

COVID-19 PANDEMIC AND EDUCATION INEQUALITY ISSUE IN IVORY COAST

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Abstract : The present study deals with education inequality issue in Ivory Coast in the context of COVID-19. Literature identified conventional education inequalities before COVID-19 at school attainment, school distribution, school completion, learning achievement and learning outcomes levels. Though effort from institutions and countries to reestablish education equality and equity, they remain persistent. The use of media education in the context of COVID-19 in Ivory Coast questioned about its relation to education inequality. The results identified gender and area based inequalities in Ivory Coast relatively to school attainment, school distribution, school completion, learning achievement and learning outcomes. There were inequality similarities between the conventional education and media one, differences as well. With the COVID-19 context, media education has proved to reduce inequalities in the one hand and generate other types in the other hand. Education opportunity extension, learning resources and new paradigm of education could be an average to education equality and equity. Nevertheless, schools' locations, inequity, access regional and rural/urban inequalities are specific to media education.

Keywords : COVID-19 Pandemic, Education, Inequality, Equality, Equity, Ivory Coast, Sub-saharan Africa

I. Introduction

The 2030 Agenda for Sustainable Development that was adopted in 2015 includes goal 4 that ensures inclusive and equitable quality education and promotes lifelong learning opportunities for all. It also targets the elimination of gender disparities in education (UNESCO, 2015) [1]. Thus, recalling inequality reduction as a Sustainable Development Goal (goal 10) makes the issue acute worldwide, namely for Africa (Zipporah, 2017) [2]. With regard to that importance, a recent report of the World Bank highlighted substantial differences according to the maturity of education systems across Africa. Based on their system-level development, it classified countries into four categories as followed: emerged, emerging, and delayed categories (Salman et al, 2020) [3].

Equality and equity of educational opportunities and outcomes were institutionally recognized as the most significant issues of today education systems (Jacob and Holsinger, 2009) [4]. Recent studies indicated that most developing countries face challenges of inequality of education which appear as an impediment to human welfare and growth (Folorunso et al 2018) [5]. Among those challenges, low-quality of teaching and learning in education and training programs, a large number of out of school children as well as inequalities and exclusion at all levels (Zipporah, 2017).

In that context, COVID-19 pandemic burst in Africa in 2020 with other types of education inequality issues. Thus, in 2020, nearly all the countries in Sub-Saharan Africa closed schools to slow the spread of COVID-19 for a relatively school year. Many countries turned to distance learning strategies, providing new learning opportunities for students but limited by digital fracture. Though substantial progress in distance learning in some Africa regions, access to internet and education media still remained poor (Salman et al, 2020). For that reason, Global Partnership for Education (GPE) struggled to reduce educational inequality with a focus on the poorest countries (OECD, 2020) [6].

Ivory Coast, a west African country faced the same challenges in terms of inequalities of education attainment, school achievement or completion and other disparities relative to gender, area, socioeconomic status, school characteristics as well. Those common disparities were observed across decades till the spread of the COVID-19 pandemic. The new context generated new educational practices based on Information and Communication Technologies (ICT). While international strategy was based on the Mass open online course

(MOOC), Ivory Coast experienced media education based on traditional media such as radio and television and digital platforms as well. To implement that program, In late March 2020, the Ministry of Education received from UNICEF a GPE grant of US\$70,000. Just to be able to launch in a very short timeframe free courses on TV and radio (GPE, 2021) [7].

A recent study on basic education system revealed the strength and weak points of that distance learning (Kone, 2021) [8]. What are the new inequalities derived from that new educational environment and what can be done to face the new challenges? Thereby an evaluation approach, that study tackled the issue, three objectives direct this study namely: (i) identifying education inequalities before and after the COVID-19 context in Ivory Coast; (ii) analysing their similarities and differences; (iii) proposing some remedial measures to reduce education inequalities in Ivory Coast in the COVID-19 context.

II. Theoretical framework

2.1. Equality vs equity

Equality is the state of being equal in terms of quantity, rank, status, value, or degree. Equity considers the social justice ramifications of education in relation to the fairness, justness, and impartiality of its distribution at all levels or educational subsectors. Equality refers to quantity and equity refers to the fairness or social justice of the distribution of education (Jacob and Holsinger, 2009).

Equity and equality items in education are often used interchangeably but understanding the distinction between the two is essential for resolving issues faced by disadvantaged students in the classroom. It's essential to use both items while considering equity as an educator's end goal. Thus equity refers to fairness and equality is being equal. When a group focuses on equality, everyone has the same rights, opportunities, and resources. Equality is beneficial, but it often doesn't address specific needs. Giving each student a take-home laptop, for example, would not address students who don't have Internet in their houses. Even if a school is equal, some students may still struggle. Equity, on the other hand, provides people with resources that fit their circumstances. The World Health Organization (WHO) definition of social equity is "the absence of avoidable or remediable differences among groups of people." Schools that prioritize equity versus equality are more in tune to their students' needs and provide resources to overcome their specific challenges. Equality is more commonly associated with social issues (Waterford, 2020) [9].

Equity in education is necessary for economic mobility. Without it, the economy will suffer from an achievement gap between groups in society. Because some students aren't prepared to achieve their working potential, it creates income inequality, which, in turn, forms a wealth gap. Parents on the lower-wealth tiers can't afford to send their children to the expensive, quality schools that those on higher tiers can. This contributes to structural inequality, where the institutions themselves contribute to inequality. As a result, inequity in education means that a society loses the income and economic output potential of the lower-income tiers. That slows economic growth for everyone. Equity should not be confused with educational equality, which means providing each student the equivalent resources. (Kimberly, 2021) [10].

2.2. Education inequality

Education inequality is analysed in terms of educational opportunities, attainment and learning achievement (Jacob and Holsinger, 2009). Inequality arises from the differences in educational attainment. In other words, educational inequality (EDINQ) is measured by educational attainment because differences in educational attainment account for the differential in earnings at the labour market. Thus, we used the education index as a proxy for the EDINQ because, globally, education index is a measure of differences in education across countries (Folorunso et al, 2018).

For William Schmidt, it's a myth to believe that schools are the great equalizer that help students overcome the inequalities of poverty (Kimberly, 2021). Inequity in education has also led to structural inequality. In the USA, 12 Structural inequality exists where poor children must attend public schools while rich children can afford to attend higher-quality private schools. Research from Michigan State University (MSU) has found that this school inequality gap accounts for 37% of the reason for their lower math scores. (Kimberly, 2021). Five definitional types of inequality were identified by Coleman (1968) as followed: (i) differences of the communities inputs to the school; (ii) racial composition of the school; (iii) various intangible characteristics of the school; (4) consequences of the school for individuals with equal backgrounds and abilities; and (5) consequences of the school for individuals of unequal backgrounds and abilities (Jacob and Holsinger, 2009). UNESCO'S inequalities' indicators are based on the following categories: (i) access, (ii) completion and (iii) learning achievement. Those indicators presents different section such as region(rural/urban), wealth (upper, middle, lower class), religion, gender. Those indicators are generally taken into account in UNESCO assessment of education inequality worldwide. However, this study will not use all of them. Regional, wealth and gender disparities are rather on focus here.

2.3. Education inequalities' theories

Literature identified multiple factors of education inequality and provided the measuring methods. Toughly, our study was focused on three types, namely social, socioeconomic, and schooling (Jacob and Holsinger, 2009).

2.3.1. Social approach

From sociological perspectives, three main theories were identified in earlier literature. They are functionalism, conflict theory and symbolic interactionism. The Functionalist perspective examines how society's parts operate. Functionalists believe that inequality is inevitable and plays an important function in social stratification. In other words, social stratification serves a vital purpose. Kingsley Davis and Wilbert Moore were the pionier of that theory via the Davis-Moore thesis in 1945. But, Melvin Tuming, a critic of that thesis, argued in his study of 1953 that social stratification prevented qualified people from attempting to fill roles. He also pointed out the Davis-Moore thesis' limits to explain race, gender and education inequalities (OpenStax, 2021) [11].

Conflict theory tried to bring awareness to social inequalities. That theory is critical of social stratification that resulted from people's relationship to production. It considered the latter as an inequality perpetuating factor. From that view, stratification benefited only one side of the society and divided people into two groups according to wealth and power, that is the poor and the rich (the proletariats and the bourgeoisies). That stratification resulted on a class conflict considered as a fundamental part of the social order. Karl Marx, through his study of 1848 was the precursor of that theory (OpenStax, 2021). From education perspective, schools were considered as a critical sites in the reproduction of social inequality such as class conflict and racial stratification. Therefore, merit was not recognizez at school and individual talent and hard work did not necessarily guarantee success.

Symbolic interactionist theory was added by the american reseachers. The basic notion of symbolic interactionism is that human action and interaction are understandable only through the exchange of meaningful communication or symbols. In this approach, humans are portrayed as acting, as opposed to being acted upon. Herbert Blumer's theoretical orientation toward symbolic interactionism can be summarized through three premises : (i) human beings act toward things on the basis of the meanings that the things have for them; (ii) the meaning of things is derived from the social interaction that one has with others; (iii) meanings are handled in, and modified through, an interpretive process used by a person in dealing with the things they encounter (Michael and Celene, 2015) [12]. Symbolic interactionism used everyday interactions of individuals to explain society as a whole. It examines stratification from a micro-level perspective by trying to explain how people's social standing affects their everyday interaction (OpenStax, 2021).

Besides, in relation to those theories based on social stratification, a study from Jacob and Holsinger (2009) stated that unequal educational outcomes were attributed to several variables, including family of origin, gender, and social class. Achievement, earnings, health status, and political participation also contribute to educational inequality within the United States and other countries.

2.3.2. School's characteritics based theory

The association between family SES and school achievement is a common measure of inequality of opportunity (Rob and Julia, 2020) [13]. The school preeminence on family background can be traced back to the Heyneman and Loxley study of 1983. According those authors, school characteristics were far more important than family background in explaining learning outcomes throughout Latin America, Africa, and Asia. That runs counter to developed countries and the Coleman Report of 1966 where family background is commonly identified as the main determinant of educational performance. Moreover, the Heyneman and Loxley study pointed out the decreasing effect of school on learning out-come while family effect increases with the gross domestic product. That thesis was confirmed by a recent research from. The rational beind their thesis is that, in a context of scarce resourcessuch as basic learning materials, the marginal effect of school quality is higher. That principle explains the disparities in school quality between the capital and remote rural areas in low-income countries (Rob and Julia, 2020).

Educational inequalities do not only reflect background related inequality, but especially schools' characteristics (Veruska and Gilberto, 2011) [14]. The school quality pathway can be interpreted as the combined effect of the association between family background and school quality and the effect of school quality on learning outcomes. Most of the effect of family background on learning outcomes operates through school quality, which results from a combination of the unequal distribution of resources (such as teachers and textbooks) across schools and high socioeconomic segregation between schools. The literature on school effectiveness in low-income countries has identified several school characteristics that are associated with positive learning outcomes, including physical resources as well as teaching practices and school governance (Rob and Julia, 2020).

2.3.3. Socioeconomic approach of education inequalities

From a socioeconomic perspective, three mechanisms sustained family socioeconomic status' and contributed to learning: (i) educational resources at home, (ii) health and well-being, and (iii) differences in school quality (Rob and Julia, 2020). Concerning the relation between education inequality and economic growth, for Jacob and Holsinger (2009), Countries that have highly equitable distribution of human capital in their labor force are countries whose per capita incomes grow. High birth rates in Sub-Saharan Africa of course make it difficult to achieve equitable distributions of education and, at the same time, contribute to each individual having a smaller share of national wealth. Inequality in education leads to inequality in material well-being or perhaps, more precisely, the maintenance of existing income inequality (Jacob and Holsinger, 2009).

Jacob and Holsinger (2009) observe changes and trends in education inequality. More people gaining access to primary, secondary, and higher education that should translate into greater educational equality and equity is not necessarily the case. Some critiques often describe educational advances as perpetuating a vicious cycle of education inequalities (Jacob & Holsinger, 2009). Thus for some researchers capitalism ultimately leads to greater inequality. There are trends that support the view that inequality in the distribution of education (number of years of completed schooling or attainment) is correlated with inequality of student learning achievement (Jacob and Holsinger, 2009).

Rob and Julia (2020) justified in three steps, the effect of family SES and school quality on learning out-come. First, there is likely to be a direct effect of family SES. This effect is generally assumed to reflect unobserved "educational resources" available in a household, which relate to a supportive home learning environment as well as parents' ability to help their children progress through school such as assisting with homework. Second, particularly in this low-income context, family SES may affect learning outcomes through its effect on health and physical and mental well-being. Third, family SES is likely to affect children's learning indirectly through its association with school quality (Rob and Julia, 2020).

A study on the economic perspective of education showed that public education investment has an increasing effect on education inequality (Folorunso et al 2018). It can be argued that the dominating effect of education inequality in the West African countries was due to poor creativity in knowledge creation through government public expenditure that goes to education (Sternberg, 2012). Logically, economic growth and development alongside togetherness with poverty reduction of the region depend on improving public spending that goes to education (Pan, 2014) [15].

In developing economies, the high dispersion of income and the depth of poverty were blamed on low education or education inequality. Education was seen as an investment in human capital development (OECD, 2012) [16]. That investment was supposed to allow greater opportunities for increasing productivity, better income, poverty reduction, social mobility and social inequality reduction (Folorunso. et al 2018).

II. Method

This is a qualitative study based on documentary analysis as secondary sources. Data were collected from previous studies on education inequality at national and international levels. Then they were compared and synthesized. Thus data before COVID-19 were compared with those in the COVID-19 context to sort out similarities and differences of inequalities.

3.1. Research techniques

This study is based on a systematic literature review that is comprehensive and details the time frame within which the literature was selected. Specifically, we used the meta-synthesis approach that is based on non-statistical techniques. This technique integrates, evaluates and interprets findings of multiple qualitative research studies. (John, 2011) [17]. Literature review permitted to collect data relative to education inequality in the covid-19 context. Specific information on education equality in Ivory Coast context was collected through documents via digital and physical means.

3.2. Data treatment and analysis

Data were treated through excel and word programs. As data analysis method, comprehensive approach permitted to identify, analyse, interpret and explain the factors of education inequality for a better comprehension of the phenomenon. Second, comparative approach was used to sort out similarities and differences between the context before and after COVID-19. Finally, in a strategic approach, actors' perceptions served as a basis for suggestions to fight back education inequalities related to the new context of media education.

IV. Results

4.1. Education inequalities before COVID 19

4.1.1. International factors of education inequalities

On international ground, some education inequalities were identified namely: income disparities, opportunity differences available to dominant and minority races and ethnic groups, and disabilities continue as limiting factors of educational progress in rural and urban settings. Moreover, those inequalities can be at local,

regional, or national. No single factor can justify them but, multivariate explanation is required to explain their complexities (Jacob and Holsinger, 2009).

According to Jacob and Holsinger (2009), a great number of scholars identified the followings as the factors that lead to or perpetuate education inequalities: Culture, disabilities, gender, globalization, HIV/AIDS, language, natural disasters, neoliberalism, political economy, politics, poverty, privatization, race or ethnicity, religion, social class, societal values and norms, socioeconomic status, standardized tests, and war. The factors affecting attainment outcomes are out-of-pocket and hidden costs of schooling, the discrimination and social exclusion based on class and caste systems, demand for child labor, parental education and the value parents place on education, gender and ethnic composition of schools, supply of classrooms, teacher knowledge of subject matter, female menarche, presence of toilet facilities in schools, tuition fees, and many others (Jacob and Holsinger, 2009).

4.1.2. Education inequalities in Africa

According to the World Bank 2018 report the impressive gains in primary school enrollment in Africa masked major deficiencies in learning (Rob and Julia, 2020). A UNDP 2017 report, showed significant advances in fighting back education disparities. However the situation was worse compared with other continents. According to that report, only four out of every 100 children in Africa is expected to enter a graduate and postgraduate institution, compared to 36 out of 100 in Latin America and 14 out of 100 in South and West Asia (Zipporah, 2017).

In Africa, limited household incomes that have impeded access to education are the first factor of education inequality. Another factor is the lack of government investment to create equal access to education. Disabled children are particularly disadvantaged. Discriminatory social institutions and cultural norms contributed to deepen gender gap. In Africa Sub-sahara, gender inequality existed at the expense of girls in terms of access, learning achievement, advanced studies and geographical boundaries. Namely, where a girl can expect to receive only about nine years of schooling while boys can expect 10 years (including some time spent repeating classes). Those factors accounted for the low transition from primary to secondary and tertiary education (Zipporah, 2017).

On socioeconomic ground, African countries are depicted as having highly unequally distributed national incomes that was attested by their Gini coefficients. Therefore we distinguished a stratified society based on a small, very wealthy elite, an emerging (urban) middle class and a large, mainly rural population living above the poverty line. Absolute poverty was the common factor with a low Human Development Index and a high prevalence of diseases (Rob and Julia, 2020).

In Sub-Saharan Africa, HIV and AIDS trend has deepened inequalities based on gender, social classes and ethnic groups (Jacob and Holsinger, 2009). UN 2017 regional assessments indicated "poor learning outcomes in sub-Saharan Africa, despite upward trend in average learning achievements." Most of the children used to leave school without acquiring basic reading and mathematics skills (Zipporah, 2017).

The rise of private education in Africa with the preexisting public one may be a source of inequalities in terms of access. Hence, high SES children tended to be enrolled in schools with better facilities and resources where they might receive higher-quality schooling. In the same time, low or middle SES children might receive lower-quality schooling. Even in the public system, direct and indirect costs (textbooks and school uniforms) at more prestigious schools may create barriers to access for poor children (Zipporah, 2017).

Facing education inequalities international organization have taken some relevant measures. The first is inequality's inclusion among the Sustainable Development Goals (SDG 10: Reduced Inequalities) as a reminder of the issue. Second, the implementation of early childhood development programmes for children from disadvantaged backgrounds. That may ensure that all children begin formal schooling with strong foundations. Third, The UNDP, adopted a new strategic plan (for 2018 through 2021) that has taken in account development issues such as development priorities, poverty eradication, jobs and livelihoods, governance and institutional capacity and disaster preparedness and management (Zipporah, 2017).

Table 1 : Education inequality categories and factors

Education Inequality categories	Education Inequality factors
Socioeconomic	out-of-pocket and often hidden costs of schooling, demand for child labor, tuition fees,
Social	the discrimination and social exclusion found in class and caste systems, parental education and the value parents place on education, gender and ethnic, female menarche
Schooling	composition of schools, supply of classrooms, teacher knowledge of subject matter, presence of toilet facilities in schools

R4D et ITAD (2018)[18]. Summative Evaluation of GPE's Country-level Support to Education. Final Report (V3). Universalia. P. VIII. Westmount, Montreal, Quebec. <https://www.globalpartnership.org/sites/default/files/2018-10-gpe-evaluation-report-cote-divoire.pdf>

4.1.3. Major education inequalities in Ivory Coast

The existence of education inequalities in Ivory Coast is testified by the outcome of the official governmental report of 2020 as followed :

En effet, l'éducation est désormais considérée comme l'un des meilleurs canaux de réduction des inégalités sociales, culturelles, économiques et géographiques. Sa mise en œuvre sur toute l'étendue du territoire national a donné à chaque enfant les mêmes chances de réussite, basées sur le mérite et non le sexe, le milieu de résidence. De même les diverses inégalités dans les degrés d'enseignement et les disparités entre les différentes régions sont progressivement en baisse. [...] Au-delà des nombreux problèmes d'iniquité qui continuent de miner l'école, l'insuffisance des infrastructures scolaires dans l'enseignement primaire et secondaire, les cas de grossesses en cours de scolarité en milieu scolaire, l'existence de plusieurs écoles communautaires, les structures islamiques d'éducation non intégrées au système éducatif, le faible taux d'encadrement des enseignants, les effectifs élèves pléthoriques des classes, les redoublements, les acquis des élèves et les échecs aux examens affectent considérablement l'efficacité interne du système éducatif (MENETFP et DSPS, 2020)[19].

That quotation roughly presents the essential inequalities of the Ivorian education system at primary and secondary levels. That is to say regional, rural/urban and gender inequalities. Moreover, the report mentions some inequality factors such as infrastructure shortage, teachers shortage, overcrowded classrooms, girls' early pregnancy at school, community school, informal Islamic schools, weak learning achievement and promotion rates that affect the performance of the education system. Over time, though the existence of disparities, changes in learning outcomes, equity and gender equality have occurred (R4D et ITAD, 2018) as followed.

4.1.4. Basic education inequalities

Gender parity of primary and secondary out-of-school rates have worsened from 2014 to 2016. Hence, girls are still far less likely to attend and complete primary and lower secondary school and to transition to (post-)secondary education. (R4D et ITAD, 2018). Regional disparities in access remain significant with substantially lower-than-average enrollment rates across all education levels in the northern and north-western regions. From 2011 to 2016, pre-primary enrollment rates increased from 3.9 to 7.6 percent. The PASEC assessment of 2014 noted significant regional and rural/urban disparities, with boys scoring higher than girls in mathematics. The location of schools was identified as the most important factor affecting learning outcomes (R4D et ITAD, 2018).

4.2. Ivory Coast's education inequalities in COVID-19 context

The spread of COVID-19 pandemic caused the closure of schools worldwide. In March 2020, UNESCO estimated that 22 countries on three continents were closing schools totally or partially to contain the spread of the COVID-19 virus; more than 290 million students and young people were out of school and an additional 180 million learners were threatened by the total closure of schools (UNESCO, 2020)[20]. That situation contributed to deepening education inequalities formally observed in African countries. Therefore, UNESCO claimed for ensuring learning continuity "for all, especially for disadvantaged children and young people who tend to be the most affected by school closures" (UNESCO, 2020).

As a response to the crisis, UNESCO has proposed an inclusive and equitable distance learning programme. Thus, by the means of open-access educational applications and platforms for schools and teachers, teachers kept in touch with their learners. Other organisations such as UNICEF and OIF initiated distance learning and digital programs likewise. The objective was to share best teaching practices through affordable and educational mobile technologies in order to mitigate the impact of classroom closures on education systems (UNESCO, 2020).

In this context, the second UNESCO webinar on the educational response to COVID-19 was held on 27 March 2020. This symposium was dedicated to teachers who ensure the continuity of learning.

There are 63 million teachers in 165 countries in all regions of the world (UNESCO, 2020)[21]. The meeting aimed to propose educational alternatives in terms of teacher training and support to ensure distance learning in "remote or rural areas with little or no access to the Internet" (UNESCO, 2020).

Likewise, UNESCO states that it has taken measures to ensure the continuity of education. As a result, school systems unexpectedly had to switch from traditional classroom teaching to virtual courses.

This involves interactive communication

between teachers and their students on social media platforms or other forms of digital technology.

In Africa, At the higher education level, the international network of higher education and research institution took advantage of the facilities of existing virtual universities through distance learning network (AUF, 2020)[22]. At primary and secondary levels, others types of media education such as social network, radio and television were used apart from digital platforms. That was the case for Ivory Coast. Actually the implementation of media education in that country has proved to be beneficial for education system on several points such as (i) Teaching-learning process, (ii) resources management and (iii) teaching practices. Therefore It's a relevant disposal that has proved to be an appropriate tool for education continuity and physical distance measure requirements in the COVID-19 pandemic context. (Kone M, 2021).

However, a study on media education's implementation in Ivory Coast revealed some shortcomings that are the expression of education inequalities. That's to say material inaccessibility, human maladaptation, curriculum and resources inadequacies, Digital fracture, Poor connectivity, Human and material resources inadequacies, Learners' maladaptation, Curricular inadequacies (Kone, 2021). The following table recaps the advantages and disadvantages of media education in Ivory coast.

Table 2: Media education's advantages and disadvantages in Ivory Coast

Factors	Advantages	disadvantages
Digital fracture		X
Poor connectivity		X
Curricular inadequacies		X
Human resources inadequacies		X
Material resources inadequacies		X
Learners' maladaptation		X
Program discrepancies		X
Education opportunity	X	
Conventional education system alternative	X	
Educational resource reinforcement	X	
New pedagogy lever	X	
Better interaction	X	
Better education monitoring	X	

Source : Kone, M., Media Education as a Resilience Factor of Ivory Coast's Education System in COVID- 19 Pandemic. *Open Journal of Social Sciences*, 2021, 9, 145-160. <https://doi.org/10.4236/jss.2021.94012>

Media education proposed some solutions to the limits of conventional education system that are : education opportunity, educational resource reinforcement, new pedagogy lever and better education monitoring. Nevertheless, their functioning generated new types of difficulties that can be considered as inequalities namely digital fracture, poor connectivity, curricular inadequacies, human resources inadequacies, material resources inadequacies, Learners' maladaptation and program discrepancies. The following table compares those inequalities with the ones relatives to conventional education.

Table 3 : Media and conventional education inequalities' comparison in Ivory Coast

Inequality factors	Conventional education inequalities	Media education inequalities
Digital fracture		X
Poor connectivity		X
Curricular inadequacies		X
Human resources inadequacies		X
Material resources inadequacies		X
Learners' maladaptation		X
Program discrepancies		X
Undereducated rural population	X	
Learning outcome disparities	X	
Gender inequality	X	
Inequity	X	X
Access disparities	X	X
Gender enrollment rates disparities	X	
Gender completion rates disparities	X	

Gender out-of-school rates disparities	X	
Access regional disparities	X	X
Access rural/urban disparities	X	X
Schools' locations	X	X

Source : R4D et ITAD (2018). Evaluation sommative de l'appui du GPE à l'éducation au niveau des pays. Universalia Group.

Conventional education showed disparities in school attainment, school distribution, school completion, learning achievement and learning outcomes. Media education shares a part of those inequalities and presents additional specific ones. Schools' locations, inequity, access regional and rural/urban inequalities. With media education data on gender inequalities, school completion, learning achievement and learning outcomes are not available yet.

4.3. Suggested responses to education inequality at international level

With school closures due to the COVID-19 pandemic, education policy option consisted in ensuring equity and inclusion. So many countries engaged in media and digital learning. The most wellknown was the Mass open online course (Mooc). That method required current access to media and digital technologies whereas most of southern countries still remain very poorly equipped. That phenomenon is called digital fracture. Therefore a number of measures were proposed by international institution, namely OECD (2021)[23] and Kimberly (2012), to push back that barrier. We examined those measures.

4.3.1. Education policy changes

Policy changes first consists in Improving the educational system's design by delaying or eliminating tracking that is an early selective practice in students' school career, either vocational education or general one. Second, we could extend childcare through childcare support (fond) that would be intended to families and local education institutions. Third, education policies should insert an assessment session of school systems in their practice to identify their needs and be able to achieve education for all. Fourth, the implementation of Global Partnership for Education could support poor school systems to reduce inequality gaps (OECD, 2021).

4.3.2. Providing equitable and inclusive access to digital learning resources

Partnerships with national educational media (TV channels, Radio channels) were required to reach a great number of learners. Free online learning resources to reach all learners in the MOOC option should be available to develop free educational contents. Another type of partnership with national telephone companies should be established to facilitate free use of mobile data. Distribution of free electronic devices and learning material to disadvantaged and vulnerable students in remote areas was encouraged. Moreover, they could provide with internet connection. That could be done with the assistance of NGO's and national air forces. Another act is to provide personalized education to develop specific skills and catch up learning gaps of vulnerable learners. It requires targeting resources to those most in need namely poor equipped schools or areas (OECD, 2021).

4.3.3. Providing equitable and inclusive access to good learning conditions

The continuity of limited physical educational services for the most vulnerable or students in difficulty was recommended through a determined number classrooms that remained open. In some cases, educational staff could be allowed to move to remote areas having no access to distance learning. Parental engagement was also recommended for their support to improved learning conditions to students, mainly vulnerable ones. That section could be reinforced by communication aspect that consists in facilitating information in different languages. It requires multi-lingual learning resources and culturally-adapted ones.

4.3.4. Ensuring that socio-emotional needs are being met

Counselling options and socialisation opportunities could be offered to vulnerable people such as immigrant students to improve their psychological and socio-emotional well-being. In the same way, tools to discuss COVID-19 with vulnerable students and their families could be developed with partners (NGO's and officials) to ensure children and adolescents have access to appropriate information and are equipped to face the situation. Videos, press conferences, comics and news broadcasts could be appropriate means for that. Moreover to Offer vulnerable students equitable and inclusive extra services, financial support and free school meals would be necessary (OECD, 2021).

4.3.5. Ensuring support to and by teachers

That section first consists in providing teachers with online teaching resources available and designing specific training profiles for the teachers in charge of diverse groups of students online. Second, socio-emotional support for teachers could help for their well-being and that of the student during school closure period. Organising fora and/or developing guidelines to set standards could help reach that goal. Third, Teachers should be organised in networks to support the learning and the inclusion of the most vulnerable. It requires their easy

access to online resources. The MOOC resources could sustain that process with a specification for southern countries throughout the global partnership for education (OECD, 2021).

V. Discussion

Discussion section was based on the analysis of the similarities and differences of education inequalities before and after COVID-19 pandemic in Ivory Coast. Those results could be discussed with regard to the theoretical framework of education inequality relative to social, socioeconomic and school characteristics. Therefore, two theses guided our analysis as followed : (i) media education as a factor of education inequality ; (ii) media education as a factor of education inequality reduction.

5.1. Media education as a factor of education inequality

5.1.1. Common inequalities

There're similarities of inequality between media education and conventional one. They're expressed throughout schools' locations, access regional and rural/urban inequalities. From a social perspective, disparity of schools' locations in Ivory Coast's basic education could be understood bias the functionalism that stratifies society. In that view, location disparity could be considered as a natural phenomenon inherited from class conflict. That is a simple reproduction of social inequalities in a conflictualist view (OpenStax, 2021). The same theses could sustain urban/rural inequalities of education access and quality. However limited resources of African states can justify that fact. Governments are compelled to prioritise some areas and regions objectively or subjectively (political interests).

From that view, secondary schools of Ivory Coast are classified in two groups : ordinary and excellent schools. Besides, we distinguish privileged school in ordinary class that receive more location than the others throughout their personal managerial relationship with education officials. That is a perfect illustration of symbolic interactionism that focuses on individual interaction with the environment. We can realise to what extent individual considerations could negatively affect a whole education system (OpenStax, 2021). Allocation disparities could also reinforce the school characteristics approach (Rob and Julia, 2020) in the long term since those receiving more resources would theoretically respond to education objectives.

5.1.2. Media education specific inequalities

Media education functioning generated new types of inequalities namely digital fracture, poor connectivity, curricular inadequacies, human resources inadequacies, material resources inadequacies, learners' maladaptation and program discrepancies (Moussa, 2021). Those disparities are essentially structural since they are subsequent to the conception of the conventional school. With the COVID-19 crisis, the school system had to shift brutally from physical to distance learning without any preparation.

Digital fracture and poor connectivity are common inequalities in sub-Saharan Africa specifically in Ivory Coast. That result goes along with the UNESCO (2020) estimates on connectivity in Africa that showed that some 56 million learners live in areas not covered by mobile networks, almost half of them in sub-Saharan Africa. 89 per cent of learners don't have access to family computers and 82 per cent don't have access to the Internet" (UNESCO, 2020). The drawback is the increase of the gaps between learners from different socioeconomic strata and areas. Once again, the functionalism's stratification accounts for those disparities since individual purchasing power determines the level of connectivity. At state level, poor investment capacity also limits access to digital technology. That can be observed at rural/urban or region levels.

What is subsequent to digital fracture is the disparities relative to human resources qualification in digital technology. The teachers who previously had access to online courses or Education Information and Communication Technologies proved to be more adaptive to the new context. Those who experienced online courses faced more difficulties. That lack of qualification could be an obstacle to the learning process. To prevent or solve that situation, OECD (2020) proposed an inclusive access to digital learning resources and specific training profiles for the teachers in charge of diverse groups of students online. Once again, that process requires free access to media and digital technologies. Support and partnership with local media are thus necessary to make advance.

5.2. Media education as a factor of education inequality reduction

Media education proposed some solutions to the limits of conventional education system that are : education opportunity, educational resource reinforcement, new pedagogy lever and better education monitoring (Moussa, 2021).

5.2.1. Education opportunity

Extension of education opportunity is done through the MOOC that is free of charge and thus allows more students to take part in the classes. Extension of education opportunity requires partnerships with national educational media (TV channels, Radio channels) (OECD, 2020). From the perspective of the 2030 agenda, media education could boost education for all goal. That could also reinforce sustainable development goal 4 relative to access to education quality. However, the question of its quality deserves a serious study from experts. Media education becomes an additional opportunity of education for those who have access to conventional

education. It's just a information or communication tool for those who have access to it without training. It could even be a sources of learning difficulties when the learners feel maladaptation for it.

5.2.2. Educational resources reinforcement

OECD's 2020 report showed a growing shift away from traditional higher education institutions to massive open-online courses (MOOC) bias content sharing, videos, online forums, and exams (OECD, 2020). Radios and Televisions that are more accessible are sustained by the MOOC and both means support conventional learning methods. OECD recommands inclusive access to digital learning resources. In that perspective, it's compulsory to have available free online learning resources to reach all learners in the MOOC option (OECD, 2020). For Salman et al (2020), that reinforcement should goes along with progress in delayed and emerging education systems,respond to the specific needs each category of education systems. They will also benefit more from printed self-learning kits bias newspapers in absence of electricity or digital technology(Salman Asim, 2020). The reinforcement of education systems also indicates their resilience capacity. Ivory Coast has proved to be in that moov, since digital and media equipment were reinforced to meet education perspectives in 2020.

5.2.3. Rethinking educational paradigm and policies with alternative forms

From the COVID-19 crisis, education is no longer limited to conventional paradigm. Various learning channelspreviously regarded as trivial or informal are henceforth academic means of learning in african countries. There are televisions, radios, mobile phones, SMS, phone calls. Rethinking alternative forms of education conveys its dynamism. It also specifies the learners' needs in relation to their socioeconomique and geographicalstatus since they don't have access to the same type of learning materials. That's a way out to education equity. In that perspective, in 2020, Ivory cost received US\$11 million COVID-19 grant from UNICEF to support students' access to distance learning services that comprises development and dissemination of print, radio, TV, online learning materials, provision of radios to households, mobile phone credit for teachers (GPE, 2021)

VI. Conclusion

The finding of this study reveals that education inequality is a central issue for the Millenium Development Goals (MDG), the Sustainable Development Goals (SDG), the Global Partnership for Education (GPE) and various initiatives in the world. That's due to its importance. It's a multiform and complex subject with specificities according to the context before and after the COVID-19 pandemic.

In Ivory Coast, education inequalities in basic education (primary and secondary) before COVID-19 were relative to school attainment, school distribution, school completion, learning achievement and learning outcomes. Those disparities were either based on gender or on area. With the COVID-19 context, media education implementation in Ivory Coast proved to reduce inequalities in the one hand and generate other types in the other hand. In inequality reduction perspective, education oppotunity extention, learning resources and new paradigm of education could be a leverage to education equality and equity consolidation. Nevertheless, schools' locations, inequity, access regional and rural/urban inequalities are specific to media education. To face those difficulties more effort in required to improve individualpurchasing power and hybrid learning methods should be implemented. To tackle those issues specific studies should be led in the perspective of the 2030 agenda.

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