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REPORT ON GOVERNMENT VIDEO CONFERENCE – 1 st JULY 2020 ACCELERATED RECOVERY: IMPROVING OUTCOMES WITH BLENDED LEARNING







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FORMAT & PARTICIPANTS



SECTION 1.

Format & Participants

1.1 Introduction

The purpose of this private video conference for African government officials, organised in partnership with Whizz Education, was to discuss the accelerating of the recovery of school and education systems in response to the COVID-19 crisis and with a special emphasis on blended learning. Generally, all participants were encouraged to discuss the responses of their governments, their actions in the immediate term to ensure the continuity of education and policy recommendations for long-term sustainability given the lessons learnt during the extended period of school closures.

As schools re-open, it is important to establish strategies to support the learning recovery of students who had no access to online/distance education while instituting personalised learning acceleration strategies for those students who had various levels of access. This was an open discussion with moderated break-out groups and although the floor was open to any comment from officials, the following were given as guideline discussion points:

Strategic and considered deployment of learning technologies and avoiding making rushed shortterm decisions in the face of pressure from COVID-19 school closures

The considered adoption of online resources and e-learning technologies in the context of new pedagogies and the best actions for teachers and learners

Upskilling of teachers and embedding of blended learning into continuous professional development

Monitoring of teaching and learning and the best information management for education policy makers

The ICT infrastructure – how to better leverage partnerships with the operators and concurrently ensure offline access to learning materials

Parents – addressing the parental anxiety and the new demands of parental supervision of learners at home using TV and online services



1.2 Format of Video Conference & this Report

In section 1.3 we list the participants of this video conference on the re-opening of schools. The most immediate lesson of online video conferencing is to ensure that every participant has a voice. Small groups are essential. So, after opening statements the event was broken into small groups each with a moderator to take notes and provide a summary.

Prior to the break-out rooms there were opening statements from Dr Julius Jwan, Principal Secretary at the Kenya Ministry of Education and Raïssa Malu, Head of Technical Support for the PEQPESU, World Bank Project in the Democratic Republic of Congo (DRC). Although all discussions were recorded and transcribed for the purpose of this report, none of the quotes or what was said during the private breakout rooms is made attributable to any one person.

The following was the video conference format

Part A: Introduction from Richard Marett, CEO, Whizz Education

Part B: Opening statements from Dr Julius Jwan, Principal Secretary at the Kenya Ministry of Education and Raïssa Malu, Head of Technical Support for the PEQPESU, World Bank Project in the Democratic Republic of Congo (DRC)

Part C: Seven break-out groups were formed, each with a moderator to record discussions and take note of the key points raised.

Part D: All participants returned from their breakout groups. Summary and synthesis was given by Richard Marett, CEO, Whizz Education, Dr Junaid Mubeen, Director, Whizz Education and Zachariah Mbasu, Education Advisor, Whizz Education

The total time of the video conference was 100 minutes

After introducing the participants in 1.3, the format of this report is structured around the policy issues and non-attributable quotations. The participants hold senior positions in education from multiple African countries and expressed what they are experiencing in their countries in response to COVID-19, as well as giving their own opinions on policies for longer term sustainability.

Notably, the issues raised covered key topics such as re-opening schedules, teacher training, pedagogy, assessment, ICT infrastructure, content delivery, blended learning, recovery, learning loss and technology platforms. Clearly, these topics overlap and with the aim of preserving a holistic view of education policy, this report avoids splitting up into individual issues. Hence, after a summary of the opening statements, the format of this report is structured around three main headings:

Interventions by African Governments in Response to COVID-19

The Need for Reform & Investment

Policy Recommendations

Furthermore, this report includes a special appendix produced by Whizz Education of the data they have collected and synthesised into findings on learning loss because of COVID-19.

In section 2.1 we give an abstract of the key findings of this video conference and the remainder of the report further examines these issues according to the experiences of the conference participants. of this video conference and the remainder of the report further examines these issues according to the experiences of the conference participants.

1.3 Participants

We would like to thank all those for participating and providing such outstanding contributions. The opportunity for them to openly converse in small break-out groups provides us with a discerning judgement on the key issues, immediate policy recommendations and their own insights into future sustainability. It is an honour for the organisers to host such a distinguished gathering and equally we wish to thank those who moderated, and those behind the scenes taking notes and providing tech support. Everyone committing their time during such a testing period is a true testament to their desire to ensure the primacy of education. Participants are listed by country, alphabetically:

BOTSWANA: Simon Coles, Deputy Permanent Secretary, Ministry of Basic Education BOTSWANA: Justin SetIhare, Education Officer, ICT Head of Department, Ministry of Basic Education BOTSWANA: Ravi Srinivasan, Pro Vice Chancellor (Internationalisation), Botho University BOTSWANA: Dr Ivy Anish, Pro Vice Chancellor (Academic and Quality), Botho University CAMEROON: Sir Dr Michael N Nkwenti, Lead Inspector of Pedagogy, Educational Technologies, Ministry of Basic Education CAMEROON: Prof Elizabeth Vukeh Tamajong, Deputy Vice Chancellor, ICT University CAMEROON: Ben Tame, National Inspector for ICT, Ministry of Basic Education CAMEROON: Celestine Fozao, Regional Pedagogic Inspector, Buea, Ministry of Secondary Education CAMEROON: Claudette Ndayi, Inspector of Pedagogy Ministry of Basic Education CAMEROON: Dr Lucas Agwe, Regional Coordinating Inspector, Southwest, Ministry of Secondary Education CAMEROON: Prof Justina Njika, Inspector General of Education, Ministry of Basic Education CAMEROON: Julius Mih, Inspector of Pedagogy, Ministry of Basic Education DRC: Jacob Tshizubu, DRC Country Head, Whizz Education. Moderator DRC: Raïssa Malu, Head of Technical Support, PEQPESU, World Bank. Opening Speaker GHANA: Akwasi Addae-Boahene, Chief Technical Advisor, Ministry of Education GHANA: Rodney Boateng, Minister's Press Secretary, Ministry of Education KENYA: Dr Julius Jwan, Principal Secretary, Ministry of Education. Opening Speaker KENYA: Tom Mulati, General Manager, Teachers Service Commission KENYA: John Tuwei, Deputy Director of Technical Education, Ministry of Education KENYA: Wilson Chelimo, Deputy Director, Examination Management, Kenya National Examinations Council

1.3 Participants

KENYA: Wangeci Thuo, Kenya Country Head, Whizz Education. Moderator KENYA: Zachariah Mbasu, Education Advisor, Whizz Education. Moderator NIGERIA: Prof Ismail Junaidu, Executive Secretary, Education Research Development Council NIGERIA: Dr Grace Ajagun, Deputy Director, Policy and Programmes, Education Research Development Council NIGERIA, JIGAWA STATE: Wada Abdullahi, Director, Special Duties, Ministry of Education, Science & Technology NIGERIA, KADUNA STATE: Prof Ahmed Iliyasu, Special Advisor to Chief Executive, National Teachers Institute NIGERIA, KANO STATE: Alh. Usman Alhaji, State Secretary, State Secretariat NIGERIA, KWARA STATE: Zainab Bolajoko, Education Specialist, Education & Human Capital Development Commission NIGERIA, PLATEAU STATE: Daser David, Director General, ICT Development Agency NIGERIA, PLATEAU STATE: Edward Buba, Head of E-Governance, ICT Development Agency NIGERIA: Vivienne Bamgboye, Principal Consultant, Oye Centre for Learning & Development RWANDA: Emmanuel Mucangando, Advisor to the Minister of State in charge of Primary and Secondary Education, Ministry of Education SENEGAL: Aminata Lo, Teacher Trainer - SIMEN, Ministry of National Education SOMALIA: Abdi Gashan Egal, Senior Advisor, Ministry of Education, Culture and Higher Education SOMALIA: Suad Mohamud Abdulle, Senior Advisor, Ministry of Education, Culture and Higher Education SOMALIA: Dr Faiza A. Hassan, GPE Country Director, Ministry of Education, Culture and Higher Education SOUTH AFRICA WESTERN CAPE: Clinton Walker, Director: e-Learning, Department of Education SOUTH AFRICA WESTERN CAPE: Don Haripersad, Director: Curriculum FET Department of Education TANZANIA: Viola Muhangi-Kuhaisa, Project Coordinator, UNESCO TANZANIA, ZANZIBAR: Omar S Ali, Director of ICT in Education, Ministry of Education and Vocational Training UGANDA: Patrick | Mugisha, Assistant Commissioner, Innovation & Intellectual Property, Ministry of Science, Technology & Innovation UGANDA: Michael Ocero, Assistant Commissioner, Information Technology, Ministry of Information Communications Technology UGANDA: Shirley Gladys, Senior Science Officer – Innovation, Ministry of Science, Technology & Innovation UGANDA: Ben Mugisha, Lead ICT Specialist, Ministry of Education and Sports UK: Richard Marett, CEO, Whizz Education. Moderator UK: Svetlana Tarassova, Director of Global Strategic Partnerships, Whizz Education. *Moderator* UK: Dr Junaid Mubeen, Director, Whizz Education. Moderator UK: Eddie Ralston, Senior Education Project Manager, Whizz Education. Moderator UK: Sarah Hawkes, Partnerships Manager, Whizz Education. Moderator UK: John Glassey, CEO, Brains Global UK: Claire Urie, Head of Government & International Relations, Brains Global UK: Victoria Tate, Head of Education Partnerships, Brains Global ZAMBIA: Annie Daka, Director of Service Management, Smart Zambia, Office of the President ZAMBIA: Moses Phiri, Assistant Director - Policy, Ministry of General Education ZIMBABWE: John Dewah, Chief Director, Curriculum Development and Technical Services Department, Ministry of Primary & Secondary Education ZIMBABWE: Peter Muzawazi, Chief Director, Infant, Junior, Secondary and Non-Formal Education Department, Ministry of Primary & Secondary Education

DISCUSSIONS

Discussion

2.1 Abstract of Key Findings

SECTION

All participants contributed with their comments on the immediate remedial actions being taken to ensure health and safety to give parents and communities confidence in the re-opening of schools. Timings differ between countries, but all have plans, with contingency for different scenarios depending on the status of COVID-19.

The key findings of this meeting demonstrate a growing call for the implementation of more blended and hybrid learning and specially to ensure greater equity in education. To implement new policies for teaching, pedagogy and assessment will require substantial investment in building capacity, training, and the engagement of all stakeholders from the school to the home to the community and the unions.

COVID-19 cannot cause a new digital divide in education. Every one of our participating officials paid heed to the impact of school closures on parents and how challenging they have found this period to be. Policy implications for the future are considerable and in need of both leadership and vision at the highest political levels:

health and safety in schools

the upskilling of teachers in the use of technologies and the importance of embedding ICT for education in pre-service qualification

the need to evaluate and assess the effect of COVID-19 on education strategies

a long-term commitment to blended learning that can only be achieved by far greater investment in ICT infrastructure and more productive partnerships with industry, especially telecoms operators

greater engagement with parents and a need to allow for more flexible working hours for parents especially those with younger children

addressing the need for change in the assessment regime with a greater emphasis on formative and project-based assessment

Of critical concern is what has been the cumulative loss of learning because of the extended school closure across Africa, where the issues of equity and access are of paramount importance. We are pleased



to complete this report with the inclusion of the findings of Whizz Education on learning loss (appendix A).

2.2 Opening Statements

Prior to the opening statement of Dr Julius Jwan, Principal Secretary at the Kenya Ministry of Education, we had a brief introduction from Richard Marett, CEO of Whizz Education. Richard particularly emphasised the variance in ability, in the research they have done, whereby they have found typically a 4-year skills range in mathematics. Teacher capacity has been something we all need to address and even more so with a blended learning dynamic. This is compounded by school closures. Even after summer holiday children are behind when they return - we can quantify this as 2.6 months of learning loss. The World Bank has estimated that COVID-19 will equate to 6 months of learning loss. So how do we accelerate the recovery and how do we reskill teachers, what role does technology play?

In his opening statement, Dr Julius Jwan, Principal Secretary at the Kenya Ministry of Education, emphasised that other than the health and economic components of COVID-19 is the huge impact on education because it affects every household. Nobody saw it coming, so once Kenya decided to close schools in March they were not prepared and then had to quickly decide what to do next. Kenya quickly went into online learning for basic education.

They have two systems running concurrently – the competency-based curriculum which is learner centred with an emphasis on continuous assessment. This includes the technological component – the Digital Literacy Program. Tablets were bought for younger learners and substantial investment has been made over the years in upgrading power supply & connectivity, including solar power. The second system is the existing content-based education which puts emphasis on summative evaluation, for grades 5-8 and for senior secondary school. These two parallel systems have made the challenge of COVID-19 more demanding. At the Kenya Institute of Curriculum Development (KICD) they have already invested in the Kenya education cloud and have a dedicated learning channel. With COVID-19 they also utilised mobile technology. So immediately the government asked teachers to record lessons to be broadcast on TV. Through Safaricom (mobile operator), they came to an agreement to provide free internet bandwidth for learners. Students enter a code and it is free to access.

A challenge has been learners in remote areas. At home they are not involved in education, a situation worsened if there is no internet or TV. So, what happens with equity? This is a critical question for the Kenya Government. How do you deal with one transition to the next? In the Kenyan education system, they have 3 types of schools – public, private, and international schools. The biggest challenge is at the TVET institutions as they have not embraced e-learning and the nature of TVET makes this less practical. Universities have been better equipped and gone on to finish their academic year. Underlying all of this is the concern over equity.

Furthermore, the Ministry of Education has been grappling with the issue of transition. How do you deal with transition for those who have not had access to online learning?

Another challenge is how do you deal with assessment during the period of school closures? Especially those in content-based curriculum. It is easier with the competency-based curriculum to refer to their continuous assessments. So, who do you decide to transition and who should wait? These are all key questions that the Ministry of Education is tackling regarding the best modalities for recovery from the impact of COVID-19.

The Ministry of Education has also formed a technical unit to assess what is happening around the world, lessons learnt elsewhere and applicability to Kenya. Kenya is still addressing the timing of school reopenings alongside stakeholders to make health and well-being considerations for students and teachers.

Raïssa Malu, Head of Technical Support, PEQPESU, World Bank in the Democratic Republic of Congo gave a background to the current situation in the DRC and how they are using technology to accelerate the recovery for the lost time of learners. This includes how to support learners and teachers where the ICT infrastructure means there no access to online resources. In the Democratic Republic of Congo there are around 16 million primary school children, and 5.5 million secondary school students who have been out of school since March 19. For most of these children, it means the complete cessation of learning and ICTs are proving to be the best way to simply ensure continuity of learning during the health crisis. According to a survey carried out by the National Institute of Statistics in 2017 and 2018, only 20% of Congolese households has access to the electricity network; 37% have access to the radio; 9% have a TV and 35% have a mobile phone; for computer use the figures are only 13% of men and 4% of women age 15 to 49.

For those having used a computer in the past three months these figures are 18% and 5% respectively for internet use. In such a context, the DRC currently does not have the means to ensure distance learning for all its students. The rapid reopening of schools is therefore a priority if not to sacrifice yet another generation of children. The Ministry of Primary, Secondary, and Technical education has developed a comprehensive subsector educational response plan against COVID-19 with the help of technical and financial partners. These plans aim to set up pedagogical and learning approaches, ensuring that education continues to enable the protection of students and the teachers against the pandemic.

Amongst the interventions, the DRC produced an inventory of distance education initiatives in the country, an estimate of distance education content, the activation of a distance education by internet, radio and television and distribution of learning booklets in paper format for students with limited internet access. The Congolese Ministry of Education has therefore opted for a mixed approach where possible, anchoring the use of ICT and providing workbooks in paper format for areas where access to technologies is difficult or impossible.

The PEQPESU project for the quality and relevance of teaching at the secondary and university levels is to test an intelligent platform for the evaluation of learning outcomes of students in mathematics developed with Whizz Education. They gave teachers and parents an internet package to allow them and students to continue to connect to the platform. They have observed that solidarity as developed in the communities. Some teachers have offered to share the computer tablet or smartphone with students or other teachers who live in their neighbourhoods. This experience in the DRC shows that the quickest way to integrate ICT into education is to train and involve teachers.

This has proved to be a good entry point. Teachers and students are used to this application. So, it is easy for them to get started with and then to migrate to other solutions. Such experience gained with the intelligence, allows for better preparation for the next school year and gives an indication on how to proceed during the months of July and August to recover the lost time. But the system excludes students and teachers who do not have access to the internet, the cost of which remain extremely high for most of the population. Possible solutions could be to encourage solidarity in communities and provide free or discounted access to online platforms and to use television & radio, which remain the most accessible media. A key point in Raïssa Malu's conclusion is the importance of countries developing their own resources for distance learning for students, teachers, and parents, and having access to content. Thus, the DRC is rightly proud to have developed its own content for distance learning instead of using content that has come from elsewhere for convenience.

2.3 Interventions by African Governments in Response to COVID-19

In Botswana they have been preparing for the return to school based on two shifts per day and have hired additional staff to cover teacher shortages. The inequity of access is a concern; with very remote areas but access to technology and internet is mainly based in the urban areas. When they closed their schools three months ago this was a primary concern when trying to have continuity of learning. With the view of not leaving anyone behind they employed three methods – internet, some education websites were zero rated; TV broadcasting content mainly for secondary level schools with 87% penetration across the country; and the third mechanism was radio which has nearly 100% penetration.

Precautionary measures have involved have focussed on providing good information about the spread of COVID-19, travel advice and sanitisation methods. The key academic measures have been to ensure there is continuity in teaching and learning. At the university level in Botswana, they already have a strong virtual learning environment (VLE), enabling the provision of online teaching as well as discussion, collaboration, and some assessment. So, for tertiary level student access to devices and internet has not been a challenge and their teaching staff have completed e-certification in the use of the learning management system. This has been enhanced with webinars and efforts to enlighten communities about the advantages of e-learning.

Cameroon immediately adopted the use of TV and radio for the delivery of content and have utilised WhatsApp for messaging between teachers and parents. Some subject forums have also utilised other social media such as Facebook. There has been a noticeable shift in the role of parents having to take supervisory and teaching responsibilities at home, so the Government has been considering strategies to better support families at home. They have been trying to create online platforms for learning and produce modalities for providing devices in the home. At the university level they have been able to upscale their existing learning management system that has been used to train lecturers and train them on how to produce lessons and impart knowledge to their students.

The ICT University in Cameroon has the infrastructure in place, which includes an electronic library with over 80,000 reading resources which students have permanent access to. Much of the learning format is project-based so during the pandemic not too much learning time has been lost in terms of covering the syllabus. The main challenge has been for families who have had to purchase more data and airtime for internet connectivity in the home, causing additional pressure for those without the financial resources. At the primary and secondary levels, the challenge is more substantial, simply as they have not employed online education. The plan is to resume schooling in October and lessons learnt from COVID-19 require prompt action in terms of connectivity and electricity supply.

Plans for returning to school for the purpose of assessment will include specific health and safety instructions. For example, this may include dividing classes into a maximum of 24 students per class, given that in some school areas class size can be as large as 60 to 70 pupils. Especially in rural areas this will make practising social distancing a considerable challenge as well as the additional financial burden of personal protective equipment and sanitising materials. Some exam classes have already been taken, including those sitting entry into secondary school and in the next few weeks they plan to hold final exams.

Ghana has disinfected all schools across the country and the ministry of education has provided cleaning and personal protective equipment. Due to the problems of the connectivity and access, the concern of creating any digital divide meant the immediate deployment of radio and TV for early learning and the K12 sectors. There is now a dedicated free to air channel for education. The provision of distance learning is currently too fragmented so the focus of the ministry of education has been more on how to develop materials and content.

Ghana has a particularly unique system in that their senior high schools are almost all exclusively boarding. This clearly presents major challenges for social distancing, not just in the classroom but in the dormitories and the entire school campus. Accordingly, they have adopted a phased approach, with the first returns to be just final year students in both junior and senior high school to complete their programs. During the period of school closures, the Ghanaian Ministry of Education has been working to develop content for their learning management system and for schools to be able to access materials; but as elsewhere connectivity and access have proved difficult.

Kenya has made interventions in radio, TV, and the online Kenya Education Cloud to deliver content. The challenge is in ensuring is it in line with the school curricula. The closure of schools in Kenya has been met with a great deal of anxiety. The Kenyan Digital Literacy Programme (DLP) is a key initiative of the Government of Kenya. Its overall objective is to integrate ICT into learning. The Kenya Institute of Curriculum Development (KICD) has launched online content, open education resources (OER) have been deployed and curriculum reforms are ongoing. Faced with closures, the KICD took the decision to deliver content through three media: radio, TV, and the online Kenya Education Cloud. The latter is an e-learning platform that has been reinvigorated with the advantage of being highly differentiated depending on the learners.

Radio is ubiquitous in Kenya and still the only true way all learners can access education communication. The KICD have already packaged lessons through the radio along with reorganising of the timetable. For television, every effort is being made to produce good quality education programs and for this the input of teachers recording lessons new technologies. All participants spoke of their expectations of how online and blended learning is going to be a permanent feature of education service delivery and thus teacher training and continuous professional development is critical. Fundamentally, teachers are trained to teach in a physical setting and so new initiatives are required to ensure professional development in online pedagogy and assessment.

Nigeria at the Federal and State level has also been organising the delivery of content over TV and radio to reduce the amount of loss of learning during closures. Again, the biggest challenges are in remote areas with no internet connectivity and interrupted power supply. The immediate priority has been the safety and well-being of students and teachers and planning for school sanitising. Some parts of the country have produced disseminated information on learning platforms, freely available to schools. This has involved far greater engagement with families and the responsibility of parents to support logging on to systems and utilising the content.

Some Nigerian States have also been distributing printed materials through their local government structures and tried to use local newspapers with educational inserts inside. In the case of radio and TV programs, carefully selected and well-qualified teachers have prepared programs for the primary and secondary age groups. They have also partnered with a start-up called uLesson, an application which offers students in Junior and Senior Secondary School a holistic learning experience in subjects such as mathematics, basic science, basic technology, business studies, physics, chemistry and biology, while also preparing senior school students for WAEC, JAMB, NECO and GCE exams.

is critical. The cost internet activity still remains a major outstanding issue in Kenya as it does across sub-Saharan Africa. Even the cost and availability of electricity is a major consideration, especially in rural areas. Given the Kenyan Digital Literacy Program that includes provision of devices to learners, then they still need charging.

Then there is the key aspect of teacher training in



Based on access, Rwanda has employed four different technology channels to deliver content: TV, radio, the national e-learning platform, and USB. The best system is the e-learning platform, but the big issues is device accessibility. The government has supported the delivery of devices to schools, but they are not taken home. So, during this time we are seeing low numbers of people accessing the platform due to lack of devices in households. The government has come to agreement with the telecommunication operators to zero-rate any educational content.

For those who have connectivity in Senegal, they have delivered online classes and for others they have a TV channel with teachers preparing lessons accompanied by the inspector general of schools. For those students in the most remote areas with no access to internet or TV, the government has sent hard copies of the texts and course materials. They will continue with TV and community radio for providing lessons. The country has taken the necessary precautions for providing face masks and sanitisers as well as 1 ½ metre social distancing on the recommendation of the Ministry of Health. This now means a maximum of 20 students per classroom. During the closure period they have used the time to better prepare teacher in the use of online tools.

For those Senegalese students in the last years of primary and junior high school they will return for their classes at the end of August and sit their final exams. Teachers are being trained in blended learning and being asked to produce content with a local context. Currently, teachers are delivery lessons through Zoom and Google Classroom and plans are afoot to employ more blended learning technologies. Those students who do not have internet access are receiving hard copies of the materials and when the new school years starts there will be catch-up lessons.

Somalia already had plans in place for digitising the curriculum in 2021. That has been moved forward to 2020 and the ministry of education will be launching online content within the next two months. This requires considerable procurement with the likes of Amazon supporting the ministry of education with the delivery of devices and technical equipment. The big concern remains connectivity and accessibility to devices in rural and remote areas. The government is moving quickly to work with international partners and donors such the Global Partnership for Education (GPE) and has launched a national response plan to provide lessons in partnership the telecommunications operators.

The majority of schools in Somalia are private and the government is helping with the procurement of equipment at a subsidised rate, yet the challenge remains to deliver to remote areas. The ministry wishes to deliver content through an online platform that will be completed by 1st August 2020, though 60% of students in rural areas will not be able to access this so they are looking at local delivery of USB devices. Schools plan to re-open in August and guidelines are currently being put in place regarding social distancing, access to clean water and other measures for the well-being of students and teachers.

The Department of Education in Western Cape Province, South Africa reacted quickly with a series of measures. They swiftly deployed social media for communication between teachers and students. They took decided on a phased in approach to schooling for different grades. So, there is a group of learners that have come in on the 1st June. Another group of learners will come in on the 6th July, and another group of learners or different grades who come in on 3rd August. The Department of Education worked out a new school calendar year based on the time left and embarked on a very technical process of having to trim the curriculum accordingly. In order to do that, they content mapped the different core competencies, skills, and content for the different subjects in different grades. Based on that, they determined student skills are either at an introductory or a development or an advanced stage. Then they revised an annual teaching plan that details the content that is to be covered for the rest of the year.

In the Western Cape they developed specific lessons for learners because they realized they were not going to be able to reach out to every learner because of the ICT connectivity challenges. In the main it became increasingly evident that to reach out to their children, they also had to produce printed lessons. In FET, in particular, they adopted a framework based on self-directed learning, because learners would be not be given full contact at school. This involved preparing lessons made by teachers for each group of learners for a particular period in the content. The other issue is that we then subsequently made sure that most of these resources are available. The Department of Education in Western Cape also has a dedicated website where they alve developed lessons for all grades, all subjects, and provided it in different formats, including accessibility through WhatsApp.

Subsequently the Department of Education has been trying to salvage the grade 12 matriculation exams.

This includes the recording of revision programs. They also have a telematics website for the broadcasting program, in partnership with Southern Baptist University and have live streaming lessons to learners over and above the existing national initiative by the federal department to have TV and radio programs. The departments' website portal is also zero rated, but clearly connectivity is necessary. Teachers can also connect directly through the WiFi connectivity to teach lessons.

In Zanzibar, Tanzania they have been deploying distance learning via TV since 2007, so this service was already in place in response to the school closures. The big challenge has been the problem of class sizes which has meant implementing double shifts and hiring additional teachers. They are also changing the school year and will have continuous school education until April 2021 to make up for the loss of learning time. The University of Zanzibar has also provided support in providing educational content materials.

In Uganda they established an Education National Task Force for COVID-19 response and a coordination mechanism of education response at district and sub-district levels. The Ministry provided a coordination and communication mechanism among education stakeholders and the priority is to mobilize resources and fund-raising mechanisms to enhance the capacity of Ministry of Education and to promote protection of learners and teachers to ensure continuity of learning and transition to normal school programme. Monitoring and support implementation for school closures has meant developing and disseminating awareness and health safeguarding messages to learners, teachers, parents, and community members through various media (SMS, text, TV, and radio).

The Ugandan Government has mobilized teachers and community leaders to promote and monitor continuity of learning programmes; provide lessons through digital, TV, Radios, self-learning materials; ensure that adequate supplies and materials for use are provided; collaborate with other sectors to ensure safety of both quarantined and staff; and repair and fumigate institution facilities to prepare for resume of classes and training.

In Zambia, the government decided to only open those streams that need to complete examinations. These include grades 7, 9 and 12. Prior to this the Zambian ministries of education and health put in place measurements for schools to comply with health guidelines including, disinfecting, hand sanitisers and checking temperatures of all staff and students. The biggest challenge in Zambia has been internet connectivity, even more so in rural and remote areas. They also found that provision of content through TV channels does not benefit every learner, with the signal worse in rural areas. This meant having to print out learning materials and deliver hard copies to the most remote parts of the country.

In Zimbabwe, during COVID-19 they have coordinated online and radio lessons. Schools are going to open at the end of July, and in a few weeks will start to broadcast lessons on TV. From the day the schools closed they have prepared lessons to continue where they left off. Schools have reached out to parents directly through email and WhatsApp. In terms of equity, the school population is very inclusive, and the ministry is preparing for special needs students. They have staggered the re-opening, starting with the examination classes, followed three weeks later for those who have examinations next year and then the remainder another three weeks

> later. By the time we get to September Zimbabwe hopes that COVID-19 will have diminished.

Zimbabwe is engaging parents through radio and newspapers. The ministry of primary & secondary education is working on an online education platform in partnership with Econet Wireless. Currently about 1.6 million learners are using their online platform. Lessons for TV are still under development.



Schools have reached out to parents directly through email and WhatsApp. Any problems with connectivity and they make announcements through the radio. A particular emphasis in Zimbabwe is the use of school clusters which are a sub-sector of the districts. A cluster is 7 to 10 schools and the idea is that around the centre surrounding schools can benefit.

2.4 The Need for Reform & Investment

COVID-19 has exposed a vulnerability all over the world that none of us managed to predict. Specifically, in Africa, the oft-spoken transformative learning is not happening. Many countries focus on the how and the what but the why is often missing. Blended learning must take root now and that means curriculum change is critical if it is going to embedded in technology. Another problem in Africa is that although the education sector has enjoyed a large proportion of government budgets, it is mostly spent on salaries. Investment in new technologies, ICT infrastructures, teacher training, blended learning and curriculum reform should be ring-fenced from the wage commitments of ministries of education. In doing so it is important consider the community as a whole and current access to ICTs.

Given the movement towards greater commitment to blended learning, the ICT infrastructure in many African countries, its capacity, usage, and responsiveness have been truly tested. Especially problems of connectivity in rural areas are accentuated, along with the lack of access to devices and e-learning platforms. Investment in ICT for education will form a necessary part of future resilience but, of course, concerns were raised about the economic impact of COVID-19 and the budgetary constraints it will put on governments. Here the role of the telecommunications operators is critical and after all they benefit from more people being connected so need to be persuaded to have a greater stake in education. The cost of internet for education is a major issue and it will remain prohibitive if it is the same for education as it is for business.

In all countries, the inequity of access is a concern; with very remote areas but access to technology and internet is mainly based in the urban areas. When African Governments closed their schools three months ago this was a primary concern when trying to have continuity of learning. With the view of not leaving anyone behind they employed three methods – internet, some education websites were zero rated; TV broadcasting content mainly for secondary level schools but not every house has a TV; and the third mechanism was radio. When schools are fully reopened, African Governments know that they must go back to check student levels and, if necessary, to repeat the content so that nobody is left behind. At primary school level the process of delivering and teaching content is made more complex by the necessity of parental involvement at home. Basic access to written content is not always preparing children with critical thinking, learning to validate, pick information sources and problem solving. So, teachers need to choose a new content framework using the internet which they are not necessarily trained and prepared for. Several countries are now looking for solutions that teachers can easily use to bring online content into practice.

COVID-19 has stimulated many policy makers and educators to ask how much learning is really happening in the classroom and how good are current assessment infrastructures and readying learners for real life skills. Does the system both accurately reflect student achievement and make the best advantage of the talents of each individual learner?

Such demands on teachers will need investment in capacities that allow for the understanding of new techniques and innovations; the ability to select such innovations from a seemingly limitless choice, communicate this to the students and then have the ability to assess the student in terms of all learning objectives. For this policy makers need to invest in:

Adequate training, along with ongoing professional support – a process that requires continuous external monitoring by the education authorities

Investing in school leadership to both monitor and recognise accomplishments

Develop conducive classroom conditions for project-based learning – made further challenging considering the health demands of the pandemic

Dealing with assessment is a conundrum and it is a challenge online to better measure learning outcomes. Are the educators able to write up examination questions in a suitable format given the new conditions? Where teachers and professors do not have enough background in new technologies such as learning management systems or what is meant by integrating e-learning platforms into pedagogical practices. Thus, it is essential to improve continuous professional development (CPD) to give teachers knowledge about the tools.

All participants concurred that assessment is a major challenge. The assumption that face-to-face pedagogy is transferable to online learning needs to be addressed. Blended learning now needs to take centre stage in teacher training; not just because there is a crisis now but for the long-term. It is essential, when developing online learning content, that it is standardised at all levels. So, when asking teachers to embed blended learning in their professional development they need to have standards in place to help them adapt accordingly

2.5 Policy Recommendations & Closing Comments

Return to schooling means immediate policy action on disinfecting, providing hygiene equipment as well as better water and sanitation facilities as part of the interventions. Minimising school interaction is a challenge amongst so many young people, but effective policies and school leadership is a must in both communicating and enforcing this. Overall risk management plans are necessary for all education policy makers. When it comes to social distancing, we need to think about it from the students' point of view. The younger ones will not necessarily figure out whether they are 2 or 3 metres apart.

COVID-19 has lifted the veil on the reality of us now already being 20 years into the 21st century and have been talking about 21st century skills and education for that long. This has pushed educators and policy makers into properly considering learning to learn – which means personalised learning is now becoming a reality, because the child is alone at home. COVID-19 has pushed us faster than we expected.

The building of capacity and supporting teachers should also encourage greater peer-to-peer collaboration within the profession; the formation of working and focus groups to share experiences to augment regular profession development and that lessons learnt can be included in future CPD policies. All participants spoke of their expectations of how online and blended learning is going to be a permanent feature of education service delivery and thus teacher training and continuous professional development is critical. We need to adapt training and pre-service qualification such that online learning and virtual lessons are included in the curriculum of teacher training colleges. Fundamentally, teachers are trained to teach in a physical setting and so new initiatives are required to ensure professional development in online pedagogy and assessment.

With policy makers moving to more blended learning programs time and resources need to be invested in digital skills and especially the ICT infrastructure. With the true state of online connectivity exposed for what it is in many parts of the world, governments must surely now be looking at far more robust partnerships with the telecommunications operators. After all, a truly equitable and well-connected education system with greater use of devices can only be of benefit to the operators and hence their collaboration and contribution is essential.

Any policy reforms introduced by governments should be evidence-based decisions. When it comes to online learning there particularly needs to be an



appreciation of the relationship between learning outcomes and the socioeconomic background of the children. The rush to digital transformation requires cool heads, thought-provoking evaluation, and informed discovery by ministries of education, being wary that much existing research shows that online learning does not support the most disadvantaged learners.

The assessment conundrum is at the forefront of the minds of education officials in Africa. Summative assessment has long had the advantage of providing a numerical measure for student grading and further progression. Yet, it is a snapshot in time that is effectively testing the ability of the student to recall information. So many other aspects of education, including critical thinking, problem solving, extracurricular activities, and project-based learning are not properly addressed by summative assessment. COVID-19, as a single event, has been a huge catalyst in changing the mindset of education authorities.

A lot still needs to be done in reassuring parents that kids are safe to go back to school. On equity there is concern across the board of children who may have fallen through the cracks and these must be attended to. There was unanimous agreement that a lot of education research needs to be done so we have better evidence-based information to make decisions.

- End

For further details or copies of this report, please contact john.glassey@brains.global

APPENDICES

3.1 Appendix A: Whizz Education Report on Learning Loss

<u>Summary</u>

• Even prior to COVID-19, students worldwide typically experience 'learning loss' over the summer break, amounting to **2.5 months of lost learning in mathematics over a 6-week summer break**. This compares to a 2-month gain for those students able to access virtual tutoring for one hour a week over the same period. Summer learning loss by maths topic:



Early indications are that COVID-19 has pre-empted these learning losses. Whizz data exposes the stark digital divide between marginalised and non-marginalised communities.
Access to online content is a key differentiator of learning during school closures. New Zealand vs rural Kenya week-on-week access trends Jan 2020 - May 2020:



• We therefore anticipate an amplification of learning loss attributable both to COVID-19 and the summer break. Accelerated recovery is more paramount than ever.

I. Quantifying summer learning loss pre-COVID

Summer learning loss is an established phenomenon in education. External research points to a 2.6 month drop in students' maths knowledge when they are inactive over the summer period.¹ In this study we use Maths-Whizz data to find our own estimate of the extent of learning loss over the summer, and break down the loss by topic.

To estimate summer learning loss, we selected students on Maths-Whizz in the UK who met the following criteria:

- Assessed at the start of the academic year (Sep '14, '15, '16 or '17)
- Not reassessed until September or October the following year
- The initial assessments did not take more than two months to complete (after starting the assessment)
- Average weekly usage was at least 30 minutes between Sep-Jun in the first year ensuring the student's Maths age at the end of the academic year is a reliable measure of their true maths knowledge at that point
- Total usage from 20 July 31 August in the first year did not exceed 30 minutes so we can assume they did not acquire new knowledge on Maths-Whizz
- Following reassessment, their Maths Age did not increase by more than one month so we can assume they did not acquire new maths knowledge outside of Maths-Whizz
- Only topics that appear in the diagnostic assessment are considered, which ensures that all comparisons of students' Topic Ages are based on knowledge they have demonstrated in Maths-Whizz

A total of 681 students met this criterion and are included in the results below.

Results

<u>Overall</u>: students experience an average drop of 0.20 in Topic Age (Figure 1), corresponding to 2.4 months of lost learning, which is close to the external estimate of 2.6 months.



¹ Cooper H., Nye B., Charlton K., Lindsay J., Greathouse S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research, 66*(3), 227–268. http://journals.sagepub.com/doi/10.3102/00346543066003227

A drop is experienced in every assessed topic (Figure 2). The greatest loss is seen in *Pencil and Paper - multiplication* (0.34 years) and the smallest loss is observed in *Percentages and Ratio* (0.01 years). One contributing factor is the maximum and minimum possible Topic Ages - since Percentages and Ratio starts at a later point in the curriculum, there may be less scope for learning loss for those that have covered the topic. This is a question for further research.



The difference a virtual tutor can make

Figure 3 shows the learning potential of virtual tutoring over the summer. With 45-60 minutes per week of Maths-Whizz tutoring a week over a six-week summer period, students can expect to acquire 9 weeks of knowledge (based on an expected Progress Rate of 1.5, which has been verified by separate Whizz studies). This amounts to 0.17 years of acquired knowledge, compared to 0.20 years of lost learning for those students not active on Maths-Whizz (and not accessing other maths resources).

Thus Maths-Whizz amounts to 0.37 years of learning gains over the summer, or 4.44 months:



Figure 3: Learning progress with and without Maths-Whizz

The study relied on a sample of UK students who met the strict criteria for inclusion. We have no reason to suspect the trends would differ markedly in other regions, though this is a topic for future research.

II. Visualising the digital divide during COVID-19

Covid-19 is still in its infancy, but already it is amplifying the threat of learning loss as students worldwide struggle for access to basic education.

At Whizz we are able to track students' access and quality of learning in mathematics through our Maths-Whizz virtual tutoring platform. As students interact with the tutor, it generates analytics in real-time, as an automatic by-product of their learning. Our longitudinal Usage data (where Usage is defined as time-on-task in Maths-Whizz) brings into focus the two intervening forces of holiday learning loss and what we might term 'Covid learning loss'.

Here, for example, is a time-series plot showing the average weekly Usage on Maths-Whizz among students in the UK. <u>Dates for localised and national school closures are taken from UNESCO</u>. Usage numbers have been omitted as the focus of analysis is on directional trends.



Figure 4: Average Usage among school users of Maths-Whizz in the UK, week-on-week

Prior to Covid-19, there were two unmistakeable troughs corresponding to the Christmas holiday and February half-term respectively, as students directed their attention away from their studies. Since the advent of school closures, a fluctuating pattern has persisted, mediated in large part by a third dip over the Easter break in April. More encouraging is the revival of student activity on Maths-Whizz in recent weeks, with Usage surpassing even its pre-Covid levels.

As schools look to online delivery models for instruction, Maths-Whizz is poised for greater uptake as its design is optimised for this medium (in contrast, say, to ill-fated attempts to deliver synchronous lessons via Zoom to thirty primary students at once).

While adoption levels vary between different territories, the same story has emerged elsewhere: a steady uptake in virtual tutoring, mediated by precipitous drops during holiday periods. Covid-19 poses very real dangers to students' learning, but these dangers are already a natural consequence of the schooling calendar. The persistent threat to students' learning resides in the conventional view of holiday periods as a wholesale 'break' from education.



Figure 5: New Zealand: Usage trends before and after the start of the academic year (early February) are consistent with other territories. The April drop is explained by the Easter break.



Figure 6: United States: The noticeable drop in March corresponds to spring break, which also coincided with the advent of school closures. Usage has picked up as many schools have taken advantage of our support through Covid-

19.



Figure 7: Thailand: The pre-closure decline is in line with the summer vacation. Usage is rising as Maths-Whizz is made available in remote summer camps.

Bridging the digital divide

Learning losses are not distributed evenly among students. Students from more affluent backgrounds are <u>more likely to enrol in summer camps</u>, and they have more ready access to learning resources. Social distancing has placed newfound importance on the internet as a delivery vehicle for education. Digital technologies have baked into them the potential to avert learning loss by affording students access to quality learning content tailored to their needs and preferences. The upturn in Usage on Maths-Whizz bears testimony to the flexibility that comes with online learning, accessible on any internet-enabled device.

<u>These same technologies, however, risk widening the digital divide</u>, with many families unable to afford or access online learning content. <u>As a 2018 PISA analysis explains</u>, school readiness for digital learning unfolds in three phases. The first is the most essential layer of access. In resource-constrained contexts such as rural Kenya and the Democratic Republic of Congo, Usage on Maths-Whizz has been decimated as students' only access to online learning has, to date, been available through purpose-built ICT labs in schools. When schools close, so do the avenues to these students' education.



Figure 8: Rural Kenya: School closures - first due to holidays and then Covid-19 - decimate online learning as students rely on ICT labs for access

The barrier of access is felt even in more developed contexts. In the UK and US, for example, we see huge variations in Usage levels, within and between schools. These contexts reveal their own instances of the digital divide. Many of our partner schools in low-income areas, where families lack access to the internet, are observing a significant downturn in Usage. This is why the first phase of response efforts has centred, in many parts, on infrastructure - enabling internet access for the most marginalised groups (those on free school meals, for instance).

Whizz's own commitment to ensuring learning never stops begins with an effort to expand access to virtual tutoring. In many contexts, this has translated into providing additional licenses to schools. In others, like Kenya and DRC, we are working with partners to overcome infrastructural bottlenecks by making Maths-Whizz accessible on affordable smartphones. In Thailand, Maths-Whizz is being offered as a remote learning solution for summer camps. Each context requires its own adapted implementation.

Even as we confront challenges of access, our approach is rooted in the other two phases of school readiness mentioned in the PISA report: addressing the *digital use gap*, which relates to purposeful, guided use of online content and the *school digital gap*, which relates to 'the capacities and capabilities of each school to

provide individualized, or suitably levelled and sequenced, digital learning for students; to promote and monitor engagement with these materials; and to provide feedback that helps maximize learning outcomes.'

Across all territories, we have created remote professional development offerings for teachers. A webinar series, led by our central team of education experts, has been launched for both parents and teachers. In Kenya teachers can access, through their smartphones, courses on classroom instruction, which will be supported by remote workshops with local experts. A suite of 'flat' maths content including worksheets and worded problems have been disseminated via teacher WhatsApp groups, to coincide with the Kenya Institute of Curriculum Development (KICD) home learning schedule. Teachers have then cascaded these materials down to parents through their own local networks. In the UK, we have already made many of our award-winning Teachers' Resources available on BBC Bitesize, and we are in informal discussions with KICD to include some of this content with their televised home learning curriculum. In the DRC, we are also pursuing the goal of granting teachers access to the Maths-Whizz tutor (again, via affordable smartphones) to enhance their content knowledge.

Learning must never stop in a post-COVID world

These examples are a snapshot of how Whizz is responding to the urgent needs of Covid-19. They fit into a wider effort among educators to ensure all students, and especially the most vulnerable, are supported even during this period of disruption. When the dust hopefully settles on Covid-19, the world will have undergone a seismic shift. The things we take for granted – our health, our livelihoods, our social interactions – will face microscopic examination. So too will our mechanisms of schooling. If we address short term needs with an eye on future needs, we can prepare schools for disruptions to come by making online delivery of quality education a staple component of business-as-usual schooling.