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Impact of Online Learning of Economics in Lebanon on Acquiring Essential Skills in Light of the COVID-19 Pandemic

Hasan El-Mousawi[1]
Mohamad Zaraket[2]
Claude Bou-Assi[3]

[1]*Lebanese University, Beirut, Lebanon.*
Email: h_mousawi@hotmail.com
[2]*University of Sciences and Arts, Lebanon.*
Email: mohamadzaraket65@gmail.com
[3]*Ministry of Education and Higher Education, Lebanon.*
Email: claudebouassi@yahoo.com

Abstract

The sudden and recent outbreak of the Covid-19 had its impact on the way of life around the entire world; it challenged the education systems around the globe and forced schools and universities to switch to online education overnight. Several schools and universities that were formerly hesitant to change their pedagogical approach had to switch completely to online education. The current paper explores the impact of online learning of Economics on acquiring essential skills in light of the Coronavirus outbreak from the economics teachers' perspective. The researchers utilized a descriptive-analytical approach and constructed a quintet Likert style questionnaire which was electronically sent to a sample of Economics teachers working at Lebanese schools. The sample is made up of 153 teachers all of whom responded, and their responses were valid for analysis. The study rendered some noteworthy findings, mainly that through online learning of Economics, learners are not acquiring all of the 21st-Century skills. Based on the results, the researchers had some recommendations.

Keywords:
E-learning
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(♣ Corresponding Author)

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1. Introduction

Throughout history, the world has always experienced pandemics, plagues, and influenza epidemics, all of which have had a negative impact on a great part of the globe on both social and economic levels. Currently, the world is under the impact of an outbreak of a respiratory illness which is a result of a new Coronavirus, which was called COVID-19, referring to the year 2019. According to World Health Organization (WHO) (2021) the COVID-19 outbreak has started in Wuhan, China, and has rapidly spread in 2020, causing one of the fastest deteriorations known in the global economy (Organization for Economic Cooperation and Development (OECD), 2020a). COVID-19 has instantly and negatively impacted various industrial and non-industrial businesses; however, some sectors like schooling, transportation, entertainment, and tourism were more affected than others.

Practicing remote activities, such as schooling and business, has turned out to be one of the essential approaches that countries have adopted in order to face the consequences of the fast-spreading COVID-19. The great advancement in technology in the communications domain has allowed managing a complete

pedagogical sequence in a way that instructors and learners do not have to be in a narrow span of space (Department of Education and Training Melbourne, 2020) and simultaneously allow taking precautions against the spread of the pandemic.

There is no doubt that the educational sector has been seriously affected by the health crisis and has imposed the search for means and solutions to fill the educational void, compensate for the educational deficiency, and bridge the knowledge gap that learners suffer from at various educational levels (Organization for Economic Cooperation and Development (OECD), 2020b). Advancements in technology have had a great influence on the entire pedagogical course since education, with its outdated approaches of transferring knowledge, was incapable of fulfilling its requirements and attracting great numbers of people at all its phases. Therefore, most societies around the globe began to search for new formats of education that depend on the students (self-learning), lifelong learning (UNESCO, 2020) as well as what we are at today, online education.

Online education is among the most essential concepts and contemporary technologies for schooling at all levels. It is worth noting that online education does not mean teaching the courses and/or storing them on CDs, but the core of online education is the collaborative pattern, which means the existence of an interaction between learners and their instructors and among learners themselves (Bossér & Lindahl, 2019). There is always an instructor who communicates with learners, explains for them, answers their questions gives them assignments, and conducts tests. Accordingly, online education is every modern educational method that is built on a technical basis using modern technological and educational aids and strategies to ensure interaction between the instructor and the learner to ensure that the latter acquires knowledge (Arley-Fonseca & Brizuela-Gutiérrez, 2020).

In light of the current and exceptional circumstances that Lebanon is going through, ever since the outbreak of the October 17, 2019 protests until the outbreak of the pandemic (COVID-19), online schooling approaches have been adopted at all levels (Mouchantaf, 2020). The main goal was to safeguard the health and safety of the people, to invest time, and not to miss any opportunity to educate learners. However, all that was without a unified vision and clear conditions for this type of education method. In spite of the positive returns that online education achieves, it faces several challenges (Abourjeili & Harb, 2020) especially in developing countries that do not have the adequate technological infrastructure necessary to perform online education or those that suffer from economic issues.

Implementing the online education mechanism in Lebanon faces several obstacles. The main issue is that the culture of a great number of teachers at all educational levels is still traditional (Lebanon Education Sector, 2021). Also, the majority of educational institutions in Lebanon do not have sufficient technological infrastructure to ensure the quality and productivity of education (Abourjeili & Harb, 2020). In addition, the communication network infrastructure in Lebanon does not cover all regions of the country and the quality of the Internet is poor compared to what is available in most neighboring countries at least, noting that the subscription fee for this service is considered among the highest in the world (International Telecommunication Union, 2015). In addition, there is a great number of families who cannot afford an electronic device for each learner in the family due to the current economic and financial situation that Lebanon is facing (Save the Children International, 2021).

Before the outbreak of the novel Coronavirus, e-learning in Lebanon was not implemented at any of the schools, only a few higher education institutes used online platforms (Save the Children International, 2021). After discovering that the pandemic has reached Lebanon, the Ministry of Education and Higher Education, in collaboration with the Educational Center for Research and Development (CRDP) started teaching sessions for students via the national Television. Nevertheless, it didn't get the aspired results, which lead to adopting online education using various platforms such as Google Classroom, Zoom, Microsoft Teams, Moodle, Blackboard, in addition to others. This unplanned leap into online education had many hindrances and resulted in a lot of problems for school administrations, teachers, students, and parents especially that, nowadays, education.

The researchers conducted the study at hand, based on all the above, to assess the impact of online learning of Economics on acquiring essential skills that comply with the 21st-Century skills in light of the COVID-19 pandemic.

2. Literature Review

Online education is something that has long been an issue of debate and controversy over the necessity of integrating it into the pedagogical process even long before the COVID-19 pandemic; however, it turned out to be a substitute and an urgent requirement to continue teaching in conditions that impose physical distancing (Islam, Beer, & Slack, 2015). Koumi (2006) believes that online education came as a result of advancements in technology, specifically after the pedagogical process was affected directly by the mechanization of industry and the advancement of "artificial intelligence" (AI) technology and "the Internet of things" in addition to the information technology revolution that invaded the classroom and became a fundamental part of it. Due to the spread of the Coronavirus, schools and universities have unexpectedly found that they are forced to switch to online education to guarantee the permanence of the pedagogical process, in addition to using the Internet, smartphones, and computers to communicate remotely with learners (Yulia,

2020). The increase in the number of learners and educators who use computers, the Internet, and smartphones in educational courses is due to the features of online learning and its constructive effects. The study of both Edwards and Fritz (1997) revealed that e-learning is enjoyable and interesting, effectively achieves the desired educational results, and improves students' acquisition of concepts. The study conducted by Ravaglia, Suppes, Stillinger, and Alper (1995) about the effect of using computers in teaching both science and mathematics in a program for talented education at Stanford University in the United States of America. The study concluded that using computers in education increases effectiveness in learning.

Ferriman (2014) found that there exist many benefits and features for e-learning that traditional teaching methods don't have. One of these benefits is the reduction of expenses since it sets aside the costs of generating new schoolrooms to conduct courses and conferences and saves water, electricity, and other materials that are usually used on the premises, in addition to reducing transportation costs. Another feature is that all learners of all ages can take advantage of and attend the courses and seminars offered over the Internet, and acquire knowledge and new skills away from the boundaries of old-style schools. Online education also enhances time investment and increases acquisition of knowledge since interactions among students lessen when chatting and unnecessary questions that waste time decrease, so the amount of knowledge that the learner acquires increases without the many distractions or obstacles of the traditional teaching methods. Ferriman also depicted that e-learning is environmentally friendly because neither learners nor teachers use materials that may impair the environment when disposing of them.

However, although e-learning has many advantages, Hetsevich (2017) believes that it has some downsides. The study depicted its high reliance on technology; which, although online education is readily available to all people, a lot of them in many developing countries do not have smartphones, computers, or even a network. Also, since online education is self-focused, some individuals may find it difficult to provoke themselves to learn and struggle against playing and focus on organizing the educational process. The study concluded that isolation and loneliness among e-learners rise because of the learners' direct involvement with smartphones, tabs, pads, or computers instead of interacting directly with their teachers and with each other.

The effects of online education platforms on students' performance were closely examined on a large scale, where the expanse and diversity of materials accessible to learners intensify their learning capacity and performance, specifically since this variety is compatible with the diversity of educational evaluation strategies (Gvaramadze, 2012; Jethro, Grace, & Thomas, 2012). Another research (Halverson, Graham, Spring, & Drysdale, 2012) aimed at exploring whether learners' use of online resources impacts their educational achievement. The study showed that the expanse and diversity of materials that learners have used enhanced their learning. However, the study specified that the method of evaluating prior outcomes and learners' already acquired skills reduced this effect. The School Education Gateway (an official website of the European Union) conducted a review regarding remote and online education (June 6, 2020) that attracted 4859 respondents from various countries across Europe, of which 86% were educators and principals. The results of the study showed that, for about 70% of the respondents, it was their first-time experience with online education. The results also showed that the experience in online education gave 38.5% of the respondents a first-time experience with the profession of teaching, and for 33.5% of them, it was a flexible experience. It also showed that 65% think online education comprises a wide range of tools, platforms, materials, and resources. However, access to technological devices such as tabs, pads, computers, software, and a stable Internet connection, etc., constituted a challenge according to 49% of the learners and 34% of the teachers who responded, and 43% reported high stress and workload due to their remote work from home. In a study about the effect of Coronavirus on education in China, Xiao and Li (2020) claimed that teachers cannot effectively supervise and lead the online class. Also, student assessment is not as effective as in-person education; it was classified as imprecise. Surma and Kirschner (2020) reported that this problem is restricted by the absence of adequate training for all parties of the educational process. According to a report issued by the Lebanon Education Sector (2021) Lebanon is under the effect of interconnected social and economic problems that are impacting every aspect of life, risking students' education and futures because of the forced closure for long periods since October 2019, affecting a lot of students and keeping so many out of school. In a connected report, the UNICEF (2021) pointed out the inadequate access to e-learning tools (computer, tablet, smartphone, etc.), and highlighted the fact that students in Lebanon have had no meaningful learning for two academic years because of insufficient experience in e-learning or the proper infrastructure to support it. It is worth mentioning that there exists a long-term problem with the electricity supply due to the economic and monetary crisis that Lebanon is facing (some regions don't get electricity for numerous consecutive days) in addition to the very high cost of getting electricity from private generators. Also, there is another related issue that is equally significant for e-learning, the Internet. It is considered among the highest in price among neighboring countries, and recently, it has been extremely unreliable. The literature as demonstrated above discusses two positions related to e-learning: one views it as advantageous while the other views it as disadvantageous. However, none of the studies cited in the previous literature tackled the impact of e-learning on the skills that learners should acquire through the educational process. In the study at hand, the researchers assess the impact of online learning of Economics on acquiring essential skills that comply with the 21st-Century skills in light of the COVID-19 pandemic. The current study is the first to be conducted about the topic in Lebanon according to the best of the researchers' knowledge.

3. Conceptual Framework

The education sector constitutes the cornerstone for the advancement of societies, which required investment in knowledge and scientific research, especially with the emergence of globalization and the growth of new industries. Thus, investment in the education process – in both the academic and professional domains – is a human investment. That is, "making an educated person" with the characteristics of the era that require moving away from the existing inactivity and indoctrination and moving to the vitality of learning based on discovery, investigation, analysis, and conclusion to deal with problems and their solution. Any form of education is, and should always be, centered on the learners, and this demands the diversification of knowledge sources and their forms, and employing the latest technology in this field. Among the many forms of education is a newly used type that was enforced all over the globe after the coronavirus outbreak, e-learning.

3.1. E-Learning

Recently, a wide-ranging discussion about a common definition of the term e-learning has been present among related parties. The letter 'e' refers to "electronic"; thus, it includes all informative events accomplished by individual people or by groups of people who work online or offline, synchronously or asynchronously using computers, smartphones, or other electronic devices. The Internet has become a fundamental way of making materials for education and scientific papers available for both teachers and students to share and obtain educational material. Technology-based education includes using the Internet in addition to other indispensable technologies to generate teaching resources, educate students, as well as to organize courses in the institute (Fry, 2001). The concept of e-learning covers a set of implementations, approaches, and procedures of learning. Thus, it is not easy to find a definition of the term e-learning that is generally acknowledged (Rossi, 2009). Dublin (2003) and Oblinger and Hawkins (2005) claim that there does not exist even one clear definition for e-learning. Nonetheless, Holmes and Gardner (2006) remarked about these discrepancies by stating that there might be as many definitions of e-learning as there are scientific studies about the topic.According to Chitra and Raj (2018) online learning is the premeditated use of knowledge and the technology of telecommunication networks in the educational process. Online education, virtual learning, distributed learning, online learning, networked, and web-based learning are also used to define this style in education. The Organization for Economic Cooperation and Development (OECD) (2005) stated that e-learning is the use of information and communication technology in varied instructive procedures to sustain and augment education in institutions of tertiary education. It comprises using information and communication technology as an enhancement to the traditional teaching process, online learning, or as an amalgamation of both.

Based on the above, the researchers conclude that the concept of e-learning refers to using modern electronic methods in the educational field, where it is possible to store, collect and communicate information related to the various academic subjects so as to achieve the required efficiency of the educational procedure.

3.2. Advantages and Disadvantages of E-Learning

According to Firmansyah, Putri, Wicaksono, Putri, and Widianto (2021); Axmedova and Kenjayeva (2021); Yuhanna, Alexandar, and Kachik (2020) and Alshamrani (2019) there are some benefits as well as drawbacks for e-learning, as follows:

- *The Benefits of E-Learning Include:*

1. Communication between the instructor and the learner is easy and fast even outside official working hours, as there are many immediate means of remote communication.
2. There are diverse teaching approaches that are appropriate for learners; some learners suffer from having difficulty of attentiveness, distraction, and failure to manage their thoughts. The diversity of materials and resources available through e-learning allows the instructor to focus on central concepts and take into account ordering and planning the clarification procedure so that the class is organized in an easy and comprehensible manner.
3. The accessibility of instructive resources any time during the day, all days of the week help a lot of learners organize their time and enables them to perform varied types of work besides learning; thus, if learners want to work or enrol in courses or a gym can manage their time in a way that can not interfere with their study time.
4. E-learning is not dependent on the learners' attendance, as they can study anywhere that they choose and are not constrained to being present at the educational institute among their peers or at the library for example.

- *The Drawbacks of E-Learning Include:*

1. There is a specific need for appropriate infrastructures, such as the availability of electronic devices (computer, tab, smartphone), a high-speed and reliable Internet connection, but the cost of this is very high.
2. E-learning weakens learners' enthusiasm to acquire knowledge, because of having to spend much time in front of the screen and on various websites.

3. It proved very difficult to assess and advance standards of e-learning since they reduce the creativity and innovation level when answering the exam questions, since the learner is obliged to reply using the same response fed into the program, and there is no way for discussing it or understanding it in any different manner.
4. There is a need for experts to organize and manage the e-learning structures, as they are not simple systems. They also need experience and aptitude in implementing and applying the technical systems, so there is a need for a qualified staff capable of managing them.
5. There is a large number of educators who cannot use communication technology in a way that allows them to handle it and teach using it.

The Organization for Economic Cooperation and Development (OECD) has provided a wider range of education goals through the Definition and Selection of Competencies in the 90s of the previous century and the accompanying Program for International Student Assessment that was initiated in 1997, (also known as the 21st-Century skills). More recently, it presented the OECD 2030 Learning Framework that identifies an extended group of skills that can bring about individual and group well-being (Organization for Economic Cooperation and Development (OECD), 2020c). The proposed outline comprises an educational scope that includes "Essential Knowledge, Skills, Attitudes and Values for the year 2030 that will not only cover literacy and numeracy, but also data, digital literacy, physical and mental health, and social and emotional skills."

At the beginning of the twenty-first century, organizations and economic entities posed an important question: "What competencies should citizens acquire to meet the needs of the new century?" Numerous frameworks for 21st-Century competencies have been issued to answer this question. Many of these competencies have been adopted as educational or correctional objectives to nurture talent and skills. Organizations or economic entities have used different terms to describe the goals they pursue. These competencies are classified into three groups: learning, literacy, and life skills.

3.3. Skills for the 21st-Century

Training for thinking skills and the tools that enable people to understand the world around them has become a primary goal of education in the twenty-first century. The interest in teaching these skills has reached such a remarkable level that it is quite noticeable in the educational literature, conferences, plans for developing educational materials, and teacher training and preparation programs.

The 21st-Century Skills are 12 aptitudes, as shown below, that learners in today's world require to thrive in their careers as the world is currently fast-changing.

The twelve 21st-Century skills are:

1. Critical thinking: As cited in the "Foundation for Critical Thinking", the National Council for Excellence in Critical Thinking (1987) it is an intellectually disciplined process of conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from or resulting from observation, experience, reasoning, inference, or communication, as evidence for belief and action.
2. Creativity: Richard Howe defines creative thinking as being a way of turning someone into a problem solver and giving that individual a "toolbox" for dealing with problems. Creativity is a person's ability to create something that appropriately qualified people would consider original and valuable (Wyse & Manyukhina, 2018).
3. Collaboration: Lai (2011) defines it as the shared involvement of participants in a harmonized effort to find a solution for a problem.
4. Communication: It is a prerequisite for any organization to sustain productivity. It is decisive for learners to know how to transmit ideas effectively between the diverse types of personalities. This has the possibility to eradicate confusion in the workplace, making students valuable parts of their teams, departments, and companies (Griffin & Care, 2015).
5. Information literacy: The Association of College and Research Libraries (ACRL) (2015) defined information literacy as "a set of integrated capabilities that include the reflexive discovery of information, understanding how information is produced and evaluated, using the information to create new knowledge and ethically participating in learning societies."
6. Media literacy: Yanarates (2020) defines media literacy as the set of standpoints through which people expose themselves to the media and explain the connotation of the messages we come across.
7. Technology literacy: Technology literacy corresponds to digital knowledge in that when someone is skillful in using digital devices to access the Internet. Technology literacy allows one to use the Internet to determine, generate, review, assess, and use data across various digital platforms (Siegle, 2004).
8. Flexibility: Cognitive flexibility is a feature of supervisory roles and a higher-order thinking skill. It is about the immediate reflection of numerous points of view and the capacity to make variations in one's views or principles (Barak & Levenberg, 2016).
9. Leadership: Leadership is an integrated and intricate vision of leadership based on relationships. Using joint objectives and expectations, the management offers innovative ways of being, knowing, and acting, while relating to the progressive nature of human life (Rost, 1991).

10. Initiative: People should learn initiative, that is self-starting, in order to fully succeed since it comes naturally to very few people. Initiative, which is one of the most difficult skills to learn, means that the learner must work on projects outside the working hours (Bialik & Fadel, 2015).
11. Productivity: It is the aptitude to produce a creation using setting goals and achieving them, working ethically, managing time, prioritizing needs, and cooperating with colleagues and customers. It is called efficiency as relative to business, which means getting more done in less time (Kivunja, 2014).
12. Social skills: The Indeed Editorial Team (2020) considers that these skills are employed to connect with other people every day in diverse manners, which include verbal and nonverbal, written and visual ways. These skills are also known as interpersonal relationships. Social skills are critical for shaping personal associations as well as professional ones.

All these skills are intended to assist learners to keep up with contemporary labor markets. Each of the skills is unique in the way it helps learners; however, they can jointly help the new generation grow as they are basic in the age of the Internet. The researchers are studying the impact of online learning of Economics on acquiring essential skills that comply with the 21st-Century skills in light of the COVID-19 pandemic, which are classified into 3 groups: learning, literacy, and life skills.

4. Research Problem and Hypotheses

Recently, the trend of education is toward achieving essential skills that comply with 21st-Century skills. In the past two years, the globe has been experiencing the outbreak of a serious pandemic (COVID-19), which forced schools to close and turn to online education. The main problem that this study deals with is whether or not online learners of economics are acquiring 21st-Century skills. Therefore, the researchers have the below questions in mind:

The first main question: Do economics teachers acquire the essential skills through online education?

The second main question: Are online learners of economics acquiring 21st-Century skills?

The following sub-questions arise based on the second question:

- Are online learners of economics acquiring learning skills?
- Are online learners of economics acquiring literacy skills?
- Are online learners of economics acquiring life skills?

The third main question: Are there any hindrances to applying online learning at schools?

Based on the three questions above, the researchers hypothesize the following:

H_1: Economics teachers acquire the essential skills through online education.

H_2: Online learners of economics are not acquiring 21st-Century skills.

Based on the hypothesis H_2, the researchers have 3 sub-hypotheses:

$H_{2.1}$: Online learners of economics are not acquiring learning skills.

$H_{2.2}$: Online learners of economics are not acquiring literacy skills.

$H_{2.3}$: Online learners of economics are not acquiring life skills.

H_3: There are hindrances to applying online learning at schools.

5. Procedures and Methods

The researchers adopted a descriptive-analytical approach, employing an empirical study. The researchers constructed a five-point Likert style questionnaire of 29 items to be distributed to a population of teachers working at private schools in Lebanon. A large sample of teachers was selected using convenient methods. The researchers use multivariate data analysis to come up with results based on which, some recommendations can be set forth to develop online in the educational process in light of the Coronavirus outbreak.

5.1. Population and Sample Selection

The population of the study includes all economics teachers of secondary schools in Lebanon. The researchers selected a sample of 153 economics teachers from the population and distributed the questionnaire among them. All of them responded and their responses were valid for testing and analysis. The demographic data of the sample is revealed in Table 1.

It is evident from Table 1 that 35.3% of the sample have bachelor's degrees, 58.2% have master's degrees and 6.5% have Ph.Ds. It is also obvious that the majority of the sample (81%) have more than 10 years of experience in teaching economics, which means that the majority of the sample have professional and reliable responses for the items of the questionnaire about the subject matter of the current study.

5.2. Instrumentation

Based on the previous studies, in addition to the researchers' personal experience, the researchers constructed a five-point Likert Style questionnaire with 29 items. The scale of the five-point Likert style is as follows in Table 2.

Table 1. shows the distribution of the sample according to demographic data.

Variable	Category	Frequency	Percentage
Education	Bachelor	54	35.3
	Masters	89	58.2
	Ph.D.	10	6.50
Total		153	100.0
Years of Experience	0-5 years	9	5.90
	5-10 years	20	13.1
	More than 10 years	124	81.0
Total		153	100.0

Table 2. Illustrates the scale of the five-point Likert style.

Answer	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Degree	5	4	3	2	1

5.3. Validity and Reliability

Findings of the current study show that Cronbach's Alpha for all the items of the questionnaire is 0.757 as shown in the Table 3:

Table 3. Shows Cronbach's Alpha coefficient.

Reliability Statistics	
Cronbach's Alpha	**N of Items**
0.757	29

Table 3 shows that Cronbach's alpha is 0.757 > 0.7, which indicates that items of the questionnaire are reliable.

6. Data Analysis

Since the five-point Likert Scale was used in constructing the study tool, the research adopts the standard illustrated in the following Table 4 to assess the tendency of each item when using the five-point Likert Scale primarily relying on the mean value and relative weight to determine the extent of agreement to the items and domains of the questionnaire.

Table 4. Explains the scale used in the study according to the mean and relative weight.

	Approval Level				
	Very low	**Low**	**Medium**	**High**	**Very high**
Mean	< 1.80	1.80 - 2.59	2.60 - 3.39	3.40 - 4.19	> 4.20
Relative Weight	< 36.0%	36.0% - 51.9%	52.0% - 67.9%	68.0% - 83.9%	> 84.0%

7. Testing and Discussing the Hypotheses

To test the hypotheses, the researchers employed the mean, standard deviation, relative weight, and importance level of each item of the questionnaire of the study. In addition, the One-Sample T-Test was used to determine the relevance of the responses to the value (3) which reflects neutrality. The results are shown:

Hypothesis 1: Economics teachers acquire the essential skills through online education.

Table 5. Presents a statistical analysis of the first domain (Online Learning).

Items	Mean	S. D	Rel. Wt.	T-Test	P-value	Imp. Level
1. Online sessions can be managed and organized easily.	2.69	1.084	53.8%	-3.506	0.001	Medium
2. Delivering online sessions can save time.	2.73	1.070	54.6%	-3.098	0.002	Medium
3. Online education allows teachers enough time to answer and discuss learners' questions.	2.73	1.154	54.6%	-2.942	0.004	Medium
4. Online education helps teachers acquire new teaching strategies.	4.08	0.654	81.6%	20.390	0.000	High
5. Online education helps teachers use new teaching aids.	4.12	0.499	82.4%	27.692	0.000	High
6. Online education helps teachers use active learning techniques.	3.99	0.716	79.8%	17.044	0.000	High
7. Online education allows teachers to deliver sessions in attractive and interesting ways.	3.90	0.696	78%	16.041	0.000	High
Total	3.462	0.528	69.2%	10.814	0.000	

The Table 5 demonstrates the following:

1. The item which states "Online sessions can be managed and organized easily" has a relative weight of 53.8%, and the mean is 2.69, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -3.506, which is less than the value of tabulated "T" at the significance 0.05. Consequently, online sessions can't be managed and organized easily".

The researchers believe that the result was as such since economics teachers may not be well-trained in managing and organizing an online class as teaching online came suddenly as a result of the coronavirus pandemic. Moreover, some students don't have enough responsibility to take the online sessions seriously, so they don't control their behavior. In addition, the unreliable electricity and Internet in Lebanon play a role in disrupting the sessions' progress.

2. The item which states "Delivering online sessions can save time" has a relative weight of 54.6%, and the mean is 2.73, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -3.098, which is less than the value of tabulated "T" at the significance 0.05. Consequently, delivering online sessions can't save time".

The researchers believe that the result was as such since economics teachers would prepare their lessons using PowerPoint presentations or PDFs, and search for visual aids (pictures and/or videos) which takes a lot of the teachers' time. In addition, they would type their lessons and exercises for practice.

3. The item which states "online education allows teachers enough time to answer and discuss learners' questions" has a relative weight of 54.6%, and the mean is 2.73, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -2.942, which is less than the value of tabulated "T" at the significance 0.05. Consequently, online education doesn't allow teachers enough time to answer and discuss learners' questions".

The researchers believe that the result was as such since online sessions are relatively short since most of the programs used in Lebanese schools for online education give only 40 minutes for the session, 5 of which would be for students to join the session. That would leave teachers with 35 minutes per session, and given the bad connection and electric supply, more valuable minutes would be spent on repeating for late students, let alone those who couldn't be online for one reason or another.

4. The item which states "online education helps teachers acquire new teaching strategies" has a relative weight of 81.6%, and the mean is 4.08, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 20.390, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, online education helps teachers acquire new teaching strategies".

The researchers believe that the result came as such since teachers would like their students to benefit most from the online sessions, so they try their best to search for good strategies that would get their students to grasp the ideas in the session.

5. The item which states "online education helps teachers use new teaching aids" has a relative weight of 82.4%, and the mean is 4.12, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 27.692, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education helps teachers acquire new teaching strategies".

The researchers believe that having to work on their computers, teachers have a lot of resources they might need to make their session a success. Thus, they can find online useful things (such as photos, videos, lesson plans, etc.) posted by other teachers from all over the world related to the materials they teach. Also, they are able to see what other teachers use to make learners understand the explanation and acquire the objectives of the sessions.

6. The item which states "online education helps teachers use active learning techniques" has a relative weight of 79.8%, and the mean is 3.99, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 17.044, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education helps teachers use active learning techniques".

The researchers think that teachers have more time to spend over the computers since they are preparing an online session, so they would find convenient active learning techniques for their sessions, such as picture prompt, choral response, instructor storytelling, pass the pointer, empty outlines, etc.

7. The item which states "online education allows teachers deliver sessions in attractive and interesting ways" has a relative weight of 78%, and the mean is 3.90, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 16.041, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education allows teachers deliver sessions in attractive and interesting ways".

The researchers believe that teachers are using resources from the Internet (such as photos, videos, PowerPoint presentations, etc.) so that their sessions would attract the learners' attention.

It is clear from the above Table that the overall mean of the sample responses for the first domain (Teachers' acquisition of skills) is 3.462 which is greater than the neutral value (3), indicating the sample

agreement that economics teachers acquire the essential skills through online education. The standard deviation is 0.528 and the relative weight is 69.2%. Also, the value of the calculated T-Test is 10.814. The P-value for the hypothesis is equal to 0.000 which is less than the significance level 0.05; therefore, the first hypothesis which states "economics teachers acquire the essential skills through online education" is accepted.

Hypothesis 2: Online learners are not acquiring 21st-Century skills.

Hypothesis 2.1: Online learners are not acquiring the essential learning skills.

Table 6. Presents a statistical analysis of the second domain (21st-Century Skills/Learning Skills).

Items	Mean	S. D	Rel. Wt.	T-Test	P-value	Imp. Level
1. Online education allows learners to acquire the skill of problem-solving.	3.83	0.864	76.6%	11.878	0.000	High
2. Online education allows learners to generate new ideas.	2.09	0.955	41.8%	-11.763	0.000	Low
3. Online education allows learners to acquire the skill of communicating with others and listening to them.	2.86	0.854	57.2%	-2.083	0.039	Medium
4. Online education allows learners to acquire the skill of working with others.	1.86	0.663	37.2%	-21.336	0.000	Low
Total	2.658	0.518	53.2%	-8.149	0.000	

1. The item which states "online education allows learners to acquire the skill of problem-solving" has a relative weight of 76.6%, and the mean is 3.83, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 11.878, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education allows learners to acquire the skill of problem-solving".

The researchers think that students would want to search online for a solution for some problems they might face and hinder understanding their lessons.

2. The item which states "online education allows learners to generate new ideas" has a relative weight of 41.8%, and the mean is 2.09, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -11.763, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not allow learners to generate new ideas".

The researchers believe that some students would be dependent on others to answer the teachers' questions that require getting new ideas related to the lesson being discussed. Also, due to the unreliable Internet connection and electricity, teachers might not have enough time to enrich the sessions with activities and/or strategies that can enhance students to generate new ideas. Rather, teachers might have the new, desired ideas ready for their students beforehand.

3. The item which states "online education allows learners to acquire the skill of communicating with others and listening to them" has a relative weight of 57.2%, and the mean is 2.86, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -2.083, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not allow learners to acquire the skill of communicating with others and listening to them".

The researchers believe that this might be because students talk simultaneously because of the bad Internet connection or might not know that others are talking. In addition, this is directly consequential to class management.

4. The item which states "online education allows learners to acquire the skill of working with others" has a relative weight of 37.2%, and the mean is 1.86, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -21.336, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not allow learners to acquire the skill of working with others".

The researchers believe that during online sessions since students are separated (each one is at his/her home), this prevents them from working together during the session.

It is clear from the Table 6 that the overall mean of the sample responses for the second domain (21st-Century Skills/Learning Skills) is 2.658 which is less than the neutral value (3), indicating the sample disagreement that online learners are acquiring the essential learning skills. The standard deviation is 0.518 and the relative weight is 53.2%. Also, the value of the calculated T-Test is -8.149.

The P-value for the hypothesis is equal to 0.000 which is less than the significance level 0.05; therefore, the sub-hypothesis that states "online learners are not acquiring the essential learning skills" is accepted.

Hypothesis 2.2: Online learners are not acquiring the essential literacy skills.

Table 7. Presents a statistical analysis of the second domain (21st-Century Skills/Literacy Skills).

Items	Mean	S. D	Rel. Wt.	T-Test	P-value	Imp. Level
1. Online education encourages learners to master types of information (facts, figures, statistics, data).	1.86	0.663	37.2%	-21.336	0.000	Low
2. Online education allows learners to understand various forms of information with an ability to make sense of what is presented.	2.09	0.955	41.8%	-11.763	0.000	Low
3. Online education helps learners master using various forms of communication devices (computers, smartphones, tabs, etc.).	4.08	0.591	81.6%	22.578	0.000	High
Total	2.675	0.474	53.5%	-8.464	0.000	

1. The item which states "online education encourages learners to master types of information (facts, figures, statistics, data)" has a relative weight of 37.2%, and the mean is 1.86, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -21.336, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not encourage learners to master types of information (facts, figures, statistics, data)".

The researchers believe that students make mistakes frequently when it comes to numbers and statistics while they are in class at school, so it is inevitable for them to make mistakes about numbers and statistics when the session is online for the many reasons mentioned before. Also, learners would need to be guided through understanding figures and some facts step by step, which, according to the sample, is difficult.

2. The item which states "online education encourages learners to understand various forms of information with an ability to make sense of what is presented" has a relative weight of 41.8%, and the mean is 2.09, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -11.763, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not encourage learners to understand various forms of information with an ability to make sense of what is presented".

Based on their experience, the researchers believe that a lot of students get confused when faced with new ideas and concepts, which they are unable to comprehend by themselves.

3. The item which states "online education helps learners master using various forms of communication devices (computers, smartphones, tabs, etc.)" has a relative weight of 81.6%, and the mean is 4.08, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 22.578, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education helps learners master using various forms of communication devices (computers, smartphones, tabs, etc.)".

The researchers think that this is apparently true since students need one of these devices to work in online sessions so learners would acquire knowledge about the devices they are using.

It is clear from the Table 7 that the overall mean of the sample responses for the second domain (21st-Century Skills/ Literacy Skills) is 2.675 which is less than the neutral value (3), indicating the sample disagreement that online learners are acquiring the essential literacy skills. The standard deviation is 0.474 and the relative weight is 53.5%. Also, the value of the calculated T-Test is -8.464.

The P-value for the hypothesis is equal to 0.000 which is less than the significance level 0.05; therefore, the sub-hypothesis that states "online learners are not acquiring the essential literacy skills" is accepted.

Hypothesis 2.3: Online learners are not acquiring the essential life skills.

1. The item which states "online education encourages learners to adapt to situations and become flexible, open-minded and self-confident" has a relative weight of 74.6%, and the mean is 3.73, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 9.402, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education encourages learners to adapt to situations and become flexible, open-minded and self-confident".

The researchers believe that having to learn online, students are working alone and find themselves compelled to be patient and listen to others and discuss with them to acquire the objectives of the lesson. Consequently, they become more flexible and open-minded.

2. The item which states "online education helps learners become more influential and use others' strengths to achieve common goals" has a relative weight of 43%, and the mean is 2.15, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -11.473, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not help learners become more influential and use others' strengths to achieve common goals".

Table 8. Presents a statistical analysis of the second domain (21st-Century Skills/Life Skills).

Items	Mean	S. D	Rel. Wt.	T-Test	P-value	Imp. Level
1. Online education encourages learners to adapt to situations and become flexible, open-minded and self-confident.	3.73	0.954	74.6%	9.402	0.000	High
2. Online education helps learners become more influential and use others' strengths to achieve common goals.	2.15	0.916	43.0%	-11.473	0.000	Low
3. Online education promotes enhancing learners' potentials.	3.57	1.117	71.4%	6.299	0.000	High
4. Online education helps learners set their own goals.	1.96	0.595	39.2%	-21.613	0.000	Low
5. Online education allows learners to monitor the extent of their comprehensiveness and their education needs.	2.73	1.118	54.6%	-2.965	0.004	Medium
6. Online education allows learners to become self-accountable.	2.35	1.091	47.0%	-7.336	0.000	Low
7. Online education allows learners to make the best use of their time.	3.33	0.896	66.6%	4.602	0.000	Medium
8. Online education allows learners to accomplish their tasks on time.	2.05	0.764	41.0%	-15.453	0.000	Low
Total	2.733	0.458	54.6%	-7.185	0.000	

3. The item which states "online education promotes enhancing learners' potentials" has a relative weight of 71.4%, and the mean is 3.57, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 6.299, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education promotes enhancing learners' potentials".

The researchers think that students learning online have to rely on themselves since they are on their own most of the time and have to work harder to acquire the objectives of the lessons they are attending. Thus, their potentials appear to become more evident.

4. The item which states "online education helps learners set their own goals" has a relative weight of 39.2%, and the mean is 1.96, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -21.613, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not help learners set their own goals".

The researchers believe that only a few students, the good ones, would develop this skill as they are keen on their education. Others might not be so concerned about studying.

5. The item which states "online education allows learners to monitor the extent of their comprehensiveness and their education needs" has a relative weight of 54.6%, and the mean is 2.73, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -2.965, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not allow learners to monitor the extent of their comprehensiveness and their education needs".

The researchers believe that the results may have come as such since the learners do not have the books related to the material they are studying online; they take whatever material the teachers supply. As such learners would not be able to determine their educational needs.

6. The item which states "online education allows learners to become self-accountable" has a relative weight of 47%, and the mean is 2.35, which is less than the neutral value of 3. Also, the value of the calculated "T" test is -7.336, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not allow learners to become self-accountable".

The researchers believe that this may be because students would not feel guilty about missing their online sessions because of the unreliable Internet connection or power failure as they would be able to see a recording of the session.

7. The item which states "online education allows learners to make the best use of their time" has a relative weight of 66.6%, and the mean is 3.33, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 4.602, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "online education allows learners to make the best use of their time".

The researchers think that it is logical that online learners must organize their time to do the required tasks and have some time for themselves to refresh.

8. The item which states "online education allows learners to accomplish their tasks on time" has a relative weight of 41%, and the mean is 2.05, which is less than the neutral value 3. Also, the value of the calculated "T" test is -15.453, which is less than the value of tabulated "T" at the significance 0.05. Consequently, "online education does not allow learners to accomplish their tasks on time".

The researchers believe that some students might have complaints about the load they have from online learning which would leave them behind on certain tasks. Also, some students may get too immersed in their free time that they would not have enough time to finish their required tasks in due time.

It is clear from the Table 8 that the overall mean of the sample responses for the second domain (21st-Century Skills/ Life Skills) is 2.733 which is less than the neutral value (3), indicating the sample disagreement that online learners are acquiring the essential life skills. The standard deviation is 0.458 and the relative weight is 54.6%. Also, the value of the calculated T-Test is -7.185.

The P-value for the hypothesis is equal to 0.000 which is less than the significance level 0.05; therefore, the sub-hypothesis which states "online learners are not acquiring the essential life skills" is accepted.

Hypothesis 3: There are hindrances to applying online learning at schools.

Table 9. Presents a statistical analysis of the third domain (Challenges that may hinder online learning).

Items	Mean	S. D	Rel. Wt.	T-Test	P-value	Imp. Level
1. The speed of the internet connection is inadequate and the session is constantly disrupted.	4.21	0.783	84.2%	19.089	0.000	Very High
2. The electricity is not reliable.	4.29	0.742	85.8%	21.563	0.000	Very High
3.Accessing the educational material is not easy.	3.95	0.872	79.0%	13.443	0.000	High
4. Sending and receiving educational material is not easy.	3.58	1.104	71.6%	6.442	0.000	High
5. Some learners do not have access to proper communication devices (computer, tab, smartphone).	3.76	1.076	75.2%	8.714	0.000	High
6. There are always some absent learners during online sessions.	4.29	0.511	85.8%	31.296	0.000	Very High
7. The available online learning evaluation methods (multiple choice, true or false, short answers, etc.) do not accurately measure learners' acquisition of skills and competences.	4.36	0.624	87.2%	26.938	0.000	Very High
Total	4.062	0.545	81.2%	24.075	0.000	

The Table 9 reveals the following:

1. The item which states "the speed of the internet connection is inadequate and the session is constantly disrupted" has a relative weight of 84.2%, and the mean is 4.21, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 19.089, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "the speed of the internet connection is inadequate and the session is constantly disrupted".

The researchers think that it is well-known that the Internet connection in Lebanon is slow; moreover, it became yet slower due to the current financial and economic crisis Lebanon is facing since the ministry of communication is having difficulty in getting the necessary equipment to maintain this sector.

2. The item which states "the electricity is not reliable" has a relative weight of 85.8%, and the mean is 4.29, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 21.563, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "the electricity is not reliable".

Before the current financial and economic crisis in Lebanon, there was a constant shortage of power (an average of 12 hours a day). Nowadays, it came down to only about 3-4 hours a day, and one can never know when it would be on or when it would go off.

3. The item which states "accessing the educational material is not easy" has a relative weight of 79%, and the mean is 3.95, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 13.443, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "accessing the educational material is not easy".

Based on their experience, the researchers believe that the Lebanese curriculum is very old (it was last updated twenty-one years ago) and isn't compatible with online education.

4. The item which states "sending and receiving educational material is not easy" has a relative weight of 71.6%, and the mean is 3.58, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 6.442, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "sending and receiving educational material is not easy".

The researchers think that due to the power shortage and the slow Internet connection in Lebanon, it takes a lot of time to send or receive educational material since it includes videos, pictures, PowerPoint presentations, etc.

5. The item which states "some learners do not have access to proper communication devices (computer, tab, smartphone)" has a relative weight of 75.2%, and the mean is 3.76, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 8.714, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "some learners do not have access to proper communication devices (computer, tab, smartphone)".

The researchers believe that due to the current financial and economic crisis in Lebanon, some students do not have a device to log in to their online sessions, and others share the device with a sibling or more (each would log in every other day).

6. The item which states "there are always some absent learners during online sessions" has a relative weight of 84.2%, and the mean is 4.21, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 19.089, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "there are always some absent learners during online sessions".

The researchers believe that due to the aforementioned problems of electricity shortage, slow Internet connection, and lack of communication devices, there are always some absent learners during online sessions.

7. The item which states "the available online learning evaluation methods (multiple choice, true or false, short answers, etc.) do not accurately measure learners' acquisition of skills and competences" has a relative weight of 87.2%, and the mean is 4.36, which is greater than the neutral value of 3. Also, the value of the calculated "T" test is 26.938, which is greater than the value of tabulated "T" at the significance 0.05. This means that there is an increase of statistical significance to the neutral level in the average responses of the members of the sample; consequently, "the available online learning evaluation methods (multiple choice, true or false, short answers, etc.) do not accurately measure learners' acquisition of skills and competences".

The researchers think that since the Lebanese curriculum is old, the traditional method of evaluation is still used. Multiple choice, true or false, short answers, etc. need a new approach in updating the eroding Lebanese curriculum. Although many schools are now using concepts and techniques and document analysis approaches, these do not reflect the actual students' evaluation due to the power shortage and/or slow Internet connection since learners might take advantage of the situation and cheat with other learners.

It is clear from the above Table that the overall mean of the sample responses for the third domain (Challenges that may hinder online learning) is 4.062 which is greater than the neutral value (3), indicating the sample agreement that there are hindrances to applying online learning at schools. The standard deviation is 0.545 and the relative weight is 81.2%. Also, the value of the calculated T-Test is 24.075.

The P-value for the hypothesis is equal to 0.000 which is less than the significance level 0.05; therefore, the sub-hypothesis that states "there are hindrances to applying online learning at schools" is accepted.

8. Conclusions and Recommendations

The study showed that teachers have acquired new skills through online education such as new teaching strategies and active learning techniques that help them deliver sessions in attractive and interesting ways, which disagrees with Lebanon Education Sector (2021) in that teachers at all educational levels are traditional. The study also rendered important findings about the impact of online learning of Economics on acquiring essential skills that comply with the 21st-Century skills in light of the COVID-19 pandemic from the Economics teachers' point of view. The results showed that online learners are not acquiring the essential learning skills that comply with the 21st-Century skills except for problem-solving skills. They also showed that online learners are not acquiring the essential literacy skills that comply with the 21st-Century skills except for the skills of using various forms of communication devices (computers, smartphones, tabs, etc.). In addition, the results showed that online learners are not acquiring the essential life skills that comply with the 21st-Century skills except for very few of them. Moreover, the results showed that there are hindrances to applying online learning at schools in Lebanon. These include the low speed of the internet connection which disrupts the online sessions and makes sending or receiving educational material difficult, which agrees with Abourjeili and Harb (2020) and the International Telecommunication Union (2015). Another type of hindrance is that the electricity is not reliable. Because of the power failure, there are always some absent learners during online sessions and when electricity is off, so is the internet connection. In addition, some learners do not have access to proper communication devices (computer, tab, smartphone), which agrees with both Hetsevich (2017) and the UNICEF (2021). The final and important hindrance according to the

Economics teachers is that the available online learning evaluation methods do not accurately measure learners' acquisition of skills and competencies, which agrees with Xiao and Li (2020).

Based on the above results, the researchers have some recommendations. There is no doubt that the Lebanese national curriculum is old and not suitable for online education since it was last updated in the year 2000. To apply an online approach, the eroding curriculum should be modified for online use. Thus, it would currently be better to adopt blended learning without having to totally rely on e-learning taking the health and economic conditions into consideration. Moreover, parallel with blended learning, the CRDP should conduct continuous training sessions and supply electronic resources for teachers to be able to prepare, manage and lead successful and fruitful online sessions. In addition, the Ministry of Education and Higher Education should also supply teachers with guidance and see that their needs are fulfilled so that their only focus would be the learners. Needless to say, if the government did not take actual measures to improve the electric supply and the Internet connection, online education as a whole would not be efficient. Future suggested research may include assessing the impact of online education on undergraduate students' acquiring essential skills for their lives and careers. In addition, further research may be conducted to compare the impact of online education on acquiring skills between students of the public sector and students of the private sector.

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