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## **New patterns of learning during the Pandemic Crisis of 2019**

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**Abstract.** Education institutions and learning operations are part of the hardest hits of the Corona pandemic crisis of 2019. In addition to the sudden breakdowns of vital-life sectors and education, the learning and teaching processes knew some disorders and interruptions differently worldwide. Not only that, but also this crisis brought its effects on students and school children; especially concerning their psychological health due to the restrictions of lockdown and social distancing, over and above that these generations have neither precedent with inevitable crisis, nor procedures. Education in the age of Corona is a primary concern and challenge for countries, especially in the light of the unequal levels of alternative solutions to pursue the teaching process regularly and with lesser damages. This article aims to raise awareness about the novel patterns and platforms that have been used globally since the pandemic's emergence. Furthermore, it addresses their effectiveness in large parts of countries, as it attempts to assess their performance and compare the extent of responsiveness to these teaching platforms and technologies in different countries. At the end of this suggested contribution, we intend to track the future of these patterns and platforms in the post-corona phase.

**Keywords.** Corona pandemic; global paralysis; learning and education; alternative solutions

### **A. Introduction**

The ongoing pandemic crisis of 2019 brought about a state of global disorder in all life domains and services, for as much as this novel viral phenomenon spilled over in the entire world areas in a short time and view to its vast effects and damages over communities, business, and governments. Additionally, and shared that the severe and quick spread of the disease more strict and urgent measures of lockdown in active and critical fields, and these procedures consequently with time have complicated the course of life domains and services dramatically, especially in the economic and financial parts.

As an essential field, the education sector with all its components -schools, universities, and institutes-is concerned in a big part with the hits of the pandemic. On the one hand, this viral crisis imposed a sort of adaptation on governments; to cope with the pandemic situation, and to ensure the minimum of the function, continuity of activities, stability, and performance of life-critical sectors, on the other hand, in order to avoid worse situations and fluctuation of activities on individuals and students and learners, in particular, in linkage to schools and universities closure.

Although the Corona Pandemic crisis has caused a breakdown in the vital sectors of life; hence, a state of disorder, some of these sectors quickly; tried to find solutions, alternative

techniques, and policies to pursue their ordinary activities from one hand, and so else to mitigate the effects of the epidemic crisis on the other hand, such as using online shopping and marketing methods. In addition, the education sector, in various degrees, has resorted to techniques to follow, offering regular lesson courses and exams – online- as an alternative and temporary solution during the ongoing pandemic crisis. in light of the global financial crisis and protocols exploited to follow the educational activities, how effective and successful are they in mitigating the consequences of schools and educational institutions suspension? In addition, how can we ensure that an education system facing severe and sustainable disruption - with the spread of distance education - can still work to maximize learning during the pandemic?

### **B. Methodology**

This study proposes an overview and a track to the current pandemic crisis impact on the global educational sectors and the innovative tools exploited to pursue the teaching and learning process using the network tools.

Through the lines of this work, we referred to employing the descriptive method for analyzing and tracking the phenomenon and its circumstances and the new adaptive learning patterns and techniques.

### **C. Overview**

Although the Corona pandemic has disrupted vital sectors of life, some sectors have tried to find solutions, alternative techniques, and policies to pursue their activities and mitigate and contain the effects of the epidemic crisis. For instance, people resort to the idea of online shopping and marketing. The education sector across some countries has resorted to training techniques, exams, and online lectures, as an alternative - and temporary - solution during the pandemic months. The disorder and interruption in learning and teaching operations course; is part of a whole and consequently inevitable result to the intensity of the crisis, which massively conducted to damages and emergent procedures.

### **D. Unprecedented global phenomenon: Comprehensive spill over and hits**

The Corona crisis is a turning factor in the international landscape. It is more than a health crisis; it is a human, economic and social crisis. (1). The duration of the crisis, ensuring economic and social repercussions, the quality and importance of the states are affected by this crisis. Given the data, the new coronavirus crisis has confirmed and strengthened the current paths in the international landscape rather than as a factor that will radically transform or create new paths in the near and medium-term. Finally, the Corona pandemic crisis may have radical effects at local or regional levels but is not expected to create new strategic paths at the international system level. The epidemic has demonstrated the desire of many countries to resort to innovative solutions to relieve pressure on healthcare systems and ensure that people continue to receive high-quality medical care during public health emergencies. The implementation of closure measures throughout the world has led to an increase in remote medical consultations and the reliance of medical authorities, professionals, and patients on mobile telephone technologies to reduce the spread of the virus. Having emphasized the importance of accurate risk assessment, scientific data, and appropriate preparations based on this assessment.

The Coronavirus pandemic has affected many jobs and businesses worldwide, causing global unemployment rates to rise and more people to lose their jobs. In addition, the adverse impact of international students is the potential loss of a current job, whether part-time or full-time and the fear of not finding employment after graduation. While some countries are more

flexible about the rights of international students and grant access to student funding, others have been less assimilated to these points and problems that mainly confront students. Despite these difficult times, people and governments especially set their urgent plans to guarantee the least of regular performance and activities, despite the crisis.

### **E. Breakdowns and global concerns**

Before the spillover of the Corona pandemic, the world faced a learning crisis until the last three months. Millions of children and students at different phases and institutions had dropped out of education, and learning poverty rates in low- and middle-income countries were somehow high. The crisis has revealed new inequities and exacerbated existing structural fault lines and forms of exclusion in our societies that render us weak and uncoordinated and impair our ability to adapt to meet the challenge. (2). The Corona pandemic has exacerbated the learning crisis, and its impact on the human capital of this generation of students is likely to continue for a long time. Since last March, students and children - stopped going to school globally and started following their classes at home, in an unusual atmosphere of anxiety and confusion, especially at those categories of pupils and children with healthy or psychological issues, in the vast majority of countries, with a diverse choice of distance learning.

#### *1. Lockdown measures and unbalanced preparedness*

Amid these changes the world has experienced since the emergence of the Covid-19 virus, the economic and social repercussions of the virus seem to be significant and influential at the global and national levels. Schools, universities, companies, factories, and others; harmed the economies of all countries of the world, and the global system had been brought into recession, impacting the economic and social system. According to United Nations baseline forecasts released in May 2020, the pandemic will reduce world production by 3.2 percent and increase the global population of people living in severe poverty by 34.3 million in 2020, with Africa accounting for approximately 56% of the rise. (United Nations, 2020). (3). As it has been for all the nations of the world. According to their economic and political conditions and preparedness, any global crisis is undoubtedly the society that affects all, despite varying effects from one country to another.

National Preparedness for pandemics relies considerably on national pandemics plans (4). The novel Coronavirus has changed the political and economic trajectory of countries. The shortcomings that have been loosening the health and social sector of countries have emerged. Although some countries have stood up to the rapid spread of the epidemic, they still suffer from a severe lack of financial and vital means to pursue fighting against the traces of the crisis. The immediate economic impact of the pandemic seemed obvious, contributing to the development of a global contingency plan and the activation of precautionary and solidarity measures that would protect economies from potential damage.

#### *2. Impacts on life course and health influences*

The consequences of the pandemic, in a significant part in the psychological aspect, negatively affected many people. Students and pupils were not- until the three last months- far from these impacts. According to Emma Thomas, Chief Executive of Young Minds stated: the uncertainty, the anxiety, the fear of being unwell or witnessing a loved one become ill, the grief associated with the loss of our regular routines, the difficulties of social connection, and in many cases, education disruptions have the potential to have a dramatic effect on the nation's mental health (5).

The accompanying actions taken by states to cope with the disease are as necessary as the health aspect associated with the disease. Measures such as prolonged bans and the cessation of routine activities, especially economic ones, exacerbate psychological effects and even become a new source of anxiety, tension, fear, and depression. The economic effects of closure, prohibition, high disruption, and entry into financial insolvency are leading to very significant pressures on heads of household to meet the basic needs of themselves and their families, which are likely to expand the psychological effects of all family members and give fertile space to more family problems such as, for example, domestic violence. Certain groups of people are unquestionably more vulnerable than others to the adverse psychological effects of the pandemic and its consequences depending on its financial and banking circumstances and potential.

### 3. *Children and university students' category, and the sudden lockdown*

The Corona pandemic threw a shadow over all domains of life and the most brutal impact on educational institutions, the younger generation, and students who have lived under pressure due to the closure and interruption of educational institutions.

Since this generation has never experienced such an epidemic or strict health measures, this new occurrence required multiple efforts and awareness-raising by parents, schools, and universities responsible. Prescribed restrictive measures to address the Covid-19 Pandemic have many deleterious effects on youth education, well-being, and safety, are eroding their social connections, and disrupting or hindering their development (6).

Pupils with special needs were the most affected in exclusion and withdrawal during distance learning. Pupils were the most reluctant or least willing to join or adhere to distance learning, perhaps because of their attraction to paid employment. Pupils with special needs have been largely excluded or marginalized because of a lack of access to the internet or inadequate tools. COVID-19's transition from offline to online learning is anticipated to hurt kids in elementary and lower secondary schools, who will have more difficulty adjusting to the new learning environment (7). The Covid-19 pandemic has pushed schools to close in most countries, affecting more than a billion students and children who have lost the opportunity to learn at a critical pre-school age so that the world will be faced with this whole generation.

However, a prolonged interruption in education services during which students are cut off from the learning process may have the cost of reversing learning acquisitions (8) as a consequence of being confronted by isolation and social distancing.

### 4. *UNESCO Procedures and numbers*

The UNESCO organization, which deals with universal education and learning, has been monitoring the situation globally (9) and reports that the challenges are enormous, and much effort and funding are needed to accomplish its endeavors. The epidemic has affected students and teachers at all levels of schooling, from pre-primary to secondary schools, technical and vocational education and training institutions, universities, adult education, and skills development institutions. Accordingly, UNESCO revealed its numbers and reports on the damages and consequences around schools and universities' interruption where it demonstrates the COVID-19 pandemic has created the most severe disruption to global education systems in history, forcing more than 1.6 billion learners in over 190 countries out of school at the peak of the crisis. The number of students that CORONA has forced to drop out of schools is 1 billion and 344 million, and in 138 countries, 924,000 students are enrolled in 82.2% of the students

enrolled in schools, of whom some 83 million are in Arab countries. (...). In this context, the international organization points to the ramifications of educational institutions' closure on students' and children's health and performance and that many strategies of recovery are needed in the coming period, either for short or long terms.

#### **F. Transition to e-learning alternative amid the crisis:**

With significant technological advances, most educational institutions worldwide seek to foster a virtual learning environment or distance learning through the internet. They provide more accessible learning for students, more efficiency in communicating information to students, and more effective communication between teachers and students. The e-learning gaining popularity in the early 2000s refers to any electronically assisted instruction but is most often associated with instruction offered via computer and the internet (10).

Several critical considerations have already emerged that may be important for educational policymakers as attention shifts to sustaining large-scale learning, despite the challenges posed by the global epidemic.

Distance or E-Learning knew its emergence and used since old years of the past century. The history of E-learning in all sectors can be summarized as opportunities multiply as they are seized, as educators and trainers at all levels of education, business, training, and the military have used computers in a variety of ways to support and enhance teaching and learning for the last 40 years (11). However, it had intensive exploitation, and massively during the current global epidemic crisis, this is a matter, and on the other hand, E-Learning tools are used to adapt with the universal status due to the viral crisis. Temporarily or permanently, or even in parallel to the traditional teaching and learning tools, these techniques are used as alternatives to the ordinary classroom, which rely on the internet linkage and coverage, as a significant step. Following the closure of schools and universities; due to the Corona, several countries tried along the crisis period and before the mitigating procedures to spread distance education, but the process was not in the same level and quality to all, but also the flaws of educational systems that have not been successful in the traditional classroom-based model.

E-learning and ICT-supported distance education tend to become an integral part of both primary and secondary schools and universities, and organizations of the private and public sectors. (12). Thus, countries appealed for distance education to try to save the school season, announcing particular sites that allow pupils and students to follow their courses, or for the use of mass media such as government channels and radio through broadcasting tutorials; and virtual classrooms through virtual channels. In parallel, with the spread of Coronavirus, some nations with advanced digital and technological infrastructure have chosen to pursue education courses through distance education platforms. The use of those platforms has, in turn, been able to reduce the mixing of students in a closed space with a daily duration that may facilitate the spread of the epidemic despite measures of protection. Distance education platforms have thus become a haven to protect students and pursue educational achievement, though they reflect some of the pros and cons of a classical education within traditional classrooms.

Access to these platforms takes place through the smartphones and computers connected to the internet, and because a large proportion of students located in their homes, especially in villages, are not connected to the internet, this last created a sort of gap and obstacle among students. The Ministries of educations resurrected educational television channels whose teachers and instructors explain the programs and courses for different school phases.

*1. Areas of distance learning:*

E-Learning or distance learning is not exploited only by students under certain circumstances

. However, it has other fields and areas.

Conditions may force many individuals to not complete their university education because of social or financial inability. In all these cases, these individuals may lose the chance of following their university studies, but distance education solves in any sort. Thus, it gives them the support of fulfilling their university studies through the Open University, which developed numerous programs based on communication tools.

Distance learning is not limited to diverse courses in various scientific and literary fields. However, it is easier to obtain high university degrees from global universities via the internet, which has become universally recognized in employment and other matters requiring approved scientific documents, not only for students or young people but also for distance study for all of the different ages. This led university institutions to found another system of learning and acquisition through using technologies, as open universities which are established by both public and private, are adopting these practices as their own, enabled by digital technologies along with a change in the culture of higher education for which Open Universities can reasonably claim responsibility (13).

*2. Alternatives to usual activities patterns (MOOC, ZOOM, Moodle platforms)*

Technology is used in lecture rooms and classrooms and is used in distance education, and the importance of this last point has doubled due to the current conditions of the entire world. The COVID-19 pandemic proliferated from its first emergence to a genuinely global phenomenon. While the need for securitizing face-to-face education stems from the virus's social transmission, a brief recap of the virus's growth gives background (14). Before stating technology, it is essential to understand that an instructor will lose one of their essential tools when giving the lecture remotely, body language because this language helps to transmit information, technologies must be used to compensate for the absence of these critical components, it with the help of technology. All of that has prompted educational institutions to switch to e-learning (E-Learning), as a long-talked-about alternative to the need to integrate it into the educational process; especially after the educational process was directly influenced by the automation of industry and the evolution of the technology, as well as the information technology revolution that broke into and became an integral part of most forms of human life.

Many tools help teachers get the same benefit as an actual audience in a lecture room. Among the companies that have recently been popular with educational process software are ZOOM and WEBEX, and others; have mainly specialized in online meeting software. With the massive advance in technologies, we realize that there are several ways of acquisition and learning, some depending on the teacher and others relying on the technology. Online education has become one of the imperatives for dealing with the consequences of the Coronavirus, which has given home education the primary role in education. Students and teachers have turned to the internet and various programs during the Corona pandemic. The use of the internet in the educational process dates back to many years ago. The internet is strongly generalized under learning management techniques in most universities. With the outbreak of the corona crisis, most educational institutions have moved towards e-education as a more appropriate alternative to ensuring the continuation of the educational process.

Multiple self-learning patterns and methods are various, and one of the most important is computer learning, where one learns via the computer and the internet. The support from the

authorities to ensure continuity of training activity through e-learning has manifested itself in several countries in different forms. (15 )

### 3. *Samples of E-Learning gates and platforms:*

#### 3.1 MOODLE (Modular Object-Oriented Dynamic Learning Environment )

MOODLE technique is that knowledge is built into the learner's mind through the information delivered. The teacher's role is to create a manual environment that makes the learner (s) build their knowledge through their experience and qualifications. This philosophy is different from traditional education, where teachers choose what to offer and what to learn.

Moodle enables the integration of a variety of resources, ranging from chat rooms and forums to an online manual, various questions, collections of problems and exercises, lecture notes, and any papers that are text-based or HTML-formatted multimedia resources such as graphics, video, or audio (16). Each school or university shares an e-Learning.

Moodle is assigned its proper account, and the members (users) of this account are four types.

MOODLE is used to build e-learning sites used for e-learning projects in schools and universities in addition to distance learning. The system also offers users additional customization features to build private sites with many online courses.

Building content means building educational materials and presenting them to Internet browsers through the MOODLE platform. It is essential to know that the MOODLE system is based on a set of educational theories developed in the origins of education, covering a range of e-learning patterns.

#### 3.2 ZOOM

Distance Education is one of the platforms for communication between individuals through video meetings and conversations. It has become popular following the announcement by Governments of a home commitment and the application of precautionary measures to block the spread of the new Coronavirus. Zoom combines video conferencing, online meetings, and in-conference group chat info, one easy-to-use tool ideal for online class use and group work. (17). With the widespread of the new Coronavirus worldwide, Zoom has become an essential tool for small, medium, and even large teams that wish to stay in touch and continue to operate daily with minimal disruption.

As part of the university mission to keep pace with the development and modernization of the world and its introduction to new specialties and advanced courses of study, the university has always sought to plan the integration of digital modern technologies and programs into the university education and crisis management system, in order to support educational lectures and to promote distance communication between lecturers and students in order to ensure a flexible, interactive and continuous learning and education environment, despite the urgent conditions in the country and the world, and to overcome the barrier of time and space. Zoom has facilitated the quick adoption of virtual distance learning by thousands of schools and teachers worldwide by providing them with the same production environment as traditional classroom settings.

Zoom also provides content sharing, collaboration, and video conferences via the internet as it offers video, audio, and screen-sharing experience and content across a wide range of devices and platforms.

Zoom Features: This advanced technique and learning gate have several standard applicable and valuable criteria that may guarantee rich and informative content and subjects to learners and users in general. The major features are, in major :

Video meetings

Conducting online video seminars

Conference Rooms

Chat and share files across all platforms and devices

More than 100 users can communicate without affecting the quality of the service.

### *3.3 Mooc (Massive Open Online Courses) )*

Mooc is considered one of the latest patterns of open education or self-learning in virtual education courses offered by universities and institutions. Educational content is provided via the internet, free of charge to learners, which is an opportunity for those who seek to increase their abilities, knowledge, and experience in various fields, as well as to share knowledge and ideas and extract from the experiences and information of others in an open educational space. The top three MOOC players are Coursera (coursera.org), edX (edx.com), and Udacity (udacity.com), and they are much more than simple forms of distance learning as Moodle. 18

### *4. Students' luxury/social inability: learning gaps:*

The elements and features of difference are not only found between countries of advanced and developing and underdevelopment world, but also they exist in the one country with unbalanced traits, especially in economic and social capacities in times of Coronavirus, where distance learning is highly exploited to cover the interruption of regular classes. According to the general feedback of these operations, and seems that not the learning community has equal chances of acquiring information and scientific knowledge. A gap and disorder have been generated between students due to the absence and inability of students and their families to provide an academic and material learning atmosphere linked to their economic (financial) and social deficiency. It becomes undeniable that students with a low socio-economic background will find it challenging to migrate as early as expected since they cannot come to school due to the pandemic. (19)

### *5. Learning alternatives: statements and qualities*

Quality, effectiveness, and quality of e-education should not be judged by what is now provided, which comes in abnormal conditions, to contain the crisis and mitigate its effects as much as possible. The quality of distance learning operation is linked in its core to the good qualifications, skills, and training of instructors.

Therefore, necessary measures should be adopted for improving the quality of E-learning to help with better learning of students during the phase of the Covid-19 pandemic. (20)

The delay of some higher education institutions in deciding on calendar methods is due to the absence of emergency plans in times of crisis. There are many ways to control the quality of remote evaluation. The calendar must not be shortened to tests, noting that we must prepare for and plan for e-education, introduce quality control mechanisms, and invest in flexible aspects such as (Content and education management systems) and not in the aspects of (buildings and equipment). Experience has also revealed many problems that need to be addressed to use e-education effectively. E-Learning has a promising future. Universities will

use many of the lessons learned from the forced adoption of e-education to strengthen and expand online learning provisions.

#### *6. Facts and numbers*

Amid launching and shifting to distance learning, which requires strong internet coverage, it is essential to state that not all countries are in the same line of tools and technology availability. During the pandemic and learning operations, many rates and statistics are considered around this matter, and it reveals one common point: this process is different from one country to another. According to some studies, students recall 25-60 percent more material when they learn online than only 8-10 percent when they learn in a classroom. It is mainly because students learn faster online; e-learning takes 40-60 percent less time to complete than traditional classroom instruction since students may work at their own pace, returning to previous lessons and re-reading, skipping, or accelerating through ideas as desired. (...)21

Similarly, UNICEF numbers and statistics show that the most common approach focused on digital instruction, used by 42 percent of countries for pre-primary education, 74 percent of countries for primary education, and 77 percent of countries for upper secondary education. (22)

#### *7. Differentiated universal learning patterns and experiences: Advanced and Third World countries*

In the age of globalization of technology and science, Distance Learning activity, such as education and employment, has become one of the main ways States have responded to the repercussions of the spread of the Coronavirus. Significant technological advances in communications have made it possible to run an entire course of education without the need for students and teachers to be confined to space while allowing precautionary measures to be taken to prevent the spread of the Corona pandemic. However, it is essential to state that a gap between north and south has emerged, especially considering the availability and types of devices and platforms used (23). Despite the multiple positive benefits of distance education; however, it faces several challenges, particularly in developing countries, where there is no solid technological structure. The size of this gap varies between States and different regions. However, there is a massive distance between the average level of education in developed and developing countries.

There are still some challenges to the spread of this system in some countries, particularly developing countries, such as; the lack of technological preparedness to support virtual learning systems. In addition to increasing the number of e-illiteracy, distance education requires basic knowledge of computers and the internet, while countries still have many citizens unable to use computers or the internet adequately.

Developing countries lack communication networks that connect different parts of the country and at the same time require billions and years to build such networks. Communication may be achieved by using modern communications from satellites and mobile vehicles equipped to receive from these satellites anywhere in the country. The many educational tools now provided by technology, such as interactive communication, imaginary classes, Internet networks, and intelligent schools, contribute to breaking the infernal cycle in which many developing countries have fallen from ignorance and underdevelopment and give a comparative advantage to e-education over traditional education. It is thus clear that current technology may contribute reasonably to the dissemination of education in developing countries and break down many barriers to the educational process in developing countries.

A real challenge facing developing countries, especially the Arab States, is the enormous technological development and information revolution that have changed many concepts and patterns of action and relations, and that makes it imperative for those countries to take advantage of the new advantages that that development has provided and to try to cross the gap that separates them from the developed countries.

Developing countries must determine their future and potential vision of the educational process, and e-education should be one of the components of that vision and should be well formulated under their circumstances. Therefore, it is critical for policies promoting equal access to technology to begin by recognizing the various dimensions that structure social inequalities in the region and working intentionally to reverse them (24).

#### *8. Success and failure of e-learning during the pandemic*

Amid success and failure in teaching and learning via the Distance Education System, the process continues giving its contents to the learning categories despite the obstacles, confusion, and depth of gaps between students and teaching staff.

The internet has been crowded because most society members are stuck home, and they resort to the web networks frequently for different reasons such as work, learning, or entertaining has slowed it down. Students have sometimes been unable to connect to virtual lesson platforms and communicate directly with teachers via video.

The primary outcome has been to trust human creativity and to allow teachers the flexibility to creatively develop their pedagogy, especially with the support provided by their institutions. (25)

##### *8.1 Assessment of e-Learning operations (efficacy)*

In order to achieve specific strategies goals, it must have its components of success. Thus, it is hard to judge E-Learning operations' success or failure; perhaps it is an average experience between failure and success in different environments and levels. Elements of success and failure are submitted to experience and provision of scientific, technological, and financial resources. The quality of learning should not be judged solely in student achievement or success but also in terms of the effectiveness of classroom instruction. (26). The assessment comes from all parts' given performance activities and operations, mainly through two significant human resources: instructors and learners ( pupils and students).

##### *8.2 Advantages and disadvantages of e-learning during the pandemic*

Undoubtedly, the characteristics and benefits of distance education vary in different categories. However, they may be set in the following points that self-learning forces students to take on greater responsibilities, inducing and motivating them to develop many skills, such as: Enhancing their ability to access the educational content. This online learning technique is appropriate for the majority, where staff and students can get courses and lectures out of time and place.

Distance education is time-flexible, as opposed to traditional classes. E-learning modalities encourage student-centered learning, and they are easily manageable during this lockdown situation (27). Through distance education, many individuals can get courses and degrees by attending lectures online-learning community acquire how to organize their skills and manage time. Hence, distance or E-learning has specific characteristics: flexibility, the most

critical advantage associated with distance education. It allows participants flexibility that may increase or decrease depending on their type and the nature of the subject. However, it often allows students to develop their curriculum in proportion to their time and attend lectures and classes from any place. In the end, learners and ICT users get adapted to getting information and using technologies.

Essential skills for success and adaptation of subjects may sometimes make it impossible for some to enter traditional education. Furthermore, distance education offers the possibility of continuing to study despite everything, at any time and anywhere. Students need only a computer and an excellent connection to the internet. Distance learning suits all individuals, whether a lecturer or a student, and it assists them to gain the flexibility to have options following their desire to participate in learning activities. The effect of E-Learning has the advantage of having more influence and effectiveness than the traditional education system of the learner.

In addition to achieving safety from the epidemic and preventing the spread of the Coronavirus among students and teachers, on the other hand, they target completing school without having to move while not losing the semester. One of the most positive aspects of e-learning is that it provides a student with a downloadable cognitive supply anywhere and at any time through the official page accessed via accounts.

These platforms also reduce the percentage of errors or omissions experienced by most students, including lack of focus in the follow-up to lectures and applied works, as most of these courses remain in the form of videos. The essence of the positive lies in the allowed access of all scientific materials with detailed and preferred explanations and remains recorded in electronic paperback or videos for continuous follow-up and reasonable use by the student.

It is easy for a student to submit a direct question to a professor while following a lecture, which is impossible in the traditional runway due to the space or difficulty of hearing the question in a space that needs a megaphone.

Technology today is a solution to protect the learning community, especially from the risks of epidemics, and make it easier for others. The positive side of distance learning also is the interest in and interaction with technology and programming, the interaction and the technological revolution that increased in importance during the time of the corona crisis, as well as the freedom of education and listening to infinite and non - exclusive information through online research and study, have become a feature of the modern world.

On the other hand, E-learning lacks a vital component of education: class interaction based on debate and active and lively dialogue, which would lose the educational process - learning the human dimension. As a student of face-to-face class lectures at the university,

Students who used the internet had many difficulties learning, listening to the content, and accessing educational sites. E-learning is always depending on a solid internet connection with the high band. It is not always succeeded. (e-learning during lockdown). Moreover, in this regard, measures needed to be taken to increase the bandwidth in rural areas for good internet access, which is a pre-requisite for E-learning (28).

### **G. Post Viral crisis patterns situations**

"The novelty of digital education has placed major bets on Arab Governments, showing that they have not prepared their educational system for such an emergency at the logistical, technical and educational levels."

The systematic interaction offered by distance learning platforms helps communicate information and encourages the learner to build self-reliance to become both a learner and a truth seeker.

#### 1. *E-Learning futures after Corona*

While preparing students and educational establishments to take again school courses after a lengthy suspension, which were accomplished under preventive measures in schools and universities, also required important norms and application of measures, including cleanliness conditions, the use of protective equipment, and safe learning preparation practices.

Governments and international organizations must work cooperatively to preserve educational continuity and safeguard domestic and foreign funding for education. (29) Governments have used innovative ideas to contain the virus's spread among students. Millions of students are now enabled to move forward to follow their classes and majors, all of which have been based on strict precautions to prevent Covid -19 spread.

Though it has been an imposed system to learn for a couple of months, the distance-learning test has opened up new perspectives. Thus, all education and pedagogy communities should continuously acquire these techniques and take advantage of them.

The future technology will consist almost exclusively of such autonomous objects; even our large systems, such as learning environments, are the best thought of as autonomous objects that interact with other objects. (30).

### **H. Discussion**

Distance Learning is one of the outcomes of modern cognitive education. Knowledge education indicators confirm that distance education will become more widespread worldwide. It will have an important place in the education and training system globally, and the need for distance education is growing in such emergency conditions today as the Coronavirus epidemic, given the global interest in distance education. Remarkably, the universities have not failed to build and open distance education gates to learn and learn, but they faced the difficulty of preparing educational tools and techniques and providing the staff and equipment. On the other hand, the population growth rates, and thus the increase in the demand for education, will exceed the supply and availability of education in extraordinarily high proportions. Therefore, the deficit in student admission in many universities in developed and developing countries is evident.

On the other side, school closure affected most of the most in need, especially those who execute the digital services and the internet necessary for distance learning. The Ministries of National Education have been proactive in minimizing learning damages during the crisis, but the difficulty of some pupils in gaining access to distance learning may widen the gap in education equity.

From the above, we note that the policy orientation of distance learning requires learners and teachers to have sufficient skills to use this mechanism and meet the requirements of this process. Both learners and teachers need to be professionally trained and equipped to use the internet in general and thus trained in distance learning programs.

### **I. Recommendations and Conclusions**

Distance learning provided a positive opportunity to link the teacher to the students. It has given the educational process value of collective responsibility. Everyone has the motivation to provide an environment conducive to education. School is socially irreplaceable

for students and teachers, and there is no alternative to close education and human expression; body language is fundamental emotionally and emotionally for skills development. They are exploring alternative digital strategies given the increased orientation of organizations to enhance available digital learning tools, as well as some organizations indicating their intention to move some of the current online training programs to virtual platforms. Those efforts go beyond applying technical solutions to deliver virtual classrooms, reflecting a review of the learning experience to enable scholars' interactive, collaborative social learning experiences. Digital learning software providers have realized that Covid-19 is the catalyst for this shift as they seek to help their corporate customers accelerate this transition. We have seen some of them provide reduced and accessible services to help and encourage new customers to accelerate this transition.

Given the growing need to meet the demands of contemporary life, educational institutions must adopt state-of-the-art communication and information technologies, employ them to serve education, and achieve its goals, as has been the remarkable success of this technology in many spheres of life. E-education and distance education themselves is new type of education with programs, controls, and mechanisms.

There are many reasons for introducing distance education: It is linked to the philosophy of continuing education, not only for education but for education, development, and meeting the needs, needs, and skills that are being developed progressively and in various areas. For example, computer engineering can be done remotely and daily through the World Wide Web of Information (Internet), so the introduction of this kind of education is up to date and in keeping with the conditions of life we are living in today.

Cross-sectorial approaches can have great power. Therefore, policymakers need to ask fundamental questions about how the education system supports the health systems response.

A real challenge that faces the developing countries, especially in the Arab World, is the enormous technological development and information revolution that have changed many concepts and patterns of action and relations, and that makes it imperative for those countries to take advantage of the new advantages that development has provided, and to try to cross the gap that separates them from the developed countries.

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