The Effect of Google Earth and Wiki Models on Oral Presentation Skills of University EFL Learners

Ghada Awada and Hassan B. Diab
American University of Beirut

This article reports the results of an experimental study that investigated the effectiveness of Google Earth and Wiki tools in improving the oral presentation skills of English as a Foreign Language (EFL) learners and boosting their motivation for learning. The participants (n =81) are enrolled in writing classes at two English-medium institutions. The study employed the factorial mixed methods pre-test/post-test control group experimental design. The experimental conditions included the experimental group's use of Google Earth and Wiki dynamics in conducting research and delivering oral presentations whereas participants in the control group were given the regular oral presentation and the research paper instruction. The findings of the study underscored the effectiveness of the integration of Google Earth and Wiki into classroom practices. Google Earth and Wiki allowed active learning with information. As such, Google Earth and Wiki improved learners' oral presentation skills and perceptions. Wiki visualization devices and structure could increase scaffolding and collaboration. Google Earth could facilitate critical thinking and true spatial analytical operations. The integration of Google Earth and Wiki could promote student-centered learning and motivation.

Telecollaboration can be also defined as the integration of online communication tools into classes with the intention to improve learners' foreign language skills through collaboration (O'Dowd, 2015; O'Dowd & Ritter, 2006). Burniske and Monke (2001) also corroborated the significance of "…the telecollaborative projects as medium for learners' communication and an environment that fosters exploratory discourse rather than the recitation of homogenized thought" (p. 57). E-assignments improve the skills and the motivation of learners (Farshi & Safa, 2015). Google Earth is an efficient inquiry-based tool needed to rapidly discover valuable spatial and cultural information, resolve vital problems, and then convey the solutions to others (Nicholson-Cole, 2005). Wiki is also an innovative online tool that can improve competencies and provide quality education (Reich, Murnane, & Willett, 2012). Learners can employ wikis "…to publish homework assignments, maintain portfolios, peer review writing, post artwork, download music for rehearsals, and review drills for physical education" (Reich et al., 2012, p. 10). The Wiki model, with its features, discussion forum, pages, and projects, along with the Google Earth features and exploration tools will help learners improve their presentations. The use of both, Wiki and Google Earth, will facilitate the inquiry and exploration process and will help students collaborate and reflect their findings in an appealing manner. In alignment with the abovementioned, the study aims to address the gap in the extant literature review by investigating the effectiveness of the integration of Google Earth and Wiki tools in the classrooms to help students improve their oral presentation skills.

1.2 Statement of the Problem

Teachers need the pedagogical skills to carry out the necessary mentoring tasks of social constructivism (O'Dowd, 2015). Social constructivism denotes acquiring knowledge which focuses on the importance of Lebanese culture and context constructing knowledge pertinent to the use of Google Earth to explore the tourist sites in Lebanon and the use of Wiki to present the project. In the Lebanese context, information communication technology (ICT) tools in general, and Wiki and Google Earth in particular, have not yet been used for improving the oral presentation skills of learners and for increasing their motivation for learning due to the slow digital adoption. Therefore, this study aimed at investigating how the Lebanese EFL learners and teachers could employ the designed Wikis and Google Earth to enhance university students' oral presentations skills and to increase their motivation. The study investigates the usefulness and the challenges of integrating Wiki and Google Earth as educational tools in EFL classrooms and their effect on students' attitudes towards EFL learning. Wiki and Google Earth ICT tools also provide the students with an opportunity to have more control over their learning and to extend learning beyond the traditional classroom walls while fostering a student-centered environment where learners can collaborate and learn at their own pace.

Literature Review

Theoretical Framework of the Study

The study was framed within active learning, social constructivism (Glasersfeld, 1995; Vygotsky, 1978), language development (Vygotsky, 1986), and situated learning (Lave & Wenger, 1991) theories. Social constructivism and language development assert that knowledge is vigorously acquired through social interaction, and individuals construct knowledge when

they interact with others (Glasersfeld, 1995; Vygotsky, 1986). Vygotskian sociocultural theory underscores that the technology-supported learning environment is determined by the sociocultural context of the classroom and a communicative framework based on achieving higher-order learning outcomes using computers. A social learning network integrates the "…innovative pedagogy through internet-connected communities, digital resources, and a series of Web 2.0 tools that empower students to master the curriculum and to learn issues beyond the classroom" (DiScipio, 2008, p. 10). Teachers also scaffold the construction of knowledge in telecollaborative classrooms (Lewis, Chanier & Youngs, 2011; Pegrum, 2009). Therefore, the structure of the Wiki fosters a collaborative learning environment with the aim to reduce time and resource constraints (Kovacic, Bubas, & Zlatovic, 2007). The internet search engines in general provide the learners with the learning resources which help students to engage in producing their own projects, and Wiki increases motivation to work on interesting collaborative projects (Larson, 2010). Google Earth, through using visuals, increases students' geographic awareness while developing problem-solving and inquiry skills (Patterson, 2007).

Google Earth as Interactive, Collaborative Technological Tool in ESL Learning

Technology might widen learners' knowledge and enable learners to apply external learning to situations presented within the classroom (Cates, Price, & Bodzin, 2003, p. 155). There is a need for short, mid and long-term goals in higher education in order to ensure having innovative environments. First, allowing students to bring their own devices should be one of the short-term goals. Then supporting "Virtual Reality" and "Makerspaces" should be a midterm goal, while having "Affective Computing Robotics" should be a long-term goal in order to ensure innovation in HE classrooms (Becker, Freeman, Hall, Cummins & Yuhnke, 2016, p. 6). EDUCAUSE offers a toolkit to help "…universities, colleges, not-for-profits, and organizations that serve the higher education landscape in assessing their policy environment to create better policies that reward innovative behaviors" (NMC Report, 2016, p. 13). As such, Google Earth, a free application, "…utilizes satellite imagery, maps, and terrain information to create a global view of the world. Google Earth users can access additional information, such as historic imagery, panoramic photos, locations of national parks, and ecosystem data" (Guertin & Neville, 2011, p. 1). Google Earth is an entertaining tool which incorporates appealing visuals, which in turn make learning enjoyable. Google Earth provides the learners with the uses of atlases in addition to extending the interactive components in apparently endless dimensions. However, unlike atlases, Google Earth provides a collaborative forum through the Keyhole Bulletin Board System (BBS). Google Earth provides the user with information related to a place, increases the level of interactivity, and enhances the user's experience as a novice explorer (Patterson, 2007). Using Google Earth, teachers can plan lessons which help learners understand the natural and cultural phenomena while using an interactive tool with vital applications and features critically explaining the place, movement, and regions (Guertin & Neville, 2011).

Wiki as an Interactive, Collaborative Technological Tool in ESL Learning

Technology may contribute to promoting learners' autonomy and to increasing students' motivation since it provides learners with the opportunity to work at their own pace (Beatty, 2003; Owston, 1997; Skinner, 1968; Valmont, 2000). Institutions such as universities should create new polices that reinforce innovative tasks based on the integration of technology into classrooms (Johnson et al., 2016). As such, Wikis will be a good model to be used in university classes as they support instruction (Reich, Murnane & Willett, 2012), provide collaborative learning forums (Miyazoe & Anderson, 2010), and enhance learning in an anxiety-reduced environment (Kuteeva, 2011). "…[O]nline experiences may enhance face-to-face experiences, and vice versa" (Branzburg, 2002, p. 3). The computer-assisted language learning tools may result in increased collaboration and inquiry-based learning (Brush & Uden, 2000) and in boosted motivation (Morrow & Gambrell, 2001). In a study that sampled 255 public school Wikis, Reich and colleagues (2012) concluded that Wikis provided effective instruction for grades K-12: "…Wikis were used not just in computer classes; they supported instruction throughout the curriculum" (p. 10). Wikis also provide collaborative learning forums that facilitate scaffolding, increase learning (Miyazoe & Anderson, 2010), and enhance student writing, observation, and text analysis in an anxiety-reduced environment (Kuteeva, 2011).

Research Questions

There is scarcity in the literature pertinent to innovative oral presentation skills instruction. This study is based on the premise that Wiki and Google Earth contribute to the oral presentation skills of students as well as increase their motivation for learning in university EFL classrooms.
The study addressed the following questions:

1. What is the relative effect of using the Google Earth tool in comparison with the control group regular instruction and the Wiki tool on

improving the oral presentation skills of university EFL learners?

2. What are the perceptions of the experimental group participants of using the Google Earth and Wiki technological models in a Study Skills class?

Method

Design

The study employed a factorial mixed methods pre-test/post-test control group experimental design whereby the treatment conditions (control versus experimental) were used respectively as independent and moderator variables and the participants' research skills and oral presentation skills as dependent variables. The experimental conditions included application of the Google Earth and Wikis dynamics, whereas participants in the control group were instructed according to the regular procedures of their class. Three classes were randomly assigned to control, and two experimental conditions and the treatment continued for six weeks of instruction at the rate of 4 class periods per week to teach the oral presentation presentation skills.

Participants

The study was conducted at two private leading institutions in the Middle East. A convenient sample total of 81 EFL learners was randomly assigned to control and experimental conditions. Wiki and Google Earth mediation were newly integrated into the instruction given at the two experimental classes at the two private universities. The control group participants were unaware of the use of Wiki and Google Earth instruction. The experimental group sample using Google Earth included 11 males and 16 females, while the experimental group sample using Wiki included 11 males and 16 females. The control group sample included 11 males and 16 females. All the participants are native speakers of Arabic who received the treatment for a period of 6 weeks while studying study skills, including oral presentation skills of different tourist places in the world at a rate of 3 hours per week in accordance with the curriculum requirements proclaimed by the university program. A total of 81 students had been assigned the successful fulfillment of the Study skills course with two fundamental requirements: delivering oral presentation and conducting research aiming at developing the cultural awareness of the learners. The participants were 27 students in the control group and 54 in the experimental groups, and the age of the participants ranged from 19- 23 years.

Instruments

Two instruments were used to collect data and measure the variables of oral presentation skills and perceptions under investigation. These included an oral presentation skills rubric and reflection logs. The oral presentation skills rubric had its validity reported by NCTE/IRA. The rubric was used to measure the pre-test and post-test presentation skills of the participants in the control and experimental groups. Finally, reflection logs investigated the participants' perceptions of their experience in using Google Earth and Wiki tools. The rubric comprised five main sections: organization, topic knowledge, audience adaptation, language use, and nonverbal effectiveness. Three experienced teachers of EFL, each with more than six years of in-service teaching of EFL, were selected to evaluate the pre-and post-oral presentation tasks of the participants and agreed on reporting a score out of 100.

Wiki and Google Earth-Based Instruction

The experimental Wiki and Google Earth-based Instruction addressed the following Technology (ISTE) Standards: "creativity and innovation, communication and collaboration, research and information fluency and critical thinking, problem solving, and decision making." The ISTE Standards are standards for the integration of technology in teaching and learning, and they are published by the International Society for Technology in Education (ISTE) (Martin, 2015). The Wiki and Google Earth-based Instruction lasted for six weeks at the rate of three contact hours of instruction per week. The study participants of both the control and experimental groups were asked at the very beginning of the course to present, in groups of 4, a project on the tourist sites they like in a certain place. After collecting the pre-test scores, the project and the presentation instructional components of the control group consisted of regular research writing and PowerPoint presentation practices. Meanwhile, the two experimental groups' participants received instruction employing the use of Wiki in one experimental group and Google Earth in the second. Given directions for using Google Earth, the Google Earth experimental group participants practiced project writing and presentation through using the Google Earth procedures to incorporate recorded tours, maps, audio podcasts, pictures, screenshots, land masses, events, heritage, and other physical features provided by Google Earth. When using Google Earth, learners could send e-mail attachments or screenshots of the current Google Earth view; save, send, or share pictures; record the tour; and view historical imagery and all the places and events related to any particular region (See Figure 1.).The Wiki experimental group learners practiced project writing and presentation through the Wiki tool, which involved using computers to collaborate with each other to discuss and
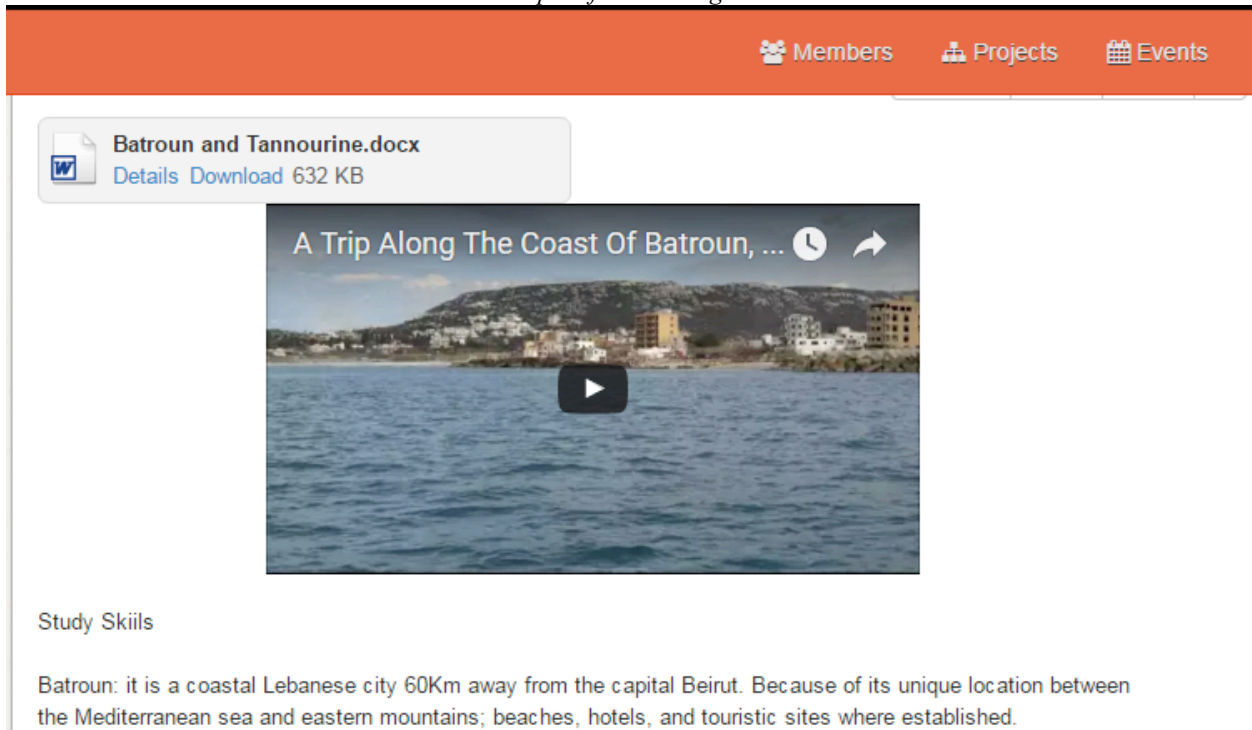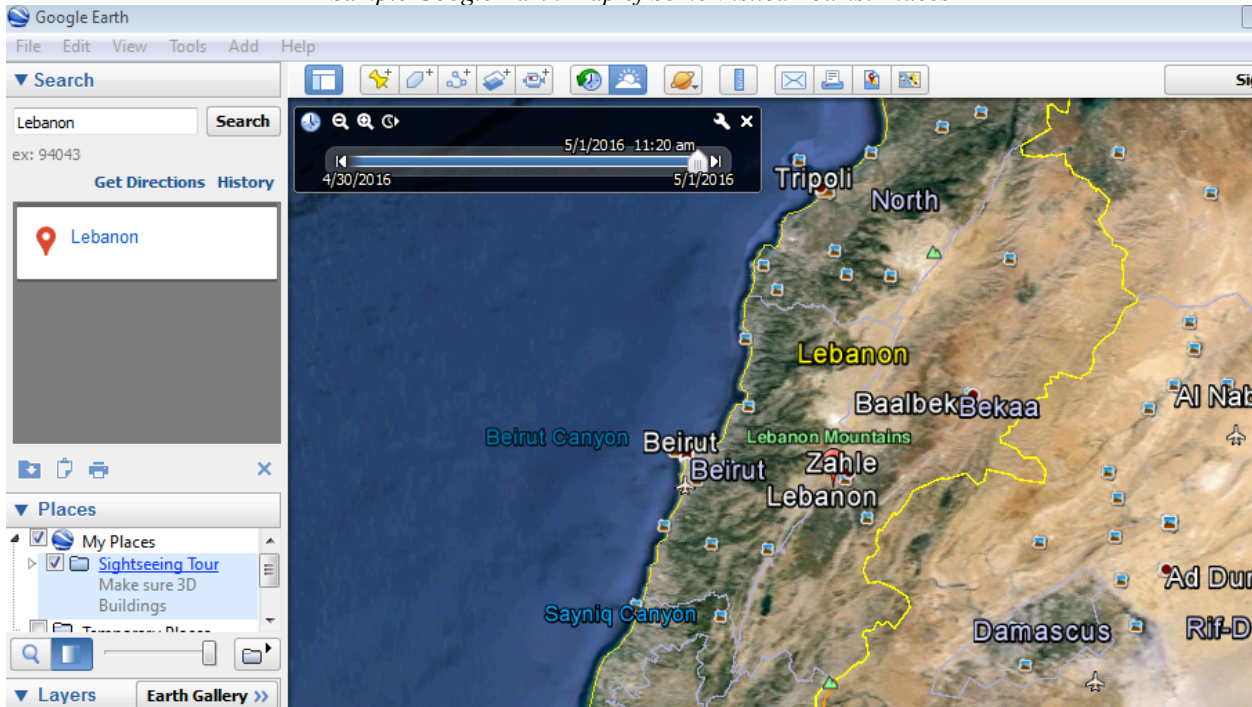
Figure 1
A Sample of a Wiki Page Post

Figure 2
A Sample Google Earth Map of Some Visited Tourist Places

exchange information on the identified historical sites, to note the problems encountering tourism inside different countries, and to eventually give recommendations through digital, written collaboration with community members. Using Wiki pages, learners could insert interesting videos, pictures, text, word files, and PowerPoint presentations, as well as send and receive private messages (See Figure 2.).

Data Analysis

Descriptive statistics (means and standard deviations) were calculated based on the pre-test and post-test performance scores of participants in the control and experimental groups. The study employed a factorial mixed methods experimental design whereby the treatment conditions (control versus experimental) were used respectively as independent and moderator variables and the participants' oral presentations as dependent variables. Additionally, content analysis was employed as the method of data analysis of the qualitative data collected from learners' written reflection logs about their perceptions of the Google Earth and Wiki experiences. The reflection logs were employed to write up the study results describing participants' perceptions.

Results

Testing the Questions Pertinent to Oral Presentation Skills

A series of hypothesis tests using different statistical tools (paired t-tests, Single Factor ANOVA, Two Factor ANOVA, and Chi-Squared tests) were done. The null and alternative hypotheses along with the conclusions of the tests were reported. In summary, a significant difference in the pre- and post-test scores was reported which indicated a significant difference between the Wiki and Google Earth instruction and that of the control group. This difference was found consistently across the tests through examining the mean post-test score, the mean difference between post and pre-tests, and the study of those scoring more than 75 and those scoring more than 85. The Wiki and Google Earth tools yielded the same average post-test score as per a two-sample t-test (See Tables 1, 2, 3, 4, & 5).

At a p-value of 0.288283, the averages of the pre-test scores were 79.77778, 81.66667, and 79.92593 respectively for the control, Wiki, and Google Earth groups (see Tables 1 & 2). The averages of the post-test were 76.6, 82.9 and 85.6 respectively for the control, Wiki, and Google Earth groups; the standard deviations of the post-test were 2.3, 3.9 and 2.5 respectively for the control, Wiki and Google

Earth groups. Tested using ANOVA: Single Factor, the comparison of post-test scores across the three groups showed that the study rejected H0: there was a difference in the mean post- oral presentation test scores across the three groups (See Table 5). There was a difference in the scores of the pre-test relative to the post-test of the Google Earth experimental group. Tested using a two-tailed paired t-test, the *P-value is* 0.288283, which indicates a significant result, and the mean difference between the groups is 29.79012, whereas the mean difference within the groups is 23.57075 (see Tables 1 & 2). Tested using a two-tailed paired t-test at a *P-value* 3.09389E-11 and a t-test 10.60222, the study rejected H0. There is a difference in the scores of the pre-test relative to the post-test. Testing using Pairwise Tests**,** the study failed to reject H0. There was no difference in the average post-test scores of the Wiki group and the Earth group. Tested using a two-tailed paired t-test, at a *P-value of* 0.298368 and a T test of 0.535675, the study rejected H0: There is no difference between the average post-test scores for students in the Wiki group and students in the Google Earth group and accepted H1: There is a difference.

Findings on Perceptions of Google Earth and Wiki Presentation Experience

The results of the content analysis of qualitative data from reflective logs about learners' experience with the Google Earth and Wiki suggested three themes: 1) the significance of using Google Earth and Wiki models in conducting and presenting research; 2) the usefulness of Wiki in sharing information, boosting collaboration and communication, raising cultural awareness, and improving presentation skills, and 3) the significance of Google Earth and Wiki educational tools in teaching EFL presentation skills in general and project presentations in particular. Specifically, the theme of the significance of the Google Earth and Wiki emerged from the data as many learners in the experimental group expressed their positive perception of the experience. The samples of the learners' reflection logs on Google Earth were as follows:

- "Google Earth is credible, easy to use."
- "Google Earth gives accurate measures and routes, and it is accessible from all devices."
- "Using Google Earth, people can easily look for places. Information is added for tourist places, and people can get information they never knew about."
- "Google Earth and Wiki facilitate students' life; they have a lot of varieties; they provide challenges and rewards, and people can look for other opinions."
- "Google Earth is easy to access, [find] lots of information, [and] see parts of the world."

Table 1
Summary of Pre-test Scores

Groups	Count	Sum	Average	Variance
Control	27	2154	79.77778	22.41025641
Wiki	27	2205	81.66667	19.92307692
Earth	27	2158	79.92593	28.37891738

Table 2
ANOVA

Source of Variation	SS	dt	MS	F	P-Value	F-Crit
Between Groups	59.58025	2	29.79012	1.26385979	0.288283	3.113792
Within Groups	1838.519	78	23.57075			
Total	1898.099	80				

Table 3
ANOVA Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
Control	27	171	6.333333	38.69230769
Wiki	27	174	6.444444	29.02564103
Earth	27	131	4.851852	32.05413105

Table 4
Post Test Results

Row Labels	Control	Earth	Wiki	Grand Total
F				
Average of Post-Test	76.6	85.6	82.9	81.7
StdDev of Post-Test	2.3	2.5	3.9	4.8
M				
Average of Post-Test	76.1	82.3	83.9	80.8
StdDev of Post-Test	3.7	2.1	2.5	4.4
Total Average of Post-Test	76.4	84.2	83.3	81.3
Total StdDev of Post-Test	2.9	2.8	3.4	4.6

Table 5
Summary of Post-test Scores

Groups	Count	Sum	Average	Variance
Control	27	2063	76.40741	8.250712251
Wiki	27	2250	83.33333	11.38461538
Earth	27	2274	84.22222	7.948717949

- "…after checking Google Earth, I have discovered that it has a lot of advantages but disadvantages too on the other side. The advantages of Google Earth are: it can make you explore and see the places you love or want to go to from[for] a better perception. It has many languages – easy to use – has time lapses – accessible without internet connection."

- "Google Earth is a good technological tool for being able to reach infinite distances with a press of a button."
- "Google Earth makes you discover places, streets, buildings, sites, and much more."
- "You [save] a lot of time using Google earth rather than searching for places on the web."
- "Google Earth gives high resolution images and dimensions."
- "Google Earth facilitates your work, shows you regions, [is] easy to [access], and . . . is fun."
- "Google Earth is very good for finding common locations easy; the resolution is very [good]. You can see the streets and buildings in a clear way that feels almost lifelike in a 2D way."

Concerning Wiki, the logs were as follows:

- "Wiki can enable us to access various courses, connects colleagues together, and enhances our projects material, and Wikis are a good entertainment means."
- "… Wiki has many good uses: connecting people through mails; opening easy chats and exchanging pictures, files, and info; and improv[ing] communication skills with others in a more professional manner."
- "Wiki ensures easier access and communications for group members and [the] group leader. Better resourses and communication skills. It could boost confidence and self-esteem."

On the other hand, a few participants highlighted some disadvantages for using Google Earth and Wiki:

- "Using Google Earth, some regions are not accurately visualized; some pictures are outdated; everyone can access it and add photos."
- "Sometimes Google Earth tends to mix locations up and you might be searching for a place in Lebanon and end up in Korea by mistake. Google Earth also has specific spelling for certain places that we might not know of, thus making finding the place harder."
- "Google Earth takes time to load- pictures; unupdated (updated) information isn't available for certain regions - downloading it is a hassle."
- "Google Earth gives some information which is false. Some places are getting more importance than other touristic sites..."
- "As for the use of Wiki, it requires too much information- only can access Wiki via the internet."

- "Wikis are complicated to use, not very popular in Lebanon and doesn't have a mobile app."
- "One can access Wiki using the internet. It's not a common application, so people are not familiar with its functions."

Discussion

The study results proved to be positive given that the learners who produced EFL presentations using the Google Earth and Wiki outperformed their counterparts who produced the same content according to the dynamics of regular research paper presentation. These findings corroborate those of O'Dowd (2015); Reich and colleagues (2012); DiScipio (2008); Kovacic and colleagues (2007); Miyazoe and Anderson (2010); Kuteeva (2011); Guertin and Neville (2011); Farshi and Safa (2015); Peterson and Kennedy (2006); Ducate, Anderson, and Moreno (2011); and Li and Zhu (2013), all of whom have reported that Wikis could be vital for language teachers because Wikis could help learners improve learners' skills and motivation for learning. The findings of the study also corroborated those of Guertin and Neville (2011), Patterson (2007), and Nicholson-Cole (2005), who asserted the importance of Google Earth as an efficient tool which facilitates critical thinking and active learning through information. However, the present study doesn't corroborate the findings of Patterson (2007), who reported constraints of using the Google Earth as having limited capabilities in supporting true spatial analytical operations.

A probable explanation of the perceived effectiveness of Google Earth and Wiki, as well as the positive perceptions of the Google Earth and Wiki projects and presentations, could be attributed to the opportunities for students to be fully engaged while conducting research and delivering oral presentations. Therefore, the present study adds to the literature in that it asserts that Wikis and Google Earth tools improve the learners' oral presentation skills when presenting their projects. EFL instructors are encouraged to use the Wiki and Google Earth tools in order to achieve the cognitive and non-cognitive outcomes of their curriculum. Teachers can integrate the Google Earth tool in classrooms to teach students how to search and discover a variety of Earth related topics, facilitate the exploration of the geographic occurrences, improve students' oral presentation skills, and raise the cultural awareness of learners whose research projects pertain to the exploration of locations, places, and events. Moreover, the Wiki tools improve communication and collaboration skills of learners whose creativity and motivation will be tremendously enhanced by the variety of visualization devices allowed by the Wiki tool. Scaffolding provided by the Wiki page allows the

more learned and more skilled to help and support the less learned and less skilled learners who share the same Wiki page. Above all, the structure of Wiki builds the positive competition among the participants who can easily access and view the Wiki pages of their peers. As such, using Google Earth and Wiki, the teachers can easily emphasize the basic concepts and key ideas of the required themes; learners, using the Wiki and Google Earth tools, will collect, analyze, and interpret data. The photos and videos posted by Google Earth can show an event and help students learn about the event, and students can write analyses of its implications, which provide students with an implied understanding of spatial information while promoting critical thinking, analysis, writing skills, and oral presentation skills. Wiki facilitates the teacher's preparation and saves time that can be tremendously shortened, and Wiki discussion forums can tremendously assist the learners to evaluate the data's accuracy and applicability. The study has practical significance in enhancing the quality of English instruction covering research and oral presentation skills, an area of research that is still underdeveloped. As indicated earlier, the research context of the present study is two private institutions in Lebanon, which is characterized by enrolling students with good opportunities to use ICT tools in daily life. English is considered an important international language in Lebanon to be studied starting with kindergarten and up to postgraduate studies, especially now that computers are available and used in the classrooms of many private institutions, including the sites of the present study. More importantly, the present study is significant as there is scarcity in the studies conducted to investigate the effectiveness of Wiki and Google Earth tools in such a context.

Limitations

Further research with a larger and more representative sample size should be conducted in order to test the generalizability of the findings, as well as to examine the interaction of the treatment effects with other contextual variables such as students' level of language presentation skills and technology apprehension.

Conclusion

The findings of the study revealed that the Google Earth and Wiki technological tools could be useful in improving learners' oral presentation skills, motivation, and interest in research projects. It is probable in the future that Google Earth and Wiki as CALL tools would continue to be significant tools in teaching research and presentation skills. As such, language teachers should be fully aware of how CALL tools in general, and the Google Earth and the Wiki tools in particular, can benefit language teaching, research project and oral presentation skills, and learning outcomes. Wiki might be a vital ICT tool which has great potential for interaction, collaborative skills, and project processing. Wikis stimulate peer interaction and expedite the dissemination of knowledge among learners working at their own pace in an anxiety-reduced environment. Wiki and Google Earth tools promote collaborative learning exercises which are student-centered and allow learners to participate in making decisions pertinent to their own learning. Users of Wiki and Google Earth can visit, upload pictures, and change and update the content (text and pictures) as they consider fit. More importantly, the Wiki model allows learners to use the functionality called "open editing" while working on a collaborative project, and it develops the learners socially while collaborating with their more skilled peers. Furthermore, the Wiki model allows the teacher to post different materials, texts, pictures, PowerPoints, and videos which would enhance students' criticality and meet students' needs. In this context, it is highly recommended to conduct further research investigating the significance of Wiki in promoting inquiry and problem-solving skills. The Google Earth model aims at enhancing learners' involvement in online content creation with special focus on developing autonomous learning skills. The structure of Google Earth allows for creative work using lively pictures and events. As such, it is also recommended to investigate the significance of Google Earth in improving the digital narrative skills of learners. Above all, it is crucial for ESL and EFL teachers to use Google Earth and Wiki models to ensure motivation, creativity, and innovation in classrooms, especially given that today's learners prefer utilizing Internet engines for learning resources, although they might experience great anxiety and speaking apprehension during oral presentations; however, the interesting nature of Wiki and Google projects might engage learners, increase their motivation for learning, and allow them the entire learning experience in an anxiety–reduced environment.

References

Beatty, K. (2003). *Teaching and researching computer-assisted language learning. Applied Linguistics in Action series*. Essex, England: Pearson Education Limited.

Becker, S. A., Freeman, A., Hall, C. G., Cummins, M., & Yuhnke, B. (2016). *NMC/CoSN Horizon Report: 2016 K-12 Edition.* Austin, TX: The New Media Consortium.

Branzburg, J. (2002). Reaching around the globe. *Technology & Learning. 23*(4), 1- 4.

Brush, T. A., & Uden, L. (2000). Using computer-mediated to enhance instructional design class: A case study. *International Journal of Instructional Media, 27*(2), 157–164.

Burniske, R. W., & Monke, L. (2001). *Breaking down the digital walls: Learning to teach in a post-modem world*. Albany, NY: State University of New York Press.

Cates, W. M., Price, B., & Bodzin, A. M. (2003). Implementing technology-rich curricular materials: Findings from the exploring life project. *Computers in the Schools*, *20*(1-2), 153-169.

DiScipio, T. (2008). Adapting social networking to address 21st century skills. *MultiMedia & Internet@ Schools*, *15*(5), 10-11.

Ducate, L. C., Anderson, L. L., & Moreno, N. (2011). Wading through the world of wikis: An analysis of three wiki projects. *Foreign Language Annals*, *44*(3), 495-524.

Farshi, S. S., & Safa, S. K. (2015). The effect of two types of corrective feedback on EFL learners' writing skill. *Advances in Language and Literary Studies*, *6*(1), 26-30.

Glasersfeld, E. V. (1995). A constructivist approach to teaching. In L. P. Steffe & J. Gale (Eds.), *Constructivism in education* (pp. 3–15). Hillsdale, N.J.: Lawrence Erlbaum Associates.

Guertin, L., & Neville, S. (2011). Utilizing Google Earth to teach students about global oil spill disasters. *Science Activities: Classroom Projects and Curriculum Ideas*, *48*(1), 1-8.

Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Hall, C. (2016). *NMC Horizon Report: 2016 Higher Education Edition*. Austin, TX: The New Media Consortium.

Kovacic, A., Bubas, G., & Zlatovic, M. (2007, September). Evaluation of activities with a wiki system in teaching English as a second language. *Proceedings of the International Conference ICT for Language Learning, Florence, Italy*. Retrieved from http://www.leonardo-lets.net/ict/common/download/AndrejaKovacic.pdf

Kuteeva, M. (2011). Teaching and learning in English in parallel-language and ELF settings: Debates, concerns, and realities in higher education. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*, *22*, 5-12.

Larson, L. C. (2010). Digital readers: The next chapter in e-book reading and response. *The Reading Teacher*, *64*(1), 15-22.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Lewis, T., Chanier, T., & Youngs, B. (2011). Multilateral online exchanges for language and culture learning. *Language Learning and Technology*, *15*(1), 3-9.

Li, M., & Zhu, W. (2013). Patterns of computer-mediated interaction in small writing groups using wikis. *Computer Assisted Language Learning*, *26*(1), 61-82.

Martin, B. (2015). Successful implementation of TPACK in teacher preparation programs. *International Journal on Integrating Technology in Education*, *4*(1), 17-26.

Miyazoe, T., & Anderson, T. (2010). Empirical research on learners' perceptions: Interaction equivalency theorem in blended learning. *European Journal of Open, Distance and E-Learning*, *13*(1). Retrieved from http://www.eurodl.org/materials/contrib/2010/Miyazoe_Anderson.htm

Morrow, L. M., & Gambrell, L. B. (2001). Literature-based instruction in the early years. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 348–360). New York, NY: Guilford Press.

Nicholson-Cole, S. A. (2005). Representing climate change futures: a critique on the use of images for visual communication. *Computers, Environment, and Urban Systems*, *29*(3), 255-273.

Reich, J., Murnane, R., & Willett, J. (2012). The state of wiki usage in U.S. K–12 schools: Leveraging web 2.0 data warehouses to assess quality and equity in online learning environments. *Educational Researcher, 41*(1), 7-15

O'Dowd, R. (2015). The competences of the telecollaborative teacher. *The Language Learning Journal*, *43*(2), 194-207.

O'Dowd, R., & Ritter, M. (2006). Understanding and working with "failed communication" in telecollaborative exchanges. *CALICO Journal, 23*(3), 623-642.

Owston, R. D. (1997). The World Wide Web: A technology to enhance teaching and learning? *Educational Researcher*, *26*(2), 27-33.

Patterson, T. C. (2007). Google Earth as a (not just) geography education tool. *Journal of Geography*, *106*(4), 145-152.

Pegrum, M. (2009). *From blogs to bombs: The future of digital technologies in education*. Perth, AU: UWA Publishing.

Peterson, S. S., & Kennedy, K. (2006). Sixth-Grade teachers' written comments on student writing genre and gender influences. *Written Communication*, *23*(1), 36-62.

Reich, J., Murnane, R., & Willett, J. (2012). The state of wiki usage in us k–12 schools leveraging web 2.0 data warehouses to assess quality and equity in online learning environments. *Educational Researcher*, *41*(1), 7-15.

Skinner, B. F. (1968). *The technology of teaching*. New York, NY: Appleton-Century-Crofts.

Valmont, W. J. (2002). *Technology for literacy teaching and learning*. Boston, MA: Houghton Mifflin College Division.

Vygotsky, L. S. (1978). *Mind in society: The development of higher mental process*. Cambridge, UK: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language.* Cambridge, UK: MIT Press.

_____

DR. GHADA AWADA is a senior education consultant at the American University of Beirut and 2016 Fulbright Scholar at North Carolina State University. Ghada Awada holds a Ph.D. with the highest distinction in Applied Linguistics and Special Education from University RoviraiVirgili – Tarragona, Spain and a Ph.D. in Public International Law and International Relations and Diplomacy with the highest distinction from Hautes Etudes Internationales ET Politiques- Paris with concentration in conflict resolution and crisis management. She is an expert in curriculum design, textbook writing, teacher education and learning difficulties. She worked as a consultant in different learning difficulties and ICT projects for the American University of Beirut. She consulted as an expert in curriculum development, textbook writing, teacher education and development with institutions and schools in some Arab Middle Eastern countries. She developed professional and teaching certification programs focusing on providing inclusive environments and differentiated instruction integrating technology to all learners. She was awarded appreciation certificates by the Ministry of Education and Higher Education (2004), Lebanese university (2004), Lebanese American University-Teaching Excellence trophy (2013), American university of Beirut (2017) and Lebanese Army Research Center (2017).

HASSAN B. DIAB received his B.Sc. (with Honors) in Communications Engineering, M.Sc. (with Distinction) in Systems Engineering, and Ph.D. in Computer Engineering. He joined the American University of Beirut (AUB) in 1985 and is a Professor of Computer Engineering at the Faculty of Engineering and Architecture. He has over 140 publications in internationally refereed journals and conferences. His research interests include cryptography on high performance computer systems, modeling and simulation of parallel processing systems, reconfigurable computing, and higher education reform. He supervised over 80 research projects and served as Associate Editor or member of Advisory/Editorial Board on five international journals. He was Founding Dean of the College of Engineering and Founding President during 2004-2006 at Dhofar University, Oman. Effective October 2006, he was appointed as Vice President at AUB. His active encouragement and innovative use of mobile technologies as well as integration of ICT in education during his term as Minister of Education and Higher Education (2011-2014) led to the Government of Lebanon to be the winner of the GSMA 2014 Connected Government Award for the first time. Since July 2013, he returned to his position as VP at AUB.

Appendix

Oral Presentation Rubric as adapted from

read·write·think
International Reading Association   NCTE   marcopolo

Oral Presentation Rubric

TRAIT	4	3	2	1
NONVERBAL SKILLS				
EYE CONTACT	Holds attention of entire audience with the use of direct eye contact, seldom looking at notes.	Consistent use of direct eye contact with audience, but still returns to notes.	Displayed minimal eye contact with audience, while reading mostly from the notes.	No eye contact with audience, as entire report is read from notes.
BODY LANGUAGE	Movements seem fluid and help the audience visualize.	Made movements or gestures that enhances articulation.	Very little movement or descriptive gestures.	No movement or descriptive gestures.
POISE	Student displays relaxed, self-confident nature about self, with no mistakes.	Makes minor mistakes, but quickly recovers from them; displays little or no tension.	Displays mild tension; has trouble recovering from mistakes.	Tension and nervousness is obvious; has trouble recovering from mistakes.

COMMENTS:

VERBAL SKILLS				
ENTHUSIASM	Demonstrates a strong, positive feeling about topic during entire presentation.	Occasionally shows positive feelings about topic.	Shows some negativity toward topic presented.	Shows absolutely no interest in topic presented.
ELOCUTION	Student uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.	Student's voice is clear. Student pronounces most words correctly. Most audience members can hear presentation.	Student's voice is low. Student incorrectly pronounces terms. Audience members have difficulty hearing presentation.	Student mumbles, incorrectly pronounces terms, and speaks too quietly for a majority of students to hear.

COMMENTS:

CONTENT				
SUBJECT KNOWLEDGE	Student demonstrates full knowledge by answering all class questions with explanations and elaboration.	Student is at ease with expected answers to all questions, without elaboration.	Student is uncomfortable with information and is able to answer only rudimentary questions.	Student does not have grasp of information; student cannot answer questions about subject.
ORGANIZATION	Student presents information in logical, interesting sequence which audience can follow.	Student presents information in logical sequence which audience can follow.	Audience has difficulty following presentation because student jumps around.	Audience cannot understand presentation because there is no sequence of information.
MECHANICS	Presentation has no misspellings or grammatical errors.	Presentation has no more than two misspellings and/or grammatical errors.	Presentation has three misspellings and/or grammatical errors.	Student's presentation has four or more spelling and/or grammatical errors.

COMMENTS: