afriqinsights

Emerging Education Research in Ghana, Kenya and Rwanda

Analysis – Final deck

27 May 2021

Agenda

1. Project Overview

Background	Aim of Study	Objectives	Research Questions

Background

- WMF works with education partners around the world to provide access to information and encourage academic institutions to help build local knowledge.

- WMF is eager to better understand how digital information for educational purposes is perceived by relevant stakeholders across West and East Africa, to help define an educational ecosystem that illustrates how lessons are made, distributed, and used

Aim of Study

- **To identify gaps in the education system** that can be addressed with WMF's resources and capabilities.

- Particularly, this assignment covers:

  – *Geographically:*
  - 🇬🇭 **Ghana**
  - 🇰🇪 **Kenya**
  - 🇷🇼 **Rwanda**

  – *Thematically:*
  Experiences in using digital information for educational purposes

  – *Stakeholder groups:*
  - 🎓 **Students (13-18 y.o.)**
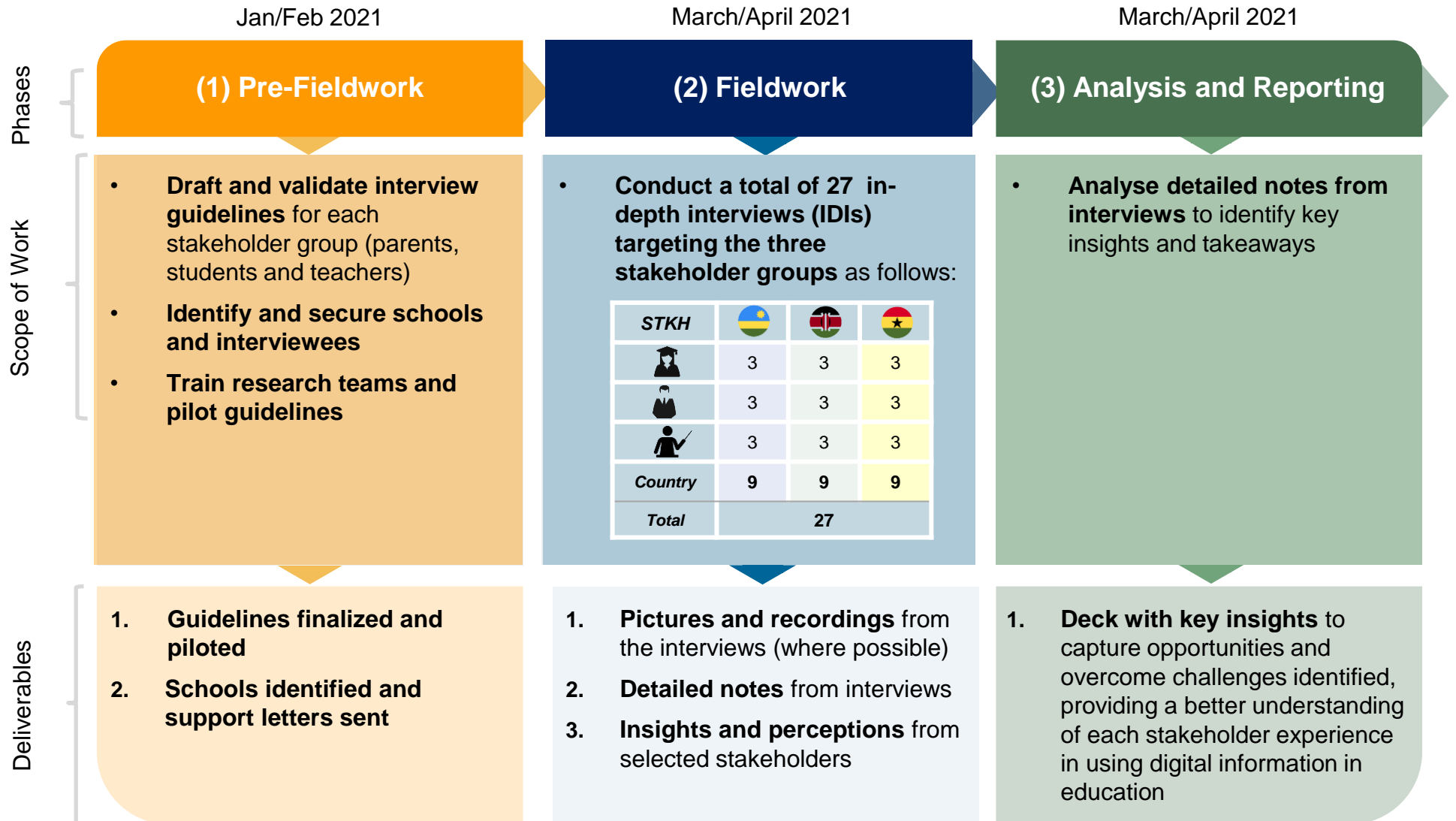 - 👤 **Parents**
  - 🧑‍🏫 **Teachers**

Objectives

- **Undertake a qualitative approach** by interviewing the three key stakeholder groups and identifying key insights and takeaways that will provide us with the following high level overview items for each country:

1. **An overview of the education sector defining the challenges and opportunities**

2. **Better understanding of the level of digital literacy and tool adoption**

3. **High level evidence /guidance for actionable next steps in improving education**

Research Questions

- **Custom guidelines were created per stakeholder group** in order to extract the relevant information as per WMF's scope of research relating to:

- **Motivators for education,**

- **Digital tool and resource adoption,**

- **Challenges and opportunities in education,**

- **Teacher capabilities**, and more.

2. Approach and Methodology
Summary

Phases

Jan/Feb 2021	March/April 2021	March/April 2021
(1) Pre-Fieldwork	**(2) Fieldwork**	**(3) Analysis and Reporting**

Scope of Work

- **Draft and validate interview guidelines** for each stakeholder group (parents, students and teachers)
- **Identify and secure schools and interviewees**
- **Train research teams and pilot guidelines**

- **Conduct a total of 27 in-depth interviews (IDIs) targeting the three stakeholder groups** as follows:

STKH			
🎓	3	3	3
👔	3	3	3
🧑‍🏫	3	3	3
Country	9	9	9
Total		27	

- **Analyse detailed notes from interviews** to identify key insights and takeaways

Deliverables

1. **Guidelines finalized and piloted**
2. **Schools identified and support letters sent**

1. **Pictures and recordings** from the interviews (where possible)
2. **Detailed notes** from interviews
3. **Insights and perceptions** from selected stakeholders

1. **Deck with key insights** to capture opportunities and overcome challenges identified, providing a better understanding of each stakeholder experience in using digital information in education

WIKIMEDIA FOUNDATION

A total of nine schools participated in the study:			
Type of school	🇷🇼 **Rwanda**	🇰🇪 **Kenya**	🇬🇭 **Ghana**
Rural/Public	ES Musambira	Katalembo Boys High School	Ghanata Senior High School
Urban/Public	GS Kabusunzu	Kamakunji Secondary School	Achimota Secondary School
Urban/Private	GS Apacope	St Mary High School	Action Senior High School

In each school, three stakeholders were interviewed:
Student + Parent + Teacher

Additional criteria for school selection:
• *Located in the capital cities (Kigali, Nairobi, Accra)*   • *Local schools (i.e. non-American or International)*

*afriq*insights

WIKIMEDIA
FOUNDATION

From the three stakeholder groups' qualitative research, we were able to identify **five major thematic areas**.

1 **Motivation for Education**
Understanding the underlying motivators for education considering the relevant data collected from all stakeholders.

2 **Curriculum and Best Teaching Practices**
Understanding the curriculum and best practices per country and school to showcase whether there is a large gap in capabilities.

3 **Access to technology/ digital tools and available resources**
Understanding the availability and access to resources whether it be digital or physical to showcase where they are in development terms

4 **Transformation in Education**
Understanding how COVID impacted education and if there has been any impactful changes that has been applied within the schools.

5 **Wikimedia Products**
Understanding if there is an opportunity for Wikimedia to bridge the gaps in the classroom and also to gauge the level of awareness of these free resources.

afriqinsights

In each thematic area, we have identified key insights and information from each stakeholder group and country. From an holistic point of view, these are the overarching takeaways.

1 **Grades are a means to land a good job and have a better life**; digital literacy skills and critical thinking are key enablers to pursue these end goals.

Motivation for Education

2 **Teachers supplement curriculums on own initiative to make courses more interactive**, using their limited resources and varying capabilities across countries and schools.

Curriculum and Best Teaching Practices

3 **Technology and digital tools access is especially low in public schools** (vs private schools and home), mainly due to infrastructure, network, cost and capability challenges.

Access to technology/ digital tools and available resources

4 **Lockdown jumpstarted more adoption of digital learning, relying heavily on teachers' own initiative rather than school readiness.** Structural changes needed to make digital learning stick.

Transformation in Education

5 **Low awareness and use of Wikimedia products by the majority of stakeholders. Perceived value in education; unlocked potential.**

Wikimedia Products

Progress in Thematic Area:

🟢 High 🟡 Medium 🔴 Low

WIKIMEDIA FOUNDATION

Thematic Areas	🇷🇼 Rwanda	🇰🇪 Kenya	🇬🇭 Ghana
Motivation for Education	• **Public:** acquiring wealth • **Private:** learning, digital literacy and languages	• **Emphasis on IT, computer related skills and critical thinking** to get a good job	• **Parents and teachers prefer digital methods for professional readiness** (students focus on grades, university, job)
Curriculum and Best Teaching Practices	• **Lacking due to limited resources and poor infrastructure** 🔴	• **More digitized than Rwanda,** some schools have online teacher networks and use projectors/laptops/soft copies. 🟡	• **Limited training** on educational curriculum and digital tools. • **No digital materials used in classes** 🟡
Access to technology/ digital tools and available resources	• **Extremely low in public schools** due to low budgets and allocation of government resources favours private schools. 🔴	• **Lack of infrastructure and internet access in the schools** • **More access** to digital tools and learning platforms **at home** • **More tech savvy vs Rwanda** 🟡	• **Digital device/internet not allowed at school,** except during computer class • **Schools lack ICT resources** for ICT lessons. Challenges: Internet connectivity and data charges 🟡
Transformation in Education	• **Minimal changes as schools were closed during lockdown with no or minimal remote learning** • Challenges: high cost of internet, lack of teacher training, and poorly implemented government strategies. 🔴	• **The lockdown jumpstarted more adoption of digital tools** • **There have been some online classes** and all stakeholders want are more digital learning methods • **Some teachers did receive training** 🟡	• **Digital learning happened** in urban schools • **1/3 of schools interviewed** is leading a digital transformation 🟡
Wikimedia Products	• **5/9 interviewed unaware of Wikimedia products; however, all showed interest** and saw potential benefits 🟡	• **Mixed awareness across stakeholders**, with teachers being most knowledgeable of Wikipedia and its classroom uses 🟡	• **Stakeholders are more aware of Wikipedia** and see the benefits of OERs for educational purposes. 🟢

afriqinsights

4. Key Insights in Thematic Areas
Stakeholder Level | Cross Country, Parents

Thematic Areas	Common findings
Motivation for Education	• **Digital literacy, critical thinking and languages** key for future job access • **Very influential in students' educational decisions** (prioritize school reputation/educational excellence, cost, and closeness)
Curriculum and Best Teaching Practices	• **Curriculum adequate for goal achievement** • **Desire:** more digital delivery method, digital skills and languages • **Purchase traditional and digital tools and provide additional study help** for student success

Access to technology/ digital tools and available resources	• **More limited at schools than at home** (typically internet access at home)
	   o Main issues: cost and network connectivity
	   o Main concerns: information reliability and misuse of digital tools.
	
	• **Limited awareness of digital available resources** (but see potential benefits)

Transformation in Education	• **Interested in more digital learning**
	   o Advantages: cost, reach, immediacy, global network/knowledge expansion, convenience (e.g. own-pace learning)
	   o Challenges: cost of internet data, technology empowerment, network connection, misuse, students distractions, no in-person interaction
	
	• **Language change in education seen as positive** (from local language to English)

Wikimedia Products	• **Lack of awareness on Wikimedia products** (except Ghana), but see value in them

Progress in Thematic Area:
🟢 **High** 🟡 **Medium** 🔴 **Low**

WIKIMEDIA FOUNDATION

Thematic Areas	🇷🇼 Rwanda		🇰🇪 Kenya		🇬🇭 Ghana	
Motivation for Education	**Public school:** o Motivation – wealth o Decision makers - children **Private school:** o Motivation: behaviour and digital literacy o Decision makers – parents		• **IT, Technology, Computer skills:** key skills for employability/labour market • Most influential**:** parents & schools (mixed opinions)		• **Emphasize developing critical thinking and finding truthful information** • Decision makers - parents	
Curriculum and Best Teaching Practices	• **Concerns: teachers' lesson plan deliveries,** esp. public schools (less resources & capabilities vs private)	🟡	• **Desire:** digital learning, technology and teacher training at schools, and greater focus on languages	🟡	• **Support students with extra classes**	🟢
Access to technology/ digital tools and available resources	• **Usually internet at home** w/o router • **Concerns:** technology safety (.e. child/ content monitoring) • **Very low awareness of digital resources** compared to KY and GH	🟡	• **Provide internet router and digital tools at home**. Sometimes, shared with neighbours whose parents don't allow them accessing digital tools • **More awareness and use of digital resources** (e.g. Eneza) vs RW & GH)	🟢	• **Provide digital tools** (tablets and smartphones) • **No digital tools at school** • **Low awareness of digital resources** (e-campus)	🟡
Transformation in Education	• **REB website awareness is low**; o Issues: faulty site; minimal services • **Education is not delivered digitally** except for Private/Urban school. • **Less adept to going fully digital** vs KY/RW; preference for mixed method teaching (traditional + online).	🔴	• **No changes**, except those for COVID • **Believe in fully digitally/online learning** • **Challenges:** technology empowerment (teachers and students)	🟡	• **Want all digital methods** (cheaper vs traditional), • **Concerns:** content monitoring and child supervision	🟡
Wikimedia Products	• **Very low awareness (1/3) but perceive value**	🟡	• **Very low awareness (1/3) but perceive value** (contrasts knowledge of digital paid services/products)	🟡	• **High awareness (3/3) and pure consumption of Wikipedia** for theirs and their children's research	🟢

afriqinsights

4. Key Insights in Thematic Areas
Who said what? | Parents

Rwanda

Concerned for tech safety
Low tech connectivity
Digitally mindful

*"We need a company like those in Kenya to **provide home internet** that we would pay monthly or weekly subscriptions."*

*"I learned **that everything is possible and easy with online learning**. The only bad thing is that **it is still expensive and not accessible to everyone**. A good thing is that even a teacher from America would teach our students online."*

*"**We are not happy to see private schools having more and high quality tools while public schools haven't any**. (…)"*

*"MINEDUC itself is not digital. It should be digital first. They have to **train teachers from public schools** and **make them able to everything about digital teaching**. MINEDUC should help us to come from archaic method to the updated method in education."*

Kenya

Value tech literacy
Digitally connected
Believe in online learning

*"**Digital learning as part of education**: It is not a question of whether they should be; they are supposed to be mandatory. Because right now **we are living in technology**. Everything is online."*

*"**I would like all schools to have digital learning** because it is efficient, it exposes our learners to the global world and it is an easy way of learning **because the child is able to learn at his own pace** whether at school or at home and it doesn't matter whether the teacher is there or not because the child can learn and get answers like they get when they have a teacher."*

*"There are some neighbours who are of the same age and form but **they do not have laptops** and **their parents don't allow them to access mobile phones** so they share with my son. Sometimes I get to the house and find its full as they are using the laptop together both for learning and entertainment like music."*

Ghana

Believe in digital literacy
Tech an important opportunity
Content supervisor

*"**Digital tools in education have come to stay** and there is no way going back. It gives the children the opportunity to have a vast fountain of knowledge they can source information from aside that from the teacher. However, **monitoring is key** in ensuring the children stick to the information in their subject area."*

*"In my opinion, internet should be made accessible at a cheaper cost. **Government should ensure secondary school should not have issues with internet connectivity.** There should open the ecosystem for everyone to have access to digital learning."*

*"Online studying is helpful however, **the challenge is that the secondary schools do not have those platforms or software's to enhance online studying.**" [The parent realized his other wards in the basic school had that opportunity of online studying which was very efficient and effective as opposed to his children in secondary school.]*

Thematic Areas	Common findings
Motivation for Education	• **Shifted towards digital tools and education for professional readiness**
Curriculum and Best Teaching Practices	• **Generally satisfied with teaching** using a mix of traditional and digital resources • **Tend to use additional study aids outside the class**, both traditional and online materials/resources (online searches, social media apps) to improve their understanding and/or further their knowledge in certain topics
Access to technology/ digital tools and available resources	• **Digital tools more accessible at home compared to school** (varies across countries and school type) and used mostly for internet searches in English for personal learning o **Concerns:** truthfulness of online information (rely on teachers to verify reliability) • **Limited awareness of current available digital resources**

Transformation in Education	• **Behind due to schools being unprepared for digital learning**
	     o Mixed perceptions/preferences for teaching method (traditional vs remote) across countries and school type
	 • **Desire:** more digital learning, technology and tools
	     o **Advantages**: own-paced learning, flexibility
	     o **Belief**: digital learning not challenging if provided devices and extensive training

Wikimedia Products	• **Aware of and have used Wikimedia products** (i.e. Wikipedia), except for Rwanda. • **Interest in contributing to Wikipedia** (mainly to share their info to help others), except for Ghana. o **Value**: Wikimedia products to ease learning.

4. Key Insights in Thematic Areas
Stakeholder Level | Cross Country, Students

Thematic Areas	🇷🇼 Rwanda		🇰🇪 Kenya		🇬🇭 Ghana	
Motivation for Education	• **Public school:** good job • **Private school:** prioritise fun and learning • Clear divide due to the difference in living conditions, financing, and education		• **Perceived employable skills/future labour market:** critical thinking, programming, IT		• **Students believe that the subjects they're currently studying is preparing them for their future career goal**	

Curriculum and Best Teaching Practices	• **Teachers still need rigorous training to incorporate digital learning**
	  o Value: real life examples in classroom
	• **Divide between available resources** for public & private school (at home/ in school)
	  o Additional study aids only available for urban/private students (social media)
		🔴	• **Teachers enhance basic curriculum lessons with digital tools**
			  o Tools: YouTube and phones
				🟡	• **Curriculum is good** but the school was not ready for remote learning
					  o **Value:** real life examples and more digital tools
						🟡

Access to technology/ digital tools and available resources	• **Public school: limited, basic tools such as computer lab available** (most students don't have internet access at home)
	• **Private school: have all resources** (projectors, laptops, phones) and online digital resources provided by REB.
		🟡	• **More access to digital tools and materials at home** (phone/laptop/ internet) vs schools
			• **2/3 are aware of Eneza**
			  o **Challenges:** cost
				🟢	• **Access through their personal resources, not school's**
					  o **Challenges:** digital tools are not allowed at school premises except in computer lab
					• **Have mobile phones or laptops at home**
					  • Usage: socializing, entertainment & educational purposes; these are not shared
						🟡

Transformation in Education	• **Schools unprepared for remote teaching during lockdown** (used TV, Radio, and recordings)
	  o Challenges: students couldn't use these platforms
	• **Prefer in person teaching and digital tools at school** rather than remote learning (especially public school students)
		🔴	• **Schools unprepared for remote teaching during lockdown** (used emails and recordings)	🔴	• **Students fell behind** – no remote learning during lockdown
					  o Some limited lessons via WhatsApp Group messages (quite ineffective)
					• **More tech savvy and confident in using digital tools** compared to RW and KY
					  o **Belief:** due to previous experience, using more digital learning tools will be easy
						🟡

Wikimedia Products	• **Very low awareness (1/3) but perceived potential value**	🔴	• **Medium awareness (2/3) but perceived potential value**	🟡	• **High awareness (3/3) but perceived potential value**	🟢

4. Key Insights in Thematic Areas
Who said what? | Students

Rwanda
Crave relevant content
Desire digital literacy
Appreciate mixing digital &
in-person methods

"The school gives us nothing beyond teachers, classrooms and chairs...."

"I don't use SMS, I don't use any phone programs. I don't know those Mtabe ... it's the first time hearing of them"

"In my opinion the lesson would be interesting according to the way the teacher teaches it. He often likes to give us examples of real life in the class and projecting examples using video in the class that make us to understand well the course."

"Learning all the lessons in Kinyarwanda (as instruction language) would not be helpful to us because it would prevent us from learning other languages (such as English) and remain isolated with our Kinyarwanda.
The best would be to stay studying in English."

Kenya
Value tech skills
Digitally connected
Question internet source
truthfulness

"Used Eneza once. It helped me in learning since I was in a place I could not access WIFI."

"E-learning should continue and since our school is a day school this would be easy to even learn at night, it made night classes possible. I would love more digital experience in future."

"I want to be data base administrator and I think the knowledge am in school is what employers are looking for because every day there is someone who is coming up with a new thing and in school we are taught about something like programming and you can continue learning more about programming using your lessons and at last you develop your own program that is many youth are developing things."

Ghana
Cautious - Verify internet information
Confident in school readiness
Digitally confident/savvy

The student **does not think he will find it difficult to adapt digital learning** since he has hands on experience in using the digital learning tools.

Digital Education is good but should be made available to everyone. Parents should allow students to have access to device to help in digital learning. Digital tools/devices are not only used for socializing by students but can go a long way in helping student learn digitally.

"Definitely learning this new way made me think of school in somewhat different way since it's not each time a teacher has to stand in front of a class to deliver a lesson. With the provision of e-books and videos/pictures, students can learn by themselves adequately."

4. Key Insights in Thematic Areas
Stakeholder Level | Cross Country, Teachers

Thematic Areas	Common findings

Motivation for Education	• **Seeing students engaged and using the skills learnt**
	   • **Goal:** students develop, land jobs and have better lives
	   • **Key enablers:** digital learning and critical thinking

Curriculum and Best Teaching Practices	• **Secondary education curriculums helps students achieve their goals**
	   • **Supplement lessons with additional materials, videos and pictures for increased student engagement and understanding** (despite receiving some resources (both traditional and digital) from the government/schools)
	• **Generally, teachers are not quite as tech savvy when using digital tools**
	   • **Value:** digital literacy
	   • **Desire:** more training, esp. for online teach and digital tool use (some have received trainings for Google meets and classroom)

Access to technology/ digital tools and available resources	• **Fairly limited access and use digital resources** both in the classroom and at home • **Desire**: technological access improvements • **Limited awareness on digital tools and available resources** (e.g. SMS based systems)
Transformation in Education	• **Teacher initiative was a key enabler to allow for remote learning** during the pandemic as schools were shut down and unprepared for remote learning (however, means used were quite ineffective) • **Challenges**: limited access to digital tools, cost, student engagement, digital literacy • **Support from key stakeholders is needed to make emerging digital learning stick and stay**
Wikimedia Products	• **Wikipedia is considered useful and is used to search for further information on topics.** • **Desire:** more pictures, videos and Wikimedia products used in class to make learning and understanding easier • **Teachers were unaware of the contributing feature in Wikipedia** - would be interested in creating content to help others (knowledge sharing) and to learn more about OERs to leverage them in education

4. Key Insights in Thematic Areas
Stakeholder Level | Cross Country, Teachers

WIKIMEDIA FOUNDATION

Thematic Areas	🇷🇼 Rwanda		🇰🇪 Kenya		🇬🇭 Ghana	
Motivation for Education	• **Develop and grow to become good people and lead successful lives**		• **Grades and instilling great behaviour in the student**		• **Most important: information, digital literacy and critical thinking**	
Curriculum and Best Teaching Practices	• **Main changes:** Knowledge (KBC) vs Competence Based Curriculum (CBC). Curriculum delivered to schools from REB (Rwanda Education Board) o **Challenges:** not enough training to use digital tools and overcrowded classrooms o **Desire:** more training (public school more than private) o **Use:** videos and pictures	🔴	• **No current changes** o In future: CBC (focus on student reasoning vs getting answers) • Curriculum is from the KICD and provide soft copies by CD o Tools: projectors and phones • **Teachers received training**	🟡	• **Changes to curriculum from GES** o **Belief:** curriculum does not help critical thinking, geared only towards passing examination /making test scores • Develop their own lesson note (public) or scheme of work (private) based on the GE syllabus o **Use:** online resources to validate findings that they personally procure. • **Believe they have a good grasp of digital tools** - knowledge from life experiences, limited/no training from schools	🟢
Access to technology/ digital tools and available resources	• **Teachers have outdated laptops they can use** (government provides minimal resources) o **Private schools:** have more resources and capabilities	🟡	• **Teachers have more access at home to digital tools than at school**	🟡	• **Schools do not provide digital learning materials and digital devices/tools for teachers**. o **Tools**: personal laptops and mobile phones o Supplement lessons with images (pictures or videos) on subject areas from the internet	🟡
Transformation in Education	• **Transformation in education did not occur,** schools unprepared for remote learning (limited WhatsApp groups and recorded videos – ineffective, used by private/urban) o WhatsApp usage: one for parents to communicate and another for children to learn (share materials)	🟡	• **Remote learning was implemented in schools via zoom and WhatsApp** (except for Rural/Public) o **Challenges:** power shortage, student misbehaviour, consistency of presentations o Students carry phones for educational use	🟢	• **Mostly self-trained in digital tools** and initiated ways to teach remotely (e.g. WhatsApp Groups) despite schools' unpreparedness o **Challenges**: reaching students (no digital tool access), engagement, lack of resources o **Desire**: more digital tool incorporation	🟡
Wikimedia Products	• **2/3 teachers know about Wikipedia and see it as a valuable tool**	🟡	• **Teachers use Wikipedia and see it as a useful resource.**	🟢	• **All the teachers have knowledge about Wikipedia and mostly use it** for researching and supplementing lesson notes.	🟢

4. Key Insights in Thematic Areas
Who said what? | Teachers

Rwanda
Resilient
Desire digital training
Innovative developing lessons

*"There are many information and many sources on the internet; **it is difficult to choose the useful information**."*

*"**Nothing of digital tools provided to us like teachers.** The computers are for the students, the teacher who wants a computer buys it him/herself."*

*"The hard thing is low capacity of school, teachers and students materials. **There is also the lack of training**."*

*"**I need more trainings. I have the capacity but I need other training.**
I would love it if they train us about online teaching. It would be better for me to be taught by people like you, or by people from Microsoft or like people from Wikipedia, experts of this in general.
I have been trained but a small material I had been damaged by the thunder, thus I stopped trainings. But there are some teachers from this school who had the trainings.
Yes they are very important. They give confidence in teacher for teaching your lesson with happiness, being sure that it is full and rich!"*

Kenya
Student focused
Challenged by digital obstacles
Use more digital resources

*"What usually **motivates me** is when you find that the **students implement the skills practically** when they move out there this way I see I have achieved something"*

*One of the challenges you get we are not the same. You find out those who have been in the service for a long time, so you find out some are not exposed to some of these sites and need to learn how to browse and use major sites to get content. Most of them just use analogue methods of delivering content. **So you find out embracing Digital Learning is a challenge."***

*"**Our school is highly dependent on government provided infrastructure or donors**. Basically we go to the computer room. We have a computer room with Forty Computers, one projector and internet. For digital classes we use this to do it but in case it's a large it usually a challenge.?"*

Ghana
Use personal resources
Self-taught
Knowledgeable of digital tools

*"**There are no digital learning materials also provided by the government and school."***
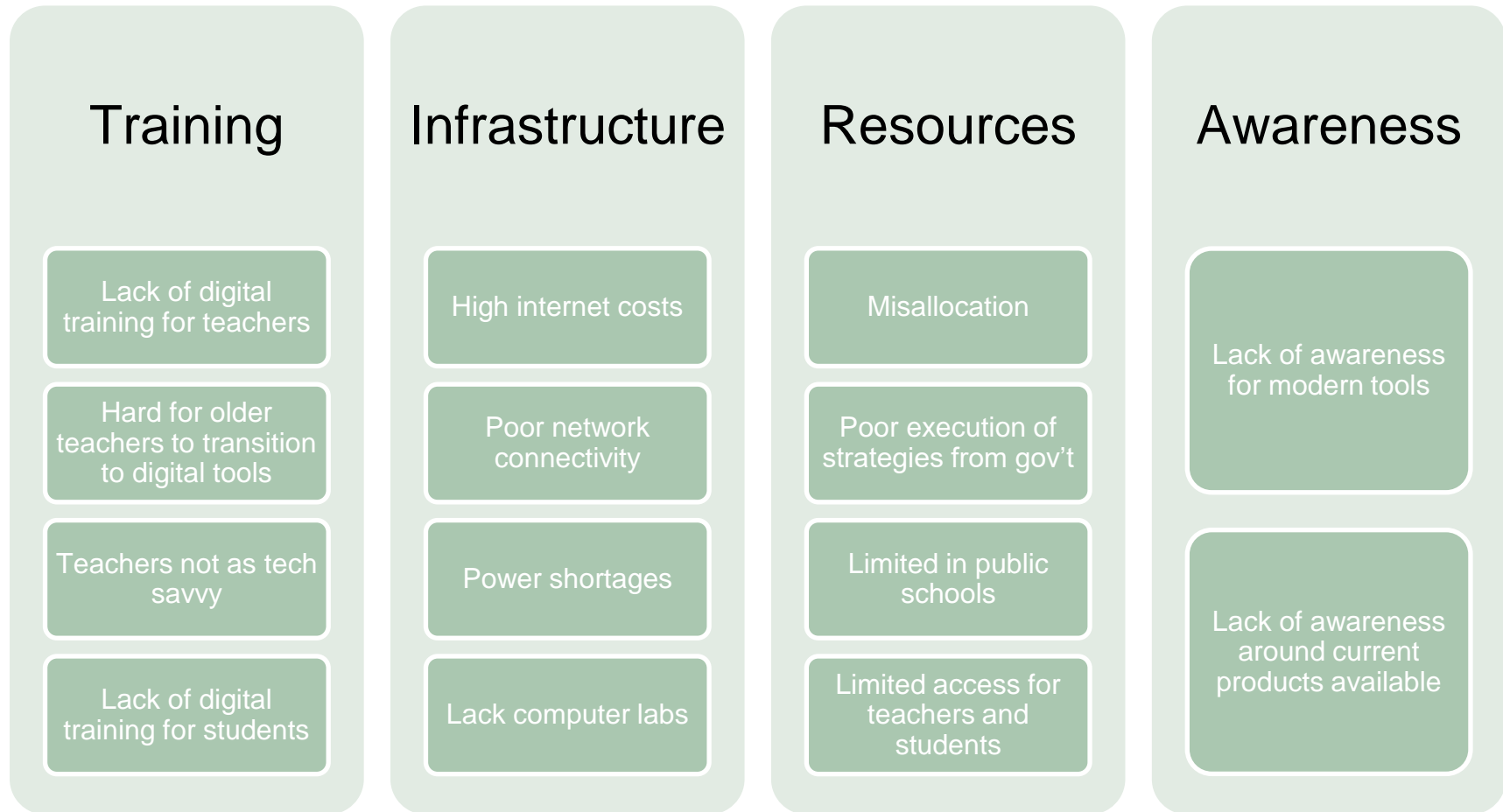
*Most of the internet searches lands on Wikipedia and the **teacher trusts the information on Wikipedia**. However, the teacher double checks the information if it does not come from a reliable source.*

*Not all teachers use digital resources in the school from his opinion. A lot more teachers especially the **older teachers need training and sensitization on the use of digital information**. For the teacher who utilize these digital information resources its very good, convenient and innovative. The students learn quicker and adapt to these innovative ways of learning faster and relate to the lessons since they can digitally envision the various scenarios in real life.*

Common key challenges in all countries

There are still key challenges and obstacles in all three countries that need to be overcome before a digital education can be utilized in the targeted countries, and these challenges pertain to the following:

Training	Infrastructure	Resources	Awareness
Lack of digital training for teachers	High internet costs	Misallocation	Lack of awareness for modern tools
Hard for older teachers to transition to digital tools	Poor network connectivity	Poor execution of strategies from gov't	
Teachers not as tech savvy	Power shortages	Limited in public schools	Lack of awareness around current products available
Lack of digital training for students	Lack computer labs	Limited access for teachers and students	

6. Recommendations
Where could WMF make a real difference?

Challenges	Recommendations	Benefits
Lack of resources to provide students with digital learning and tools	**#1 - Leverage ICT partnerships** to identify schools to create and improve computer labs/digital tools for students	• *Greater access to computer education/digital tools* • *Higher digital literacy for students to prepare for the job market*
Limited awareness of available tools and resources	**#2 - Marketing campaigns targeted at parents** in Rwanda, Ghana, and Kenya to raise awareness of digital tools available for free or low cost	• *Enable parents to better support their children in their education*
Lack of digital trainings for teachers	**#3 - Identify teacher groups** in Rwanda, Kenya, **and** Ghana to **provide trainings on digital tools** based on knowledge needs and skills gaps.	• *Teachers are better equipped to support their students through digital learning* • *Greater student engagement in the learning process*
Other challenges across Training, Infra, Resources & Awareness	**#4 - Conduct further research on emerging education/ digital learning across the three countries** to deep dive on challenges identified by focusing on a representative sample (e.g. validating initial findings that Wikimedia products are appealing and can be used in education) Conducting further research on stakeholder groups can help out in creating/developing valuable tools such as: 1. Customer profiles/personas 2. Customer journeys	• *Obtain a representative understanding of stakeholders' particularities (e.g. behaviours, aspirations, etc.)* • *Support interventions that need to be made to foster digital learning (e.g. influence/provide info to gov't and other relevant stakeholders)* • *Better understand the gap on access and usage of digital tools* • *Allow for identification of potential solutions to mitigate existing or upcoming challenges*

Thank you

for placing your trust in us as your research and consulting partner in Africa!

afriqinsights

School entrance/premises · Classroom · Computer lab (Kabusungu)
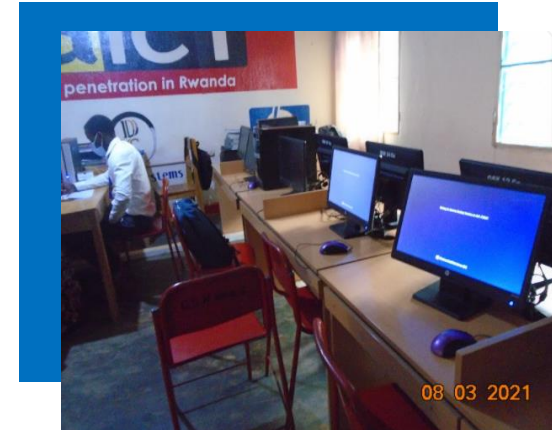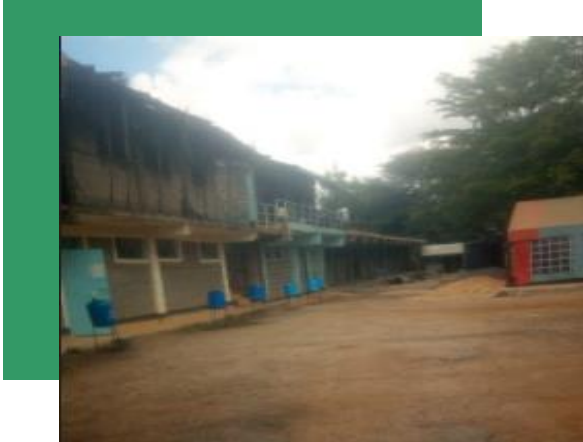
Public

Private

School entrance/premises   *Classroom*   *Computer lab*

Public

Private

Annex
Differences between public and private schools

	School entrance/premises	*Classroom*	*Computer lab*

Public

Private

Annex
Differences between resources provided to and curated by Teachers

🇷🇼 Rwanda

🇰🇪 Kenya

🇬🇭 Ghana

Provided by government/ schools

Textbooks (Rwanda)

Curriculum

Textbooks (Kenya)

Textbooks (Ghana)

Curated by teachers
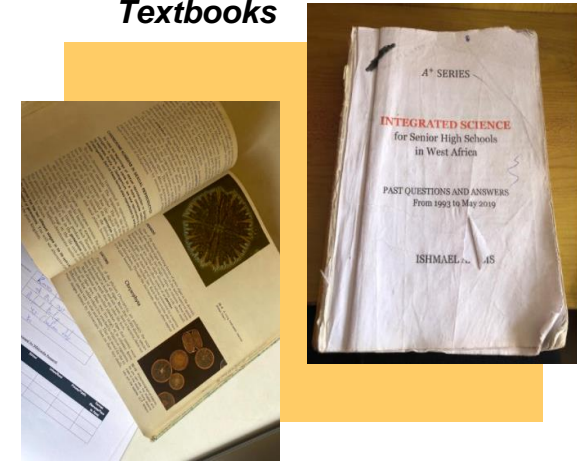
Traditional materials

03 03 2021
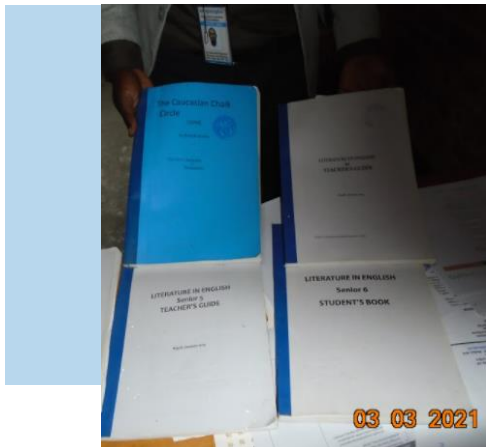
Photomontage
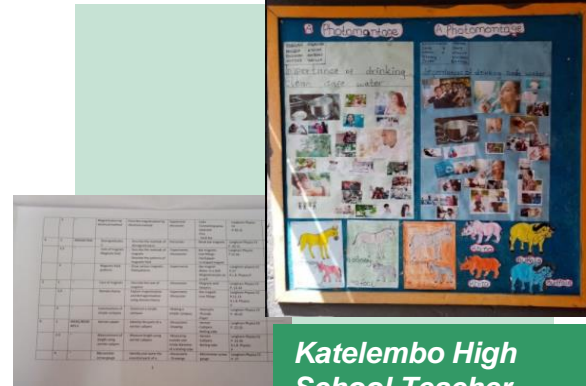
Scheme of work

Katelembo High School Teacher lesson presentation – (Google Drive)

Lesson note (private vs public)
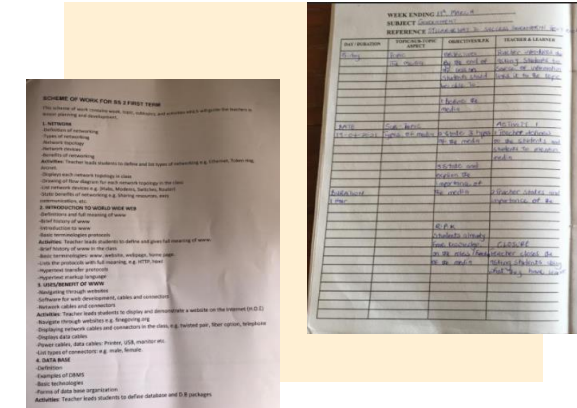
Annex - Key Insights in Thematic Areas (Ext.)
Country Level | Holistic analysis

WIKIMEDIA FOUNDATION

Thematic Areas	Common insights	🇷🇼	🇰🇪	🇬🇭
Motivation for Education	• **Consistency in motivational factors**: **Grades are a means to land a good job and have a better life**; digital literacy skills and critical thinking are key enablers to pursue these end goals	(gray)	(gray)	(gray)
Curriculum and Best Teaching Practices	• **Secondary education curriculum has changed over the last five years**, becoming more competency-based	green	yellow	green
	• **Curriculum is supplemented with additional materials (traditional and digital), bringing perceived added value both students** (e.g. more engagement, understanding) and teachers.	yellow	green	green
	• **Stakeholders are relatively more tech savvy, but further digital literacy is needed** (e.g. trainings, education, awareness)	orange	yellow	yellow
Access to technology/ digital tools and available resources	• **Access to technology and availability of digital tools is fairly limited, although it tends to be better at home compared to schools.** Overall, facilities and resources are better in private vs public schools	orange	yellow	yellow
	• **Stakeholders tend to rely more on digital tools for their own learning, even if they have some concerns about them** (e.g. information reliability, misuse)	yellow	green	green
	• **Stakeholders tend to be more aware of digital available resources** such as SMS based digital tools, **despite their limitations,**	orange	green	yellow
Transformation in Education	• **Some emerging remote teaching was made possible in urban and private schools, mainly through teachers' own initiatives**, despite schools being shut down and unprepared for digital learning.,	orange	yellow	yellow
	• **There has been a language change in education** (from local language to English) which is perceived to have had a positive impact on children's development	green	green	gray
	• **Digital learning has been an eye opener experience and should be deeper embedded into the education system.** Improvements in infrastructure, network, trainings are needed to make this happen.	orange	yellow	green
Wikimedia Products	• **Wikipedia is perceived as a valuable tool, which is mostly consumed to further research on topics.** Stakeholders would like to leverage it more for educational purposes	orange	yellow	green

afriqinsights

24

Annex - Key Insights in Thematic Areas (Ext.)
Country Level | Holistic analysis

WIKIMEDIA FOUNDATION

Thematic Areas	🇷🇼 Rwanda	🇰🇪 Kenya	🇬🇭 Ghana
Motivation for Education	• **Public schools tend to show a higher preference in acquiring wealth as a motivator behind education, compared to private** schools where learning, digital literacy and languages are prioritized	• **More similar to Ghana**, there is a tendency across stakeholders to emphasize IT, computer related skills and critical thinking as key enablers to land a good job (end goal of education)	• **Parents and teachers tend to prioritize leveraging digital methods** to help students be professionally ready to land a good job, compared to students (grades, university, job)
Curriculum and Best Teaching Practices	• **Curriculum and teaching practices are lacking** due to limited resources and poor infrastructure (student to teacher ratio very high, lack of training)	• **The curriculum and teaching practices are more digitized than Rwanda** as some schools have online teacher networks and use projectors/laptops/soft copies.	• **There is limited training on educational curriculum and digital tools.** • **No digital materials are used in class**
Access to technology/ digital tools and available resources	• **Access to technology and resources are extremely low in public schools** due to low budgets and allocation of government resources favours private schools.	• **There is a lack of infrastructure in the schools and issues with internet access**, **however at home** the stakeholders have **more access** to digital tools and learning platforms. • **The stakeholders are more tech savvy vs Rwanda**	• **Schools do not allow the use of digital devices and access to the internet for use for students in the school**, except during computer class. • **Majority of the schools lack ICT resources for ICT lessons**. Internet connectivity and data charges are a problem for online learning.
Transformation in Education	• **Minimal change in teaching approach and methods as schools were closed during lockdown with no or minimal remote learning** (WhatsApp groups). This is due to high cost of internet, lack of teacher training, and poorly implemented government strategies.	• **The lockdown jumpstarted more adoption of digital tools** such as phones in the schools. However, the schools were not ready for remote learning. • **There have been some online classes** using WhatsApp groups, live discussion and Zoom. • **Some teachers did receive training on google meet and classroom**, and all stakeholders want are more digital learning methods.	• **In urban schools digital learning happened** via WhatsApp groups (teachers' initiative), e-campus (to be SMART lab) and governments ' television station dedicated to digital learning for secondary schools on all subjects approved by the GES • **Only 1 out of the 3 schools interviewed is leading a digital transformation** in education in terms of acquiring a new SMART Lab upgraded with 5G network where teachers will be receiving online study materials and training.
Wikimedia Products	• **5/9 interviewed did not know of Wikimedia products but all were interested** and noted the potential benefits it could have in the curriculum and education.	• **Mixed awareness across stakeholders**, with teachers being most knowledgeable of Wikipedia and its classroom uses through the amount of information it provides.	• **Stakeholders are more aware of Wikipedia** and see the benefits of OERs for educational purposes.

afriqinsights

Thematic Areas	Common findings
Motivation for Education	• **Digital literacy, critical thinking and languages are perceived as key enablers for children to access future labour market** and lead a better life • **They consider themselves significant influencers on their children educational paths and tend to be decision-makers when it comes to choosing schools for their children** prioritizing factors such as school reputation/educational excellence, cost, and closeness
Curriculum and Best Teaching Practices	• **Secondary education curriculum is perceived adequate enough** to help students achieve their goals, **although parents would like to see further changes in delivery methods (digital) and higher focus on digital skills and languages** to render students more competitive and relevant in the job market. • **Parents tend to purchase traditional and digital tools** for their children to help in their studies and have a successful education. **They also tend to provide their children with additional study help** whenever their economic resources allow them to. When looking for additional info to supplement children's learning, it is mostly done in English
Access to technology/ digital tools and available resources	• **Perceived more limited at schools than at home. At home, there tends to be access to the internet (main issues: cost and network connectivity)** parents provide access to digital tools for their children (educational and recreational use). Parents' main concerns are around reliability of information and misuse of digital tools. • **There is limited awareness on digital available resources, for which parents see potential benefits for their children education as well some concerns** (e.g. cost service, information reliability)
Transformation in Education	• **Digital learning has been an eye-opener which they are eager to further explore in the years to come. Its perceived advantages** (e.g. cost, reach, immediacy, global network/knowledge expansion, convenience (e.g. own-pace learning) **outweigh the challenges** (e.g. cost of internet data, technology empowerment, network connection, misuse, students distractions, no in-person interaction). **Different views on its implementation moving forward.** • **Language change in education** (from local language to English) it is perceived to have a positive impact on children's development despite some eventual challenges
Wikimedia Products	• **Except for Ghana, there is a lack of awareness on Wikimedia products, generally.** However, when informed about them, they all perceive their potential value in education and are supporters of the services and products for educational purposes

Annex - Key Insights in Thematic Areas (Ext.)

Stakeholder Level | Cross Country, Parents

WIKIMEDIA FOUNDATION

Thematic Areas	🇷🇼 Rwanda	🇰🇪 Kenya	🇬🇭 Ghana
Motivation for Education	• **Varies across public (more wealth) and private schools** (behaviour and digital literacy), possibly due to significant difference in resources/capabilities between them • **Decision-makers for choosing school varies from public (children) to private schools (parents)**, compared to KY and GH (parents)	• **IT, Technology, Computer skills** seen as employable skills/future labour market • **Mixed opinions on who's the largest influence on children education (parents vs schools)** compared to Rwanda and Ghana (parents)	• **Place greater emphasis also on developing Critical thinking and finding truthful information**
Curriculum and Best Teaching Practices	• **Concerns on how teachers are delivering the lesson plans, especially in public schools** (less resources and capabilities vs private schools)	• Would like to see **more digital learning, technology and teacher training at schools, and greater focus on languages**	• **Extra classes for students** to help them in subject areas where they need some additional teaching or learning to understand the subject. Can be in the form of face-to-face meetings coupled with digital learning online study.
Access to technology/ digital tools and available resources	• **Tend to have internet at home** but no router. • **Some concerns about technology safety** (.e. child/content monitoring) • **Very low awareness of digital resources compared to KY and GH**	• **Provide internet router and access to digital tools for their children at home. Sometimes, these are shared with neighbours** whose parents don't allow them accessing digital tools • **More awareness and use of digital resources (e.g. Eneza) vs RW and GH**	• **Provide their children with digital tools** such as tablets and smartphones but the **school does not provide them with any.** • **Low awareness of digital resources** (e-campus)
Transformation in Education	• **REB website awareness is low**; site is faulty and minimal with access to grades and some material. • **Education is not delivered in a digital way** except for Private/Urban school. • **Less adept to going fully digital compared to KY and RW**, showing preference for keeping a mixed method approach to teaching (traditional + online).	• **Generally, no further changes seen in addition to remote learning during COVID** • **Believe everything in class should be taught digitally/online** although stress current deterrent factors(i.e. technology empowerment (teachers and students))	• **Believe everything should be taught using digital methods** (cheaper vs traditional), although stress the importance of content monitoring and child supervision
Wikimedia Products	• **Very low awareness (1/3) but perceived potential value in education**	• **Very low awareness (1/3) but perceived value** – contrasts with knowledge on digital paid services/products such as Eneza	• **High awareness (3/3) and pure consumption of Wikipedia** for theirs and their children's research

afriqinsights 27

Thematic Areas	Common findings
Motivation for Education	• **Motivation for education has shifted towards digital** because the lockdown showed how important technology and digital tools are in terms of developing one's professional skillset to be ready for the job market (end goal)
Curriculum and Best Teaching Practices	• **Generally satisfied with the way classes are being taught (mix of traditional and digital resources)** and **perceive the use of digital materials and tools (mainly videos, pictures and real life examples) adds value to the curriculum** and help them **better understand what they're learning** • **Tend to use additional study aids outside the class, both traditional and online materials/resources** (online searches, social media apps) to improve their understanding and/or further their knowledge in certain topics
Access to technology/ digital tools and available resources	• **Generally digital tools are more accessible at home compared to school**, although this varies across countries and type of school. **At home, students mostly search the internet (e.g. Google, YouTube, Wikipedia) in English for their own learning. Despite spread concerns on the truthfulness of online information and students mostly rely on teachers to verify its reliability.** • **Limited awareness on available digital resources such as SMS based systems -** when told about them, they all seem to be interested in using them arguing it would make learning easier and faster for them
Transformation in Education	• **Challenging period for students with some of them lagging behind in terms of learning** as schools were not well prepared for digital learning. **Digital learning has been an eye-opener.** However, there are mixed perceptions and preferences in the ways of teaching (traditional vs remote) across countries and types of schools as most of them greatly value in-person interactions. • **There is consensus on wanting to see more digital learning, technology and tools in education (perceived advantages: own-paced learning, flexibility) and the perception that adapting to digital learning will not be challenging provided that devices and extensive training are given to them**
Wikimedia Products	• **Students are aware of and have used Wikimedia products (i.e. Wikipedia) in the past to search for further information on topics,** except for Rwanda. **Although initially unaware, they mentioned they would be interested in contributing to Wikipedia (mainly to share their info to help others),** except for Ghana. Overall, **there is consensus on the value Wikimedia products could bring in class to ease learning.**

WIKIMEDIA
FOUNDATION

Thematic Areas	🇷🇼 Rwanda	🇰🇪 Kenya	🇬🇭 Ghana
Motivation for Education	• Clear divide between public and private schools when it comes to motivation behind education due to the difference in living conditions, financing, and education (public wants a great job vs private where having fun and learning is prioritised)	• Perceived employable skills/future labour market: - critical thinking - programming - information technology	• Students believe that the subjects they're currently studying is preparing them for their future career goal
Curriculum and Best Teaching Practices	• Clear divide between public and private schools in terms of student resources at home and in school. Teachers still need rigorous training to incorporate digital learning into the curriculum. • Students value incorporating real life examples which resonate with them and increase their engagement • No additional study aids used except for urban/private (social media)	• Teachers use YouTube and phones in the classroom to deliver their lesson plans on top of the basic curriculum syllabus standards.	• Curriculum is good but the school was not ready for remote learning. • Student prefers real life examples and would prefer more incorporation of digital tools.
Access to technology/ digital tools and available resources	• Public schools are limited, and most students don't have access to internet at home, schools have basic tools such as a computer lab. • Private schools have all resources (projectors, laptops, phones) and online digital resources provided by REB.	• More access to digital tools and materials at home (phone/laptop/internet) compared to schools • 2/3 are aware of Eneza (issue: cost) although is perceived as useful tool	• Access through their personal resources and not the school's. Digital tools are not allowed on the school premises and especially not in the classroom unless they're used in the computer lab. • Students have either mobile phones or laptops at home which they use for socializing, entertainment and educational purposes; these are not shared.
Transformation in Education	• Schools were not ready for the lockdown in terms of remote teaching and resorted to TV, Radio, and recordings. Most students didn't have the ability to use these platforms and therefore didn't learn for a long period of time. • In general, students would prefer getting back to school and using digital tools at school rather than remote learning. In particular, students from public schools show a clear preference of traditional/in-person teaching .	• Schools were not ready for the lockdown in terms of remote teaching and resorted to emails and recordings.	• Schools were shut down during lockdown with no remote teaching methods as students fell behind during the lockdown. • Some students received some lessons via WhatsApp Group messages (quite ineffective) • Students tend to be more tech savvy and confident in using digital tools compared to RW and KY - see no challenges in adapting to more digital learning as they have previous experience in using them
Wikimedia Products	• Very low awareness (1/3) but perceived potential value in education	• Medium awareness (2/3) but perceived potential value in education	• High awareness (3/3) and perceived potential value in education. Hesitant to contribute due to perceived unpreparedness to share knowledge

*afriq*insights

WIKIMEDIA FOUNDATION

Thematic Areas	Common findings
Motivation for Education	• **They thrive when they see students engaged and using the skills learnt. Teachers would like students to develop, land jobs and have better lives. Digital learning and critical thinking are considered key enablers** for students to achieve their goals
Curriculum and Best Teaching Practices	• **Secondary education curriculums (which generally have experienced some changes over the last five years)** are perceived to be helping students in achieving their goals. However, t**eachers tend to supplement their lessons with additional materials, videos and pictures to increase student engagement and understanding of subjects**, despite receiving some resources (both traditional and digital) from the government/schools • **Generally, teachers are not quite tech savvy when it comes to using digital tools,** yet they realize the importance of being digitally literate. **Although some have received trainings (e.g. Google meets and classroom), it is perceived that more is needed especially related to online teaching and the use of digital tools.**
Access to technology/ digital tools and available resources	• **Fairly limited access and use digital resources both in the classroom and at home**, and would like to see improvements in accessing technology. • **Limited awareness on digital tools and available resources** (e.g. SMS based systems)
Transformation in Education	• **Teacher initiative was a key enabler to allow for remote learning** during the pandemic as schools were shut down and unprepared. **Although means used were quite ineffective** (reasons: limited access to digital tools, cost , student engagement, digital literacy) • **Support from key stakeholders is needed to make emerging digital learning stick and stay.**
Wikimedia Products	• **Wikipedia is considered useful and is used to search for further information on topics.** Teachers would like to see more pictures, videos and Wikimedia products being used in class to make learning and understanding easier • **Teachers were unaware of the contributing feature in Wikipedia** - would be interested in creating content to help others (knowledge sharing) and to learn more about OERs to leverage them in education

afriqinsights

Annex - Key Insights in Thematic Areas (Ext.)
Stakeholder Level | Cross Country, Teachers

WIKIMEDIA FOUNDATION

Thematic Areas	🇷🇼 Rwanda	🇰🇪 Kenya	🇬🇭 Ghana
Motivation for Education	• **Develop and grow to become good people and lead successful lives.**	• **Grades and instilling great behaviour in the student.**	• **Information, digital literacy and critical thinking as a huge component of education and push for digital learning in every aspect of education.**
Curriculum and Best Teaching Practices	• Main changes: Knowledge (KBC) vs Competence Based Curriculum (CBC). Curriculum delivered to schools from REB (Rwanda Education Board) • **Classrooms are overcrowded** and teachers use videos and pictures in their lesson plan to engage more. • **Teachers don't have training to use digital tools** although some training has been delivered to teachers from both public and private schools. **Public school teachers believe they need more training compared to private.**	• **No current changes** but upcoming arrival of CBC (focus on student reasoning vs getting answers) • Curriculum is from the KICD and provide soft copies by CD and Teachers use digital tools such as projectors and phones to teach. • **Teachers received training** on how to use google meet and google classroom organized by Machakos sub county (except for Rural/Public). Examples of training being offered: refresher courses purely on digital learning (specially for old teachers) - training on digital devices and how to use them	• **Changes to curriculum have emanated mostly from GES** and teachers belief that the current educational curriculum does not give students the opportunity to think critically and it's geared towards passing examination /making test scores • Develop their own lesson note (public schools) or scheme of work (private schools) based on the GE syllabus. **Use online resources to validate findings that they personally procure**. • **Teachers believe they have a good grasp of digital tools**. Knowledge acquired through life experiences (e.g. masters) as there is no support given to them in order to learn digital tools (limited training in educational curriculum and use of digital tools)
Access to technology/ digital tools and available resources	• **Teachers have laptops that they can use but they are outdated,** and government provides minimal resources. • **Private schools have more resources and capabilities.**	• **Teachers have more access at home to digital tools than at school**	• **Schools do not provide digital learning materials and digital devices/tools for teachers**. Teachers resort to using their personal digital tools (mostly laptops and mobile phones) to access information from the web and supplement their lessons with images (pictures or videos) on subject areas from the internet.
Transformation in Education	• **Transformation in education did not occur in the schools** as they are not prepared to undertake remote learning and if they do, it is only through WhatsApp groups and recorded videos which is very ineffective (private/urban). • Generally, one WA group with parents to communicate and another with children to learn (share materials)	• **Remote learning was implemented in schools** (except for Rural/Public). Teachers created WhatsApp groups to communicate and used laptops to conduct zoom classes (private/urban). **They faced challenges regarding power shortage, student misbehaviour and consistency of presentations** • You see students carrying phones and using it more for educational purposes.	• **Teachers mostly have trained themselves in digital tools** and initiated ways (e.g. WhatsApp Groups) in which they could still reach students during the COVID-19 pandemic despite school unpreparedness for remote teaching. • **This method of teaching was hard for the teachers**: challenges in students reach (some did not have access to digital tools) and also engagement due to medium used. They want to incorporate digital but there is still a lack of resources.
Wikimedia Products	• **2/3 teachers know about Wikipedia and see it as an impactful tool that could be used for education with its large pool of resource and capabilities**	• **Teachers use Wikipedia and see it as a useful resource.**	• **All the teachers have knowledge about Wikipedia and mostly use it** for researching and supplementing their lesson notes to explain to their students in a more simplified and engaging way but do not contribute to Wikipedia.

The Entrepreneur
- *Employment:* **Runs own business, typically informal. Modern, resourceful, independent**
- *Education:* **Literate**
- *Income level:* **mid to high**

The Side Hustler
- *Employment:* **Employed and runs a small side informal business**
- *Education:* **Basic**
- *Income level:* **low to mid**

The Restrained Borrower
- *Employment:* **Typically short-term/part-time roles and running a market stall with a family member**
- *Education:* **Low**
- *Income level:* **low to mid**

	The Entrepreneur	The Side Hustler	The Restrained Borrower
Financial Products	– MoMo: adept user – Bank: unnecessary – Susu: occasionally	– MoMo: for side business – Bank: as an employee – Susu: frequently	– MoMo: business & personal use – Uses micro-credit facilities available – Bank: can't use (not enough money)
Activities and Goals	– Diversify income streams – Contribute more towards HH income – Children education	– Major expenses typically from HH – Awareness and occasional use of financial products offered by banks	– Family/friends are the first lenders – Aware of MoMo loans products – Obtaining a loan requires some research
Pain points and Challenges	– Operating fraudsters – Selection bias	– Bank Frustrating, time consuming; poor customer service – MoMo: unstable network	– Difficulty in accessing bank loans – Loans are only for emergencies