

Comprehensive analysis of the impacts of COVID-19 on educational inequalities in rural Morocco and perspectives for public policies

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Abstract

Despite the implementation of significant educational reforms in Morocco in 1999, 2009, and 2015, there persists a notable disparity in school enrollment between boys and girls, public and private school students, and urban and rural residents. Consequently, educational inequalities have increased, particularly during and after the global pandemic.

Furthermore, the advent of the COVID-19 pandemic compelled Moroccan educational systems to adapt to novel circumstances swiftly, precipitating significant challenges about the right to education during periods of crisis.

This article aims to analyze the educational losses and inequalities caused by the COVID-19 pandemic and the responses of governments, schools, and teachers, with a particular focus on rural Moroccan areas. To address this gap, this study also aims to propose actions to strengthen education in rural areas, as a common good and a bulwark against inequalities.

A quantitative and qualitative survey conducted in rural areas of Morocco revealed that the COVID-19 pandemic has exacerbated existing educational inequalities in these areas. The limited access to technology, the school closures, and the socio-economic disparities were significant factors that affected the educational outcomes.

Together, the discourses and practices of teachers and principals demonstrate the intricacy of managing education during and in the aftermath of a pandemic. This illuminates both the difficulties inherent in reform and the necessity of learning from crises.

Keywords: Inequalities, education, pandemic, rural, public policy, dropout.

JEL Classification: I24

Paper type: Empirical research.

Introduction

The beginning of 2020 was marked by the emergence of the new coronavirus called COVID-19. In just a few months, the global pandemic and the speed of virus spread have managed to challenge health systems, education policies, consumption patterns, working methods, and the resilience of communities (World Bank, 2021; OIT, 2020; UNESCO, 2021; United Nations, 2020). So, this has brought far-reaching changes in all aspects of our lives.

In this context, many national and international studies have analyzed the impact of the pandemic in terms of widening educational and social inequalities, and how school closures can increase learning inequalities and disproportionately affect vulnerable students.

(Blundell et al., 2020; Cai et al., 2023; Doyle, 2020). Other studies have shown that students whose parents are illiterate are more likely to be at risk than their peers whose parents have more education (Liao et al., 2022). Thus, the pandemic has been a reminder of the extent to which inequalities in learning opportunities are the result of both household and school factors (Anand et al., 2022).

Like other countries around the world, Morocco has been facing an unprecedented pandemic crisis. Indeed, with a population of almost 34 million, 40% of whom live in rural areas and 32% of whom are illiterate, and despite increased public investment, with 28.4% of the national budget devoted to the education sector, the COVID-19 crisis revealed Morocco's difficulty in bringing about major structural change. As a result, the Human Development Report (UNDP, 2020) ranks Morocco 121st out of 189 countries and territories.

Therefore, how does the country manage access to educational services, in a pandemic situation described as urgent and unpredictable?

Due to the danger posed by the spread of the virus, the Moroccan Ministry of Education announced the indefinite closure of all educational institutions, from preschool to tertiary, from March 16, 2020 (MENFPESRS, 2020).

This new situation has affected 8.9 million learners in the country, including 6.2 million primary and secondary school students.

To address these challenges, the Ministry of Education has taken measures to ensure continuity of teaching and learning, such as the introduction of online teaching and learning platforms, and the use of public television and radio to program educational content for students. Despite these measures, limited access to digital tools and school closures have widened the learning gap between students from lower socio-economic backgrounds and rural areas and students from privileged backgrounds.

- Have the measures undertaken (distance learning) increased the number of school dropouts?
- What is the situation in public schools in rural areas after two years of disrupted schooling?

This study attempts to answer all of these questions by drawing attention to two main entries: (i) the impact of the COVID-19 pandemic on educational inequalities. In Morocco, the COVID-19 crisis has significantly disturbed educational practices and amplified inequalities in the right to education between boys and girls, between rural and urban areas, and between public and private schools. (ii) the degree of relevance of the measures taken during the pandemic to ensure a minimum right to education and the lessons that can be learned from these experiences. Thus, this study tends to explore the management of educational governance and how to implement alternative educational strategies in times of crisis.

This article aims to provide a comprehensive analysis and present the results of a field survey in the province of Youssoufia. This represents one of the two axes of the "Amal" Research Project on the impact of the COVID-19 pandemic on schooling and non-schooling in a rural

context in Morocco, particularly among students in the preschool/school cycles. primary and middle school.

To do this, the article is divided into three sections. We first propose to discuss and analyze the right to education in the context of crisis by proposing and discussing the conclusions of the review of national and international literature.

Secondly, we will analyze the pandemic crisis in the Moroccan context and the limits of institutional measures in education and training taken during and after the COVID-19 pandemic.

Finally, we will give the results of the empirical survey that we conducted among a representative sample of Moroccan schools in the rural region of Youssoufia. The findings of the study will help to bridge the disparities in education by showing how good governance could help to learn from the experience of the COVID-19 crisis.

1. The right to education in a crisis context: conclusions of the literature review

To understand the interaction between education and inequalities, especially in the context of crises, we need to mobilize different economic and social theories that can provide multidimensional analyses of how education interacts with economic and social inequalities, especially under crisis conditions.

Human capital theory posits that investment in education increases an individual's productivity and economic value. Thus, education is seen as a critical determinant of economic growth and personal income (Becker, 1993; Schultz, 1961). This framework can be linked to other theories that seek to understand how different factors contribute to educational outcomes and thereby affect inequality (Hanushek, 1986). From a sociological perspective, Bourdieu's concept of cultural capital highlights how educational inequalities arise because students from affluent families possess more cultural capital, giving them an advantage in the educational system (Bourdieu, 1986).

In addition, crisis theory examines the systemic crises in capitalism that lead to economic and social disruptions. In the context of education, crises can exacerbate inequalities, as marginalized groups often bear the brunt of economic downturns (Harvey, 2010).

Based on the foregoing, we can notice how the complex impact of the COVID-19 crisis on educational inequalities was seen as a new fissure that interacted with existing inequalities in several key areas of life, including socio-economic status, age, gender, ethnicity, and geography (Blundell et al., 2020).

From a right-to-education perspective, the COVID-19 pandemic has had a devastating effect on the continuity of learning. The education of the vast majority of children around the world has been severely disrupted, due to school closures. This was an unprecedented situation in the history of education in the 20th century.

School and student life came to an abrupt end for 1.6 billion pupils and students in more than 190 countries on all continents. According to (UNESCO, 2020b), the closure of schools and all other places of learning has affected 94% of the global school population, and up to 99% in low- and lower-middle-income countries.

The COVID-19 pandemic has also exacerbated pre-existing educational inequalities, especially in rural areas which face major challenges due to limited access to technology, healthcare, and resources.

Therefore, several reports from international organizations attest to the serious risk of the COVID-19 crisis on the progress that has been made in the fight against poverty and gender equality (OIT, 2020).

One of the major consequences of this crisis is the significant change in the way of teaching and learning. A crisis that caused students to be physically separated from their teachers and other students. Which initiated and encouraged new educational approaches; such as distance learning, e-learning online teaching (Bozkurt, A., Jung et al., 2020).

Even if the unprecedented global pandemic has triggered a radical paradigm shift in teaching methods via various online platforms which have played a crucial role during the COVID-19 pandemic, several researchers highlight the weaknesses of online teaching, especially the lack of infrastructure, the limited use of online teaching by teachers due to their low skills in this area (Doucet et al., 2020), the difficulties of learning at home as not conducive to the educational relationship between teachers and learners (Davy Tsz Kit et al., 2023) and the challenges of assessing real learning (Rahman et al., 2022).

Most studies conducted during COVID-19 on the importance of digital platforms have focused on students in urban schools while rural areas completely lacked reliable internet connectivity and access to digital devices.

Srinivasan et al., (2021) identified the main problems of unequal learning for rural students during the COVID-19 crisis: inadequate technology, unacquainted academic atmosphere, digital disconnect, physical well-being, the distractions inherent with the medium, and digital illiteracy.

The pandemic exposed and exacerbated existing socioeconomic disparities in rural areas. Low-income families faced challenges in accessing food, healthcare, and educational support.

Research by Reimers et al. (2020), (Rothwell & Smith, 2021) suggests that these disparities had a direct impact on educational outcomes.

Moreover, according to models often referred to the family investment (Doyle, 2020), the pandemic accentuates and highlights the vulnerability of poor populations. Indeed, inequalities in children's educational outcomes may be the consequence of a family's inability to invest in its children due to monetary constraints. This situation is due to the absence or weakness of political, economic, and social interventions aimed at maintaining jobs, as well as compromised food production and distribution chains and reduced access to healthy food in poor countries (Pereira & Oliveira, 2020).

The psychological consequences of the pandemic and the consequences of isolation, including anxiety and stress, have also affected the mental health of students. Research by (Loades et al., 2020); (Michele Poletti, 2020) indicates that students, particularly those living in rural areas, may not have had access to mental health services, which exacerbated their emotional difficulties.

On the other hand, the COVID-19 pandemic has exposed the poor preparation of teachers for periods of crisis. Rural teachers have not been able to successfully adapt to distance learning methods. In this regard, research by Ingersoll et al. (2021) highlights the need for professional development for teachers working in rural areas and the provision of necessary resources to ensure effective online teaching.

Finally, while governments have implemented measures to combat educational inequalities during the pandemic, such as access to technology and educational materials, much research has highlighted the low impact of these measures and the effectiveness of these initiatives in rural areas (Aaron van Dorn, n.d.; Atchoarena & Gasperini, 2003; UNESCO, 2021).

2. Pandemic crisis in Morocco and limits of institutional measures in education

In March 2020, Morocco had only a dozen cases of COVID-19. Despite this, the government has declared a state of health emergency and has put in place an integrated action plan for crisis management, based on 4 main axes: (i) monitoring of the epidemic; (ii) management of

contaminated cases and the fight against the spread of the virus; (iii) governance and coordination of actions; (iv) information and communication crisis (HCP, 2020).

The consequences of COVID-19 on education around the world are indeed detrimental. According to UNESCO, 166 countries have closed schools and universities. This decision deprived 1.52 billion children and young people of their right to education and training (UNESCO, 2020b, 2020a). The World Bank estimates that the financial cost of this learning loss could reach \$10 trillion, or 10% of the global gross domestic product (World Bank, 2021). This seriously compromises the achievement of goal 4 of the SDGs, which is to ensure access for all to quality education, on an equal footing, and promote lifelong learning opportunities.

According to the OECD, this is a paradox that boils down to the inability of the system to implement the learning of basic skills and harmful repetition practices that lead to early school leaving of a large part of the school population (OCDE, 2018).

In Morocco, the COVID-19 crisis has amplified inequalities in the right to education between boys and girls, between rural and urban areas, and between public and private schools.

Even before the period of COVID-19 pandemic, school dropout constituted a major challenge for Moroccan educational policy. In 2018, nearly 432,000 students dropped out of public-school education without having obtained certification, of which 78% came from primary and college cycles. The distribution of the dropout rate by gender in primary and college represents respectively 3.4% and 16.6% for boys against 3.9% and 11.6 for girls. In addition, the analysis of primary school dropout shows that it is mainly a rural phenomenon 4.8% against 2.2% in urban areas (HCETSR, 2019).

In Morocco, the government has announced since March 16, 2020, the closure of all education and training establishments for approximately 900,000 preschool children, 8 million primary and secondary school students, and 1 million students from Higher Education.

Three phases can be seen in the analysis of government actions to deal with school closures and ensure educational continuity.

- The first period from March 16 until the end of July 2020 was characterized by the closure of schools and the interruption of face-to-face learning. To deal with these problems, the Ministry of National Education has adopted a system of "educational continuity" based mainly on distance education. The measures that have been adopted are the use of a digital platform TelmidTICE, to offer online courses and the transmission of courses on television channels (the cultural channel; Al Amazighia; the fourth channel).

According to officials from the Ministry of National Education, the results of the first months of distance learning were positive: - production of more than 6000 pieces of digital content on the TelmidTICE platform; - daily operation of more than 600,000 students of TelmidTICE services; - video recording of 3127 lessons for all subjects and all school levels; - broadcast of 59 lessons per day on the three national channels; - the creation of more than 800,000 "team" virtual classes with the participation of 85,000 teachers and 300,000 students; - the creation of 111,000 educational materials for higher education; - a creation of the "e-takwine" platform which contributed to the continuous training of 23,290 teachers and administrators.

- The second period from 03 September 2020 to July 2021 is characterized by the challenge of reopening schools during a pandemic. the Ministry of National Education has maintained the reopening of schools, despite protests from parents' associations, and unions. During this second period, three teaching models were adopted: face-to-face teaching, distance learning a third scenario that alternates the first two models. The Moroccan authorities have conditioned the reopening of schools for 7 million students by respecting a health protocol by parents, teachers, and students.

At the end of October 2021, 210 schools have been closed for non-compliance with the health protocol. As for the epidemiological situation in schools, COVID-19 affected 1,500 teachers,

1,400 students, and 403 administrative and educational managers. This situation was accompanied by a switch to distance education for more than 100,000 students.

3. Analysis of the COVID-19 impacts on educational inequalities in rural Morocco

Since gaining independence in 1956, Morocco has seen a discernible advancement in the fields of education and training. As an illustration, from 30% in 1960 to 99.9% in 2023, more people had access to primary education. Furthermore, the illiteracy rate decreased from 87% in 1960 to 32% in 2022.

Nonetheless, enduring issues impede the achievement of the right to equitable and quality education in society (Bourqia, 2016). Preschool generalization is far from effective. The fact that only 52% of kids between the ages of 4 and 6 attended preschool in 2020 contributed to the deficiencies and disparities in early childhood development (HCP, 2020).

Moreover, only 37% of girls were enrolled in secondary schools in 2021, and over 300,000 students dropped out of public schools annually without receiving a diploma (CSEFRS, 2019). As evidenced by the available data, the Moroccan education system was deeply unequal before the COVID-19 pandemic crisis. Whether it's between boys and girls, between public and private education, or between urban and rural schools.

In this section, we will describe the study area and the methodological approach of our investigation on the impact of the COVID-19 pandemic on the development of educational inequalities in Morocco. We chose to carry out our investigation in the Marrakech Safi region, particularly the province of Youssoufia. This choice is justified by the following reasons:

- The Marrakech Safi region is one of the areas most negatively impacted by the rural population's illiteracy rate (52%) (HCP, 2015);
- the school dropout rate in rural areas in the Marrakech Safi region exceeds 7% (CSEFRS, 2019)
- in the province of Youssoufia, 94% of students are enrolled in the public school system and 6% in private schools.
- According to data from the provincial delegation of Youssoufia, 636 students which represents 14% of all students who will have to enroll in middle school for the 2020-2021 school year, passed the primary cycle study exam but did not access the college cycle. This shows that the COVID-19 pandemic has accentuated inequalities in access to school.

The data for this study were collected from multiple sources to ensure a comprehensive analysis of the impact of the COVID-19 pandemic on educational inequalities. These data sources included teacher and manager surveys, official Ministry of Education reports, national statistics, and international organization reports. The data provided information on education management during the pandemic crisis, student access to educational resources, attendance, performance, and other socio-economic factors.

The research uses a mixed-methods approach, integrating quantitative and qualitative data to comprehensively capture the multifaceted nature of educational inequalities. We based our analysis on data from the 2020-2021 school year, which corresponds to the peak of the pandemic's impact on education in Morocco, and from the 2021-2022 school year to analyze the after-effects of the pandemic.

We believe that the research approach we have selected is well-suited to comprehensively addressing the multifaceted nature of educational inequalities that have been further exacerbated by the pandemic. The mixed-methods approach allows for the triangulation of data, thereby providing a robust and nuanced understanding of the issues involved. The utilization of a multifaceted data set ensures that the findings are comprehensive and reflect the diverse experiences of the various stakeholders.

This study employed several dependent variables about educational inequalities. These were measured using a range of indicators, including school performance, retention, or drop-out rates before, during, and after the pandemic. (ii) Independent variables include socioeconomic status, geographical location, access to technology, and school infrastructure. (iii) Control variables, such as age, gender, and type of school (public or private), were also included in the analysis.

The proposed relationships are that socioeconomic status, geographic location, access to technology, and hierarchy-based management type are significant predictors of increased educational inequality. The data will be analyzed using IBM SPSS Statistics software.

By systematically applying these methods, this study aims to provide a comprehensive analysis of how the COVID-19 pandemic has reinforced educational inequalities in Morocco.

The study is based on a two-phase survey. The first one is quantitative in which a questionnaire was designed and sent to the 71 teachers that we contacted and agreed to participate. The questionnaire was supplemented by semi-structured interviews, conducted face-to-face or by telephone with 7 school principals who agreed to describe their school management experiences during and after the COVID-19 pandemic. The objective of these interviews is to deepen our knowledge of the daily reality of schools.

For the quantitative analysis part of this survey, the sample comprised 71 participants aged between 27 and 50 years old, including 38 male participants (53.5%), and 33 female participants (46.5%). Regarding the distribution of participants across types of schools, 56 teach in the secondary college cycle which represents 78.9% compared to 15 in primary school, which represents 21.1%. In terms of years of experience in the profession, 39 participants are over 20 years old, which represents 54.9%. 12 participants are between 10 and 20 years old, 12 participants are between 5 and 10 years old and 8 participants are under 5 years old.

As for the qualitative analysis part, the 7 managers interviewed present the following characteristics: They are all men, aged between 45 and 57 years old, and have professional experience which varies between 25 and 35 years. Their diplomas are either the license or the baccalaureate. All directors have at least 4 years of seniority in the Youssoufia province.

This wide range of ages, genders, and years of experience constitutes a representative sample of the professional categories of teachers and managers in the province of Youssoufia. This will strengthen and complete the analysis of the themes explored in our research.

The survey lasted between January 2021 and February 2022, amounting to several months with some discontinuities to respect school time.

Interviewee Codes, Status, Years of Experience, and Interview Duration

Code interview	Statut	Professional experience	duration of the interview
YM 01	Director	25 years	43 mn
YM 02	Director	31 years	37 mn
YM 03	Director	29 years	47 mn
YM 04	Director	35 years	36 mn
YM 05	Director	25 years	53 mn
YM 06	Director	26 years	44 mn
YM 07	Director	26 years	40 mn

Source: Authors

Of the seven interviews conducted, five were conducted in person, which allowed for a more personal and in-depth interaction with the participants. The remaining two interviews were conducted via telephone due to logistical constraints. The analysis of the interview data was conducted manually, ensuring a comprehensive examination of the responses and capturing the nuances of the participants' experiences and perspectives.

This study aims to demonstrate the interconnectedness of the COVID-19 pandemic crisis, low student enrolment, school failure, school dropout, and repetition within Morocco's educational system. These factors can have substantial impacts on students' academic journeys and the overall efficacy of the educational system.

Through this field survey we aim to see how teachers and managers of Moroccan schools take a critical look at the management of the COVID-19 pandemic crisis by educational authorities, then what are the impacts of this crisis on the strengthening educational inequalities, and finally what lessons can be learned. be learned to ensure better governance in times of crisis.

First, let's provide some educational and demographic data about Youssoufia Province. Indeed, in 2019, the category of children of school age in the Province of Youssoufia reached about 72,213 people distributed as follows:

Number of students by age

age category	number of students
5-4 years	11293
11-6 years	32117
14-12 years	14078
17-15 years	14725

Source: Provincial Directorate of Youssoufia (2020).

The schooling of this part of the population of Youssoufia is distributed over the following educational infrastructures:

Distribution of schools by location and school cycle

Cycle	Nature of school	Urban	Rural	Total
Primary education	independent school	14	2	16
	community schools	0	3	3
	main school	1	38	39
	attached schools	1	149	150
Total		15	193	208
Secondary education	middle secondary school	7	8	15
	high school	5	3	8
Total		12	11	23
Total of schools	231			

Source: Provincial Directorate of Youssoufia, 2021

In October 2019, the number of students in the province of Youssoufia represented 34,216 of which 25641 were in rural schools.

Like in other rural provinces in Morocco, Youssoufia faces limited schooling infrastructure, and the long distances between the douars and the communes make it challenging for children to access school. Despite the efforts of education authorities, transportation options are insufficient and contribute to attendance problems, particularly for girls. The implications of this situation for the right to education are significant. As a result, rural schools may struggle to provide the same quality education as their urban counterparts.

Data from the Ministry of National Education shows that the repetition rate before the pandemic affected 9.34% of students in primary rural schools in the province of Youssoufia (11.71% for boys and 6.71% for girls). Repetition becomes an important phenomenon in the school, which represents 26% for boys and 15.3% for girls.

Indeed, all studies carried out on education in rural areas show that school repetition generally leads to school dropout (CSE, 2015; Lafontaine et al., 2019; Llorent-Bedmar, 2015; Taiclet et

al., 2002). The school dropout rate in the province of Youssoufia reached 5.98% for boys and 3.22% for girls.

furthermore, social support initiatives to guarantee schooling in rural areas are not sufficient, because statistics show that out of 25,641 students in rural schools in the province of Youssoufia, there are only 2168 students who benefit from the services of school boarding schools, which represents only 8,4 %. As for school transportation, there are only 3532 students who benefit from it, which represents less than 13 % of students in rural schools.

In Youssoufia province, school dropout rates continue to be a major concern, hindering local development. According to our survey, several different factors in this province lead to school dropouts. We seek to offer a thorough analysis that can guide focused interventions to address this enduring problem by looking at the interactions between the effects of Covid 19, socioeconomic, cultural, and educational factors.

According to one of the managers interviewed: "We are dealing with multiple levels: the students, the administration, the teachers, and so on. Before the crisis, no one thought we would encounter this kind of situation, so everything was fine and normal. Suddenly, on March 20, 2020, with the whole world at a standstill, we found ourselves facing a risk for which we were neither psychologically nor technically prepared. As a result, it was challenging for students, parents, and administrative and pedagogical staff, because when face-to-face teaching stopped and was replaced by distance learning, we discovered that we were not prepared for it. (YM2)" Statistics from the Ministry of National Education show that in the province of Youssoufia, school dropouts experienced a significant increase during and after the pandemic crisis. The following table shows that the average school dropout rate in the different communes of the province of Youssoufia represents 14%. In certain rural communes, this rate can reach 38% (rural commune Sidi Chiker).

School dropout rate upon access to the college cycle (2020-2021 school year)

Province of Youssoufia

Commune	Intermediate high school	Number of students who passed the 6th year of primary school	Number of school dropouts	School dropout rate
Ejjdour (rural)	Yakoub Al Mansour	410	58	14%
Lakhwalqa (rural)	Al Aggad	292	50	17%
Sbiiat (rural)	Ibn Al Banaa	244	30	12%
Chemaia (periurban)	My Al Hassan	286	28	10%
Chemaia (periurban)	30 Juillet	231	3	1%
Chemaia (periurban)	Zoubeir Ibn Al Awam	86	0	0%
El Kentour (rural)	Abou Bakr Seddiq	257	13	5%
Youssoufia (urban)	Al Soussi	307	0	0%
Youssoufia (urban)	Princesse Lala Aicha	179	11	6%
Youssoufia (urban)	Allal Al Fassi	301	4	1%
Youssoufia (urban)	Omar Al Khayyam	293	13	4%
Ighoud (rural)	Al Bairouni	461	81	18%
Jnan Bbih (rural)	Achourouq	442	112	25%
Ras El Ain (rural)	Imam Al Ghazali	390	75	19%
Sidi Chiker (rural)	Ibn Al Mouatazz	417	158	38%
Total	Total	4596	636	14%

Source: Provincial Directorate of Youssoufia, 2022

The analysis of the questionnaire and interviews confirm that school dropout is a very present phenomenon in the rural context of the province of Youssoufia, 89% of respondents think that the Covid-19 pandemic has exacerbated this phenomenon, particularly for girls during the transition from the primary cycle to the college cycle and for boys during their studies in the secondary school.

We know that even before the COVID-19 pandemic, rural areas like Youssoufia province faced enormous economic challenges and their impact on educational opportunities. Poverty, limited access to resources and lack of infrastructure contribute to increasing dropout rates. In addition, parental illiteracy and the instability of their professional situation have a major influence on the educational progress of children.

However, our survey shows that during and after the pandemic, boys' school dropout rates increased. When asked if they believed that one of the effects of the pandemic crisis would be school dropout, 71% of teachers answered in the affirmative, compared to 28% who disagreed. The school dropout rate in rural areas and at the national level for the year 2020-2021, in the three cycles of the public sector reached 5.3%, an increase of 0.3% compared to the school year 2019-2020. Local school statistics show that the number of boys dropping out of secondary school increased by 2 points compared to girls, during and after the pandemic

70% of teachers' responses show that economic constraints are at the origin of boys dropping out of school during the post-pandemic period. Indeed, families in rural areas have been affected economically by the pandemic, with job losses, a reduction in income, and an increase in poverty. In this case, boys may be forced to leave school and work despite their young age to help their families financially. Families often depend on agriculture. Therefore, boys may be called upon to contribute to agricultural work.

For the last 10 years, the Ministry of National Education has adopted social support as an important mechanism to reduce the phenomenon of school dropouts in rural regions. This support takes various forms. The following table presents the number of beneficiaries of social support actions in the province of Youssoufia for the 2021/2022 school year.

Distribution of social support actions for schooling in the province of Youssoufia (2021-2022)

Nature of social support	Number of beneficiaries	Number of female beneficiaries
boarding school	2168	1246
student accommodation house	886	306
School transportation	3532	1614
operation 1 million schoolbags	42453	19996
TISSIR financial support program	32284	15186
School meal program	10934	5244

Source: Provincial Directorate of Youssoufia, 2022

Our survey reveals that during the post-pandemic period, and despite the importance of social support actions in the province of Youssoufia, the school dropout rate is still very worrying. One of the directors interviewed explains this phenomenon as follows: "Dropping out of school in the province of Youssoufia is a phenomenon that existed before the COVID-19 pandemic crisis. It was more important during the pandemic. Everyone believed that the return to face-to-face teaching would allow a reduction in the number of student school dropouts. However, many students have no longer returned to school, whether in primary or secondary school".

Interviews with principals and teachers show that the main reasons explaining the high school dropout rate in the post-COVID-19 period are: (i) The lack of parental engagement: parents in rural areas may find it difficult to engage in their children's education, due to various constraints, which can negatively influence student motivation. (ii) The feeling of uncertainty linked to the pandemic: The economic and health uncertainty linked to the pandemic can create a stressful environment, affecting the emotional stability of students and their families. (iii)

Lack of perceived future opportunities: students in rural areas may perceive a lack of future opportunities due to the economic impact of the pandemic, thereby discouraging their academic engagement.

Indeed, the impact of the COVID-19 pandemic is not limited to school dropouts. It is also linked to the very low level of basic learning (reading, writing, and calculations) observed among rural children.

84% of teachers surveyed confirm that the academic level of their students has declined after the pandemic. According to teachers and principals, the main reasons for low student achievement are: (i) The sudden transition to distance learning during the pandemic may have disrupted traditional classroom teaching, creating gaps in understanding of basic learning, especially for primary school students. (ii) Inequalities in access to distance learning: Not all students have equitable access to the technologies needed for online learning, creating disparities in access to education. (iii) Lack of interaction with teachers and peers which can negatively influence student motivation and engagement.

Our survey sought to clarify whether the COVID-19 pandemic crisis was at the origin of the low level of students. 65% of the teachers surveyed reveal that the pandemic has contributed to worsening the situation of students' low level of basic learning. However, the limited quality of student learning was observed before the pandemic.

Among the reasons that can explain the low level of students, we mention the instability of teaching staff in rural areas. 80% of teachers in our survey participate each year in the national and regional teachers' movement to change their workplace. One of the consequences of teacher instability is the difficulty of creating a lasting educational relationship between students and teachers. It is also a major issue in terms of establishing a teaching team within the school that is capable of creating a school climate favorable to the quality of learning.

Interviews with educational managers show a lack of awareness of the importance of education in rural communities, which can result in a lack of support from parents and the community. This is evidenced by the difficulty of creating associations of parents and guardians of students. Indeed, the role of these associations is very important for monitoring the education of students. Morocco is one of the countries that does not favor the automatic promotion of students. On the contrary, the system often resorts to repetition. The international assessments like PISA, PIRLS, and TIMSS could give plain links between grade repetition and educational system inefficiency. National and international assessments confirm that only a third of Moroccan primary school students master basic skills in mathematics, reading, and writing, which leads to the conclusion that the other two-thirds are faced with academic failure.

Thus, the indicators which concern internal efficiency, dispersion, social inequalities, segregation academic, and social are often linked to the ineffectiveness of different educational systems.

Even though 67% of teachers in our survey say they have used distance learning during the pandemic, they also identified the main challenges associated with this kind of teaching: (i) limited internet connectivity, which has made it difficult or impossible for students and teachers in rural areas to access online courses, educational videos and online teaching resources. (ii) lack of independent learning skills required by distance learning due to low parental support or the need to work to contribute to family income. (iii) the linguistic and cultural barriers presented by certain online content and the problem of inadequacy with the linguistic and cultural contexts of students in rural areas, which can affect their understanding and engagement in the learning process.

One of the managers interviewed confirms this diagnosis by saying: "It is not true to say that the pandemic was the main cause of failure and dropping out of school. These phenomena existed in rural areas before the pandemic. The COVID-19 crisis came to expose the reality that

we try to ignore. That of the impact of social inequalities in rural areas on the right to education” (YM4).

According to our research, low student achievement frequently leads to a cycle of both implicit and explicit school dropout. Even though the COVID-19 pandemic made things worse, several factors affecting teaching quality (inappropriate teaching strategies, a lack of educational resources), are to blame for this predicament. Repetition thrives in environments where students are not learning the foundational knowledge and skills required for their grades. Although the Moroccan educational system views repetition as a corrective measure, the teachers surveyed are convinced that students who repeat a year may end up falling behind their peers rather than having their initial gaps filled. This may cause you to feel devalued, frustrated, or even uninterested in learning.

A common outcome of repeating a year and the low starting level of students is academic failure. Failures can put students in a vicious cycle in rural areas, where a decrease in academic performance feeds demotivation, which exacerbates academic performance. As the final result of this cycle, school dropout has accelerated in this instance due to the COVID-19 crisis. Students who experience ongoing challenges, grade repetition, and failure may become discouraged and decide to give up on their academic endeavors. Their personal and professional futures will be affected in the long run by this. Based on the results of our survey, early interventions that target the learning difficulties of rural students and provide appropriate teaching methods to address them are crucial to breaking the cycle of low-quality learning, repetition, school failure, and school dropout. To address each student's unique needs and foster an inclusive learning environment, it's also critical to implement more flexible teaching strategies. A more equitable education system that supports the academic achievement of all students in rural Morocco can be established by making investments in high-quality educational materials and actively involving parents and the community.

4. Conclusion

Regarding differences in educational opportunities as well as scarce resources that worsen already-existing disparities. Decision-makers, educators, and civil society must acknowledge these issues and collaborate to develop long-term answers. Encouraging collaboration among local stakeholders, and investing in digital infrastructure. The pandemic has focused attention on the critical importance of creating an inclusive and resilient education system that can overcome barriers and prepare rural students for a more secure future.

Methodologically, this study employed a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather comprehensive data on the educational experiences of teachers and managers during the pandemic. The data were analyzed using SPSS for quantitative insights and manual coding for qualitative themes. This approach ensured a comprehensive and systematic triangulation of data, thereby enhancing the reliability and validity of our findings.

Overall, the study revealed how the COVID-19 pandemic has exacerbated already existing educational inequalities in rural areas. Limited access to technology, school closures, and socio-economic disparities are important factors influencing educational outcomes. Quantitative data showed a clear correlation between these factors and school results in terms of drop-outs, while qualitative data provided a better understanding of the personal and contextual challenges faced by students, teachers, and managers. The integration of the two types of data provided an overview of the impact of the pandemic on educational inequalities.

From a theoretical standpoint, this research contributes to the existing body of knowledge on the impact of the pandemic on the reinforcement of educational inequalities in the Moroccan context. From an empirical standpoint, the study offers invaluable insights into the unique

challenges faced by rural communities. The findings have implications for policymakers and educators in the design of interventions that address the root causes of educational disparities. Despite its contributions, this study is subject to several limitations. While the sample size is sufficient for an exploratory analysis, it may not fully represent the diversity of players and regions. Furthermore, the use of self-reported data may introduce biases. A significant area for further investigation would be the undertaking of longitudinal studies to monitor the evolution of rural areas from 2020 onwards, using larger and more diverse samples. It is recommended that investment be made in digital infrastructure, that targeted support be provided for disadvantaged students, and that teachers be trained in distance learning techniques to mitigate the impact of future disruption.

References

- (1). Aaron van Dorn, et al. (n.d.). *COVID-19 exacerbating inequalities in the US*. www.thelancet.com
- (2). Anand, P., Behrman, J. R., Dang, H. A. H., & Jones, S. (2022). Decomposing Learning Inequalities in East Africa: How Much Does Sorting Matter? *World Bank Economic Review*, 36(1), 219–243. <https://doi.org/10.1093/wber/lhab014>
- (3). Atchoarena, D., & Gasperini, L. (2003). Education for rural development. Towards new policy responses. In *Unesco-Fao*.
- (4). Bank, W. (2021). *COVID-19 Strategic preparedness and response program and proposed 25 projects under phase 1*. <https://doi.org/10.4324/9781003179900-43>
- (5). Becker, G. S. (1993). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* ((3rd ed.)).
- (6). Blundell, R., Costa Dias, M., Joyce, R., & Xu, X. (2020). COVID-19 and Inequalities*. *Fiscal Studies*, 41(2), 291–319. <https://doi.org/10.1111/1475-5890.12232>
- (7). Bourdieu, P. (1986). The forms of capital. *Handbook of Theory and Research for the Sociology of Education*, 242–251.
- (8). Bourqia, R. (2016). Repenser et refonder l'école au Maroc : la Vision stratégique 2015-2030. *Revue Internationale d'éducation de Sèvres*, 71, 18–24. <https://doi.org/10.4000/ries.4551>
- (9). Bozkurt, A., Jung, I., Xiao, J., Vladimirsch, V., Schuwer, R., Egorov, G., Lambert, S. R., Al-freih, M., Pete, J., Olcott, D., & Rodes, V., Aranciaga, I., Bali, M., Alvarez, A. V., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., Coëtlogon, P. De, Shahadu, S., Brown, M., Asino, T. I., Tumwesige, J., Reyes, R., Ipenza, E. B., ... Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 Pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, 15(1), 1–126.
- (10). Cai, X., Fu, J., Luan, M., & Tang, X. (2023). Assessing inequality in the school closure response to COVID-19. *China Economic Review*, 80(September 2022), 102008. <https://doi.org/10.1016/j.chieco.2023.102008>
- (11). CSEFRS. (2019). *L'Enseignement Supérieur Au Maroc: Efficacité et efficience du système universitaire à accès régulé*.
- (12). Davy Tsz Kit, N., Leung, J. K. L., Su, J., Ng, R. C. W., & Chu, S. K. W. (2023). Teachers' AI digital competencies and twenty-first century skills in the post-pandemic world. *Educational Technology Research and Development*, 71(1), 137–161. <https://doi.org/10.1007/s11423-023-10203-6>
- (13). Doucet, A., Netolicky, D. Dr., Timmers, K., & Tuscano, F. J. (2020). Thinking about Pedagogy in an Unfolding Pandemic by Education International - issuu.

- Education International and UNESCO, March, 58.*
https://issuu.com/educationinternational/docs/2020_research_covid-19_eng
- (14). Doyle, O. (2020). COVID-19 Exacerbating Educational Inequalities. *Public Policy.IE: Evidence for Policy*, 1–10. <http://publicpolicy.ie/papers/covid-19-exacerbating-educational-inequalities/>
 - (15). Elizabeth Loades, M., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., Linney, C., Niamh McManus, M., Borwick, C., & Crawley, E. (2020). Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19. In *J Am Acad Child Adolesc Psychiatry* (Vol. 59, Issue 11). www.jaacap.org
 - (16). Hanushek, E. A. (1986). The economics of schooling: Production and efficiency in public schools. *Journal of Economic Literature*, .24(3), 1141-1177.
 - (17). Harvey, D. (2010). *The Enigma of Capital and the Crises of Capitalism*.
 - (18). HCETSR Higher Consil of Edcuation Trainning and Scientific Research. (2015). *For s school of edquity, quality and promotion*.
 - (19). HCP. (2020). *Rapports sociaux dans le contexte de la pandémie Covid-19*.
 - (20). Ingersoll, R. M., Merrill, E., Stuckey, D., Collins, G., Harrison, B., & Ingersoll, R. (2021). *The Transformation of the Teaching Force Seven Trends: The Transformation of the Teaching Force*.
https://repository.upenn.edu/cpre_researchreports/
 - (21). Liao, H., Ma, S., & Xue, H. (2022). Does school shutdown increase inequality in academic performance? Evidence from COVID-19 pandemic in China. *China Economic Review*, 75(August), 101847.
<https://doi.org/10.1016/j.chieco.2022.101847>
 - (22). MENFPESRS. (2020). *Communiqué de presse sur l'adoption l'enseignement à diastance*.
 - (23). Michele Poletti, A. R. (n.d.). Coronavirus Disease 2019 and Effects of School Closure for Children and Their Families. *JAMA Pediatr*.
 - (24). OCDE. (2018). *Le Futur de l'éducation et des compétences: projet d'éducation 2030*.
 - (25). OIT, O. I. du T. (2020). *le COVID-19 et le secteur de l'éducation*.
 - (26). Pereira, M., & Oliveira, A. M. (2020). Poverty and food insecurity may increase as the threat of COVID-19 spreads. *Public Health Nutrition*, 23(17), 3236–3240.
<https://doi.org/10.1017/S1368980020003493>
 - (27). Rahman, M. A., Novitasari, D., Handrianto, C., & Rasool, S. (2022). Challenges In Online Learning Assessment During The COVID-19 Pandemic. *KOLOKIUJ Jurnal Pendidikan Luar Sekolah*, 10(1), 15–25.
<https://doi.org/10.24036/kolokium.v10i1.517>
 - (28). Reimers, F., Schleicher, A., Saavedra, J., & Tuominen, S. (2020). Supporting the continuation of teaching and learning during the COVID-19 pandemic. Annotated resources for online learning. *Oecd*, 1–38.
<https://www.oecd.org/education/Supporting-the-continuation-of-teaching-and-learning-during-the-COVID-19-pandemic.pdf>
 - (29). Rothwell, J., & Smith, E. (2021). Socioeconomic Status as a Risk Factor in Economic and Physical Harm from COVID-19: Evidence from the United States. *Annals of the American Academy of Political and Social Science*, 698(1), 12–38.
<https://doi.org/10.1177/00027162211062137>
 - (30). Schultz, T. W. (1961). Investment in human capital. *The American Economic Review, Schultz, T(51(1))*, 1–17.

- (31). Srinivasan, M., Jishnu, D., & Shamala, R. (2021). COVID-19 and online education: Digital inequality and other dilemmas of rural students in accessing online education during the pandemic. *World of Media*, 2021(4), 34–54. <https://doi.org/10.30547/WORLDOFMEDIA.4.2021.2>
- (32). UNESCO. (2020a). Education in a post-COVID world: nine ideas for public action. *International Commission on the Futures of Education*, 26. <https://en.unesco.org/news/education-post-covid-world-nine-ideas-public-action>
- (33). UNESCO. (2020b). *Ne laisser personne pour compte : participation, équité et inclusion*.
- (34). UNESCO. (2021). *Repenser nos futurs ensemble: un nouveau contrat pour l'éducation*.
- (35). Unies, N. (2020). *Responsabilité partagée et solidarité mondiale : Gérer les retombées de la COVID-19*.