For instance, Reference [1] embraced a qualitative research framework but the discussion of findings is arguably not backed by adequate empirical results. Similarly, the conference paper presented by [4] does not comprise a detailed methodological procedure undertaken by the researchers. Therefore, there is a need for further studies where systematic or integrative review approach will be used to address the above limitations.

## 11. Conclusion

In summary, the use of e-learning tools discussed in this article, including WebCT, MOODLE, Elluminate, Blackboard (Wimba) and Voki tools, have resulted in increased benefits for ESL and international learners. Numerous studies indicate that contemporary classrooms have increasingly adopted digital learning tools to cater to the needs of diverse learners. Integrating relevant technologies to support content delivery, exam administration, and performance measurement has improved engagement and socialization within the classroom. Also, the outcome of English language teaching has significantly improved following the incorporation of movie clippings, practice questions, interactive discussions, lecturer commentaries, and advertisements, which keep learners attentive. The styles of teaching have also undergone significant modifications over the years. In the past, the English language instruction was managed as a subject rather than a process that required a student to be conversant with brainstorming, research, and socialization techniques. Nevertheless, there are various problems which hamper the implementation of e-learning tools.

## 12. Recommendations

As identified in this paper, the capacity of teachers to understand operational requirements for specific e-learning tools will determine the efficacy of applying these resources as a language study aid for ESL learners. Last but not least, this scientific investigation highlights viable points of research for future researchers, focused on examining the benefits of e-learning tools in facilitating language development for ESL learners. As identified by various experts whose works have been incorporated in this study, there is a need to explore learners' perceptions of the relevance of these tools in supporting language learning.

## References

[1]. R. Samuel, & Z. Bakar. "The utilization and integration of ICT tools in promoting English language teaching and learning: Reflections from English option teachers in Kuala Langat District, Malaysia" in International Journal of Education and Development using ICT: Open Campus, The University of the West Indies, West Indies, 2nd ed., vol. 2, pp. 4-14, 2006.

[2]. M. Al Maqtri. "How effective is e-learning in teaching English: A case study" in Journal of Education and Human Development, 3rd ed., vol. 2, pp. 647-669, 2014.

[3]. M.S. Abou El-Seoud, I.A. Taj-Eddin, N. Seddiek, M.M. El-Khouly, & A. Nosseir, A. "E-Learning and students' motivation: A research study on the effect of e-Learning on higher education" in International Journal of Emerging Technologies in Learning, 9th ed., vol.4, pp. 20-26, 2014.

[4]. S. Aljawarneh, Z. Muhsin, A. Nsour, F. Alkhateeb & E. AlMaghayreh. "E-learning tools and technologies in education: a perspective". The Fifth International Conference of Learning International Networks Consortium (LINC), MIT. Cambridge, MA. Available: https://pdfs.semanticscholar.org/49ca/f744f47f1b9d5297c2ee73eb89d072cfa4b7.pdf [2010]

[5]. B.S. Bryans, G. Cizadlo, & L. Kalnbach. "Using a course management system (CMS) to meet the challenges of large lecture classes" in Campus-Wide Information Systems. 22(5), pp. 252-262. Available: https://www.emerald.com/insight/content/doi/10.1108/10650740510632172/full/html

[2005]

[6]. M.T. Argan. "Students' attitudes towards WebCT applications in selected courses" in Turkish Online Journal of Distance Education, 10(1), pp. 47-56. Available: https://www.researchgate.net/publication/26571615_Students'_attitudes_towards_WebCT_applications _in_selected_courses [2009]

[7]. L.A. Burgess. "WebCT as an e-learning tool: A study of technology students' perceptions" in Journal of Technology Education, 15(1), pp. 6-14. Available: https://scholar.lib.vt.edu/ejournals/JTE/v15n1/pdf/burgess.pdf [2003]

[8]. S.L. Wood. "Technology for teaching and learning: MOODLE as a tool for higher education" in International Journal of Teaching and Learning in Higher Education, 22(3), pp. 7-9. Available: https://files.eric.ed.gov/fulltext/EJ938565.pdf [2010]

[9]. Y.Y. Aikina & O.M. Zubkova. "Integrating online services into English language teaching and learning: The case of VOKI" in International Journal of Emerging Technologies in Learning, 10 (3), pp. 66-68. Available: https://online-journals.org/index.php/i-jet/article/viewFile/4546/3535 [2015]

[10]. S.K. Wang & H.Y. Hsu. "Use of the webinar tool (Elluminate) to support training: The effects of webinar-learning implementation from student-trainers' perspective" in Journal of Interactive Online Learning, 7(3), pp. 175-194. Available: https://pdfs.semanticscholar.org/66b9/67863348deb093a70bc3abc83d96f6cd479e.pdf [2008]

[11]. E. Cotos. "Review of Wimba Voice 6.0 collaborative suite" in Language Learning & Technology, 15(1), pp. 29-35. Available: https://scholarspace.manoa.hawaii.edu/bitstream/10125/44235/1/15_01_review3.pdf [2011]

[12]. L.K. Compton. "Preparing language teachers to teach language online: A look at skills, roles, and responsibilities". Computer Assisted Language Learning, 22(1), pp. 73-99. https://www.tandfonline.com/doi/full/10.1080/09588220802613831[2009]