# PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

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Secondary School Teachers' Perceptions of the Officially Adopted Covid-19

#### **Educational Measures**

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**Supervisor:** 

**Dr. Youcef BENAMOR** 

**Candidates:** 

Miss. Amina ADIL

Miss. Assila ADIL

#### **BOARD OF EXAMINERS**

Chair Dr. Yacine MOULLAY-HASSANE MCA Ibn Khaldoun University-Tiaret
Supervisor Dr. Youcef BENAMOR MCB Ibn Khaldoun University-Tiaret
Examiner Dr. Naima SAHLI MCA Ibn Khaldoun University-Tiare

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# **Dedication**

I dedicate this work to my caring and supportive parents whose love is endless

To my dear siblings

To my lovely nieces and my adoring nephew.

To my loving aunties.

To my family

Amina Adil

# **Dedication**

It is with my genuine gratefulness and warmest regards that I dedicate this work to my sweet and caring parents for their love, support and encouragement throughout my pursuit for education, to my dear siblings, my aunties, my nieces and my adoring nephew.

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"Give credit to whom credit due ", Samuel Adams

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#### **Abstract**

The Covid-19 pandemic has been one of the most challenging experiences in our history. As for education, it has created an unprecedented defiance for education systems worldwide and Algeria was no exception. The health crisis urged the authorities to make arrangements and adjustments to adapt the learning environment to the striking situation. This study aimed to investigate secondary school teachers' perceptions of the adopted Covid-19 educational measures in an attempt to explore the changes they brought about into the learning environment and their effects on the learning process. To reach the aim, an exploratory research has been conducted based on a mixed-method approach using document analysis and a teachers' questionnaire as main data collection tools. The sample of the study comprised 140 secondary school teachers from different Algerian cities. The findings revealed that the adopted Covid-19 educational measures have resulted in a set of changes in the learning environment in terms of school setting, class size, instruction time, curricula volume and delivery mode that affected the learning process to varying degrees.

*Keywords*: Covid-19 pandemic, educational measures, teachers' perceptions, learning environment, learning process.

# List of Abbreviations and Acronyms

AeC: Aprende en Casa

**Covid-19:** Corona virus disease 2019

**EKB:** Egyptian Knowledge Bank

**K–12:** From kindergarten to 12th grade

MNE: Ministry of National Education

**MOETE:** Ministry of Education and Technical Education

**NGOs:** Non-Governmental Organizations

**UN:** United Nations

**UNESCO:** United Nations Educational, Scientific and Cultural Organization

UNICEF: United Nations International Children's Emergency Fund

WHO: World Health Organization

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#### **General Introduction**

For the last two years, the Covid-19 pandemic has been an issue of major concern to people worldwide for the significant impact it had on the global scale. The outbreak of the virus has brought life to a screeching halt as it has imposed months of global lockdown and total shutdown. To get back to life, an alteration of life standards and adjustments of working conditions to fit the unprecedented circumstances were highly required. As far as education is concerned, the pandemic has trembled education systems and constrained educational opportunities for many students at all levels and in most countries. Worldwide school closures during the first wave of the pandemic have caused global educational disruption, affecting 1.6 billion children and youth in over 150 countries (UNESCO, 2021). Many education systems, however, have demonstrated great resilience and managed to support learning continuity amidst the crisis by creating learning opportunities through the adoption of remote teaching and learning modalities. As the macro situation evolved, educational responses had to change accordingly. Closing schools and postponing their re-opening has been an efficient mitigation measure and conducive to reducing the spread of the virus, and adopting remote teaching modalities has been an effective way to make up for the lack of classroom teaching during school closures. However, they couldn't be advocated as long term solutions; thus, amid the health crisis, "Back to School" plans had to be carefully considered which created an unprecedented challenge for education systems and educators around the world.

As for Algeria, the pandemic has revealed the vulnerability of its educational infrastructure by causing a complete shutdown of education for more than seven months during its first year. Hence, the schooling of more than 08 million students at all educational levels across the country has been interrupted as the school year 2019 - 2020 ended earlier

and the school year 2020 – 2021 started later than usual. The pandemic has, thus, brought to attention the importance of schooling for the education and the development of children and young people. The burden of a "Safe School Comeback" fell on the shoulders of national authorities and policy makers as the situation required urgent, but reflective and prudent decisions. By June 2020, "Back to School" plans have been revealed by the Algerian Ministry of National Education (MNE) in anticipation of the return to school premises. The plans involved the preventive measures and the educational arrangements that have been set up to adapt the teaching and learning environment to the unprecedented situation. Thereby, a set of adjustments and regulations have been brought about in the teaching and learning process including; mainly the establishment of a health protocol, the division of large classroom groups into smaller ones, lessening instruction time, curating the curriculum and the adoption of "Blended Learning" as a new approach to learning in Algeria. The changes those measures have caused in the learning environment and the effects they have had on the learning process cannot be overlooked and need to be reflected on.

This research aims to investigate teachers' perceptions of the officially adopted Covid-19 educational measures in an attempt to shed light on the changes that those measures have brought about in the Algerian learning environment and examine if those measures worked in advantage of the learning process by investigating their effectiveness. Thus, the study aims to answer two main questions:

- **1-** What changes did the officially adopted Covid-19 educational measures bring about into the learning environment?
- **2-** Did the officially adopted Covid-19 educational measures work in favor of the learning process?

Attempting to answer the questions above, the following is hypothesized:

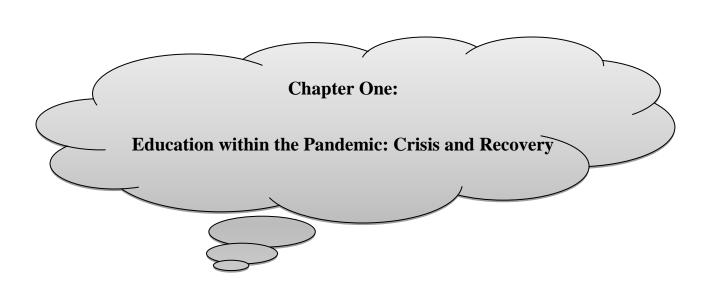
- **1-** The officially adopted Covid-19 measures have created an unfamiliar school environment and prompted a sense of unusualness.
- 2- The officially adopted Covid-19 measures didn't work in favor of the learning process.

To achieve the study's aim, answer the research questions and test the hypotheses, the exploratory approach is adopted with the combination of both the quantitative and qualitative research methods using document analysis and a teachers' questionnaire as data collection tools.

Teachers are at the forefront of the educational system; they lie at the heart of the learning process and are in direct and constant contact with the learning environment. As practitioners, they bear the responsibility of putting words into actions. Therefore, their voice is crucial when it comes to investigating educational contexts. In this study teachers' perceptions have been the key to reflect on the changes that occurred in the Algerian educational context and their effects on the learning environment. "The cumulative effects of the pandemic could have a long-term impact on an entire generation of students" (Kuhfeld et al., 2022, para. 2). Hence, the research paper in hand provides the scope for further studies about the impact of the Covid-19 health crisis on education. It can constitute the foundation for educational reforms and it can serve as a reference to reflect on when similar experiences are faced to promote what worked the best, foster what functioned inadequately and renounce what didn't operate as expected.

This dissertation is divided into three chapters. The first chapter provides the background and the context of the study through the review of literature. First, it sheds light on the worldwide impact of the pandemic on education, it provides examples of some of the

leading initiatives to ensure learning continuity amid the crisis and the main challenges faced during the lockdown. Then, it highlights the repercussions of the Covid-19 crisis on the Algerian educational context. The second chapter is devoted for the research methodology and data analysis. It provides insight into the research design, the context and participants as well as the methods adopted to collect and analyze data, and then it moves on to provide an analysis of the data collected from the documents' analysis and the teachers' questionnaire. The findings of the research are discussed and interpreted in the third chapter along with addressing the limitations of the study and putting forward recommendations.



#### Introduction

This chapter provides insight into the background and the context of the study. It starts by highlighting the worldwide impact of the Covid-19 pandemic on education that resulted in global school closures, and then, it sheds light on the educational measures adopted by most countries to support learning continuity during the lockdown along with providing examples about some of the major initiatives that have been undertaken by educational systems in different parts of the world and have been successful to sustain learning amid the crisis with the consideration of the most prevailing implementation challenges. It follows to spotlight on the world recovery of education with the worldwide school reopening, and then it focuses attention on the Algerian education within the pandemic, the interruption of schooling, the measures taken to adapt to the unprecedented situation, the plans for organizing the final exams and the arrangements made to reopen schools.

#### 1.1 Global Education Crisis

#### 1.1.1 Covid-19 Pandemic: Succinct Presentation

Since its first appearance in December 2019, the Covid-19 has posed a huge threat to human safety and social development due to the number of the recorded cases that have increased dramatically day after day throughout the world. Studies have shown that this virus has a higher susceptible population, is more widespread and contagious than its precedents. Isolation seemed to be the most effective way to contain the virus and minimize its risks, prompting governments worldwide to impose social-distancing measures, lockdowns, and cessation of close personal contact to mitigate the spread of the virus and protect human life. The novel virus has, thus, evoked a number of unprecedented social, economic and political

challenges across the globe. "More than just a health crisis, the pandemic has resulted in an educational crisis" (Dayagbil et al., 2021, p. 1).

# 1.1.2 Impact of the Pandemic on Education

In March 2020, Covid-19 was declared a global pandemic by The World Health Organization (WHO). It was reported by the U.N.E.S.C.O that the pandemic has caused educational disruption and school closures for over 1.2 billion students (Giannini and Brandolino, 2020). As a result of the lockdowns and confinement imposed by governments as preventive measures to reduce the increasing transmission of the virus, educational systems worldwide have been affected and students of all ages and educational levels have been forced to stay at home as schools had to cease their usual activity and close their doors.

"March 2020 will forever be known in the education community as the month when almost all the world's schools shut their doors" (Winthrop, 2020, para.1, as cited in Jones and Kessler, 2020, para.2). While most school closures across the world were initially announced as temporary in March 2020, they were later extended to few more months as a mitigation measure intended to restrain the spread of the virus causing the interruption of school attendance for at least 1.5 billion students in 2020 and 2021(Sequeira and Dacey, 2020) as the 77<sup>th</sup> edition of the WHO's new outbreak report showed that 90 % of students and more than 150 million children and young adults around the world have been affected by school suspensions (Lengel, 2020). The Covid-19 disruption in the educational system was, hence, of a great impact that schools and related educational institutions had to cope with at the soonest time possible. Unprecedented worldwide school closure was caused by the pandemic reaching, at its peak in April 2020, over 150 countries and affecting 1.6 billion children and youth (UNESCO, 2021). As a result, education systems have had to respond accordingly.

# 1.1.3 The Educational Measures during the Crisis

As the world strived to overcome the crisis since the outbreak of the virus, educators have been concerned with how to enable students to keep learning despite the induced circumstances. The call was for policy makers and educators to respond proactively and develop a resilient learning system grounded on the epidemiological evidence and a contextual basis (Dayagbil et al., 2021). The suddenness brought by the suspension of school activity left education systems in a rush to address the unprecedented situation and explore ways that might contribute to mitigating the potential educational fall out of the crisis and mobilize their resources to develop alternative solutions to provide educational continuity for all students. Thus, strategic plans had to be implemented by different governments and institutions in "emergency mode" and urgent actions had to be prudently executed in order to ensure teaching and learning continuity amid and beyond the crisis, , forcing the education community into an unplanned learning experience.

# 1.1.3.1 Education Reshaping

"The teaching and learning process assumes a different shape in times of crisis. When disasters (man-made and natural) and crises occur, schools and colleges need to be resilient and find new ways to continue the teaching-learning activities" (Chang-Richards et al., 2013, as cited in Dayagbil et al., 2021, p. 2). To be resilient, education systems have had to address the new normal, prepare and develop plans to move forward with teaching and learning despite the circumstances. "In times of crisis, schools have to be resilient. Resiliency in the education system is the ability to overcome challenges of all kinds- trauma, tragedy, crises, and bounce back stronger, wiser and more personally powerful" (Henderson, 2012, as cited in Dayagbil et al., 2021, p. 2). Reshaping teaching and learning, and adapting the educational

methodologies in such a way that does not affect the teaching and learning process negatively, during and after the emergency period, has been a major concern for many countries. It is estimated that most of them focused on implementing "emergency remote teaching and learning modalities" that aimed to limit the immediate impact of school closure and reach all students during the coping phase of Covid-19 (UNESCO, UNICEF and World Bank, 2020).

"The emergency remote teaching" is a temporary switch from face-to-face teaching to an alternate instructional delivery mode derived of extraordinary events, which implies the use of remote teaching tools for education instead of teaching delivered in classroom, and that will return to the face-to-face format once the emergency has been controlled. (Hodges et al., 2020, p. 9)

In the same context, Whittle et al. (2020) further illustrate that such teaching model comes as a result of a crisis and is based on a provisional instructional support system which requires a fast-track development with or without pre-planned resources or infrastructure. The shift toward such an educational mode requires the intermediation of multimodal infrastructures which are defined as solutions using different technology media or channels to provide access to learning materials and that target different users including students, teachers and parents. These include varying technologies from T.V, radio, paper learning packages handed or emailed to students, digital resources on online platforms working with internet services, through to resources provided on memory sticks or CD ROMs (Vincent-Lancrin et al., 2021). Such tools and resources have, therefore, become the resolution to support the continuation of education while schools remained closed. As many issues and challenges have aroused in teaching and learning continuity at different levels and to varying degrees as a result of the suspension of school activities, the teaching and learning environments had to be adjusted to

fit the emergency situation prioritizing the safety and security of teachers, students and the educational staff. Hence, the migration towards remote learning modalities has been one emerging reality for most countries to mitigate the risk of in-person interaction leading teachers and students into an "unfamiliar terrain" as such a sudden change has required them to adapt swiftly to a total unusual learning setting and evolve toward remote teaching and learning in a record time (Grandits and Wagle, 2021).

Education systems worldwide have been forced to adapt to the contingency situation and, in many cases, the new capacity requirements urged educational institutions to cease their usual activity and direct their efforts towards a remote teaching and learning scenario. Emergency measures have been implemented by several countries to maintain some continuity in teaching and learning processes while schools remained closed. These ranged from the use of television channels and the radio to delivering curricula to using mobile phones and virtual platforms. In a record time, educators worldwide were urged to swiftly convert their efforts, materials and methods to a format that is convenient for the remote delivery (Dwivedi et al., 2021).

# 1.1.3.2 Exemplary Initiatives for Learning Continuity

Education systems are commonly accused of traditionalist and resistant to change. It is often said that chalk and talk remains almost as it used to be a century ago. Teachers are usually blamed for doing what their colleagues were doing many years ago within the same classrooms using the same textbooks. The experiences from 2020 have shaken up most education systems across the world as they have had to reshape and take a set of actions and arrangements or some disruptive transformations to ensure and secure learning during the health emergency (Rodríguez, 2022). The pandemic has revealed that current infrastructures

are highly vulnerable to external shocks. Many education systems, however, have been able to adapt in some way as schools and educators have shown great resilience and have demonstrated leadership and initiative in their trials to support the continuation of education during school closures.

Amidst the crisis created by the pandemic, there were individuals as well as governmental and non-governmental organizations in every society who were creating opportunities to sustain educational continuity (Vincent-Lancrin et al., 2021). To compensate for the crisis and to prevent the complete shutdown of education, many initiatives have been undertaken to ensure learning continuity during the first wave of the pandemic (From March to December 2020), almost all of them relying mostly on some kind of technology as the use of various digital tools was necessary to help students connect and stay on track to complete the school year.

#### A. Brazilian Initiatives

The Brazilian state of São Paulo whose school system is one of the largest in Latin America, was the first state in Brazil to implement consistent measures in response to the suspension of school activities announced by the State Governor on March 13<sup>th</sup>, 2020 as a measure to flatten the contamination curve. The school closure came a few weeks after the beginning of the school year which runs from February to December in Brazil. The State Department of Education was able to design, in a short period, a strategic plan for education continuity and take a set of measures that effectively provided learning support to all students. The plan involved a variety of activities; from printed materials' delivery to online platforms' free access. A curriculum experts' team was mobilized to create educational kits containing literature, textbooks and guidelines for parents. The kits were designed to be delivered to

students at homes with the help of the local police. On April 03<sup>rd</sup>, the Education Media Centre (Centro de Mídias da Educação de São Paulo) was created to produce and transmit educational content by T.V and radio to all learners. The centre created an educational app offering free access to many private online platforms for six months which means that students didn't have to use data from their mobiles as the app was data sponsored. On 27 April, education content was produced and broadcasted by The Education Media Centre on open T.V in partnership with TV Culture (a free Brazilian television network) offering video classes exclusively on four channels with the possibility to be simultaneously viewed online to allow for interaction between students and teachers. The video classes could also be recorded to be accessed at any time (Dellagnelo et al., 2021).

#### **B.** Spanish Initiatives

A national public health emergency was declared in Spain on 17 March, 2020 mandating quarantine measures for the entire population which resulted in the suspension of school activities. The Spanish Ministry of Education and Vocational Training mobilized its resources to launch an initiative that would compensate for the suspension of face-to-face teaching. A strategy called "Aprende en Casa" (AeC) (Learn at Home) was implemented to support the continuity of the learning process and students 'development at home with an ongoing communication between teachers and parents as the main mediators. The AeC strategy comprised the creation of a web portal with over 600 curated education resources including class videos for all grades and subjects, webinars and social media interactions in addition to educational programmes broadcasted on national T.V channels and radio stations twice a day with content for all ages and subjects besides the distribution of printed educational materials for homes with no internet access under a project called "Aprende en

Casa Toca Tu Puerta" (Learn at Home Knocks Your Door). The printed materials included books, worksheets, brochures for games and activities and a "Kit en Card" designed for preschool and primary students containing science study guides, games and family activities. Moreover, support offices; "Mesas de Apoy Técnico y Pedagoico", were available for the entire education community daily from 7a.m to 4p.m to provide assistance and advice on technological and pedagogical issues. The AeC strategy served as an example for many other countries (Martin, 2021).

# C. Egyptian Initiatives

In the wake of the Covid-19 pandemic, the largest education system in North Africa and the Middle East with the enrolment of over 20.5 million students was faced with the challenge of maintaining student's engagement with learning while schools were shutdown across the country starting March 15, 2020. The Egyptian Ministry of Education and Technical Education (MOETE) launched a new study portal providing all students from K-12 access to their lessons via interactive presentations, videos, and games. The portal was a spinoff of the pre-existing Egyptian Knowledge Bank (EKB); a digital library granting unlimited resources, which was mainly catered to Secondary one and Secondary two students (grades 10 and 11) and higher education students and researchers. The (EKB) was, thus, expanded to cover the entire curriculum in all grades. Meantime, teachers and students were provided with a communication platform by the MOETE in partnership with Edmodo (a global education network) to allow them to hold virtual classes. Learning materials were also provided through national T.V channels to reach a larger category of students. Students' assessment was another issue addressed by the MOETE that replaced the traditional end-of-year exams for grades 3-9; that would decide if students can move to the next grade, with an end-of-year

multidisciplinary research project to be submitted either online or delivered to schools using hard copies. The initiative introduced a new concept of assessing learners via other means than final exams (El Zayat, 2021).

#### **D.** Indian Initiatives

In response to the induced school closures, the Indian schooling system; one of the largest in the world catering to over 250 million students, had to respond immediately and strategically. Many Indian States implemented different strategies to maximize learning access for all students. The state of Madhya Pradesh in central India initiated the campaign #ab padhai nahi rukegi (# learning will not stop) which comprised digital and non-digital programmes; the former providing school lessons on the radio for grades 1-8 and educational programmes on TV for grades 9-12 besides worksheets, books and one-on-one interactions with teachers for all grades whilst the latter included the share of curated learning materials on WhatsApp groups in addition to the launch of a digital teacher training programme to support teachers' online professional development as well as the TopParent App to help parents monitor their children's learning.

Another initiative was launched by the Directorate School Education in the state of Nagaland named Tele/Online Education. In its first phase (April 2020), the programme offered TV and radio education via the regional public television (Doordarshan, Kohima) and the regional public radio station (All India Radio, Kohima) focusing on key subjects for secondary and senior secondary school stages (grades 8-12) via the delivery of video and audio lessons. The programme was expanded in its second phase (May2020) to digital content delivery through a YouTube channel offering audio-visual lessons for upper primary school stages (grades 5-7). Three-hour slots of broadcasting were scheduled daily; each day devoted

to a different theme, each lesson lasting 30 minutes followed by another in a different subject. The videos were kept short and diverse to be more engaging for students. When the confinement was lifted in India and small gatherings were permitted yet schools had still not opened, "Village Learning Circles"; a student-led initiative, were started by older students and peers within communities with the aim of ensuring students without access to remote learning forms (TV-based lessons or online resources) were not left behind. The village learning circles are lessons led by students for peers or for younger children in groups of five to ten. To conduct the lessons, students used any available space such as homes, temples, community centres or even fields (Batra et al., 2021).

The host of initiatives quickly provided learners with some education continuity, even if, compared to normal time, the quality and the quantity of education possibly came lower, they demonstrated the willingness of many to contribute to solving the crisis when the need was clearly visible.

## 1.1.4 Implementation Challenges

Serious challenges have been aroused by school closure for students, teachers and families as the shift towards remote education has not been easy to adapt for any of them. The measures taken to tackle the spread of the pandemic such as the lockdown and school closure have imposed new challenges to which students, teachers and parents have had to adjust to. Both students and teachers were required to adapt to an extensive alteration in the teaching-learning process (Carolan et al. 2020, as cited in Garcia-Morales et al. 2021). This alteration was not free of barriers, and a number of obstacles emerged in this process. The change from face-to-face to remote teaching and learning represented significant challenge for all educational actors of different educational levels as great adaptation and the development of

new skills have been required to comply with the new educational process. The pandemic has, hence, forced the educational community worldwide to experience remote teaching. The transformation in teaching and learning was compelled by circumstances, hasty and very challenging. When in-person learning was suspended and school closures were prolonged, education systems attempted to adapt; shifting to remote forms. However many students struggled to access the new adapted tools. Though governments and some NGOs have worked to provide educational programs on TV, radio and various other means, limited access to digital devices and network connectivity among poorer households limited the effectiveness of those initiatives. The alternative ways that have been put in place to continue schooling, while schools remained closed, varied in their effectiveness and the degrees of their success as they reached students in different social circumstances (Vincent-Lancrin et al., 2022). Implementation challenges lay mostly in the rush to respond effectively, insufficient technological endowment, lack of adequate and trained personnel to develop such processes and adaptation technologies as well as socio-economic inequalities among students.

#### **1.1.4.1 Time Limits**

One pervasive challenge has been the lack of time and the need to respond quickly and effectively to the contingency situation. Most of the initiatives were implemented in a record time, mostly within 2/3 weeks while others were implemented with no delay when the schools closed.

#### 1.1.4.2 Resources Curating

Another prevailing challenge pertained to the identification and curation of resources.

The adaptation of the teaching and learning process required reducing the number of resources and ensuring their relevance to the curriculum and teaching approaches. Educators have been

faced with the challenge to identify and select the most suitable remote resources to be used, tag existing platforms of open educational resources and organize resources according to language, subjects, disciplines and targeted skills so that teachers, students, schools and parents could use and adapt them.

#### 1.1.4.3 Education Equity

Education equity has also been a key challenge for most responses to the school closures as learning from home has proved problematic for less advantaged students. There is an agreement among researchers that minorities and students from low-income families cannot achieve the target educational goals because of inequity in access and opportunity (Sequeira and Dacey, 2020). In many ways, the crisis has turned a spot light on equity and has exposed educational inequalities as stark socio-economic disparities of students in a virtual space have become vulnerable. The pandemic has, thus, exacerbated such inequalities amongst less advantaged students; those from low-income families as well as the ones living in rural areas given the fact that they have had difficulties complying with the adopted learning activities and requirements due to a lack of digital equipment, limited access to internet services or a support system to help them through the crisis.

# 1.1.4.4 Students' Continuous Engagement

Making sure that student didn't drop out and remained engaged in their learning in spite of the difficulties has been another challenge during the lockdown. Implementing strategies to sustain students' engagement in a remote teaching and learning environment has been very challenging. Many of the initiatives had to develop their lessons with the intention to make them "engaging", "creative" and "entertaining"; usually with a short format, a

balance in the proposed activities, space for reflection and consideration of the context in which they would be delivered and received.

#### 1.1.4.5 Human and Technical Assistance

The disruptive transformation of educational activity driven by the impact of Covid-19 has, thus, posed unprecedented challenges for students who were in need of technical assistance and leaders as well as teachers who had to reinvent themselves in a record time to keep the educational operations running.

# 1.2 International and national education recovery

#### 1.2.1 World Education Recovery

Education is a relational process; teaching and learning are not just a transactional service but a relational and social experience (Schleicher, 2020). The pandemic has limited the social dimension of learning, which cannot be fully reproduced through virtual means; technology can amplify good teaching but it doesn't replace core teaching. Education is about that personal interaction between students and their teachers within the same room. School closures have, thus, highlighted the importance of schools as a place that facilitates social interaction and their essential role in the education of children and young people. Hence, the natural learning environment remains the school setting.

Given the health emergency imposed by the Covid-19, normal school opening and classroom teaching for education systems at all levels and in most countries have been affected for months. However, with the improvement of the epidemic situation and the decreasing of infection rates across the world, most countries decided their own time of back-to-school at all levels.

As countries began to see a "flattening of the curve" of new cases of Covid-19 among their population, many governments began to loosen restrictions in an effort to stabilize their economies, including through the reopening of schools, while others have been more cautious and maintained closures, fearing "a second wave". (United Nations, 2020, p. 17) After months of closure, many countries decided to reopen their schools based on the epidemiological evidence and grounded on contextual basis. In order to protect students, teachers and the educational stuff from Covid-19, a careful consideration of the timing of school re-opening and the surrounding circumstances was highly recommended and consultation with administrators, teachers, parents, young people and stakeholders was fundamental (Johnson et al. 2020). The decision of resuming school activity has required governments to mobilize local and national education boards to participate actively in drafting the guidelines and the strategies to reopen schools which demanded the consultation of administration which supports the teaching and learning process, the teachers who are at the forefront of education, the students who are the core of the system, the parents, the community, and the external partners who share the responsibility of learning continuity and contribute to the completion of the educational requirements of the students as well as a variety of perspectives among stakeholders.

The single most significant step that countries can take to hasten the reopening of schools and education institutions is to suppress transmission of the virus to control national or local outbreaks. Once they have done so, to deal with the complex challenge of reopening, it is important to be guided by the following parameters: ensure the safety of all; plan for inclusive re-opening; listen to the voices of all concerned; and coordinate with key actors, including the health community. (United Nations, 2020, p.19)

Getting students back into schools and learning institutions as safely as possible and at the opportune time has been a top priority for most countries once local transmission of Covid-19 was under control. Algeria was no exception.

#### 1.2.2 Education Recovery in Algeria

In Algeria, the pandemic has caused education disruption for over 8 million students across more than 27.000 educational establishments at the primary, middle and secondary levels. The Algerian government announced the closure of schools across the country on March 12, 2020 as a precaution measure to mitigate the risks of Covid-19 infection and ensure the safety of the citizens. As the rate of infection kept increasing, school closures have been prolonged over and over causing the end of the school year (2019-2020) before the due date. School activity has been, thus, suspended for more than 7 months causing major upheavals among the education community. The call was for officials to take the necessary measures to organize the end-of-year official exams and plan for the reopening of schools.

#### 1.2.2.1 Official Exams' Organization

"Exceptional" arrangements and procedures have been implemented in relation to the organization of school exams for the 2020 season. These included the cancellation of the end-of-primary education exam and the postponement of the Certificate of Intermediate Education and the Baccalaureate exams (usually held in June) until the second and third weeks of September, and limiting the lessons of the two exams to the outcome of lessons taught and received by students in class during the first and the second terms. Moreover, a statement by the Prime Minister, on June 24, 2020, revealed that the Certificate of Intermediate Education was optional and not compulsory to pass for admission to the secondary education as the transition would be held by calculating the averages of the first and the second terms (for the

school year 2019-2020) so that every student scoring 09/20 was considered successful and passed to the higher level without taking the exam. Furthermore, The Ministerial mandate No. 619 issued on June 27, 2020, stated that every student who obtained a general average equal or greater than 09/20 in the Baccalaureate exam was considered "exceptionally" successful (the usual average to pass is 10/20). On August 19, 2020, middle and secondary schools have been opened, exclusively, for exam students (4<sup>th</sup> year middle school students and 3<sup>rd</sup> year secondary school students) for revision and preparation for the official exams under extreme precautions of Covid-19. The Minister in charge affirmed that all organizational and sanitary conditions have been met to ensure smooth running of the exams for the year 2020.

## 1.2.2.2 Plans for School Reopening

The Ministry of Education announced in a statement, on June 15, 2020, that the school entry for the 2020-2021 school year would be on October 4<sup>th</sup> for students and on August 19<sup>th</sup> and 23<sup>rd</sup> for administrators and teachers. However, in view of the repercussions of the spread of the virus, school reopening has been postponed until October 21<sup>st</sup> for the primary schools and November 4<sup>th</sup> for the middle and secondary schools. Ensuring a safe return to physical premises, while implementing public health measures and maintaining physical distancing has been a key condition to reopening schools.

The Algerian Prime Minister revealed, on August 12, 2020, the establishment of a preventive health protocol against the Covid-19 pandemic in all schools, universities, and vocational training and education centers, in anticipation of the school entry. He stated that all the decisions part of the management of the Covid-19 crisis have been taken following consultation with the Scientific Committee and Algerian specialists and experts, both in Algeria and abroad, affirming that decisions and measures have been taken gradually and at

the opportune moment and making an appeal to the educational family and parents to mobilize for strict compliance with the preventive measures against Covid-19. The official, further, stressed the need for a good and tight organization and declared that the state, through the Ministries of National Education and Higher Education, have been working in full swing to create the most appropriate conditions for a smooth school entry despite the unprecedented situation. Accordingly, The Ministry of Education has outlined "exceptional plans" for the resumption of classes while prioritizing the health preservation of students and stuffs, urging the educational stuff to accompany students and raise their awareness of the critical situation. The Minister of National Education stressed the need to ensure the schooling for students after almost 08 months break, while maintaining their health safety through the strict adherence to the preventive measures included in the health protocol established by the Ministry and approved by the Scientific Committee. On September 27, 2020, he declared, "We do not want to jeopardize the health of our children, their parents and all the staff. Therefore, we will consult on possible exceptional measures likely to organize the schooling of our students so that the proposal solutions are adequate. We will also take into account the specificities of each level and each school in terms of the number of students enrolled."

# 1.2.2.3 Educational arrangements and adjustments

The Ministry has established a strict sanitary protocol and planned some pedagogical adjustments and arrangements to be implemented at schools at different levels as adaptation measures to meet the challenge. These included the provision of essential equipments and hygiene tools, the reduction of class size and class time, the rescheduling of classes for different subjects, reviewing the examination calendar, curating the curriculum and

introducing a new type of learning into the Algerian educational system; blended learning which combines the traditional face-to-face teaching and distance learning.

Ensuring the safety of all has been a key condition to reopening schools. Hence, strict hygiene practices such as the use of masks and hand sanitizers and frequent hand washing for teachers, learners and staff has been the first and foremost obligation that everyone had to adhere to. This required schools to provide all the necessary equipments and tools for sanitation and hygiene for their teachers, learners and staff. However, such conditions needed additional investments. Thus, decisions concerning budget allocations had to be made. The Minister of National Education has authorized all educational institutions, on an "exceptional basis", to use the funds suspended until December 21, 2019 for the purpose of purchasing hygiene tools and acquiring protection against the virus.

Another basic precondition has been the maintenance of physical distancing as it proved to be the most effective measure to prevent the spread of the virus. Within a school context, this meant reducing contact between groups of students and maintaining a safe distance between students and staff. To implement social distancing measures, schools started to operate in the cohort system, where each cohort included no more than 20 students. This required the organization of students in shifts. Students have been divided into groups, half the groups studying in the morning and the other half in the afternoon. Hence, the number of students within the classroom has been decreased as well as the number of in-person instruction hours has been reduced. Such a system needed extra teaching staff. According to the correspondence No. 759, The Ministry of Education authorized Education Directorates across the cities to take advantage of the reserve lists of the recruitment competition of teachers held on 2018 (the last in the sector so far) in attempt to fill financial positions within

the limits of pedagogical needs in all educational subjects and provide the system with the necessary education framework to ensure regular schooling for all students.

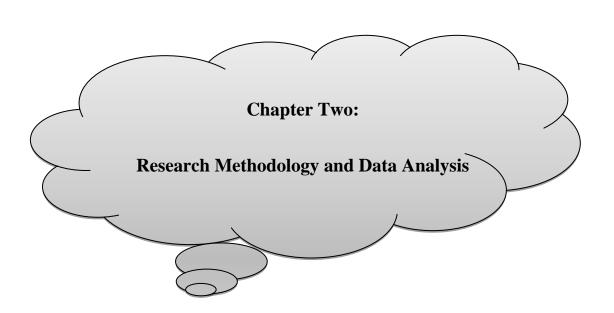
Social distancing requirements have reduced available instruction time and thus forced decision makers to make choices when it comes to the curriculum and the school calendar. Class sessions for different subjects have been rescheduled and minimized; prioritizing core subjects for each level and stream. Thus, the curriculum had to be reconsidered; establishing clear priorities for what should be taught in class, in which order, what could be omitted and what needs to be left for students to study at home. The Ministry of Education has issued "exceptional" curricula and planning of different educational courses that have been adapted to meet the needs that the unprecedented situation has imposed. Strategies such as combining in-person and distance learning together has been adapted by the Ministry as a measure to recompense the class time that has been reduced. The ministry has emphasized that the reduced time was not a free time, but rather a time that learners should devote for "selflearning" with the monitoring of their teachers via the use of distance learning modalities which is a first in the Algerian education system. To this end, The Ministry of Education has issued a special pedagogical guide for teachers and learners that aimed to provide teachers with the adequate methodologies and techniques to be implemented for blended learning and supply learners, teachers and parents alike with the necessary resources; teaching and learning materials as well as education digital platforms that could help them with distance learning. The guide has also included recommendations for effective time management and ways to ensure the continuity of learning in light of the health emergency. The ministry has further urged local education directorates and inspectors to organize seminars and training sessions with teachers to discuss and study the adapted educational planning before the school entry.

The school calendar has also been arranged and adapted to two terms instead of three with adjustments made in relation to the examination calendar as one test has been scheduled instead of two for each subject in addition to the exam held at the end of each term. Other changes occurred in the examination and graduation criteria. While the usual average to pass to a higher level in the middle and secondary education is 10/20, for the school year 2020 – 2021, and on exceptional basis, the considered average to pass from a grade to another and to succeed in the Certificate of Intermediate Education and the Baccalaureate exam has been 09/20.

On the day of school entry, The Prime Minister declared that the return of pupils to schools was a return to life, which carried no stop or delay. On November 04, 2020, more than 09 million students and over 700.000 teachers and employees have returned to schools amid exceptional health conditions marked by the spread of the virus; making the school year 2020 -2021 atypical and unique.

# Conclusion

This chapter has provided the background and context of the study. It started by an overview of the impact of the Covid-19 pandemic on education worldwide, the responses and the measures taken to support the continuity of learning during school closures and supplied examples of some of the remarkable initiatives undertaken in various parts of the world to ensure learning continuity amidst the crisis together with the main challenges of implementation. Then, the world education recovery was highlighted with the worldwide school reopening. After that, the Algerian educational context within the pandemic was underscored; shedding light on the national school interruption and the plans that have been set up to reopen schools, reenroll and reengage learners, teachers and staff in a safe learning environment to achieve a national education recovery.



### Introduction

This chapter provides an overview of the research methodology followed in this investigation. It describes the adopted research design and methods, provides details about the context and participants as well as a description of the data collection tools and data analysis procedures. Then, it follows to analyze the data collected through two sub-chapters. The first subchapter is devoted for the analysis of data collected from the official documents that have been analyzed. The second subchapter provides the analysis of the data gathered from the teachers' questionnaire.

## 2.1 Research Methodology

Research methodology is the systematic design and a procedural demonstration of a study that outlines how the research is carried out in order to ensure valid and reliable results that address the study's aims and objectives.

### 2.1.1 Research Design and Methods

This study aims to investigate secondary school teachers' perception of the adopted Covid-19 educational measures in an attempt to identify the changes these measures have brought about in the Algerian teaching and learning context and examine whether those measures have worked in the advantage of the learning process or not. To this end, an exploratory research has been conducted based on a mixed-method approach combining both qualitative and quantitative research methods. The qualitative method has been opted for to interpret the collected data and understand the perceptions while the quantitative method has been used to communicate the data in numbers and statistics to test research hypotheses.

## 2.1.2 Context and Participants

The Algerian secondary school educational context has been examined in this research. The arrangements and adjustments made at the level of the secondary education by the Ministry of National Education as a result of the Covid-19 health emergency have been inspected to provide the framework of the study. Thereby, the target population comprised secondary school teachers in Algeria. The sample encompassed 140 secondary school teachers of different subjects from the city of Tiaret and other Algerian cities who have been selected purposefully according to their teaching experiences. Thus, data has been collected from the responses of secondary school teachers with more than three (03) years of teaching experience, i.e. teachers who are familiar with the teaching and learning environment before and during the pandemic to provide valid and reliable information.

#### **2.1.3 Data Collection Tools**

In order to achieve the research's objectives and provide a confluence of evidence that outputs credibility, this study draws upon two data sources; secondary data gathered from official documents' analysis and primary data collected from a teachers' questionnaire.

## 2.1.3.1 Document Analysis

Document analysis is the procedure of systematically reviewing or evaluating documents. In this research, ministerial mandates and decrees as well as official documents (timetables, curricula, guides) issued by The Ministry of National Education regarding the measures that have been adopted during the Covid-19 health contingency, have been analyzed, so as to examine the changes that these measures have brought about into the learning environment, determine the scope of the study and provide the framework for structuring the questionnaire.

## 2.1.3.2 Teachers' Questionnaire

A teachers' questionnaire has been designed as a primary data collection tool. It consists of both close-ended and open-ended questions in order to quantitatively and qualitatively gather data and gain in-depth understanding of teachers' perceptions of the adopted Covid-19 educational measures to either prove or disapprove the preset hypotheses. The questionnaire (The English version) has been handed to the English secondary school teachers in the city of Tiaret and (The Arabic version) has been submitted online to reach teachers of different subjects in different cities.

## 2.1.4 Data Analysis Methods and Procedures

For data analysis, both quantitative and qualitative analysis methods are used, respectively, to statistically analyze the data gathered from the close-ended questions' responses and interpret the ideas, views and experiences provided to answer the open-ended questions. The data analysis process is divided into two sections. The first one to analyze the data collected from official documents and the second is devoted for the analysis of the data gathered from the teachers' questionnaire. Therefore, both content and statistical analyses techniques are implemented and figures and tables are used for an effective data presentation.

## 2.2 Findings and Results: Analysis

# 2.2.1 Official Document Analysis

This section provides an examination of some of the main adopted educational measures at the secondary level based on evidence taken from official documents (ministerial decrees, mandates, official guides, timetables and the official curricula) to shed light on the main changes these measures have brought about in regard with the learning environment, the

school calendar and the time allocated for instruction as well as the curricula and highlight the potential effects such changes could possibly have on the teaching and learning process.

## 2.2.1.1 The Establishment of a Sanitary Protocol at Schools

In order to minimize the risks of the virus, prevent its spread in schools and ensure the safety of all, a strict preventive health protocol against Covid-19 issued by the ministry of education and approved by the Scientific Committee (Decree n° 1284 issued July 11, 2020) had to be implemented in schools; promoting strict hygiene practices as an obligation that students, teachers and all the educational staff have had to adhere to. These practices included the use of masks and hand sanitizers, frequent hand washing as well as keeping a safe distance between learners, teachers and stuff. Thus, adapting the school environment has been indispensable to address the new requirements. Hand sanitizers have had to be provided and ready for use in every corner of the school, masks have had to be worn by all inside the school, disinfection has been required every school day, the provision of hygiene tools have been mandatory, prevention signs have been put on school walls to remind everyone to be cautious and indication signs have been set up in the school yards, halls and classrooms to indicate for learners where to stand in a row, what direction to be taken for each group of students and designate each ones 'seat in the classroom so as to ensure the compliance with social distancing measures. These practices are illustrated in figure 2.1.

**Figure 2.1**Covid-19 Preventive Measures at Schools



Source: Google Images

Given the importance of the physical location and the context in which students learn, such unusual environment has the potential to affect the process of teaching and learning. Trezise (2017, para.1) states that "classrooms are emotional settings. Teachers' and learners' emotional experiences can impact their abilities to teach and learn". Moreover, Gilavand (2016) argues that "The learning environment dramatically affects the learning outcomes of students. Schools' open spaces, light, noise, overcrowded classes, inappropriate classroom layout all make up factors that could be confounding variables distracting students in class". Thus, the appropriateness of the physical and social environment of schools and classes plays a major role in the learning process. Studies on the effect of the learning environment on students have always proved the significant impact of a safe and favorable learning

environment on students' learning, behavior and success. Thus, safety and convenience are key factors in a learning environment that supports learners, promotes their behavior and lifts their achievement whereas unfamiliar surroundings and an unsafe environment results in learners' underperformance and disengagement with learning.

### 2.2.1.2 Class Size Reduction

Social distancing measures imposed by the pandemic have had repercussions on class size which is an important determinant of teaching and learning outcomes. Thus, reducing class size has been an imperative measure to ensure the safety of learners, especially that Algerian classes are known to be overcrowded as many of them most of the time exceed 40 students. It deemed necessary to start operating in the cohort system; each cohort including no more than 20 students which required the division of each class into groups and organizing them into shifts. Large sized classes have been, therefore, reduced into smaller ones; studying in alternation during the school day.

**Figure 2.2** and **Figure 2.3**, respectively, display the typically applicable seating plan in most Algerian classrooms that are usually overfull and the sample seat plan that have been issued by the ministry in charge to be applied in classrooms with 20 students or less.

Figure 2.2

Typical Seating Outlook

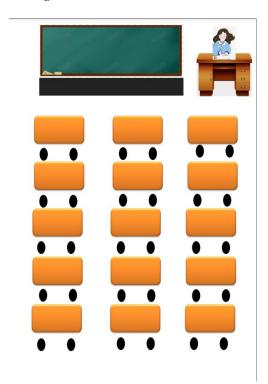
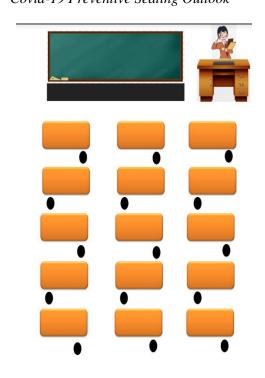


Figure 2.3

Covid-19 Preventive Seating Outlook



Source: Decree n° 1284 issued July 11, 2020

Studies in the field of education have established significant differences between large class size and small class size's effects on teaching and learning. Some have argued that class size affects learners' attitudes more significantly than it might affect achievement. They revealed that better quality and a richer environment is provided for learners within smaller classes; making teaching more enjoyable for teachers while disruptive behavior is encouraged within larger classes; which frustrates the teachers' efforts and affects their health (Ayeni, 2016). Others have demonstrated the effect of class size on academic success revealing that small size classes result in students with lower academic ability doing better whereas large class size limited their learning opportunities and influenced their academic performance. Less

disruptive behavior is displayed in small classes resulting in more individual attention, better communication between the instructor and students and increased participation, providing, on the other hand, more time for the teacher to spend on instruction rather than discipline (Lassmann, 2016). Hence, within smaller class size, teachers can diagnose and track students learning to better address their needs while the obstacles that are present within the larger classroom size including the increase in distraction and the inability to have intimate teacher-student interaction lead to ineffective students 'control, poor classroom management and, thus, poor planning and assessment, therefore, affecting the academic success of students.

#### **2.2.1.3 Instruction Time Decrease**

Covid-19 crisis has affected total instruction time which is considered one of the key elements in the teaching and learning process.

Instructional time means time during which a school is responsible for a student and the student is required or expected to be actively engaged in a learning activity. It includes instructional activities in the classroom or study hall during regularly scheduled hours, as well as required activities outside the classroom. (Law insider Dictionary, n.d.)

Further, Euridice (2021) demonstrates that instruction time includes the time a school is expected to provide instruction to students on all the subjects of the curriculum in the school premises or in out-of-school activities which are formal parts of the compulsory programmes. Karsakas (2021) proclaims that many factors affect learning, but the time allocated to instruction plays a key role in the learning process, along with the instruction's quality and the time left for learning after school.

The total instruction time decreased in Algeria as a direct result of the specific arrangements of the school year 2020-2021 which started later than usual. The school calendar comprised two terms instead of three, the school day was reduced by half the time, the number of instruction hours allocated to each subject was decreased and the length of lesson timing was shortened by 15 minutes.

**Figure 2.4** and **Figure 2.5** illustrate models of secondary school students' timetables before and during the health crisis and demonstrate the change in their school calendar. The difference is clearly observed as more instructional time (highlighted in yellow) is illustrated in the first figure and less in the second, the columns highlighted in red represent the free time students have during the school day.

Figure 2.4

Secondary School Students' Timetable before the Pandemic



Source: Second Year Timetable (2AS/FL)/Djebbar Aicha Secondary School



Figure 2.5

Secondary School Students' Timetable during the Pandemic

Source: Second Year Timetable (2AS/FL)/Djebbar Aicha Secondary School

The recommended amount of instruction time has been a matter of debate for decades as studies are still inconclusive on the topic. Some have proved a positive effect of the quantity of instruction on students' achievement and have argued that an increase in instruction time results in an increase in students' performance. On the other hand, there is skeptic argument that behavioral problems are generated when school days are longer because of boredom and fatigue which could result in lower school performance. Recent evidence suggests that an increased amount of instruction time available to students is an important factor for their learning success. However, the effects remain disputed.

### 2.2.1.4 Curriculum Reshape

At the heart of the teaching and learning process lies the curriculum which is the central guide for educators as to what is essential to be taught and how. The curriculum is a guide line set out for educators that prescribes what they need to teach their students throughout the school year. Typically, it breaks down what needs to be taught, as well as ideas on how it should be presented to the students. (Euridice, 2021)

For delivering quality education, an effective curriculum is needed. It should provide teachers with a measurable and structured plan and identify the standards, learning outcomes and core competencies that learners should demonstrate before advancing to the next level. "Beyond creating shared goals between teachers and learners, curriculum also standardizes the learning goals for an entire school and provides a clear path for students to progress from one grade to another" (Nick Gibb, 2016, personal communication). Due to the changes that occur in our societies, curriculum has become a dynamic process. The school curricula are affected whenever developments or changes occur across the world; it is necessary to update them so as to address the needs of the society (Alvior, 2015). Hence, the curriculum needs to be adapted and developed in response to the changing circumstances so as to ensure the path for achieving educational goals.

Under the circumstances induced by the health emergency, The Ministry of National Education deemed necessary to adapt the curricula and make the necessary changes to meet the new requirements. Both the adopted teaching and learning procedures and the reduction in instruction time account for the adaptation of the curriculum, which required the omission, substitution, reordering and the integration of some lessons at each level and in each subject in addition to introducing a new educational concept into the Algerian educational context that is "blended learning" which demands the combination of both; in-person and online teaching.

**Figure 2.6** and **Figure 2.7** represent samples from the English secondary school curriculum of First year (Literary Stream). They illustrate the change that occurred in the order of the learning units (highlighted in red) as well as the reduction in instruction time allocated for the English subject per week (highlighted in yellow) and the time to be devoted for each learning unit (highlighted in blue).

وزارة ائتريية الوطنية

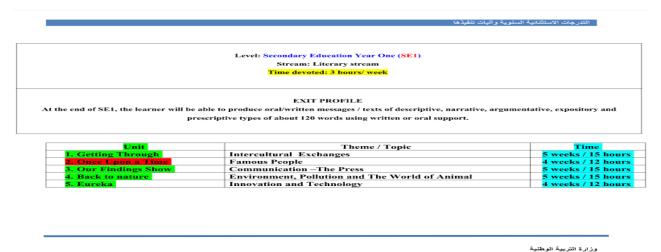
Figure 2.6

A Sample from the English First Year's Curriculum 2018

	Level: Secondary Education Year One (SE1) Stream: Literary stream	
	Time devoted: 4 hours/ week	
	EXIT PROFILE	
t the and of SE1 the learner will b	as able to produce evolveritten messages / toyte of descriptive persentive	roumantative expeditory and
	be able to produce oral/written messages / texts of descriptive, narrative, a	rgumentative, expository and
	ee able to produce oral/written messages / texts of descriptive, narrative, a prescriptive types of about 120 words using written or oral support.	rgumentative, expository and
		rgumentative, expository and
I	prescriptive types of about 120 words using written or oral support.	
Unit	prescriptive types of about 120 words using written or oral support.  Theme / Topic	Time
Unit  1. Getting Through	Theme / Topic Intercultural Exchanges	Time 6 weeks / 24 hours
Unit  1. Getting Through  2. Our Findings Show	Theme / Topic  Intercultural Exchanges Famous People	Time 6 weeks / 24 hours 5 weeks / 20hours
Unit  1. Getting Through	Theme / Topic Intercultural Exchanges	Time 6 weeks / 24 hours 5 weeks / 20hours
Unit  1. Getting Through  2. Our Findings Show	Theme / Topic  Intercultural Exchanges Famous People	Time 6 weeks / 24 hours

Figure 2.7

A Sample from the English First Year's Curriculum 2020



Source: First Year's English Yearly Planning (Secondary Education: 2018/2020)

Samples from the English Second Year's (Foreign Languages Stream) curriculum are displayed in **Figures 2.8 and Figure 2.9** to demonstrate the modifications in the learning units to be taught; a whole learning unit has been omitted (the one highlighted in red) besides the reduction of instruction time allocated for the English subject as a core subject which has been

decreased to 03 hours a week after it had been 05 (highlighted in yellow) with the decrease of the time allocated for the learning of the units (highlighted in blue).

Figure 2.8

A Sample from the English Second Year's (Foreign Languages) Curriculum 2018

Annual Progression- Secondary (2018)

Level: Secondary Education: Year Two (SE2)
Streams: Foreign Languages
Time devoted: LE: 5 hours

GLOBAL COMPETENCE
At the end of SE2, the learner must produce written messages / texts of descriptive, narrative, argumentative and prescriptive types of about 15 lines, using written or oral support.

Units	Themes	Time
1. Signs of the Time	Diversity / Lifestyles	5 weeks / 25hours
2. Make Peace	Peace and Conflict Resolution	5 weeks / 25hours
3. Waste not, Want not	Poverty and World Resources	5 weeks / 25 hours
4. Budding Scientist	Technology and Innovation	4 weeks / 20 hours
5. Fiction or Reality	Technology and the Arts	4 weeks / 20 hours
6. No Man is an Island	Disasters and Safety	5 weeks / 25 hours

Ministry of National Education

Figure 2.9

A Sample from the English Second Year's (Foreign Languages) Curriculum 2020

Level: Secondary Education: Year Two (SE2)

Streams: Foreign Languages

Time devoted: 3 hours/week

Exit Profile

At the end of SE2, the learner will be able to produce oral/written messages/texts of descriptive, narrative

argumentative, expository and prescriptive types of about 150 words, using written or oral support.

Units	Themes	Time
1. Signs of the Time	Diversity / Lifestyles	5 weeks / 15 hours
2. Make Peace	Peace and Conflict Resolution	4 weeks / 12 hours
3. Waste not, Want not	Poverty and World Resources	5 weeks / 15 hours
4. Fiction or Reality	Technology and the Arts	4 weeks / 12 hours
5. No Man is an Island	Disasters and Safety	5 weeks / 15 hours

وزارة التربية الوطنية

Source: Second Year's English Yearly Planning (Secondary Education: 2018/2020)

## 2.2.1.5 Adopting New Instructional and Learning Modes

To recompense the reduced instructional time, broaden the spaces available for learning and provide greater opportunities for teachers' and learners' interaction and interactivity in light of the constraints imposed by the Covid-19 health protocol, The Ministry of National Education adopted a new approach to education in Algeria known as blended learning or mixed-mode learning.

Blended learning involves a mix and a blend of instruction delivery modes that requires the combination of in-person instruction and remote learning modalities; typically online learning, as two paralleled and interdependent learning experiences that complement and supplement one another to support the teaching and learning process. Although remote and digital learning options have become widely used in schools over the past decade and blended learning has become one of the dominant learning-delivery modes around the world, the practice of using both in-person and online learning when teaching students has been a first in Algerian schools. By incorporating such a practice into the Algerian educational context, schools and teachers have been required to change their long-used ways of instructing and interacting with students.

A sample from the English Secondary school Second Year's (Foreign Languages Stream) curriculum is demonstrated in **Figure 2.10** illustrating the introduction of blended learning to the English curriculum. As shown, the content to be taught during the learning unit is divided into two; content to be taught in class ( as highlighted in yellow) and content to be taught at home; online through emails, handouts, etc (as highlighted in green).

Figure 2.10

A Sample from the English Second Year's Curriculum 2020

Term	Unit and	Project Outcomes	Content to be taught in class	Content to be dealt with at home	Assessment	Tim
	Theme	110ject Outcomes		(online, email, handouts, etc.)	Assessment	
First Term			Targeted Competency: Interacting Interpreting Producing	Targeted Competency: Interpreting Producing	Provide students	
두	Unit 1:				with a situation	
.≅	Signs of the	Demonstrate awareness and	Learning Objectives. SWBA To:  identify and define the concept of diversity.	Learning Objectives.	where they mobilize	
Ξ,	Time	understanding of	- identify and define the concept of diversity,	SWBA To:	and reinvest what	
		cultural differences	- explore, compare cultural differences among people		has been learned in	
		worldwide	and their lifestyles throughout time	<ul> <li>explore the contributions of famous people in the world in different fields.</li> </ul>	the	
	Diversity		-compare people's values and accept them as they are.		unit (oral or written)	wee
			-compare people's values and accept them as they are.	-Compare past and modern lifestyles.	eg: write a paragraph	15
	Lifestyles		<ul> <li>making predictions/ expressing certainty and doubt</li> </ul>		comparing and	hou
			- define the concept of twin towns.		contrasting your	
			- define the concept of twin towns.		ways of living with	
			- planning / making arrangements		others', at the local	
					or international level	
			Resources:	Resources:		
			- used to	- Formation of adjectives		
			-going to , planning to, intend to + Stem degree of certainty: might/ might well, may			
			degree of cerminy, might might well, may	- Formation of nouns		
			- Relative pronouns: defining vs non-defining			
			relative clause	<ul> <li>Use the comparative and superlative forms of adjectives in</li> </ul>		
				context,		
			- comparatives and superlatives			
			- link words comparing / contrasting			
			Lexis related to the theme. Phonology:			
			- final "s" - stress shift from noun to adjective			
			- sacss star-from from to adjective			
	Project :	Example: Make a life gallery	style profile dealing with clothes, food and entertainmen	nt past, present, future. (The project can be	presented in PowerPo	oint, wa

Source: Second Year's English Yearly Planning (Secondary Education 2020)

The effectiveness of implementing such a model has been controversial as it depends largely on the quality of its design and execution. Advocates of blended learning argue that the benefits of both online learning and in-person instruction are provided within the blended learning approach in that the student has the ability to study independently and at his/her own pace online while still have the opportunity and the access to the assistance, guidance and personal attention of the teacher as well as the knowledge and resources provided within the classroom setting. As for teachers, it allows them to spend less time on delivering whole-class lessons and grants them more flexibility and creativity in structuring courses and delivering instruction. Some supporters also argue that blended learning raises learners' confidence and

develops their technological literacy besides reinforcing learning autonomy and enhancing learning skills such as self-discipline and self-motivation. On the other hand, critics of blended learning put into question the ability of such practice to provide learners with enough attention, assistance and guidance, especially for students who lack the required abilities and skills to learn effectively without the in-person supervision of the teacher. In this case, students would easily spend much of their study time chatting, using social media or doing anything other than doing their school work. Given the fact that blended learning requires teachers to use new technologies and more modern and sophisticated tools, critics also question whether teachers have received adequate training in how to effectively instruct and interact with their learners within a given blended learning context. Furthermore, lack of digital means and technological devices, inaccessibility to the internet or poor technological skills are commonly encountered obstacles in blended learning.

In this section, some of the main arrangements and adjustments made at the level of the Algerian secondary education and that potentially affected the learning process have been examined based on data collected from official documents. It concludes with the main changes that resulted from the officially adopted Covid-19 measures and occurred at the level of the school setting with the implementation of the health protocol which both teachers and students are unfamiliar with. Chief among them follows: the classroom setting in terms of the reduction of the number of learners within the room, the instruction time which has been lessened to almost half the usual, the curricula that have been adapted according to the time available and the adopted learning procedures as well as the change in the delivery mode.

# 2.2.2 Teachers' Questionnaire: Description and Analysis

This section is devoted to the analysis of data collected from the teachers' questionnaire; it details teachers' responses and frames their perceptions to pave the way for the discussion of the findings. The questionnaire comprises 28 questions; both open- and close-ended, arranged into four sections. The first section comprises questions concerning school closures and educational disruption, the second involves two subsections dealing with the Covid-19 prevention measures in schools; the first one deals with the implementation of the health protocol while the second is concerned with the division of classes into groups. The third section includes questions about the reduction of instruction time in relation with the curation of the curriculum and the last section comprises questions concerning distance learning.

Before answering the questions, teachers were asked to provide professional information in regard with the school and the city they work in, the subject they teach and the years of their teaching experiences.

## 2.2.2.1 Teachers' Professional Information

Table 2.1

Teachers' Workplace

Information	answer	Frequency	Percentage %
	Tiaret	43	30.71 %
Workplace	Algiers	15	10.71 %
	Tissmssilet	11	07.85 %
	Oran	25	17.85 %
	Belida	12	08.75 %
	Chelf	16	11.42 %
	Mascara	18	12.85 %
		140	100%

Table 2.2

Teachers' Teaching Subjects

Information	answer	Frequency	Percentage %
	English	45	32.14 %
Teaching subject	French	20	14.28 %
	Arabic	14	10 %
	History and Geography	8	5.71 %
	Natural Sciences	10	7.14 %
	Physics	12	8.57 %
	Mathematics	14	10 %
	German	9	6.42 %
	Spanish	8	5.71 %
		140	100%

Table 2.3

Teachers' Teaching Experiences

Information	answer	Frequency	Percentage %
	From 03 to 05 years	44	31.42
Teaching experience	From 06 to 10 years	65	46.42
	More than 10 years	31	22.14
		140	100%

# 2.2.2.2 Education during Covid-19 Crisis

This section aimed to collect data about the effect of the pandemic on education in Algeria during its first wave.

**Question01:** Has your school been partially or entirely closed?

This question aimed to investigate the impact of the pandemic on schooling. As illustrated in TABLE 2.4 below, the findings showed that all the participants replied that their schools have been entirely closed during the first wave of the pandemic.

Table 2.4

School Closures during the Pandemic

Answers	Entirely closed	Partially closed
Frequency	140	0
Percentage	100%	0%

**Question 02**: During school closure, what measures have been taken to ensure learning continuity?

The aim of this question was to explore whether or not learning continuity has been ensured during school closures. TABLE 2.5 displays the findings. 94% of the teachers replied that no measure was taken to provide learning opportunities, 04% of them said that learning continuity was ensured through handouts and printed materials while only 01% or the respondents said that online learning was used and 01% reported that TV and radio provided learning opportunities.

Table 2.5

Measures to Ensure Learning Continuity during School Closures

Answers	Online learning	TV and Radio	Handouts and printed	Nothing
Frequency	2	1	5	132
Percentage	1%	1%	4%	94%

**Question 03:** Did school interruption, during all that period, affect the students' cognitive skills? Justify your answer.

This question attempted to measure the impact of school closures and the unavailability of school opportunities on learners' cognitive skills. As shown in TABLE 2.6 below, 94% of the teachers replied that the school interruption did affect students' cognitive abilities and only 06% of them reported no effect.

 Table 2.6

 The Effect of School Interruption on Students' Cognitive Skills

Answers	Yes	No
Frequency	132	8
Percentage	94%	6%

When asked to justify the effect, most of teachers provided the same arguments. They argued that their learners' level dropped, they had concentration problems, lost their prior knowledge and had difficulties to retain and grasp information. A lot of teachers reported a lack of motivation, disinterest and disengagement with learning.

**Question04:** Will that period affect students' academic performance for the years to come?

Asking this question aimed to know; whether or not school interruption can have a long-term impact on student' academic performance. TABLE 2.7 illustrates that most teachers (93%) who were surveyed replied yes and only 07% of them said no.

Table 2.7

The Long-Term Impact of School Interruption on Students' Academic Performance

Answers	Yes	No
Frequency	130	10
Percentage	93%	7%

## 2.2.2.3 Covid-19 Prevention Measures in Schools

This section aimed to collect data about the effects of the Covid-19 preventive measures on the learning environment and the learning process.

# A) The Implementation of the Sanitary Protocol

**Question 05:** Has the sanitary protocol been implemented in your school?

This question aimed to check whether or not the health protocol has been implemented as mandated by the ministry of education. TABLE 2.8 below illustrates that 85% of the teachers replied that the health protocol has been implemented in their schools while 15% of them said that it has not.

**Table 2.8**The Implementation of the Sanitary Protocol in Schools

Answers	Yes	No
Frequency	119	21
Percentage	85%	15%

**Question 06:** Did the ministry in charge provide all the essential equipments and hygiene tools to ensure a safe learning environment?

This question attempted to inspect the insurance of a safe learning environment through the ministry's provision of the tools and equipments necessary. As shown in TABLE 2.9 below, 61% of the respondents claimed that the equipments and hygiene tools necessary for their safety have been "to some extent" provided. 28 % of the answers confirmed the supply of their schools with means essential for safety while 11% replied that no safety was ensured.

Table 2.9

The Insurance of a Safe Learning Environment

Answers	Yes	To some extent	No
Frequency	40	85	15
Percentage	28%	61%	11%

**Question 07:** Have the health preventive measures changed the nature of the learning environment? How?

The aim behind asking this question was to know if any changes have occurred in the learning environment as a result of the adoption of the health preventive measures. As shown in TABLE 2.10, most teachers (61%) proclaimed that the learning environment has "to some extent" changed and 28% of them affirmed the change while 11% reported no change.

Table 2.10

The Health Preventive Measures' Effect on the Learning Environment

Answers	Yes	To some extent	No
Frequency	39	86	15
Percentage	28%	61%	11%

When asked to explain the change, teachers 'answers varied. Some have claimed that they have been obliged to adhere to some preventive measures that they are not used to, others have reported that the preventive measures have limited their contact with students and colleagues and a few teachers said that they felt uncomfortable amid all of those unusual circumstances. Some of the replies revealed teachers' concerns about their safety that resulted in feelings of fear and anxiety while others have highlighted the sense of awareness and responsibility that the preventive measures have promoted within the school environment.

**Question 08:** Did the change in the school environment affect the learning outcomes? Justify your answer.

This question was asked in an attempt to investigate the effect of the change in the school environment on learners' outcomes. The TABLE 2.11 below shows that 91% of the teachers' replied that there was an effect and only 9% of the teachers said that there was no effect.

Table 2.11

The Effect of School Environment's Change on Learning Outcomes

Answers	Yes	No
Frequency	127	13
Percentage	91%	09%

To justify their answers, the majority of teachers reported that they have noticed a retreat in their students 'performance in class and that their' learners grades have dropped. Teachers argued that the constraints on physical contact affected classroom interaction and limited their opportunities to address all their students' needs, abilities and learning styles. Some teachers revealed that the restrictions on peer and group work hindered the achievement of the target competencies for some learners who tend to perform better in collaboration with their mates. Teachers also reported that they or their students have been absent for a period of time because of infection which led them not to achieve some leaning objectives.

### B) The Application of the Cohort System

**Question 09:** Has the cohort system been an effective social distancing measure to prevent infection in schools?

This question aimed to investigate teachers' perceptions of the adoption of the cohort system as a social distancing measure to prevent the spread of the virus in schools. TABLE 2.12 displays teachers' replies. It shows that 53% of the teachers replied that this measure has been "to some extent" effective, 29% of them said that it was effective and 18% didn't perceive the cohort system as an effective social distancing measure.

Table 2.12

The Effectiveness of the Cohort System as a Social Distancing Measure

Answers	Yes	To some extent	No
Frequency	75	40	25
Percentage	53%	29%	18%

**Question 10:** Did working in smaller sized classes change students' behavior? How?

This question was an attempt to explore whether the smaller size classes had an effect on students' behavior or not. As displayed in TABLE 2.13 below, 93% of the teachers said yes while only 7% replied no.

**Table 2.13**The Effect of the Smaller Size Class on Students' Behavior

Answers	Yes	No
Frequency	130	10
Percentage	93%	07%

When asked how the smaller size class changed students behavior, the majority of teachers reported that their classes became less noisy, the students became less disruptive and more attentive and the classroom environment became more comfortable and suitable for learning.

Question 11: How did it affect teachers' tasks in the classrooms? Justify your answer.

The aim of this question was to look into the effect of the adoption of the cohort system on teachers 'tasks in the classroom to see if they facilitated or complicated the task for the teacher during the learning process. TABLE 2.14 below illustrates that the majority (82%) of the teachers replied that the cohort system facilitated their task, 14% said that their task became more difficult and only 04% of them reported no change.

**Table 2.14**The Effect of the Smaller Size Class on Teachers' Task

Answers	Less difficult	More difficult	No effect
Frequency	115	20	05
Percentage	82%	14%	04%

To justify how the cohort system made their task less difficult, most teachers said that classroom management became an easier task, they had more opportunities to deal with the different needs of their students, their interaction with learners was reinforced and the learning process was smoothened. For teachers who replied that this system complicated their task, they reported that there was a teachers' stuff shortage in their schools and that they had twice the number of classes they used to have, their time tables were full and they had to double their efforts which was exhausting.

**Question 12:** Did it have a positive or negative impact on the learning process? Justify your answer.

This question was asked in an attempt to reveal if the adoption of the cohort system had been in the advantage of the learning process or not. TABLE 2.15 displays teachers answers and reveals that 94% of the teachers said that it had a positive impact on the learning process and only 04% of them replied that it negatively affected the process of learning.

Table 2.15

The Impact of the Smaller Class Size on the Learning Process

Answers	Positive impact	Negative impact
Frequency	132	08
Percentage	94%	06%

**Question 13:** What do you think of applying this strategy to solve the problem of over crowdedness in Algerian schools?

The aim of this question was to investigate teachers' willingness to adopt this measure for a longer term as a solution for the problem of over crowdedness. As illustrated in the TABLE 2.16 below, 86% of the teachers expressed their willingness to apply this strategy while 14% were against its application.

Table 2.16

The Implementation of the Cohort System as a Solution for Over Crowdedness

Answers	I am for	I am against
Frequency	120	20
Percentage	86%	14%

# **2.2.2.4 Curriculum Reshape and Instruction Time Reduction**

This section attempted to gather information about the impact of the curriculum reshape and the reduction in instruction time on the learning process

**Question 14:** Have you been comprehensively knowledgeable about the arrangements and modifications that occurred on the curriculum and instruction time?

Asking this question attempted to see if teachers have been in the know of the arrangements and adjustments made at the level of the curricula and instruction time; and have been comprehensively aware about the changes that occurred before starting the school year. The results, as displayed in TABLE 2.17, show that 71% of them were knowledgeable while 29% were not.

Table 2.17

Teachers' Knowledge and Awareness about the Adaptation of the Curricula and Instruction

Time

Answers	Yes	No
Frequency	100	40
Percentage	71%	29%

**Question 15:** Have you received a training course on how to implement the adapted curriculum?

This question aimed to investigate whether or not the teachers received the training courses on the implementation of the adapted curricula as it has been mandated by the ministry or not. TABLE 2.18 displays the findings and reveals that 86% of the teachers who were surveyed didn't receive any training on how to implement the adapted curricula and only 14% of them did.

Table 2.18

Teachers' Training on the Adapted Curricula

Answers	Yes	No
Frequency	20	120
Percentage	14%	86%

**Question 16:** How well did the adapted curriculum correspond to the new school timing?

The aim of this question was to identify the relevance of the curricula adaptation to the reduced time of instruction. TABLE 2.19 indicates that 55% of teachers replied that the adapted curricula and the new school timing didn't really correspond, 43% of them said that the instruction time and the curricula were rather relevant while only 02% reported the relevance of the two.

Table 2.19

The Relevance of the Adapted Curricula to the Instruction Time

Answers	Very well	Rather well	Not well
Frequency	03	60	77
Percentage	02%	43%	55%

**Question 17:** Has the omitting of some lessons and the integration of others within the adapted curriculum affected the attainment of the learning objectives? Justify your answer.

This question attempted to investigate the effect of the omission of some lessons from the curricula and the integration of others on the achievement of learning objectives. The results are displayed in TABLE 2.20 below and they show that 75% of the teachers who were questioned reported no effect and 25% of them replied that the omitting and the integration of lessons did affect their attainment of the learning objectives.

Table 2.20

The Effect of the Adaptation of the Curricula on the Attainment of Learning Objectives

Answers	Yes	No
Frequency	35	105
Percentage	25%	75%

**Question 18:** Has the time allocated for instruction been adequate to complete the educational program and achieve the targeted competencies?

This question was asked to investigate the effect of the reduction in instruction time on the achievement of the target competencies and the attainment of learning objectives. As shown in TABLE 2.21, the majority of teachers (86%) replied that the instruction time has not been adequate for the accomplishment for the program and 14% reported its adequacy.

Table 2.21

The Adequacy of the Adapted Instruction Time

Answers	Yes	No
Frequency	20	120
Percentage	14%	86%

Most teachers reported that the time that has been available for instruction was insufficient to cover the whole program and that despite the adaptation of the curriculum; it was still overloaded and needed reconsideration. They also argued that they needed more time in class to address all needs and achieve the targeted competencies.

**Question 19:** Has the reduction in instruction time affected the learning outcomes?

The question aimed to know whether or not the reduction in instruction time worked in favor of the learning process. As displayed in TABLE 2.22 below, 87% of teachers replied that the decrease in instruction time did affect learning outcomes while 13% of them said that it didn't.

Table 2.22

The Effect of Instruction Time Reduction on Learning Outcomes

Answers	Yes	No
Frequency	122	18
Percentage	87%	13%

When they provided arguments, most teachers reported a decrease in learning outcomes. The majority said that learners needed more time to grasp and process the information and that there was no time available for practice and consolidation in class. Some teachers said that the omission of remedial work as a result of the reduction in instruction time affected their learners' achievement while others argued that learners didn't spend the time

they had outside school effectively; to revise, do their homework and develop their skills and abilities.

## 2.2.2.5 Distance Learning During the Pandemic

This section aimed to gather data about the implementation of online learning as a new delivery mode that is complementary with the traditional face-to-face teaching.

**Question 20:** Have you received training courses on the implementation of distance learning?

The aim of this question was to investigate whether teachers have received training on how to deliver information online or not because it is an integral part of blended learning. TABLE 2.23 below represents the results from the survey which indicates that 86% of teachers didn't receive training and only 14% of them did.

**Table 2.23** *Teachers' Training on Distance Learning* 

Answers	- Yes	No
Frequency	25	115
Percentage	14%	86%

Question 21: Do both teachers and learners have the means necessary for distance learning?

This question aimed to check whether the majority of teachers and learners afford the means necessary for distance learning or only the minority does. The findings; as illustrated in TABLE 2.24 revealed that 89% of the teachers said that only the minority have the means required for distance learning while 11% of them said that the majority do.

Table 2.24

Teachers and Learners' Possession of the Means Necessary for Distance Learning

Answers	The majority	The minority
Frequency	15	125
Percentage	11%	89%

**Question 22:** How are your technological skills?

This question was an attempt to check whether teachers possess the required technological skills to adopt the new delivery mode. The results show that 21% of teachers have high technological skill, most of them (64%) have average skills and 15% of the teachers' skills are low.

Table 2.25

Teachers' Technological Skills

Answers	High	Average	Low
Frequency	21	89	30
Percentage	21%	64%	15%

**Question 23:** Besides the means, what obstacles can be faced when teaching and learning online?

This question was attempted to investigate the obstacles that could hinder the effective implementation of distance learning. Most teachers argued that there were various barriers to adopting distance learning; they mentioned internet unavailability, learners coming from poor families who can't afford the means, learners living in rural areas that are not cabled, students are not autonomous enough to study on their own; they always depend on teachers and they also highlighted lack of commitment.

**Question 24:** Was this strategy effective to make up for the tardiness and recompense the reduced instruction time? Explain

The aim of this question was to investigate the effectiveness of adopting this strategy to know if it has been in the advantage of the learning process. As displayed in TABLE 2.26, 89% of the teachers reported the ineffectiveness of the adopted strategy while 11% of them replied that it was effective.

Table 2.26

The Effectiveness of Distance Learning Strategy

Answers	Yes	No
Frequency	19	121
Percentage	11%	89%

For explaining, many teachers argued that the main reason for the ineffectiveness of this strategy is that it was not applicable for the number of obstacles they mentioned previously. They also explained that they were unfamiliar with the new delivery mode and they needed training to adapt to it. Most teachers also reported that the implementation of this strategy needs more consideration and requires the means necessary which takes more time, more effort and extra budget for its effective application.

**Question 25:** Will the effective implementation of this strategy change and improve education in Algeria?

This question aimed to investigate teachers' expectations about the effective and permanent implementation of online learning in schools for the purpose of introducing some change and improvement into the Algerian educational system. TABLE 2.27 below shows that 63% of the teachers expect a change and improvement in Algerian education if online learning is effectively implemented while 37% of them foresee no change.

Table 2.27

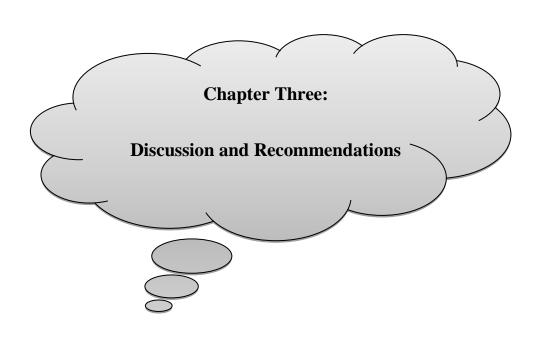
The Effective Implementation of Distance Learning for Educational Improvement

Answers	Yes	No
Frequency	88	52
Percentage	63%	37%

This section provided the analysis of the data collected from a questionnaire that was addressed to secondary school teachers in Algeria so as to investigate their perceptions of the adopted Covid-19 educational measures.

#### Conclusion

This chapter started by presenting the research protocol; providing information and description of the blueprint of this study, then it provided the analyses of data collected from the document analysis in the first section while the second section was devoted for the analysis of data gathered from the teachers' questionnaire.



**Chapter Three: Discussion and Recommendations** 

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#### Introduction

In this chapter, the findings of the research that have been derived from the document analysis and the teachers' questionnaire are discussed for the purpose of answering the research questions and testing the hypotheses.

**Research question 01:** What changes did the officially adopted Covid-19 educational measures bring about into the learning environment?

**Research question 02:** Did the officially adopted Covid-19 educational measures work in favor of the learning process?

**Hypothesis 01:** The officially adopted Covid-19 measures have created an unfamiliar school environment and prompted a sense of unusualness.

**Hypothesis 02:** The officially adopted Covid-19 measures didn't work in favor of the learning process.

The National Ministry of Education in response to the Covid-19 crisis have brought about into the educational environment while the teachers' questionnaire aimed to investigate secondary school teachers' perceptions of the officially adopted Covid-19 measures in an attempt to discover whether they have been in the advantage of the learning process or not. After discussing the main findings of the study, the chapter follows to point out its limitations and put forward recommendations.

#### 3.1 Discussion of the Findings

#### 3.1.1 Discussion of the Document Analysis

Based on the data collected from the analysis of the official documents that involved the main arrangements made by the ministry in charge of education to adapt the learning environment to the unprecedented situation, the results revealed that the main changes these adjustments brought about have been at the level of the school setting, the class size, the school calendar, the volume of the curricula and the delivery mode. With the implementation of the health protocol, the learning process was held amid unusual circumstances and exceptional health conditions; causing the school setting to become an "unfamiliar terrain" for teachers and learners. The Covid-19 preventive measures have, further, caused the class setting to change as the social distancing measures required the minimum contact between individuals. Thus, the recommended number of students within the same class didn't exceed 20; transforming large size classes into smaller ones. As a result of this transformation, another key parameter for learning has been altered; that is instruction time which has been reduced by half of the usual; making the school day shorter for learners and lessening the instruction hours devoted for each school subject. To adapt to that, the curriculum had to be curated; which resulted in modifications in regard with what to be taught and how. Some lessons have been omitted while others have been integrated or reordered according to the learning objectives and the targeted competencies. To compensate for the instruction time that has been lessened, a new delivery mode has been adopted. In addition to the in-person instruction, online learning was required to cover the whole content and complement classroom learning and, therefore, achieve the preset learning goals.

The findings from the document analysis uncovered the changes that the officially adopted Covid-19 educational measures have brought about into the learning environment and, thus, answered the first research question and validated the first hypothesis. Though the Covid-19 measures have been; mainly, adopted for preventive purposes so as to mitigate the risks of the virus, they have resulted in some pedagogical and instructional adjustments and

modifications that neither teachers nor learners have been familiar with. The alteration of the learning environment has prompted a sense of unusualness in that the school setting has been arranged according to the health protocol that imposed a range of uncommon practices that every school member had to adhere to and limited the social dimension of the school. Besides, the reduction in class size has changed the usual classroom setting that is; normally and generally large and overcrowded. In addition, lessening instruction time has altered the usual school timing for both teachers and learners who had to manage their teaching and learning time accordingly. The curricula have; further, been integral for change and their adaptation has been mandatory to bring the content to be taught and the adapted instruction time to equilibrium. Last but not least the delivery mode has been part of the adaptation; a new and unfamiliar delivery mode has been included within the new curricula. Online learning has been adopted as a supplementary educational method for instructional information delivery and a means for teacher-learner communication and interaction in out-of-school learning; which has altered the usual, traditional and only long-used delivery mode in Algeria; the "face-to-face" or "in-person learning". The effectiveness of these adopted measures and their effects on the learning process are to be discussed with the teachers' questionnaire discussion.

#### 3.1.2 Teachers' Questionnaire Discussion

#### 3.1.2.1 The Impact of the Covid-19 Crisis on Education

To begin with, the results from the questionnaire proved the total shutdown of education during the first wave of the pandemic and the lack of learning opportunities provided to ensure learning continuity in Algeria. Hence, the pandemic caused Algerian students to disengage with learning during all the period when schools were closed (07)

months). The findings revealed that school interruption, during all that period, widened learning gaps and affected students' cognitive skills in that most teachers reported a retreat in their students' levels as most of them missed out the prerequisites required to acquire new knowledge, they lost concentration and their abilities to grasp and retain information, they lacked motivation and faced many difficulties, specially that the previous school year had ended earlier than usual and students didn't achieve all the competencies needed for the next level. Moreover, the teachers' responses agreed upon the fact that this period will have a long-term impact on students' academic performance.

Thereby, the results have proved that the educational infrastructure in Algeria is susceptible to external shocks and unable to swiftly adapt to unprecedented circumstances. Unlike the many countries that demonstrated educational resiliency and leadership in ensuring learning continuity during the Covid-19 crisis, the findings have revealed that the Algerian educational system proved to be incapable of meeting the challenge as it failed to support learning continuity or provide learning opportunities while schools were closed. Furthermore, the results have approved the researchers' claim that the Covid-19's learning disruptions have had and will continue to have a negative impact on learners' academic achievement.

#### 3.1.2.2 The Effect of the Sanitary Protocol on the Learning Environment

Teachers' perceptions of the officially adopted Covid-19 educational measures varied from a measure to another. Concerning the establishment of the health protocol in schools which proved to be implemented by the results of the survey, the findings concluded that the preventive measures have changed; to some extent, the learning environment in terms of the obligation to comply with a set of measures that are unfamiliar, the constraints on the usual

close contact between different members of the school, the change in the ordinary habits that make of the school a space for social interaction, cultural and intellectual exchange and a place for developing personal relationships which have been limited by the health protocol. On the other hand, some responses have stressed the sense of responsibility and awareness that these measures have promoted within the schools while others highlighted the feelings of fear and anxiety those measures have generated.

As for the effect of the changes in the school environment on learning outcomes, the results affirmed the impact and most teachers reported a retreat in student's academic performance which has been hindered by the barriers that the Covid-19 preventive measures have imposed such as the restrictions on peer and group work that are a vital requirement in the currently adopted teaching approach (The Competency Based Approach), the lack of applied learning activities that play a key role in the learning of some subjects and the constraints on physical close contact that prevented the effective classroom interaction. Teachers also reported that another factor that significantly affected the learning outcomes has been the irregular attendance of students and the increasing number of absentees of both teachers and learners because of infection.

Hence, the findings of the survey accorded well with the studies on the effect of learning environment on students' academic performance and affirmed that the learning environment plays a significant role in the academic achievement of learners. Moreover, the findings matched up to the previous studies that revealed that unfamiliar school surroundings can damage students' learning abilities. These results have, thus, revealed that the change in the learning environment as a result of the implementation of the health protocol has not been

in the advantage of the learning process as it hindered effective teaching-learning interaction and interfered with the successful progression of the process of learning.

#### 3.1.2.3 The Impact of the Cohort System on Teaching and Learning

For the cohort system, the findings revealed that it has been a convenient social distancing measure. With regard to student's behavior, teachers affirmed that the smaller size classes resulted in promoting less disruptive behavior, preventing noise and boosting learners' discipline, attentiveness and comprehension which created a more encouraging and engaging classroom environment. Regarding teachers' task within the small size class, teachers' responses asserted that the decrease in the number of students facilitated their tasks in that it promoted classroom management, provided more opportunities to address the different needs of their students, facilitated and reinforced classroom interaction and smoothened the process of learning. There was an agreement among most teachers that the grouping of students into small size classes has positively affected the learning process as it eradicated the obstacles they have long been faced with within the usual large size classes and expressed the wish to adopt this measure as a long-term solution for the problem of over crowdedness in schools. Concerning the few teachers who reported that the grouping strategy has not been effective, they related that to the problem of teachers' staff shortage that resulted in the available ones having a big number of groups which has been a burden for the amount of effort it required; to work twice the usual time, reiterate lessons and correct exam papers in double.

It is concluded from the results that the reduction in class size had a positive impact on both teachers and learners which confirms the researchers' claims that smaller size classes provide a more engaging environment for students, promote a better leaning quality and make teaching easier and more enjoyable. Thereby, these findings have disclosed that the decrease in class size has worked in favor of the learning process as it fostered learners' discipline and engagement and facilitated teaching.

#### 3.1.2.4 The Effect of the Adapted Instruction Time and Curricula on Learning

Regarding the reduction in instruction time and the adapted curricula, the findings showed that teachers have been aware of the changes that occurred; however the majority reported that they did not receive any training about the implementation techniques. The results also showed that despite the fact that the reduction in instruction time has been considered in the adaptation of the curricular, the two didn't perfectly correspond as the time allocated for instruction has not been adequate for the completion of the educational program and the attainment of learning objectives. The findings revealed that the decrease in the time allocated for instruction has not been in the advantage of the learning process and confirmed its impact on the low academic achievement of learners. The teachers argued that the more instruction time is available, the more learners' abilities are to grasp and understand the information. They further asserted that the reduction in instruction time resulted in the omission of some class activities that are fundamental for the achievement of the learning objectives, these activities mainly included practice which is an integral phase for the accomplishment of the lessons' objectives, applied activities that are mandatory in some subjects and remedial instruction that is necessary for the improvement of learners' skills and abilities. On the other hand, they related the ineffectiveness of this measure to students' incompetence to, effectively, take advantage of the time available for leaning outside school to expand their knowledge and develop their learning skills and abilities, specially that the

ministry of education stressed that the time that has been reduced should not be considered as a free time but rather needs to be exploited for the improvement of students' competencies.

As for the adaptation of the curriculum, the results disclosed that the omitting and the integration of some lessons didn't have a big impact on the attainment of the learning objectives as most of the omitted lessons didn't have a great significance in the course and the ones that have been integrated shared the same learning objectives and target competencies. However, the findings revealed teachers 'dissatisfaction with the curricula in general in terms of their overload content, lack of balance and gradation and inconvenience with different learners' needs and abilities as well as their inadequacy with the time available for learning in class that always put the teachers between a rock and a hard place i.e. between the imposed pressure to complete the program that is overloaded and the instruction time that is not sufficient.

The findings have, hence, affirmed that instruction time plays a key role in the learning process and that its reduction has negatively affected teaching and learning which approves of the researchers who argued that an increase in instruction time results in an increase in students' performance and vice versa. The results have, further, revealed that lessening instruction time hasn't been in the advantage of the learning process and was neither beneficial for learners nor for teachers. As for the curriculum which is central for the running of the learning process, the findings have disclosed that its adaptation hasn't been effective or functional as it didn't meet the needs that the exceptional situation required and it was neither matching with the time available for instruction nor conducive to the attainment of the learning objectives.

#### 3.1.2.5 The Implementation of Blended Learning and its Effect on the Learning Process

In regard to the adoption of blended learning as a new approach to learning in Algerian education, the findings revealed that most teachers didn't receive any training concerning how to implement the adopted strategy as they have long been used to the traditional delivery mode or the face-to face teaching as the primary and only method of delivering instructional information to the students. Besides the lack of training, the results showed that the majority of both teachers and learners don't possess the means necessary for learning online and that teachers' technological skills are mostly average. The responses also disclosed other obstacles for teaching and learning online including internet availability, learners' different socioeconomic backgrounds; learners coming from low-income families or rural areas, students' inability to take responsibility of their own learning, lack of commitment from both sides; teachers and learners as well as the unfamiliarity of such delivery mode in the Algerian educational context. The findings revealed that online learning could have been an effective strategy to recompense the instruction time that have been reduced, make up for the tardiness in the progression of lessons and support the learning process and reinforce the target competencies, however the obstacles previously mentioned have hindered its effectiveness. Furthermore, the results disclosed that the effective implementation of blended learning with the consideration of the Algerian educational environment and the availability of the required means has the potential to change teaching and learning in Algeria.

Hence, the findings go in accordance with the critics of blended learning and support their claim that such a learning mode requires certain abilities and skills from both teachers and learners to prove effective in addition to the availability of technological means and internet accessibility that are necessary for the application of such a delivery mode. The results have, thus, revealed that the adoption of blended learning has failed to serve the learning process for the many existing obstacles that obstructed its effective implementation and hindered the achievement of the target learning goals. These obstacles varied from the deficiency in the essential means and materials to the teachers' and learners' lack of the required skills and abilities.

All in all, the results of the document analysis have approved the first research hypothesis and concluded that the officially adopted Covid-19 educational measures have created an unusual school environment that altered some of the main teaching and learning parameters and that significantly affected the learning outcomes. The findings of the survey, however, didn't totally validate the second research hypothesis which claimed that the officially adopted Covid-19 educational measures didn't work in favor of the learning process as the results have proved the effectiveness and positive effect of some and the negative impact and the inefficacy of other measures. The adopted measure that proved to be effective and had a positive impact on the learning process was the cohort system i.e. the transformation of the large size classes to smaller ones. The measure that proved to be the least effective and has negatively influenced the learning process was the reduction of instruction time while the ineffectiveness of the adaptation of the curricula and the adoption of blended learning has been linked to some pre-existing issues and obstacles that hindered their efficacy. To sum up, the arrangements and adjustments that the Algerian Ministry of National Education made to adapt the learning environment to the unprecedented situation imposed by the pandemic have brought about a range changes that affected the learning process to varying degrees.

#### 3.2 Limitations of the Study

No study is totally indefectible or comprehensive to all possible aspects. This study may not have been able to cover the research topic from all angles which opens the room for further research to discuss the related issues that could have been overlooked. Thus, pointing out the limitations of the study is needful.

The present research meant to investigate teachers' perceptions of the officially adopted Covid-19 educational measures in Algeria, analyze the changes those measures brought about into the learning environment and measure their effect on the learning process.

The debated topic requires inclusive study as the impact of the pandemic on education has been significant and affected all educational aspects. Due to the number of variables included in the study, it couldn't provide a thorough analysis and measurement for each one aside but rather in integration to reach the overall aim of the research. Besides, the issue has been broadly tackled in that no specific school subject or grade or a focus on a learning competency or skill in particular has been accounted.

Limited access to resources and official documents has been an obstacle in conducting the research; especially that document analysis has been one of the main investigation tools. Moreover, a crucial voice has not been considered through this investigation which is that of the learners as a core element in education. Finally, given the fact that the larger the sample is, the more precise results are, the sample size of the study may not have been representative of the whole target population.

#### 3.3 Recommendations

In the process of conducting this research, there have been some issues that have been raised in relation with the adaptation of the Algerian educational system to the unprecedented circumstances that the Covid-19 has imposed. Some pre-existing obstacles have prevented some adopted measures to function effectively. Henceforth, some recommendations are put forward as an attempt to address these issues.

#### 3.3.1 For Authorities and Policy Makers

The Covid-19 pandemic has undoubtedly been one of the most challenging experiences for our educational system. It had a significant impact on schooling and prompted educational authorities to take decisive measures to meet the challenge. However, the Covid-19 crisis has somehow offered an opportunity for change. Thus, the challenge posed by the crisis should be leveraged as a window of opportunity for educational reform and better teaching and learning experiences. Henceforth, national authorities ought to build on the Covid-19 experience to set up effective plans to ensure full readiness in face of similar challenges in the future as the experiences from the last two years have trembled national education and uncovered its infrastructural problems and its vulnerability to external shocks. It is, thus, necessary to strengthen and reinforce the education sector's infrastructure and financially and technically consolidate it.

In the age of technology, it is essential to renovate and modernize the education sector by introducing technology and promoting new methods of learning that are convenient for the Algerian context. The outdated education models should be renounced and updated teaching and learning modes ought to be adopted to meet the needs of modern students and provide them with learning opportunities that allow them to progress forward.

To address the changing needs of the modern world, there is a need to reshape national education and build up a resilient system that is able to support learning under different situations and circumstances and provide assistance and support for all participants to become more effective.

When it comes to making decisions that have the potential to affect the learning process, the voices of all concerned should be taken into consideration to bridge the gap, raise educational standards and ensure quality education that meets the demands of all.

The call is for educators also to create a positive and an effective learning environment that is motivating and engaging enough for students to take an active role in their learning and develop their skills and abilities for better learning experiences.

The current curricula have proved to be inadequate to meet the different needs, abilities and learning styles of all students and they are unconducive to achieve learning objectives. Thus, they need to be reviewed and revised in order to address the obstacles they pose for teachers and learners and that hinder the smooth running of the learning process. Curriculum development is, hence, a requirement for quality learning; an effective curriculum should be linked to the practical world to support an education that contributes in the development of the society.

Last but not least, more funds should be invested for the development of the profession of teaching. Thus, fostering teachers' training is fundamental for teachers to become better and more efficient and provide them with the guidance and assistance necessary for better teaching practices.

#### 3.3.2 For Teachers

Teachers are charged with one of the most important missions in our society that is educating our youth. Hence, they play a key role not only in education but also in the development of societies. Therefore, it is important to keep on working on developing themselves as practitioners to better serve the development of education and the society as a whole.

Teachers should engage effectively in the development and enhancement of their teaching abilities and skills (Continuing Professional Development) to be able to meet the needs of the modern society and face a world that is constantly changing.

In a world of technological advancement, teachers need to develop their technological skills and update their knowledge about the different available teaching methods to vary their teaching resources and strategies so as to better address the needs of learning.

The 21<sup>st</sup> century learner requires an up to date, well-informed and well-equipped teacher who contributes in the creation of a positive and effective learning environment for better learning and teaching experiences in order to enliven the learning process.

Teachers ought to build on their previous teaching experiences to get a hang of pedagogy that enables them to cope with different situations and circumstances and manage to adapt to new or unusual learning and teaching conditions.

Teachers should voice up the need of the improvement, advancement and revival of education in Algeria. They have to support decisions that work in the advantage of the learning process and denounce the ones that don't and most importantly it is necessary to put

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forward suggestions to solve the problems and obstacles encountered during the teaching process and contribute in the renovation of national education.

#### Conclusion

This chapter provided a discussion of the findings of the study that served to answer the research questions and test the hypotheses. It pointed out the limitations of the research and suggested recommendations for some of the issues that have been raised during the study.

#### **General Conclusion**

Since the onset of the health emergency, education has been one of the most affected sectors as the abrupt change it has brought about made the maintenance of the educational process very challenging. In Algeria, the sector has recovered after months of educational shutdown as the ministry in charge has taken a set of measures and made some arrangements and modifications to adjust the system so that it fits the new situation. As a result, both the teaching/learning environment and the teaching/learning practices have been altered directly affecting the teaching and learning process. Stuart (2015) demonstrated that the learning process is often affected by the environment in which it takes place as well as the ways in which it is carried out. He further illustrated that the human brain can highly be influenced by the surroundings, and everything present in the learning environment could potentially affect the learners' understanding, competence and confidence; either positively or negatively. Hence, the changes imposed by the health crisis on the Algerian educational context; being slight or significant, had the potential to affect the teaching and learning process.

The present research attempted to investigate the secondary school teachers' perceptions of the officially adopted Covid-19 educational measures and identify the changes that occurred in regard with the learning environment. The aim behind investigating teacher's perceptions and analyzing the changes was to discover whether the officially adopted measures worked in favor of the learning process or not. The main research questions that this study aimed to answer have been as follow:

**1-** What changes did the officially adopted Covid-19 educational measures bring about into the learning environment?

**2-** Did the officially adopted Covid-19 educational measures work in favor of the learning process?

The hypotheses that this study attempted to test are:

- **1-** The officially adopted Covid-19 measures have created an unfamiliar school environment and prompted a sense of unusualness.
- 2- The officially adopted Covid-19 measures didn't work in favor of the learning process.

The findings of the investigation have proved that during the last two years, the learning process has been held within some unusual circumstances and exceptional conditions. Some changes have occurred in the learning environment including, mainly, the set up of the preventive measures that altered school practices and interactions, the decrease in class size, the reduction of instruction time, the curation of the curricula and the adoption of a new delivery mode. However, the effects of these changes varied from one measure to another. The adopted measure that proved to work in the advantage of the learning process has been the division of students into groups and the reduction in class size which has been conducive to improve learners' behavior, facilitate teachers' task and create better learning environment while the lessening of instruction time turned out to have a negative impact on the learning process for not being convenient to accomplish the learning objectives and achieve the target competencies, address learners' needs and cover the program. Concerning the adaptation of the curricula and the introduction of the blended learning as a new method in Algerian education, the results of the research proved their ineffectiveness due to the long existing issues in the Algerian educational system such as the weak infrastructures, the overloaded curricula (content), the lack of means, lack of teachers' training and the dependence on the traditional delivery mode.

To end with, the Covid-19 period has tremendously marked national and international education. Thus, it has been important to document that period to serve as a lesson for the challenges to come. Nevertheless, this study has neither been flawless nor inclusive to all possible aspects; which opens areas for further research and, thus for more to learn.

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## Appendices

Appendix A: Teachers' Questionnaire (English version)

**Appendix B:** Teachers' Questionnaire (Arabic version)

#### Appendix A: Teachers' Questionnaire (English version)



#### Teachers' Perceptions of the Officially Adopted Covid-19 Educational Measures



Fellow teachers,

The questionnaire in hand attempts to gather the information required for the accomplishment of our research in the fulfillment of the master's degree. You are kindly requested to answer the questions in the sections below. Your answers only reflect your perceptions of the topic; they cannot be regarded as right or wrong. Tick the choice that best represents your opinion and justify where necessary, any further details and explanations are appreciated.

We would be thankful and grateful for your collaboration and contribution.

<b>Professional in</b>	<u>iformation</u>							
Place of work (School	and city):							
Teaching subject:								
<b>Teaching experience</b> :	Less than three years		From	03 to 05 years				
	From 06 to 10 years		More	than 10 years				
Questions  Section one: Education during Covid-19 crisis  This section provides information about Covid-19' repercussions on learning continuity,								
school closure and edu	_		haan	Tecu.	OOL CLOSED			
1. During the first w  Partially closed	ave of the pandemic, you  Entire	ur school has	been:	COL	RONAVIRUS			
2. During school clo	sure, what measures hav	e been taken	to ensure learning	g continuity?				
<ul><li>Online lea</li><li>Handouts</li></ul>	rning  and printed materials		- TV and Rad - Nothing	io programs				

3.	Did school interruption, during all that period, affect the students' cognitive skills?
	Yes No
If yes,	explain how:
4. has been	Did students face difficulties at the beginning of the school year as the previous one en interrupted?
	Yes No D
5.	Will that period affect students' academic performance for the years to come?
	Yes No
	Section two: Covid-19 prevention measures in schools
<b>A.</b>	The implementation of the health protocol
1.	Has the health protocol been implemented in your school?  Yes No
2. ensure	Did the ministry in charge provide all the essential equipments and hygiene tools to a safe learning environment?
	Yes No
3.	The health measures have been: Strict Rather strict Not strict
<b>4.</b> How?	Have the health preventive measures changed the nature of the learning environment?
	Yes No
	Explain how:

	Yes No
В.	The application of the cohort system
	as the cohort system been an effective social distancing measure to prevent infection in
hool	Yes No
	Did working in smaller sized classes change students' behavior? How?
	Yes No
Ex	plain how
	How did it affect teachers' tasks in the classrooms? Justify your answer.
ers'	tasks have become: less difficult
	Did it have a positive or negative impact on the learning process? Justify your answer.
	Positive impact Negative impact

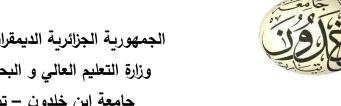
5. in	What Algerian sc		of applyin	g this strateg	y to solve	the problem	of over crowde	dness
		I am fo	r $\square$			I am agains	t $\square$	
	Why/wh	y not?						
						• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • •
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		Section th	ree: Currio	culum reshaj	pe and ins	struction tim	e reduction	
1.	-		_	-	_	about the	arrangements	and
mo	odifications	that occurre	d on the cu	rriculum and	instruction	n time?	2	
		Yes		No			Š	
2.	Have you	received a ti	caining cour	se on how to	implemer	nt the adapted	curriculum?	
		Yes		No				
3.	How well	did the adap	oted curricul	um correspoi	nd to the n	ew school tin	ning?	
	•	Very well		Rather well			Not well	
4.	Has the	omitting of	some less	ons and the	integration	on of others	within the ad	apted
cui	rriculum af	fected the at	tainment of	the learning of	objectives	?		
				Yes		No		
5.	The time a	allocated for	instruction	has been ade	equate to	complete the	educational pro	ogram
an	d achieve th	ne targeted c	ompetencie	s.				
				Yes		No		
6.	Has the rec	duction in in	struction tin	ne affected th	e learning	outcomes?		
		Yes			No			

## **Section Four: The implementation of Distance Learning**

1.	Have you	ı receive	d training	g courses of	on the imp	lementati	on of dist	ance l	earning?			
	·	Yes	·		No			כ	C		V Š	A
2.	Do both to	eachers a	and learn	ers have th	ie means i	necessary	for distan	ice lea	rning?	- -	DISTANCE LE	EARNING
	Š	Yes			No		C			N.		5
3.	Your tech	nologica	al skills a	re:								_
	Hig	gh	)		average		lo	w (				
4.	Besides th	ne means	s, what ol	ostacles ca	n be faced	when tea	aching an	d lear	ning onli	ne?		
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<b>5.</b>			gy effect	tive to ma	ake up fo	r the tar	diness an	d rec	ompense	the 1	reduced	d
ıns	truction tin	ne?										
			Yes			No	· 🗖					
6.	Will the ef	fective i	mplemer	ntation of t	his strateg	y change	and impr	ove e	ducation	in Alg	geria?	
		Yes			No	$\qquad \qquad \square$						
••••				•••••			•••••		•••••			

#### Appendix B: Teachers' Questionnaire (Arabic version)





# الجمهورية الجزائرية الديمقراطية الشعبية وزارة التعليم العالي و البحث العلمي جامعة ابن خلدون – تيارت – كلية الآداب و اللغات ( اللغة الانجليزية)

# استبيان

زملائي الأساتذة تحية طيبة وبعد...

هذا الاستبيان موجه إلى أساتذة التعليم الثانوي من خلال تجربتهم في مجال التدريس في ظل جائحة كورونا ( كوفيد19) ، و ذلك لإعطاء أكثر مصداقية للبحث وتزويدنا بالمعلومات حول موضوع تحت عنوان:

انطباعات الأساتذة حول الاجراءات و التدابير المتخذة جراء جائحة كورونا covid19 نضع بين أيديكم مجموعة من الأسئلة لإبداء آرائكم و توجيهاتكم و هذا خدمة للبحث الذي نحن بقصد تحقيقه في إطار التحضير لشهادة الماستر.

نشكركم على مساعدتنا ولكم منا كل التقدير و الاحترام.

ملاحظة: الرجاء قراءة كل عبارة في الصفحة الموالية ثم الإجابة عليها بوضع علامة × في الخانة التي تناسبكم.

كما لا توجد إجابات صحيحة وأخرى خاطئة وإنما إجاباتكم تبين وجهة نظركم .

من اعداد الطالبتان : تحت إشراف:

عديل أمينة د. بن عمور يوسف

عديل أصيلة

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المحور الأول : واقع التعليم في ظل جائحة كورونا (كوفيد19)
معلومات عن تداعيات كوفيد 19 على سير الدراسة، إغلاق الثانويات وإضطراب التدريس:
SCHOOL CLOSED CORONAVIRUS المحافظة كلّية أو جزئية؟ -1- هل تمّ غلق ثانويتكم بصفة كلّية أو جزئية؟
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-2- الاجراءات المتخذة: أنواع التعليم عن بعد التي تمّ اعتمادها خلال فترات إغلاق الثانويات, تمت عن
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# المحور الثالث: المخططات الاستثنائية و التوقيت الزمني في ظل جائحة كورونا (كوفيد19)

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# المحور الرابع: التعليم عن بعد في ظل جائحة كورونا

دعما للتعلم الحضوري و بدافع استغلال فترة الفراغ الناتجة عن النظام التناوبي في استمرارية عملية التعلم, استحدثت وزارة التربية الوطنية التعلم الهجين في البرنامج الدراسي الجديد وهو نموذج تعليمي يمزج التعليم الحضوري التقليدي الذي يتم في قاعة الدرس و التعليم عن بعد الذي يكون الكتروني باستخدام الانترنت.

	مجال؟	<ul> <li>ن في هذا الـــــــــــــــــــــــــــــــــــ</li></ul>	ة للأساتذة	إت تكوينيا	م تنظیم دور	-1- هل تدّ
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<ul> <li>التعليم عن بعد او التعلم الذاتي؟</li> </ul>	، الوسائل اللازمة	حد سواء علم	یذ علی ۔	ة و التلام	وفر الاساتة	–2– هل يذ
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	ية في التعلم عن	وجية التفاعل	ئل التكنول	فدام الوساة	م على استخ	-3- قدرتك
DISTANCE LEARNING	ضعيفة		سطة	متو		عالية
تعليم عن بعد يسميد	ن مواجهتها في ال	ق التي يمكر	هي العوائ	سائل, ما	افة الى الو	–4– بالأض
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الوقت و البرامج ؟	ر و النفص في ا	، تدارك التاخ	إتيجيه في	اته الاسترا	ی فعالیه ه	-5- ما مد
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و يحسن من واقع التعليم في	مدارس ان یغیر و	إتيجية في ال	اته الاسترا	و دعم ها	كن لتفعيل	–6– هل يه
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#### Résumé

Le Covid-19 se considère comme un des plus grands défis et expériences de notre histoire. Au domaine de l'enseignement, cette pandémie a créé un challenge pour tous les systèmes éducatifs au monde entier et inclus l'Algérie. La crise sanitaire sans précédente a obligé toutes les autorités à prendre des mesures strictes pour faire face à cette situation. Cette étude se veut un sondage sur les perceptions des professeurs d'enseignement secondaire en ce qui concerne les procédures mises en place pendant cette pandémie afin d'explorer les changements que les mesures adoptées ont apportées à l'environnement scolaire et leurs effets sur le processus d'apprentissage . Pour atteindre cet objectif on a fait recourir à l'analyse de contenu et au questionnaire comme méthodes de recherche. L'échantillon de cette étude comprend 140 PES de différentes wilayas. Les résultats obtenus ont démontrés que les mesures et les procédures mises en œuvre pendant cette pandémie ont conduit à un nombre de changements au niveau de système éducatif, le nombre d'élèves par classe (système de groupe), le volume horaire, allègement de programme et la mise en œuvre de "l'apprentissage hybride" qui ont affectés le processus d'apprentissage à des degrés divers.

Mots clés: Pandémie, procédures et mesures scolaires, perception des professeurs, l'environnement scolaire, le processus d'apprentissage

## الملخص

تعتبر جائحة كورونا عوفه 19 من أبرز الأزمات التي شهدها العالم و التي كانت لها تبيعات سلبية و تداعيات على جميع القطاعات و أبرزهم التعليم اذ خلقت تحدي غير مسبوق داخل الأنظمة التعلمية في جميع أنحاء العالم دون استثناء على غرار الجزائر، فقد ألزمت هذه الأزمة الصّحية السلطات باتخاذ بعض الاجراءات والتدابير للحد و التأقلم مع الوضع المستجد. تهدف هذه الدراسة إلى التعرف على انطباعات أساتذة التعليم الثانوي حول الإجراءات و التدابير المتخذة جراء جائحة كورونا في محاولة لاستكشاف التغيرات التي طرأت على المحيط المدرسي و مدى تأثيرها على العملية التعليمية ، للوصول إلى الهدف تم إجراء بحث استكشافي عبر استخدام أدوات بحث مناسبة تمثلت في جمع و تحليل وثائق رسمية ومنشورات و مناقشتها بالاضافة الى استطلاع لاراء الاساتذة حيث شملت هذه الدراسة 140 استاذ تعليم ثانوي كعينة بحث من مختلف مناطق الوطن و قد كشفت النتائج على أنّ الإجراءات والتدابير المتخذة جراء جائحة كورونا أدت إلى مجموعة من التغيرات من حيث النظام المدرسي ، تعداد التلاميذ في القسم (نظام التقويج)، الحجم الساعي ، تقليص البرنامج و اعتماد التعليم المدمج التي كان لها تأثير على العملية التعليمة بدرجات متفاوتة .

الكلمات المفتاحية: جائحة كورونا كوفيد 19 التدابير الوقائية \_ انطباعات الأساتذة \_ المحيط المدرسي \_ العملية التعليمية