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The challenge of monitoring quality in distance education

NOTE 1:

REGIONAL PROGRAMME TO SUPPORT QUALITY MANAGEMENT IN BASIC
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Introduction

Since March 2020, following the declaration of the COVID-19 pandemic by the World Health Organization (WHO), 185 countries and territories have decreed the closure of schools for varying lengths of time, depending on the context of each one. This has affected the daily lives of more than one billion students worldwide. Experience from the Ebola epidemic shows that school closures appear to be a wise decision to limit the transmission of the virus, as precautionary infection control measures are difficult to implement and enforce in schools. The decision goes hand in hand with pandemic prevention measures taken by some governments, such as lockdowns and travel restrictions.

In Africa, perhaps more than elsewhere, school closures could slow the progress achieved in extending and improving the quality of basic education, especially because in many countries (particularly in the Sahel) a large number of schools had already been closed for several months because of security concerns, strikes, or adverse weather conditions. For the most fragile education systems, this interruption of the school year is likely to have a negative impact on students from the most vulnerable families in socio-economic terms and on those who live the furthest away from public services. The conditions for ensuring continuity of learning at home are limited. Children's presence at home could also weaken the economic situation of parents, who are forced to find ad hoc solutions to provide care or compensate for the disappearance of school meals. Domestic chores, especially for girls, and other work required to run households and farms, could also prevent children from having sufficient time for learning.

Education systems are faced with an unprecedented situation, which they must deal with by trying to preserve quality education despite knowing that students and teachers are unable to come together in the classroom: 'Teaching no longer happens at school but at home.'

The traditional school set-up generally requires the teacher to be in front of the students. In order to ensure that education takes place under good conditions, a range of measures has been introduced to ensure that the education provided achieves the objectives set. These measures are made up of:

- the teacher, who is in direct contact with all of his or her students in the same classroom at the same time. He or she uses student-centred teaching methods, and is the most important factor in the development of each learner's knowledge and skills throughout the school year, which is punctuated by periods of activities and holidays adapted to students' needs;
- the school principal, who, by being actively present, ensures the proper administrative functioning of the establishment and welcomes all staff members. He or she also directs the educational aspects of the school, provides the curricula and teaching materials that are necessary for the best possible learning conditions, and ensures follow-up;
- the educational adviser and the inspector, who check that the teaching provided complies with the national curricula and that the students are acquiring knowledge. They also provide ad hoc coaching to help teachers reflect on and improve their practices.

This traditional teaching system also features regular monitoring and testing that makes it possible to measure the effectiveness of class attendance and progress made by students. Testing is often supplemented by support activities for underperforming students or those at risk of dropping out, to help them stay in school. Teachers design and carry out assessments of learning achievements and implement remedial measures (specific or national) in order to enable the majority of learners to follow a smooth learning path. Teachers, for their part, benefit from in-service and ongoing training schemes in order to acquire the necessary skills and the professional support they need.

However, notwithstanding these efforts, many students fail to acquire the minimum skills, and many others attend school irregularly and end up repeating a year or dropping out. Although in many countries this situation can be attributed to the fact that a significant number of public schools are in poor condition, poorly equipped, and poorly resourced, school remains the most effective means of removing children from many risks (starting work at a young age, violence, abuse, exploitation, etc.) and giving them the opportunity to acquire the skills needed to integrate into society and the labour market.

This is why, pending the full reopening of schools in total safety, several governments have taken the decision to continue teaching by trying to find alternative forms of learning opportunities where the teacher and his or her students are not gathered in the same place (i.e. distance learning).

As ministries of education (MoEs) in countries affected by COVID-19 engage in the development of contingency plans to ensure educational continuity, several questions arise.

- What are the alternative models for pursuing distance-learning courses? What are the advantages and challenges of each model with regard to the goal of ensuring equitable quality education for all?
- Based on the possible models, what arrangements should be put in place to ensure the continuity of teaching, coaching, and support provided by teachers, principals, educational advisers, and inspectors?

This memorandum, the first of two,¹ seeks to contribute to the programme to support the steering of quality in basic education and to the reflection currently underway in MoEs. It takes stock of the most commonly used models for delivering distance learning courses and discusses new actors who are entering the field and who will play a decisive role, as well as the conditions for the success of each model. It places particular emphasis on the accompanying measures that should be taken to ensure that the quality dimension of distance education is taken into account. Looking beyond the current emergency, the memorandum could be used in any future situation of exceptional school closures (security risks, floods, cyclones, other epidemics, etc.) to guide ministries' decisions on the continuation of teaching via distance learning and on ways to assess its effectiveness.

1. Distance learning models

Distance learning models can be identified by the medium through which the content is delivered. These media may be online platforms, courses sent directly to smartphones or tablets, programmes broadcast on television and radio, and courses and workbooks distributed in paper form as close as possible to schools. Often, several of these methods are chosen for simultaneous use: for example, radio broadcasts may accompany paper-based materials distributed to students and teachers. The support role of teachers, educational advisers, and inspectors is also important, irrespective of the media used.

¹ The second memorandum will report on the mechanisms used by MoEs in sub-Saharan African countries, their effectiveness, and the challenges they face; it will then propose actions to improve the steering of quality in distance education while drawing on the needs identified and experiences gained from the programme.

1.1 Online digital platforms and offline media

Online digital platforms are software tools whose role is to enable the management of distance learning. They offer spaces where educational content developed in various formats (e.g. documents, audio, videos) can be downloaded so that users (students, teachers, parents, etc.) can access them. These digital platforms are environments for storing, reusing, managing, and distributing educational content from a common publishing repository. In some cases, teachers can upload their courses and accompanying documents. Students log in and follow the suggested guidelines for each discipline. Parents also have access so that they can monitor their children's work and progress. Interaction among all users is possible. An administrator (or a team) is usually in charge of managing the site so that it is operational and up to date. Sometimes the administrator can include a space for exchanges among users on the platform, thus creating communities of learners around didactic content and educational activities, or even support for e-learning for those who express the need for it. In addition to online content accessible via the internet, there is also the possibility of offering learners with access to a computer the possibility of offline tools such as USB keys, which could contain resources developed by teachers for their students, who, in turn, can return their work.

An undeniable advantage of teaching via an online platform is the possibility for everyone to connect either live to attend a teaching session, with possible control of actual presence, or at a chosen time to retrieve teaching resources or to submit assignments or questions and request help. Its main disadvantage is the obligation to use an internet connection, which is still not very widespread in sub-Saharan African countries, especially in rural areas, largely because of its cost. For this reason, in the interests of equity, and regardless of the fact that access to a computer or tablet at home remains the exception, an MoE using this model should explore with telecommunications organizations the possibility of making these platforms free or at least facilitating access to them.

1.2 Television

Most African countries have at least one public television channel and several have private channels. In order to be able to keep in touch with students and continue distance learning, airtime in the programme schedule can be negotiated with television stations and used for teaching. Lessons are prepared based on the content of the curriculum, then filmed and broadcast. It is advisable to select teachers who will present the material clearly and audibly. A technical team is mobilized for preparing and shooting video tutorials, which are then edited into sequences and broadcast on television (or on the official portal of the MoE, for example, or any other site). Some programmes may be interactive and require viewer participation using a telephone. This means that the ability to present information enthusiastically is one of the essential skills of the programme presenter, even if he or she is a teacher by profession.

The main constraint of this model is the requirement for all students to be available at the same time, according to a pre-announced programme schedule, to follow the lesson on television. It should also be noted that while this model has the advantage of reaching a larger proportion of students, access to electricity is also required to make use of it. Accordingly, there is still a high risk of inequity if this is the only distance learning means used.

1.3 Radio

Radio remains the easiest technology to access in the world. According to UNESCO, in sub-Saharan Africa, between 80% and 90% of households have access to a working radio set. Most countries have public, private, and community radio stations that can be used to continue teaching students who

suddenly find themselves out of school. As with television, programmes are either recorded or live, broadcast at specific times and widely advertised so that the public can tune in. In simple broadcasting, lessons, private instruction, and other educational and cultural programmes can be offered. More interactive programmes can also be offered locally, involving teachers who can answer questions from listeners. In this regard, interactive radio instruction (known as IRI) is a one-way radio-based teaching approach that reaches students, parents, and teachers through pre-recorded interactive lessons. The infrastructure and know-how in this area already exists in many countries. One or more radio frequencies could be made available specifically for this purpose by country authorities, in order to be able to provide lessons at different levels at the same time.

1.4 Tablets and smartphones

Since the 2010s, mobile telephony has offered major opportunities in both educational and recreational fields. The functions of mobile phones (e.g. calls, text messages) are developing rapidly (e.g. text and document readers, mp3, images and video) offer several possibilities for providing distance learning. Lessons can be prepared in the various formats available and shared on smartphones and tablets. Common applications such as WhatsApp, Facebook and Google Classroom can be used to create forums for teachers, students, and/or parents.

The advantage of this model lies in the fact that more and more people have mobile devices (almost three quarters of the population in Africa has a tablet or smartphone). In addition, they come with applications that allow access to both online and radio platforms. However, even though the cost of these devices is constantly decreasing, they remain unaffordable for some, require electricity to charge them, and need an internet connection for good quality access to WhatsApp, Facebook, and other applications.

1.5 Paper-based media

While the means of distance education presented so far have definite advantages, there are still constraints on their availability that prevent access for all students, especially the poorest and those in disadvantaged areas. For this reason, responses for maintaining distance education in an emergency situation must still incorporate a simpler method that is accessible to all: paper-based media.

How can distance learning be organized for those who have no electricity, television, or radio, let alone internet access? Teaching teams use 'photocopies' or 'copies' simply prepared on sheets or in students' notebooks by teachers and distributed at school gates or pick-up points. The teacher prepares work directly related to the level of the students in his or her class and linked to their progress. Work can be returned via the same system. This means that contact with families can be maintained. In some education systems, resources have been produced in the form of course booklets with exercises specially adapted to the situation.

Whatever the model of distance education, partial or total teacher absence must necessarily be addressed at several levels, especially for young students. All models involve a medium that is not necessarily easy to use for everyone. Students therefore need the assistance of a member of their household. Families thus become key players in the set-up of the distance learning system(s). The role they are required to play must therefore be well thought-out and made known to them. This role is all the more difficult for parents when they themselves are not literate.

Each model has pros and cons: MoEs will need to take these into account and analyse the specific contexts in which they are considering deploying distance education before deciding on the most appropriate model(s) for each context. The table in Appendix 1 presents the pros and cons of each model in greater detail.

2. Precautions to guarantee quality

Irrespective of the alternative model used to deliver distance education, several precautions must be taken to ensure that the resources deployed in this way ultimately lead to real learning for all. We address these precautions in this section as steps to follow and recommendations.

2.1 Content and progression plans

All models (media) require educational resources (content) to be made available to students or to be communicated via radio and television. The content disseminated is the responsibility of the MoEs. They are most often developed by teachers or educational trainers and inspectors. The content must be adapted to the format of the medium used. A validation body must be put in place to ensure that the content of these resources is consistent with the curriculum. The task is easier if there is a single centre for the preparation of these resources. On the other hand, if the preparation is carried out in multiple locations (e.g. classroom, school, inspectorate, region), coordination is necessary to ensure that the content remains relevant to the curriculum and the target audience. This means taking into account the language of instruction, which may vary from one place to another. A lack of coordination or control over content would create a strong risk of inequality, where some regions would benefit from quality content to the detriment of others. In addition, validated content will have to be accompanied by a progress plan that makes it possible to know what is being done and when. Ideally, this progress plan could be drawn up on a weekly basis. Feedback on students' work must also be taken into account in order to weight progress, since working conditions, availability, and concentration can have a very significant influence on the effectiveness of learning.

2.2 Choice and format of the medium

All the means described are opportunities to reach students who find themselves isolated and deprived of the physical presence of their teachers. Those responsible for educational institutions have a duty to offer the whole community educational continuity, with formats that respond as closely as possible to the very diverse needs of the school population. It is important that every student, whether they have an internet connection or not, is able to benefit from this educational continuity. According to UNESCO data, in sub-Saharan Africa, 89% of learners do not have access to computers at home and 82% do not have an internet subscription: the vast majority of households. For some families, crowded living conditions are a handicap when doing school work at home; furthermore, it is difficult to maintain motivation outside school. Special attention must be paid to the educational offering as well as to the conditions of geographical coverage, access to electricity, availability of audiovisual materials (radio or television) and/or telephony (e.g. telephones, smartphones, tablets). In addition, the age of the targeted students, and how autonomous they are likely to be, must be considered in order to reach the greatest number of students equitably.

All devices (e.g. digital, television, radio) will need to feature content in a variety of formats. Several systems, models, and alternatives will need to be rolled out at the same time in any country. This demands a great deal of synchronization and consistency, and therefore a great deal of control. Using these systems optimally requires new skills that teachers may not necessarily have: new requirements, independent of the educational aspects and didactics of teaching disciplines, are emerging, and levels of technicality should be taken into account. Technicians in the digital and audiovisual fields are needed to shape the content offered to the education sector.

Distance learning must also adapt to new conditions and be broadcast on a weekly basis in order to achieve a structured timetable for students. For example, a television or radio series could be broadcast over several days with programmes delivering lessons for each level, perhaps interspersing lessons containing new content with sessions devoted to follow-up work (e.g. exercises, operationalization).

Meetings to ascertain and record progress must be scheduled, and the schedule must be respected. In cases where students or their families have to come to school to pick up work, a reception facility that respects social distancing practices must be provided in line with the availability of parents and must be able to answer questions from students who need explanations. Nevertheless, it is families who live the furthest away from the educational institution who will encounter more difficulties.

However, certain media, such as radio broadcasting, for example, can be used to reach school-age audiences who, for various reasons, do not attend school or attend very infrequently. Distance learning, according to the method chosen for its deployment, can therefore be thought of and implemented also as a new opportunity to reach, for example, vulnerable groups, school dropouts, children with disabilities, and populations in situations of forced displacement.

2.3 Acceptance by students, follow-up, supervision, and support

Teachers, heads of schools, and supervisory teams at local, regional, and national levels must ensure that each student benefits from distance learning so as not to lose what he or she has already learned, by referring to the usual textbooks and exercise books used in class. To achieve this, students and their families need to be supported in learning to use the resources and tools. Advice to parents or caregivers (on organization and time management, creating optimal working conditions, requirements in relation to work produced, etc.) can support families in their new role of helping students as they learn. The success of these distance learning schemes depends on them.

Schools might reinforce existing school support systems or create new ones, specifically in the context of support for students in difficulty. Students from senior classes and university students could act as 'tutors' and contact families (by telephone, for example) who are experiencing the most difficulties in ensuring continuity of learning. Some parents may also find it difficult to help students because they are illiterate,² do not speak the language of instruction, or are not available. Faced with all of these situations, support measures must be thought out and put in place to remedy them.

Being away from school may aggravate the situation of students in difficulty and lead to discouragement. In order to avoid this, a support mechanism could also be used. For example, a set time (e.g. one hour per day) could be reserved for students who wish to benefit from more personalized support or a rebroadcast. Direct contact by telephone is also possible to maintain links and encourage students and families who do not always function in a structured manner. However, this requires resources like telephone credits to be made available to teachers. Educational authorities could also set up a system of advice posters at the school door (perhaps organized by class) to provide help, information, and updates.

In addition to students and families, the support system could be extended to teaching staff. Given that distance education is not a common practice, some teachers and teaching teams may find it difficult to support students, depending on the model chosen. The educational institution should think about and develop forms of support for educational teams that are also experiencing problems during this difficult situation and for which they have not been prepared. Support could be provided through

² Illiteracy among people aged 15 to 49, i.e. the approximate age of parents, is 49.5% (UIS).

a digital platform, a call centre, press releases, radio, or television. All media could be used for support and information purposes.

All in all, proposing alternative forms for learning continuity in emergency situations is not easy, and may further widen inequalities in access to knowledge if precautions are not taken. Several models are possible, each one with its own pros and cons. Depending on the diversity of local contexts, it is very likely that in order to reach the maximum number of students, educational institutions will have to use several models at the same time. In all cases, measures must be taken to ensure that education remains of high quality and accessible to the greatest possible number of people. A more detailed table of possible actions that might be taken to ensure quality can be found in Appendix 2. It is important to note that each option has financial implications. While some models are not expensive because they closely resemble the existing system (e.g. the distribution of printed materials), others require more funding (e.g. the provision of internet connection equipment to students and teachers). All these financial implications need to be analysed, and sufficient resources must be found.

Appendix 1: Benefits and flaws of the different media proposed

Medium	Benefits	Flaws
Digital platforms (with computer/printer)	<ul style="list-style-type: none"> - Appreciated for its flexibility and adaptability, digital technology gives teachers and students free and widespread access to educational resources from educational, institutional and private partners. - Communication can be synchronous (direct, for example by video-conference) or asynchronous (indirect, for example by providing a discussion forum). - A platform can both offer courses and provide follow-up to achieve objectives because learners can send their work to teachers. - Content is designed by professionals and is accessible to students autonomously. Resources allow learners to document the proposed themes and, if they wish, to dig deeper into the learning to be acquired. Offline access to platform resources through USB keys means that content can be downloaded and returned. 	<ul style="list-style-type: none"> - Need for learner and teacher training in how to use the platform. - Possibility of referring to a facilitator who can provide answers if necessary. - A good quality connection is needed to be able to quickly access all of the resources online. - Regularly updated sites that are clear, rich, attractive, intuitive, and meet the needs of students. - Motivation must be maintained because the student might work without a fixed schedule. - Actual presence may be required by a 'virtual call' in some cases. - Optimal use of the platforms requires the provision of a computer to both students and teachers as well as access to a printer for reproducing documents when necessary. - Not very compatible with the early years of education (pre-school and first grade in particular).
Smartphones / digital tablets	<ul style="list-style-type: none"> - Advantages are more or less the same as for digital platforms because they allow the same access. - These tools also allow the sending and receiving of text messages (widely appreciated by students) which help to maintain links. 	<ul style="list-style-type: none"> - Similar to disadvantages of digital platforms, with the additional issue of small screen sizes, which makes reading some larger or longer documents more difficult.
Television	<ul style="list-style-type: none"> - All countries have national channels that can broadcast programmes as necessary (in this case, the COVID-19 crisis and the need to reach students confined to their homes due to the indefinite closure of schools). - Television is a widespread medium and the attractiveness of the image, the staging, and the presentation of the lesson is an advantage compared to the radio, for example. 	<ul style="list-style-type: none"> - National initiatives of MoEs enable students to access content created for them, but without taking into account the actual level of each individual and, as a priority, to students in examination classes, which considerably reduces their scope. - Need to consider students who have not acquired and consolidated basic learning concepts. - Priority should be given to broadcasting school curricula on public channels (without an internet subscription). - Television courses are generally designed with a low level of interactivity (difficult to implement for live or pre-recorded programmes). Students are just spectators and cannot go at their own pace, ask questions, or ask for explanations if they are lost, as they could if they were in class. - Students must be present at the time when the programme is broadcast, which is

Medium	Benefits	Flaws
		not always easy (family responsibilities, household chores, etc.).
Radio	<ul style="list-style-type: none"> - The most widespread audio medium in Africa and accessible to the greatest number of people. In many countries there are already skills or resources available to develop content and make it accessible to beneficiaries. - Local radio stations can broadcast educational continuity information to parents in their own language, which is an advantage for those who are not fluent in the language of instruction of their children. - In the field of teacher training (also indispensable), modules exist and new ones can be designed to address the specific topic of distance education. 	<ul style="list-style-type: none"> - Information provided at national, regional, or local level (depending on the educational offers) will have to be widely disseminated in order to reach the target audience. - Students must be present at the time of broadcast, which is not always easy (family responsibilities, household chores, etc.). - As with television, there is no opportunity to influence the pace of the lesson and some students might lose the thread, as there is no repetition unless they record the programme.
Lessons and exercises on paper	<ul style="list-style-type: none"> - Low-tech approaches make it possible to send reading, writing, and arithmetic content to families in the form of fun worksheets for the youngest students and lesson sheets for older ones. - Personalized documents can be sent when possible, and care taken to correct them and provide feedback to maintain the often fragile link with teachers. - No need for special equipment. 	<ul style="list-style-type: none"> - Without the support of technology, the job of making resources available the 'old-fashioned' way is more tedious. - Parents or students must make the effort to collect the materials (when possible) and again, some families may be left behind. In this case, teachers or the school management must try to maintain the link so that the system does not abandon these families. - Teachers experiencing difficulty in the development of materials adapted to the autonomous work of students also need to be supported.

Appendix 2: Factors to consider in order to ensure the quality of distance education

Issue	Benchmarks for quality management
Quality of the proposed content: initiation by the central administrative authority or by regions. What control over the relevance of the content? How do we ensure this?	<ul style="list-style-type: none"> - Identifying bodies which can validate the content of distance programmes for all levels and disciplines (not just for examination classes). - Reflecting on the need to provide every student with textbooks that facilitate distance learning and guarantee content is standardized and consistent with the curriculum. - Clarification of the roles of actors (national, regional, and local) on the management of educational continuity. - Considering the different needs of different target learners.
Coverage: in terms of (i) the area of coverage of the media used, and (ii) the ability of the targeted students to access the media	<ul style="list-style-type: none"> - Negotiation with mobile and internet telecommunication providers to develop access to communications for the largest number of people. - Identification of the media and tools (studios, information technology labs, etc.) available to develop and broadcast programmes. - Inventory of internet coverage and tools distributed across the country (public and private access points) for urban and rural areas.
Monitoring learning: what kind of support? By whom? Informing new actors about the role they will have to play	<ul style="list-style-type: none"> - Considering new technical requirements (digital, audio-visual, radio, etc.) in the context of distance education to ensure the quality of new formats of educational content. - Reflecting on in-service training for teachers regarding skills needed for distance education content and communication with learners. - Reflecting on capacity building in terms of support for students at home, parents, parents' associations, management committees, and teachers' associations. - Collaboration with non-governmental organizations, other ministries, CBOs, FBOs to strengthen action in the field for students at risk of dropping out.
Identifying targets or actors requiring specific accompaniment or support: how is this managed?	<ul style="list-style-type: none"> - Identification of families who have not managed to join or remain in the educational continuity system. - Search for solutions to keep in touch with students and their families, giving priority to monitoring students whose parents are not able to provide support (e.g. telephone, text messages, radio announcements in the local language). - Need for regular and individual monitoring, recorded in a shared database at the school.
Need to collect feedback from the actors involved for improvement: is this being put in place? How?	<ul style="list-style-type: none"> - Establishing a national or regional platform or a telephone exchange enabling dialogue, in local languages, among all those involved in education, including a system for finding answers to questions that arise from education specialists or parents. - Displaying information or dialogue panels in front of schools. - Maintaining records of connections to digital content online by students, parents, and teachers. - Analysis of exchanges on forums or telephone switchboards. - Evaluation of the methods used and adoption of a learning approach. - Implementation of specific studies in line with different contexts, in order to enrich the feedback process and to adapt strategies and intervention methods if necessary.