



**MANSOURA UNIVERSITY**  
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**A Blended Learning program to Develop EFL Teachers Use of  
Twenty-First Century Skills**

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## A Blended Learning program to Develop EFL Teachers Use of Twenty-First Century Skills

### Abstract

*The study explored the effectiveness of a proposed blended learning program for developing some twenty-first century skills used by EFL in-service teachers at Al Azhar Al Sherif in Al-Dakahlia. The instruments of the study included the EFL teachers' twenty-first century skills knowledge test and an observation checklist of EFL teachers' performance of the twenty-first century skills. The study adopted the quasi-experimental design utilizing two groups; one group was experimental and the other was a control group. The total number of the participants in the two groups for the study was (n=60). Results of the study indicated that the experimental outperformed the control group on the post-administration of EFL teachers' twenty-first century skills knowledge test. Further, the experimental group's performance in the twenty-first century skills surpassed that of the control group on the post-administration of the observation checklist. This result demonstrates that the proposed program was effective in developing EFL in-service teachers' use of twenty-first century skills, and that improvement was a gradual process as a result of the training. Finally, the study also suggests that further research should be conducted related to blended learning based programs for developing other twenty-first century skills.*

**Key words:** *blended learning, twenty-first century skills, EFL in-service teachers, Al Azhar*

### Introduction

The emergence of a global movement that calls for a new model of learning for the twenty-first century leads to a challenging, uncertain and complex future for today's instructors and learners, but one that also opens exciting possibilities. Thus, the education sector must work to equip learners with the skills they need to master such new challenges. Traditional approaches of learning and the application of simple procedures will not advance learners' essential skills for the Twenty-first Century such as critical thinking, communication and creativity and innovation skills. Since students learn in a variety of ways, the challenge for teachers is to discover which approaches are most effective (Scott, 2015).

Technology has become essential in the world of education, and acquiring the knowledge and skills necessary for utilizing that technology is now a requirement expected of every teacher. An example of one such technological teaching method that has redesigned the teaching environment is blended learning. It is “a teaching method that is regarded as a type of

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distance education, which integrates the advantages of distance education with the effective aspects of traditional education, such as face-to-face interaction” (Finn &Bucceri, 2004, p.13).

Lately, the definition of blended learning has also changed from a simple blend of classroom training and e-learning courses to include more complex programs that incorporate an array of synchronous modes such as text chat or audio and asynchronous learning modalities such as email, forums, blogs or wikis. With such an array of technologies and methods, the teaching goal remains still to empower the teacher to achieve understanding of a given topic, become self-sufficient, and improve his or her teaching capabilities (Woodall, 2012).

Many recent studies confirmed that blended learning is effective for in-service teachers training. For example, (Qasem&Viswanathappa, 2016) reported that the teachers trained with the blended learning approach were very satisfied with the enhanced interaction and flexibility created by the blended learning environment. In addition, the teachers appreciated the opportunity given to them for continually improving their teaching. These points were confirmed through the teachers' posting during their course of study. Thus, the blended learning instructional approach was more effective in enhancing the teachers' performance when compared to the traditional teaching methods.

As indicated by (Patel2 & Wu, 2016), absorbing new knowledge and practicing new skills through a variety of blended learning strategies enabled teachers to learn how to conduct research using suitable and practical tools, e.g., qualitative and quantitative research methods and/or mixed methods within their own school environment and classrooms. As indicated in their reflections, teachers believed that this course had helped them engage in a critical self-evaluation which consequently led to action, enhanced their professional growth, and empowered them to make pedagogical improvement through their daily teaching.

To prepare the educators to integrate 21st century skills into their teaching, professional development training is necessary. Such training requires teachers to communicate and collaborate with each other and with their students. The teachers must also develop the skills necessary to manage new classroom dynamics, to support and enable independent student learning and be able to adapt their teaching practices to new pedagogical methods. Thus, teachers require expanded professional development opportunities and a strong support system. (Pacific Policy Research Center, 2010).

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Twenty-first century skills professional development prepares teachers and principals to integrate 21st century skills in their classrooms and schools. Such integration must be aligned with current curriculum and assessments. Thus, successful 21st century professional development programs require that educators understand the importance of 21st century skills and how to integrate them into daily instruction (Partnership for 21st Century Skills, 2007).

So, it is very important for teachers to be instructed in applying 21st century skills at their educational institutions. Also, teachers should become qualified to provide their students with an adequate education that will prepare them for the future challenges that they will encounter in their lives. Therefore, the current study investigates the effectiveness of a blended Learning program to develop EFL teachers use of twenty-first century skills.

### **Review of literature**

#### **Twenty-First Century Skills**

In response to the question “What are 21st century skills?”, the Partnerships for 21st Century Skills (2008) identify the following:

- A blend of content knowledge, specific skills, expertise and literacies;
- Critical thinking, problem solving, creativity, flexibility, effective communication and collaboration, self-directed learning as a base for core academic knowledge; and Skills needed to make the best use of rapidly changing technologies and vital to working and living in an increasingly complex, rapidly changing global society.
- Another way of looking at 21st century skills was put forward by (Binkley et al., 2012, p. 18):
- Ways of Thinking –creativity & innovation; critical thinking, problem-solving, decision-making; learning to learn
- Ways of Working – communication, collaboration (teamwork)
- Tools for Working–information literacy; computer & internet literacy
- Living in the World– citizenship (local & global); life and career; personal & social responsibility

Bernhardt (2015) examined a school-based teacher professional development program as it was being conceptualized, designed, and put into practice. The first section of this study presents a broad overview of literature situating 21st century learning, and focuses on how this construct is conceptualized and defined by a variety of influential organizations, as well as the various competencies often associated with this pedagogical perspective. This research utilized a mixed-method approach to examine a school-based teacher professional development program. Data collection

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relied on the use of a questionnaire, an administrator and teacher interviews, the review of relevant documents, and attendance at a number of faculty meetings. The second section of this paper addressed the program areas under evaluation as well as the nature of the program and its goals and context. The study concludes with comments for K-12 schools planning to implement teacher-centered professional development.

Prestridge&Tondeur (2015) attempted to identify the most effective elements required in online professional development to enable teachers to improve their use of Information and Communications Technologies (ICT) in their classrooms. Four schools in Queensland were involved, with twelve classroom teachers participating in a year-long online professional development program. The online professional development program did not provide course based or sequential learning activities. Rather it was designed to enable individual learning pathways and draw on the many professional learning opportunities available through web 2.0 tools and internet resources. So, the focus was to explore how the process of online ICT professional development contributes to the conceptualization of how teachers learn in the 21<sup>st</sup> Century. Findings indicate that teachers need to engage themselves in three areas: investigation, reflection, and constructive dialogue; building a sense of group and individual online presence; and be supported by mentorship that responds to the various cognitive and affective demands of autonomous learners.

Qasem&Viswanathappa (2016) aimed to analyze in-service science teacher perceptions towards integrating ICT in instructional design by training them using the blended learning approach. The study adopted a quasi-experimental design wherein a pre-test/post-test design was employed. The sample of the study was 60 science teachers of secondary schools in Yemen. A questionnaire was used to determine the in-service teacher perceptions towards integrating ICT in instructional design, which included 25 items. To analyze and interpret the data, t-test and ANCOVA statistical techniques were used. The findings show that there was a significant difference in teacher perceptions towards integrating ICT, especially in the group who were trained through the blended learning approach. The recommendations are, given that teachers are ready to use ICT, that Yemeni authorities in charge of education integrate ICT into programs for in-service teachers.

Bedaiwy (2017) aimed at developing some twenty first century skills necessary for EFL student- teachers through implementing a training program. The sample of the study included 60 fourth year students from the

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faculty of Education English section from Helwan University. The determined 21 century skills necessary for EFL student- teachers were determined through the use of a checklist approved by a jury of specialists. Then, a pre/post- test was designed and administered to the two groups before the experiment. The statistical analysis of the obtained data from the two administration of the test confirmed the effectiveness of the training program on developing the experimental group's targeted 21 century skills (Presentation skills, Negotiation skills and Creativity skills).

The broader question affecting the performance of teachers, especially in today's world of e-learning, is the educational system and the broader society committed to ensuring that teachers have the training and tools they require. It is this question that will shape the training of teachers, what is taught and how it is taught. In addition, teachers, of course, must have the skills required to use the new technologies of today's world and they must understand the methods and techniques of e-learning. So, teachers' professional programs have proven valuable in developing the teachers' use of the twenty-first century skills.

**Blended learning approach:**

The term blended learning was originally used to describe e-learning combined with additional training solutions such as job aids, on-the-job training, or mentoring. Conceptually, blended learning involves the application of two or more methods or solutions to a learning need (Wilson &Smilanich, 2005). Now, the idea and practice of blended learning has become widely accepted in both the academic and corporate worlds. The term is now generally used to mean a structured process that involves a mix of teaching and learning activities, including e-learning and face-to-face instruction (Inoue, 2010).

Sinclair and Owston (2006) examined the impact of two one-year blended learning programs on teachers' attitudes, knowledge, and classroom practices. These professional development programs were designed to enhance middle school teachers' subject matter knowledge and pedagogical skills in mathematics and science/ technology. Online journals, synchronous and asynchronous discussion, and sharing at face- to –face sessions were included to provide ongoing opportunities for feedback and reflection. A questionnaire was developed to asses changes in teacher perceptions and learning. Also, teachers use of new knowledge and skills were asses through classroom observation, an analysis of online discussion postings and reflective journals each year and an evaluation forum. The results indicate that the programs positively affected teacher attitudes and content

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knowledge in these curricular areas and motivated many teachers to transform their classroom practices.

Wayer, Crippen & Dawson (2015) investigated the ways in which four K-12 teachers, following professional development in blended learning, designed the online portion of their blended learning courses and how these online components were ultimately enacted with students. Specifically, the study investigated what kind of content, resources, or activities were developed online; how content, resources, or activities were enacted with students; and how blended learning practices differed across content areas. Findings revealed that the online components of these courses varied in how much they were enacted as designed; levels of online student activity; the amount of control students had over time, place, path, and/or pace; and whether the online components were oriented towards learning from technology or learning with technology.

Moore, Robinson, Sheffield & Phillips, (2017) introduced the design for a four-course professional development series on teaching in a blended learning environment that targets in-service teachers of K-12 students. Mastering the Blend is designed as a professional development opportunity to enhance teachers' face-to-face classroom instruction. The focus of the program as a whole is to assist K-12 teachers in developing the skills needed to design, develop, and facilitate student-centered blended learning environments. Through hands-on experience and activities designed to uncover best practices, participants are expected to develop the ability to effectively integrate a variety of tools into a blended learning experience. To model the methods being advocated, this professional development program is social constructivist in design, and includes a blend of synchronous and asynchronous activities. The results of an initial evaluation of the program indicated that through hands-on experiences and activities designed to uncover best practices, participants develop the ability to effectively integrate a variety of tools into a blended learning experience.

Acree et al (2017) investigated a mixed-methods case-study design evaluation of the Leadership in Blended Learning (LBL) program. The LBL program uses blended approaches, including face-to-face and online, to prepare school leaders to implement blended learning initiatives in their schools. The participants were 10 leaders. Among those who completed the End-of-Program survey, roughly 9 out of 10 participants indicated that they had made changes in their school or professional practice. The findings suggest that using a blended approach can help scale high quality professional development for principals. This evaluation found that the

program designers effectively implemented all four models of blended learning as part of the program. The evaluation findings also suggest that the Leadership in Blended Learning program improved participants' capacity to effectively lead blended learning initiatives in their school, district, or organization.

It is clear that from the above discussion that made clear that the effectiveness of applying blended learning in the field of teachers' professional development programs for in-service teachers. Thus, the present study is aimed at investigating the effectiveness of a blended learning program in developing the teachers use of the twenty-first century skills.

**The pilot study:**

The researcher observed that many EFL teachers need to develop their use of 21<sup>st</sup> century skills in order to qualify their students to master these skills. Also, they need to change their traditional teaching. This observation encouraged the researcher to conduct a pilot study to determine the most important skills to be included in the training program to be mastered. To carry out the pilot study, the researcher designed a needs analysis questionnaire that included the 21<sup>st</sup> century skills that should be mastered by EFL teachers. This questionnaire aimed at identifying the most important skills that EFL teachers should use during their teaching. Having presented the questionnaire to some teachers, the table below presents the results that these teachers placed on the degree of importance attached to each skill.

**Table (1): Results of the EFL teachers' Needs Analysis Questionnaire**

	No. items	Not important		Important		Very important		Mean	Std. Deviation
		Frequency	Percentage	Frequency	Percentage	frequency	Percentage		
Critical Thinking and problem solving skills	6	11	7.7%	19	17.8%	60	29.9%	2.54	.705
Collaboration	6	22	15.5%	18	16.8%	50	24.9%	2.53	.843
Communication	6	14	9.9%	15	14%	46	22.9%	2.42	.791
Creativity& Innovation	5	30	21.1%	25	23.4%	20	9.9%	1.86	.810
Using Technology as a tool	8	65	45.8%	30	28 %	25	12.4%	1.66	.802
Total	30	142	100%	107	100%	201	100%		

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The results in table 1 indicate that critical thinking skills have the highest degree of importance (29.9%), followed by collaboration (24.9%) and communication skills (22.9%). It is clear from the above table that critical thinking skills, collaboration skills and communication skills have the highest mean value. It is apparent that the most important 21<sup>st</sup> century skills for EFL teachers are those that develop the students thinking habits and social interactions.

**Statement of the problem:**

**The problem of the study can be stated as follows:**

Based on the results of the needs analysis questionnaire, EFL teachers are in need of improving their use of some 21<sup>st</sup> century skills namely: critical thinking and problem solving, collaboration and communication skills, in order for them to be able to qualify their students to master these skills and to ensure the development of competence and a positive outcome for those students.

**Research Questions:**

1. What are the most prominent 21<sup>st</sup> century skills that should be mastered by EFL in-service teachers?
2. Is there a difference between teachers' perception of their implementing the twenty-first century skills in EFL classes and their actual performance in these classes?
3. What are the characteristics of a proposed blended learning program for enhancing the determined 21<sup>st</sup> century skills of EFL in-service teachers?
4. What is the effectiveness of the proposed learning program in enhancing EFL in-service teachers' use of 21<sup>st</sup> century skills?

**Hypotheses of the study:**

This study attempted to verify the following hypotheses:

1. There is no statistically significant difference between the mean score of the experimental group and those of the control group on the post-administration of EFL teachers 21<sup>st</sup> century skills knowledge test.
2. There is no statistically significant difference between the mean score of the experimental group and those of the control group on the post-administration of the observation checklist of EFL teachers' performance of the 21<sup>st</sup> century skills.

**Purpose of the study:**

1. Identifying the most important 21<sup>st</sup> century skills that should be mastered by EFL in-service teachers.

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2. Identifying the characteristics of a proposed learning program for improving 21st century skills of EFL in-service teachers.
  3. Measuring the effectiveness of the proposed blended program in improving 21st century skills.

**Significance of the study:**

The current study would contribute to:

1. Enriching the literature concerning the effectiveness of blended learning to enhance 21<sup>st</sup> century skills.
2. Designing and implementing a blended program for EFL in-service teachers to develop their use of 21<sup>st</sup> century skills.
3. Indicating the possibility of integrating blended learning in teachers' pre-service preparation in order to be able to face the future challenges.

**Delimitations of the study:**

1. Some 21<sup>st</sup> century skills that EFL in-service teachers should master by the end of the program.
2. A sample of EFL teachers from preparatory and secondary stage at Alzahar.

**Methods of the Study**

**A. Participants:**

The participants were 60 preparatory and secondary stage EFL teachers from Al Azhar Al Sherif in Al-Dakahlia Governorate. They were chosen randomly and divided into an experimental group and a control group of thirty teachers each.

**B. Instruments:**

- A pre-post twenty-first century skills knowledge test for EFL teachers to assess their knowledge of the 21<sup>st</sup> century skills
- EFL teachers' perception checklist of implementing the twenty-first century skills in teaching to determine the perceived performance of the teachers
- An observation checklist of EFL teachers' performance of the twenty-first century skills for assessing EFL teachers' performance in the targeted 21<sup>st</sup> century skills

**C. Design:**

The present study adopted the quasi-experimental design, employing two groups (an experimental group and a control group). The experimental group was trained according to the proposed learning program of the study, and the control group conducted their teaching according to the regular method of teaching.

**Definitions of terms:**

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**Blended learning:**

For the purpose of the study and in the light of (NACOL, 2008) and (Staker& Horn, 2012), blended Learning is defined as an approach to teaching and learning that combines the traditional teacher-student face- to-face structure with technology-based methods of instruction, creating a more dynamic educational experience for students.

**Twenty-first century skills:**

For the purpose of the study and in the light of (Griffin&Care 2015) 21<sup>st</sup> century skills are defined as the skills which focus the student on such areas as critical thinking, problem solving, creativity, communication and collaboration, utilizing new education technologies, which are both tools of learning and help to prepare the student to master such technologies.

**Results and Discussion**

The results of the study are reported in terms of its hypotheses and the research questions.

In order to answer the question stated “Is there a difference between teachers' perception of their implementing the twenty-first century skills in EFL classes and their actual performance in these classes?, ” the researcher calculated the correlation coefficient between the perception and the actual performance. Results showed that the correlation coefficient was weak (0.35) and not significant at the 0.5 level between the perceived performance and the observed one. For that reason, the researcher was enthused to apply some activities to activate the twenty-first century skills through a blended learning program for EFL teacher. Table (2) shows the correlation coefficient:

**Table (2):Correlation coefficients between teachers' perceived performance in implementing the 21<sup>st</sup> century skills and their actual performance**

Skills and the Instruments		Perception form (checklist)			
		Critical Thinking and Problem Solving Skills	Collaboration Skills	Communications Skills	Total
Observation checklist	Critical Thinking and Problem Solving Skills	0.14			
	Collaboration Skills		0.25		
	Communications Skills			0.13	
	Total				0.35

**The first hypothesis stated that:** “There is no statistically significant difference between the mean score of the experimental group and those of the control group on the post-administration of EFL teachers 21<sup>st</sup> century skills knowledge test.” To verify the first hypothesis, the researcher used the *t*-test for independent samples. See table (3):

**Table (3): Comparing the performance of the experimental group and the control group on the post twenty-first century skills knowledge Test**

Skills	Groups	N	Mean	Std. Deviation	<i>t</i> Value	Df	Sig
Critical Thinking and Problem Solving Skills	Experimental	30	8.97	0.96	11.332	58	0.01
	Control	30	5.73	1.23			
Collaboration Skills	Experimental	30	8.00	0.98	14.015	58	0.01
	Control	30	4.60	0.89			
Communications Skills	Experimental	30	8.57	1.10	9.153	58	0.01
	Control	30	5.37	1.56			
Total	Experimental	30	25.53	1.71	16.479	58	0.01
	Control	30	15.70	2.78			

Results in table (3) indicate that the mean score of the experimental group teachers on the whole test ( $m=25.53$ ) was significantly higher than that of the teachers in the control group ( $m=15.70$  and *t* value was 16.4, favoring the experimental group. Thus, the results in table (2) verify that there was a statistically significant difference between experimental and control group in favor of the experimental one. Consequently, the first hypothesis was rejected.

To verify the contribution of the proposed training program in developing twenty-first century skills namely critical thinking and problem solving, collaboration and communication skills, the effect size of treatment (the proposed program) was estimated through using the eta square ( $\eta^2$ ) in order to compare the mean scores of the experimental group of teachers on the pre and post-administration of twenty-first century skills knowledge Test

Table (4) illustrates the effect size of the proposed blended learning program in developing the knowledge of twenty-first century skill.

**Table (4): Calculating the Effect Size of the Proposed Program in Enhancing EFL Teacher's knowledge of the twenty-first century skills**

Skills	Measurement	N	Mean	Std. Deviation	<i>t</i> Value	Df	Sig	( $\eta^2$ )
Critical Thinking and Problem Solving Skills	Pre	30	5.83	1.72	15.09	29	0.01	0.88
	Post		8.97	0.96				
Collaboration Skills	Pre	30	3.93	1.14	24.55	29	0.01	0.95
	Post		8	0.98				
Communications Skills	Pre	30	5.53	1.30	16.07	29	0.01	0.89
	Post		8.57	1.10				
Total	Pre	30	15.3	2.49	31.57	29	0.01	0.97
	Post		25.53	1.71				

Results in table (4) indicate that the large effect of the program on the experimental group knowledge in critical thinking and problem solving, collaboration and communication skills( $\eta^2$ )= 0.88, 0.95, 0.89 respectively). The total effect size was ( $\eta^2$ )= 0.97.

**The second hypothesis stated that:**“There is no statistically significant difference between the mean score of the experimental group and those of the control group on the post-administration of the observation checklist of EFL teachers' performance of the 21<sup>st</sup> century skills.”

For the purpose of testing the second hypothesis of the study, a *t*-test was used for comparing scores of teachers in both experimental and control group on the post-administration of observation checklist of EFL teachers' performance of the twenty-first century skills. Results are shown in the following table:

**Table (5): Comparing the performance of the experimental group and the control group on the post-administration of observation checklist of EFL teachers' performance of the twenty-first century skills**

Skills	Groups	N	Mean	Std. Deviation	<i>t</i> Value	Df	Sig
Critical Thinking and Problem Solving Skills	Experimental	30	32.47	2.67	21.59	58	0.01
	Control	30	19.2	2.04			
Collaboration Skills	Experimental	30	29.17	2.49	20.10	58	0.01
	Control	30	16.7	2.30			
Communications Skills	Experimental	30	46.03	3.96	17.19	58	0.01
	Control	30	29.4	3.51			
Total	Experimental	30	107.67	8.26	24.2	58	0.01
	Control	30	65.3	4.79			

Results in table (5) indicate that the mean score of the experimental group of teachers on the whole checklist ( $m=107.67$ ) was higher than that of teachers in the control group ( $m= 65.3$ ), with a *t* value of ( $t=24.2$ ) and significant at the 0.01 level, favoring the experimental group. Thus, the results in the table (5) indicate that there was a statistically significant difference between the mean scores of the experimental and the control group on the post-administration of the observation checklist of EFL teachers' performance of the twenty-first century skills in favor of the experimental group. Consequently, the third hypothesis was rejected.

To determine the effect size of the proposed training program in developing the performance of EFL use of twenty-first century skills, the effect size of the treatment was estimated through using the eta square( $\eta^2$ ) to compare the mean scores of the experimental group of teachers on the

pre and post-administration of the observation checklist to estimate the effect size( $\eta^2$ ).

Table (6) illustrates the effect size of the proposed blended learning program in enhancing the performance of the twenty-first century skills:

**Table (6): Calculating the effect size of the proposed program in enhancing EFL Teachers' performance of the Twenty-First Century skills**

Skills	Measurement	N	Mean	Std. Deviation	t Value	Df	Sig	( $\eta^2$ )
Critical Thinking and Problem Solving Skills	Pre	30	18.83	2.23	20.08	29	0.01	0.93
	Post		32.47	2.67				
Collaboration Skills	Pre	30	16.63	2.25	20.61	29	0.01	0.93
	Post		29.17	2.49				
Communications Skills	Pre	30	28.3	3.41	22.98	29	0.01	0.94
	Post		46.03	3.96				
Total	Pre	30	63.77	4.36	26.51	29	0.01	0.96
	Post		107.67	8.26				

This result can be similarly interpreted in the light of values of ( $\eta^2$ ) as follows: Results in table (6) indicate that the large effect of the program on the experimental group's performance in critical thinking and problem solving, collaboration, and communication skills ( $\eta^2$ )= 0.93, 0.93, 0.94 respectively). The total effect size was ( $\eta^2$ )= 0.96).

### Conclusion

Based on the statistical analysis of the study results and the discussion mentioned above, it can be included that the blended learning program contributed to enhancing teachers' performance of some twenty-first century skills.

### Recommendations of the study:

Based on the results and conclusion of the study, the following recommendations are suggested:

#### For Teachers

- The proposed blended learning program for twenty-first century skills program is recommended to be used as an example for EFL in-service teachers' professional development.
- EFL in-service teachers should make use of blended learning environments for more effective learning as they overcome the disadvantages of both traditional face- to-face instruction and e-learning.

#### For Course Providers and Course Designers

- Curriculum designers are advised to integrate modern methods with modern technology in the teaching and learning process.
- New techniques and strategies should be explored for developing the

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twenty-first century skills, as they are a very important aspect of teacher education and an excellent way to enhance teaching skills.

- The ministry of Education should provide the adequate, reliable and modern technologies and technical infrastructure that support effective teaching and learning.
- Policymakers should organize conferences for teachers to discuss and share experiences regarding utilizing blended learning in EFL classroom.
- Policy makers should generalize blended learning tools as it can save time and effort for teachers as well as increasing the teachers' experiences.
- The faculties of Education should provide pre-service teachers with training to help them learn how to employ the twenty-first century skills in the teaching process

### References

- ACree, L., Gibson , T., Mangum, N., Wolf, M., Kellogg, S., & Branon, S. (2017). Supporting School Leaders in Blended Learning with Blended Learning. *Journal of Online Learning Research*, 3(2),105-143.
- Bedaiwy, A. (2017). *The effectiveness of a training program on developing some twenty- first century skills for the student-teacher in English section*. (Unpublished doctoral dissertation), Faculty of Education, Helwan University.
- Bernhardt, P. (2015). 21<sup>st</sup> Century learning: Professional development in practice, *The Qualitative Report*, 20 (1), 1-19.
- Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). *Defining twenty-first century skills*. In *Assessment and teaching of 21st century skills* (pp. 17-66). Springer Netherlands.
- Finn, A., &Bucceri, M. (2004). *A case study approach to blended learning*. Los Angeles: Centra Software. Retrieved August 2, 2019, from: [http://www.conferzone.com/resource/wp/CaseStudy\\_BlendedLearning.pdf](http://www.conferzone.com/resource/wp/CaseStudy_BlendedLearning.pdf)
- Griffin, P.,&Care, E. (eds.) (2015), *Assessment and Teaching of 21st Century Skills: Methods and Approach*, Springer, Heidelberg.
- Inoue, Y. (2010). *Cases on online and blended learning technologies in higher education: Concepts and practices*, Hershey, PA: Information Science Publication.
- Moore, M., Robinson, H., Sheffield, A., & Phillips, A. (2017). *Mastering the blend: A professional development*

- 
- program for K-12 teachers. *Journal of Online Learning Research* 3(2), 145-173.
- NACOL. (2008). Fast facts about online learning (Issue report, 1-6). Vienna: North American Council for Online Learning. Retrieved April 7, 2019, from: [http:// www.NACOL.org](http://www.NACOL.org)
- Pacific Policy Research Center (2010). *21<sup>st</sup> century skills for students and teachers*. Honolulu: Kamehameha Schools, Research & Evaluation Division. Retrieved April 12, 2019, from: [http://www.ksbe.edu/assets/spi/pdfs/21\\_century\\_skills\\_full.pdf](http://www.ksbe.edu/assets/spi/pdfs/21_century_skills_full.pdf)
- Partnership for 21<sup>st</sup> Century Skills. (2007). *Beyond the three Rs: Voter attitudes toward 21st century skills*. Tucson, AZ: Author.
- Partnership for 21<sup>st</sup> Century Skills (2008). *21<sup>st</sup> century skills, education and competitiveness: A resource and policy guide*. Tucson: Partnership for 21<sup>st</sup> Century Skills. Retrieved March 6, 2019, from: [www.p21.org/storage/documents/21st\\_century\\_skills\\_education\\_and\\_competitiveness\\_guide.pdf](http://www.p21.org/storage/documents/21st_century_skills_education_and_competitiveness_guide.pdf)
- Patel, S., & Wu, I. (2016). Teaching mixed methods research through blended learning: Implications from a case in Hong Kong. *Journal of Educational Enquiry*, 15 (1), 15-25.
- Prestridge, S., & Tondeur, J. (2015). Exploring elements that support teachers' engagement in online professional development. *Education Sciences*, 5(3), 180-199.
- Qasem, A., Viswanathappa, G. (2016). Teacher perceptions towards ICT integration: Professional development through blended learning. *Journal of Information Technology Education: Research*, 15, 561-575.
- Qasem, A., & Viswanathappa, G. (2016). Blended learning approach to develop the teachers' TPACK. *Contemporary Educational Technology*, 7(3), 264-276.
- Scott, C. (2015). The Futures of Learning 3: What Kind of pedagogies for the 21st Century? *EDUCATION RESEARCH AND FORESIGHT. WORKING PAPERS*. This paper was prepared for UNESCO when the author was a Fulbright Scholar at the National University of Ireland. Retrieved June 2, 2018, from: <http://unesdoc.unesco.org/images/0024/002431/243126e.pdf>
- Sinclair, M., & Owston, R. (2006). Teachers professional development in Mathematics and science: A blended learning approach. *Canadian Journal University Continuing education*, 32(2), 43-66.
- Staker, H., & Horn, M. (2012). *Classifying K – 12 blended learning*. San Mateo, CA: Innosight Institute, Inc. Retrieved March 11, 2019, from:
-

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<http://www.innosightinstitute.org/innosight/wpcontent/uploads/2012/05/Classifying-K-12-blended-learning2.pdf>

Wayer, N., Crippen, K., & Dawson, K. (2015) Design and enactment of online components during four blended learning courses. *Journal of Online Learning Research*1(2), 219-239.

Woodall, D. (2012): Blended learning strategies: Selecting the best instructional method. Retrieved April 24, 2019, from:

[http://www.skillsoft.com/assets/whitepapers/blended\\_learning\\_strategies\\_wp.pdf](http://www.skillsoft.com/assets/whitepapers/blended_learning_strategies_wp.pdf) [Accessed Dec 1, 2017].