

## The Covid-19 Pandemic and Education: Big Changes ahead for Teaching in Algeria

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**ABSTRACT:** *Education is changing in response to the Covid-19 pandemic. Teachers around the globe seek to face the most pressing challenges of education due to the pandemic outbreak, particularly the lockdown. Therefore, they direct their efforts towards online teaching. Nevertheless, reshaping teaching and learning is very challenging. Many teachers and learners encounter problems of shifting from face-to-face to online learning environment for several reasons. First, this paper tries to provide an overview of Covid-19. Second, it attempts to shed some light on the most common difficulties faced by educators in online teaching. It also endeavours to provide a set of solutions to these problems and give some tips to guide teachers towards effective teaching practices. This considers keeping the students engaged and most importantly motivated to learn. To reach this end, an online questionnaire is destined to 387 teachers in Algeria from different disciplines as a data collection tool. The major findings reveal that teachers in Algeria face many problems especially internet accessibility and students' motivation. Therefore, Covid-19 gives opportunity to make a revolutionary change in the process of teaching and learning. This can be achieved through the integration of online learning platforms and different online resources. After the crisis, schools and universities should never be back to normal, but to better.*

**KEYWORDS:** Covid-19, online teaching, online platforms, lockdown.

**RÉSUMÉ :** *L'éducation change en réponse à la pandémie du Covid-19. Les enseignants du monde entier cherchent à faire face aux défis de l'éducation en raison de cette pandémie, en particulier le confinement. Par conséquent, ils orientent leurs efforts vers l'enseignement en ligne. Néanmoins, la réforme de*

*l'enseignement et de l'apprentissage est très difficile. De nombreux enseignants et apprenants rencontrent des problèmes de passage d'un environnement d'apprentissage de face à face à un environnement d'apprentissage complètement en ligne pour plusieurs raisons. Premièrement, cet article tente de donner un aperçu global du Covid-19. Deuxièmement il tente d'examiner les difficultés les plus courantes rencontrées par les éducateurs dans l'enseignement en ligne. Il s'efforce également de fournir un ensemble de solutions à ces problèmes et de donner quelques conseils pour guider les enseignants vers des pratiques pédagogiques efficaces. Cela tient compte du fait que les étudiants restent engagés et surtout motivés à apprendre. Pour y parvenir, un questionnaire en ligne est destiné à 387 enseignants en Algérie de différents domaines en tant qu'outil de collecte de données. Les résultats révèlent que les enseignants en Algérie sont confrontés à de nombreux problèmes, notamment l'accessibilité à l'internet et la motivation des étudiants. Par conséquent, le Covid-19 donne l'opportunité de faire un changement révolutionnaire dans le processus d'enseignement et d'apprentissage. Cela peut être réalisé grâce à l'intégration de nombreuses plateformes en ligne et d'autres sources. Après la crise, les écoles et les universités ne devraient jamais revenir à la normale, plutôt devenir meilleure.*

**MOTS-CLÉS :** Covid-19, enseignement en ligne, plateforme en ligne, confinement.

## **Introduction**

Life has dramatically changed for people all around the globe due to the novel corona-virus outbreak, usually referred to as Covid-19. Since its first appearance in December 2019, precisely in Wuhan, China, the world strives to overcome the crisis. People are left with numerous questions concerning the pandemic, the virus, and how to stop its spread. Educators, however, are more concerned with how to enable their students to keep learning despite the current circumstances. The present research paper attempts to provide information about Covid-19 that concerns the virus, transmission and prevention. It also attempts to shed some light on teaching within the pandemic in Algeria.

## What is Covid-19?

Covid-19, stands for Corona-virus Disease 2019, is the infectious disease that is caused by the most recently discovered corona-virus (SARS-CoV-2), identified in Wuhan, China, in December 2019. Covid-19 is now considered as a pandemic that affects many countries worldwide at different levels (Kowalik, et al., 2020; WHO, 2020). Corona-viruses are a large family of viruses that may cause illness in animals or humans. In humans, they usually cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) (Carlos, et al., 2020). Corona-viruses, as a family, are named by the resemblance of their shape to crown (corona), as shown in Figure 1 (Rahaal, 2020).

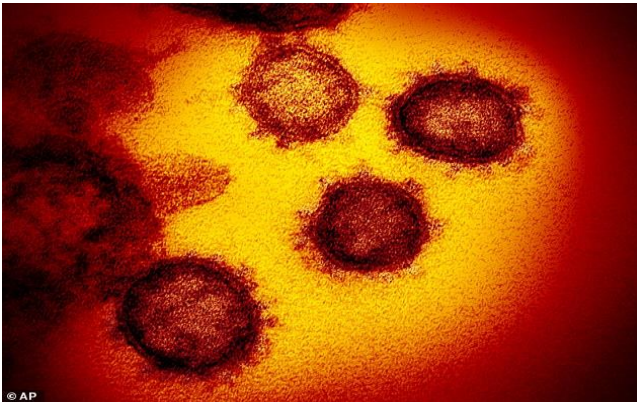


Figure 1: Corona-virus

In 2019, a new corona-virus was identified as the cause of a disease outbreak originated in China and infected the entire world. The most common symptoms of Covid-19 are: Fever, cough, and tiredness. Other less common symptoms include headache, aches and pains, nasal congestion, conjunctivitis, diarrhea, loss of taste or smell or a rash on skin or discoloration of fingers or toes. It should be noticed that some people become infected but only having very mild symptoms. According to the World Health Organization, around 1 out of 5 people may become seriously ill and develop difficulty of breathing. Older people, and those with underlying medical problems such as high blood pressure, heart and

lung problems, diabetes, or cancer, are at higher risk of developing a serious illness (WHO, 2020).

The virus can lead to complications that manifest in the form of pneumonia, respiratory failure, septic shock, and death. Many of these complications may be caused by a condition known as cytokine release syndrome or a cytokine storm. The most common symptoms among people who had Covid-19, as declared by Chinese researchers in China are displayed in Table 1 (Smith, 2020).

Symptoms	Percentages
Fever	99%
Fatigue	70%
Cough	59%
Lack of appetite	40%
Body aches	35%
Shortness of breath	31%
Mucus/phlegm	27%

Table 1: Most Common Symptoms of Covid-19

It is essential to have a clearer idea about the mode of transmission of SARS-CoV-2 since it keeps spreading (Bi, et al. 2020). There are, so far, two modes of transmission: Droplet transmission and contact transmission. People can catch Covid-19 from other infected ones with the virus. SARS-CoV-2 mainly spreads from person to person via tiny droplets from the nose or the mouth. These droplets are expelled when an infected person coughs, sneezes, or even talks. These drops do not travel long distances and infected person can spray drops as far as six feet away. Consequently, it is crucial to stay at least 1 meter away from others. Contact transmission happens when there is a physical contact between an infected person or a contaminated object and another person. The transmission occurs directly when an infected person touches others or indirectly when a person touches contaminated objects. To explain further, droplets can land on different objects and surfaces when an

infected person coughs or sneezes. If people touch these contaminated objects and surfaces, they contaminate their hands, and once they touch their faces they become infected. Therefore, washing hands regularly is extremely important. The use of sanitizers is effective to get rid of the virus. Most viruses can live for many hours on objects and surfaces. This does not exclude SARS-CoV-2 which can last even for days on some surfaces. It lasts 4 hours on copper, up to 24 hours in cardboard and 2 to 3 days on plastic and stainless steel (Smith, 2020; WHO, 2020).

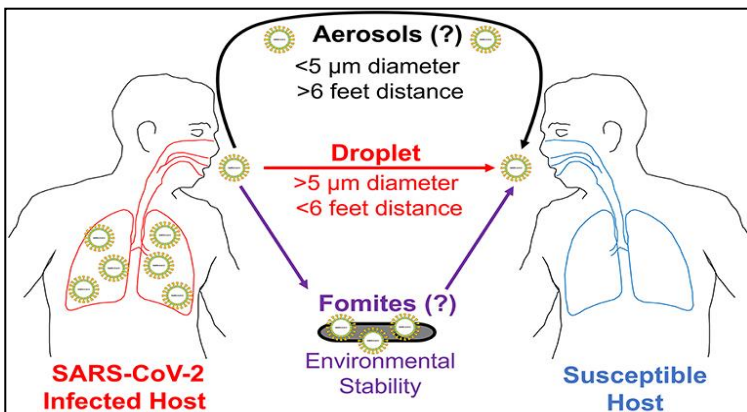


Figure 2: Transmission of Covid-19 (Galbadage, Peterson, & Gunasekera, 2020)

It is worth mentioning that some people can spread the virus even if they do not have symptoms. This explains the rapid spread of the virus despite the global public health measures adopted to stop the transmission (Huff & Singh, 2020).

A crucial item of any infectious disease is the chain of infection. It refers to the path that a virus takes to enter in a host or to be transmitted from an infected host into a susceptible one. It is known that there is no definitive treatment or a vaccine for Covid-19 so far. The number of deaths is alarming worldwide since there is no treatment strategy to avoid the possible worst scenarios (Alanagreh, Alzoughool, & Atoum, 2020). Hence, it is extremely important to break the chain of infection through the interruption of the transmission (Shaban, Sotomayor-Castillo, Radford, Malik, & Bell, 2020). There are six elements in the chain of infection for the virus to spread. If one of the steps is interrupted, this

means that the chain is broken and the transmission is not possible (Figure 3) (MBRU, 2020).

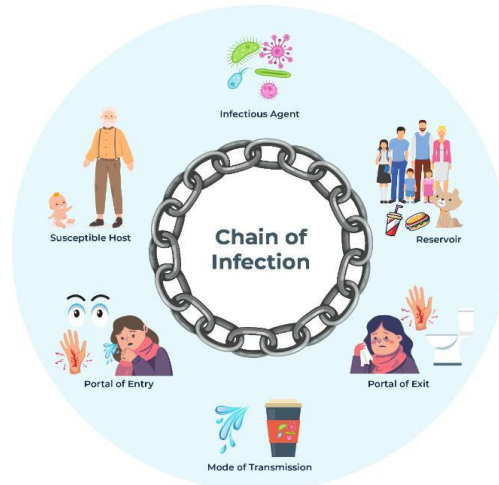


Figure 3: Chain of Infection

In order to prevent the infection and to stop the spread of the virus some precautions are highly recommendable. This includes washing hands and using sanitizer, avoiding touching the face, and following coughing and sneezing etiquettes (mouth and nose should be covered, tissues should be thrown away and the hands should be cleaned immediately), and social distancing (maintaining a distance between people of at least 1 meter and avoiding crowded places and mass gatherings like weddings). It is also recommended to cover the face with a mask in public spaces, such as the grocery store as it is hard to avoid close contact (Mayo Clinic, 2020; Shaban, et al. 2020; WHO, 2020).

Due to the incubation period of the virus (from 2 days to 14), it may take up to 14 days for a host to develop symptoms after being exposed to the infectious agent (SARS-CoV-2), i.e. from another person or a contaminated item. If one has been in a highly affected area or visited someone with Covid-19, they should stay home for at least 14 days (Carlos, et al., 2020). There is, nonetheless, hope since most cases in

Algeria are mild and many people get better. Hence, people need to be aware and stay informed about any updates that concern the pandemic. Infection in health care providers is associated with unprotected and sometimes prolonged contact with patients. Therefore, it is recommended to wear a mask only if the person is a healthcare provider, sick or taking care of a sick person, or instructed by the government (Heinzerling, et al., 2020; MBRU, 2020). The spread of Covid-19 around the world has a negative impact on any country's economy. Masks, sanitizers or gloves, for instance, are limited resources that are highly needed by healthcare providers and patients. Buying them with large amounts may create economical crisis for the country. Having a sufficient knowledge about the infection and the virus enables people to act reasonably. This explains the amount of information devoted only to describe and explain the pandemic in this article. The coming section is devoted to higher education within the current pandemic.

### **Teaching within the Pandemic**

The Covid-19 pandemic has enormously influenced the world, and education is no exception. Recently, education has witnessed a huge move of teachers from face-to-face towards online teaching in response to the global crisis as the most effective solution to support their learners. Nonetheless, shifting to online teaching has many unavoidable challenges. This paper, hence, aims to emphasise the efficiency of online teaching and, most importantly, highlight the most common difficulties faced by Algerian teachers. Online education and blended learning play a significant role in fostering the learners' competencies and increasing their imagination, creativity and self-awareness Sun and Chen (2016). Online education, in its essence, refers to a variety of subjects, disciplines and programmes designed to deliver knowledge through the use of online instruction, i.e. via the internet connection instead of a face-to-face education (Friedman, 2019). In their viewpoint, McIsaac and Gunawardena consider distance education as an essential concept in mainstream education. They define distance education as a structured learning that enables teachers and students to work despite the distance that separates them through a variety of models such as hybrid learning systems, flexible, or network ones (Gunawardena & McIsaac, 2004 ).

Shriner (2015), in his turn, provides seven characteristics of effective online teachers which are: (a) being passionate about the subject, (b) being passionate about teaching, (c) sees value in online education, (d) being a good time manager, (e) being flexible and open to feedback, (f) facilitates classroom community with engaging tone and creativity, and (g) trained in online teaching.

It is quite noticeable that the Covid-19 outbreak came up with remarkable changes in society. Algeria, for instance, responded to the pandemic by a partial lockdown. Stores, mosques and various institutions like schools and universities were commanded to close. For example, The Ministry of Religious Affairs decided to close mosques in Algeria to limit people close contact for the sake of stopping the spread of the virus among Algerian citizens (Nach, 2020). This decision was judged correct within the current situation in Algeria, especially that mosques are places where close contact between people during the prayer is unavoidable. The same situation concerns shutting schools and universities. Education, as a consequence, has changed with the huge demand for e-learning at which teaching needs to be delivered on digital platforms. Online teaching has shown many advantages such as increasing information retention and gaining time (Li & Lalani, 2020). Due to Covid-19, it is online learning's jump towards a big change in education, replacing the classical system. The pandemic has forced schools and universities to close which increases the use of technology and setting online teaching plans using different tools and platforms (Dignan, 2020).

Based on his experience, Radcliffe mentions some features and tips of online teaching during the pandemic. He claims that there is a value to hosting live classes and it is important to record these classes for later consumption. He recommends to promote engagement by using breakout rooms and to find different ways to give feedback (Radcliffe, 2020). Some of the effective strategies of online teaching within the global crisis include ensuring digital equity, practice, providing clear explanations to the parents, taking time to plan and establishing daily schedules, providing robust learning and designing independent learning, and most importantly choosing the right tools Snelling and Fingal (2020).

Concerning the impact of the pandemic and the authorities' reaction, it is rational to give priority to the health sector in order to control the spread of the virus. Nevertheless, it is very crucial to evaluate its impact



on the other sectors to be prepared for any consequences and ready to recover after the crisis (Upoalkpajor & Upoalkpajor, 2020). A similar opinion is shared by Jena who argues that the pandemic disrupted education which is vital in the economic development of any country. About the bright side of the pandemic, Covid-19 has promoted teaching in the digital era. Teachers are able to design and deliver lessons by means of various tools such as Zoom, Facebook, YouTube, Skype, etc. Communication can be made between teachers, students, and even parents for better guidance (Jena, 2020).

Online education using a variety of educational platforms such as Google classroom or Zoom application for videoconferencing is not a novel way of teaching. Yet, integrating these technologies in the classroom has not witnessed a broad embracement from many educators. This makes the educational reforms very challenging, especially in an alarming way like the present pandemic. This view is supported by Nantwi and Boateng who believe that the shifting to purely online teaching and learning needs much effort from both instructors and learners Nantwi and Boateng (2020). In his turn, Erkut stresses out the huge impact of Covid-19 on higher education on which nearly 2 billion students worldwide had to shift towards online education. He states that the Turkish educational system was not ready to a sudden reform due to the crisis towards effective online teaching (Erkut, 2020). The situation in Algeria is not very different from the previously mentioned countries such as Ghana, Turkey, and India. The following section attempts to examine the situation closely through an empirical study.

## **Material and Methods**

For the sake of identifying the state of online teaching within the Covid-19 pandemic in Algeria, quantitative data are collected from different Algerian teachers as an attempt to discern their point of view concerning the challenges they have encountered due to the rapid shifting to online teaching in higher education. In doing so, a short online questionnaire is designed and sent to a total of 387 university teachers in Algeria, from different departments, through their email addresses or different online communities, particularly groups of teachers on Facebook.

The short questionnaire seeks to identify the most common challenges faced by Algerian teachers during the application of online teaching in

the outbreak. It consists of 6 major items of teaching in which the informants choose ‘yes’ when the item is often faced or ‘no’ if it is less common. To check the questionnaire, refer to the following: [questionnaire link](#) . The questions are asked in both English and Arabic because the sample of the target population does not include only teachers of English language, but teachers of different disciplines. As the purpose of the study is to identify the most commonly encountered problems, the questions are very precise and tackle only the features of online teaching. Moreover, due to the alarming situation of the pandemic and its effect of education, the time of the achievement of the study was limited, which explains the small size of the sample, compared to the whole population.

## Results and Discussion

The obtained results from the collected answers reveal that the majority of teachers in Algeria face many obstacles when they apply online teaching. A detailed analysis of the gleaned results is displayed in the following sections.

As indicated in the following table, the overwhelming majority of the teachers believe that the major obstacles they have faced in online teaching during the crisis are the internet access and keeping the students engaged and motivated. Almost half of the informants argue that their limited experience and time management and scheduling are also unavoidable and influential challenges. It is also portrayed in Table 2 that the content or lesson planning and online resources do not constitute a huge problem for many of the teachers.

Challenge	Yes (%)	No (%)
Accessibility	289 (74.68%)	98 (25.32%)
Engagement	315 (81.40%)	72 (18.60%)
Content	87 (22.48%)	300 (77.52%)
Experience	180 (46.51%)	207 (53.49%)
Material	129 (33.33%)	258 (66.66%)
Timing and Scheduling	190 (49.10%)	197 (50.90%)

Table 2: Algerian Teachers’ Online Teaching Challenges

According to the obtained results, one may assert that online teaching in Algeria is not easy. Many teachers face a number of challenges due to different reasons and factors. One of these reasons is related to the country's economy as regards internet connection. Within the current circumstances, it is hard for the Algerian authorities to assure high quality internet connection to all the people, particularly students and teachers. This complicates the process of distance learning and the application of online teaching using various digital platforms as justified by many of the respondents. Such a problem may have a negative effect on the learners, such as abandoning their studies (Li & Lalani, 2020).

Keeping the students engaged and motivated represents the most frequently seen problem among Algerian teachers. This can be explained by the learners' unfamiliarity with the novel teaching instruction. The learners are used to the presence of their tutors who give them much support, guidance, and instant feedback. Being miles away from them, and just behind the computer screen, makes the students feel less secure and uncomfortable. They, therefore, end up quitting learning or usually show less motivation. One of the respondents asserts that it is sometimes hard to create a friendly atmosphere online because the ordinary classroom is lively compared to teaching from a computer screen. Furthermore, the Covid-19 pandemic, resulting in the lockdown, has a psychological effect on the learners. Unlike normal days, learners do not feel at ease because of the pandemic. They strive to survive the crisis and to stay safe, which makes them overlook their studies.

Some of the respondents of the questionnaire provide other problems and further explanations regarding online teaching. They state that online classroom management is an inescapable problem. Teachers need to be well trained to be able to manage their classes. Internet connectivity and live classes is another problem stated by the respondents. They argue that it is hard to have all the learners in one classroom at the same time easily, which obliges them to use asynchronous resources. One of the respondents adds that it is difficult to ensure that all of the learners practice significantly. This especially concerns shy students whose degree of participation may be reduced. A similar opinion is shared by Bensaid and Brahimi who point to the effects of the strong measures adopted by the authorities such as social distancing and closing schools and universities. This forces educators to rapidly change their strategies,

resulting in inconvenience to shifting to online teaching on both students and teachers (Bensaid & Brahim, 2020). Sharing a similar point of view Thomas and Rogers (2020) argue that the current crisis may force educators to rethink the used educational material.

The Algerian educational system seems not ready to a rapid change towards online teaching although the integration of technology in the classroom is not novel. The challenges faced by the majority of the teacher have a remedy since it is a matter of experience, familiarity and motivation. Nevertheless, online or blended learning should be integrated in the classroom. It is not optional anymore for the teachers or the students. Although this crisis has many disadvantages and influences enormously many sectors in Algeria, it should be seen from another perspective in order to be ready for any future outbreaks. This includes the use of online platforms and resources with or without Covid-19.

## **Conclusion**

Covid-19 pandemic has changed education. Most of the teachers are forced to quickly shift from their classical teaching way to online teaching. This quick change has led to a number of obstacles and challenges. In the light of the obtained results, it is worthy to mention that teaching should be reshaped after the pandemic and it is time to get rid of the stated obstacles. To say it differently, implementing technology and different online resources is compulsory. Thus, teachers need to start working on self development to be ready to integrate online teaching as a support to face-to-face classroom. Despite its impact on the whole world, there is a bright side of the pandemic as concerns upgrading online education Thomas and Rogers (2020). Hence, to cope with the pandemic and be ready for the after crisis phase, big changes are unavoidable. The future of education in Algeria will witness many reforms after the crisis. Technologies and different digital resources will be used more frequently in the classroom. Nonetheless, the reforms need collaboration and connectivity between teachers, students, syllabi designers, and government authorities. The authorities need to furnish the Algerian schools and universities with the necessary material for better application of distance learning. They need to consider the improvement of the quality of education with social and economical support.

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