REB RWANDA BASIC EDUCATION BOARD

Key milestones as four-year teachers' capacity development project ends

PROFILE

From divisionism to shared dreams: A veteran teacher reflects on Rwanda's education journey

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The Rwanda Basic Education Newsletter

PRESIDENT KAGAME, FIRST LADY GRACE ARTIFICIAL INTELLIGENCE, FIRST LEGO LEAGUE CHALLENGE FINALS

FOREWORD

Dear Esteemed reader,

Rwanda's story over the past three decades is one of remarkable transformation. Today, on behalf of the Rwanda Basic Education Board (REB), we stand proud of the incredible achievements made in our nation's basic education system.

This journey began 30 years ago with a simple yet powerful vision: to ensure every Rwandan child has access to quality education. It was a vision fueled by unwavering commitment and the dedication of countless individuals. We extend our heartfelt gratitude to the teachers, school administrators, policymakers, parents, and students who have all played a pivotal role in this enduring success story.

Together, we have witnessed significant milestones. We have championed universal education, ensuring classrooms are closer to students, reducing dropout rates, and fostering a thirst for knowledge. Furthermore, we have replaced the knowledge-based curriculum with a competence-based one, prioritizing real-world application and building a solid foundation for our future workforce.

A key highlight has been the successful integration of Information and Communication Technology (ICT) into our classrooms. This bold step has not only revolutionized teaching methods but also fueled our national ambition to become a knowledge-based economy. Equipping students with digital literacy skills empowers them to thrive in the ever-evolving world and become active participants in the global knowledge exchange.

The journey doesn't end here. We remain committed to continuous improvement. We will continue to invest in teacher training, provide quality learning materials, and empower school leaders. Our focus will remain steadfast: to nurture critical thinkers, problem solvers, and innovators who will lead Rwanda to a brighter future.

As we celebrate these achievements, we recognize the invaluable support of our partners. The dedication of educators, policymakers, international institutions, and all those who have believed in Rwanda's potential has been instrumental in our success.

Rwanda's story of educational transformation serves as a beacon of hope, not just for our nation, but for the entire continent. It demonstrates that with unwavering dedication and a collaborative spirit, even the most daunting challenges can be overcome.

As I invite you to pour over the pages of this fifth Edition of our Basic Education Newsletter, which was produced in partnership with World Bank, I look forward to the exciting chapters that lie ahead, where education continues to be the cornerstone of a thriving and prosperous Rwanda.

Dr Mbarushimana Nelson,
Director General of Rwanda Basic Education Board (REB).

REB | RWANDA BASIC EDUCATION BOARD

INSIDE

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From divisionism to shared dreams: A veteran teacher reflects on Rwanda's education journey

A cloudy, rainy afternoon blankets GS Mulindi in Gicumbi district. Charles Turyamureba, a seasoned teacher with laughter lines crinkling around his eyes, navigates the bustling schoolyard. Clad in a white apron and clutching documents, he holds a smartphone – a symbol of Rwanda's progress.

It's Friday, and a hush falls over the school as everyone prepares for the 30th commemoration of the 1994 Genocide against the Tutsi. Turyamureba, a 60-year-old father of five, reflects on the pre-genocide era when government policies sowed seeds of hatred in schools.

A Divided Past

Turyamureba vividly remembers his segregated education marked by ethnicity, religion, and region. "Imagine attending a school designated solely for your religion," he recounts. "As a Protestant boy, I could only go to a Protestant school."

But that was just a drop to the ocean for the challenges that faced the sector. Ethnicity and regionalism were the order of the day in the education sector, just like in other sectors of the country.

Passing national exams was a nightmare. "It wasn't because I wasn't smart," he clarifies. "It was because of who I was." He spent three years repeating the final year of primary school, attending schools far from home to be able to make it into high school.

He recalls reforms in the 1980s offering a glimmer of hope, but ethnicity remained a constant concern. Students were segregated by ethnicity, and their ethnicity, religion, and even parents' professions were documented, a stark reminder of societal divisions.

"Passing national exams felt like winning a lottery," he says. "The system favored privilege and regionalism. Only 16 students from my entire commune (equated to the present-day district) passed that year."

Education itself was a luxury. "Schools were scarce, rudimentary structures with dirt floors and hardly any resources," he remembers. Underqualified teachers, brought in from other regions, created knowledge gaps that widened societal divisions.

"History lessons," he confesses, his voice dropping, "were breeding grounds for hate. We learned about ethnicity, but back then, we didn't realize it was indoctrination."

Education for all: A new dawn

The 1994 genocide against the Tutsi shattered Rwandan society, leaving education in ruins. "Schools lay in ruins, literally;" Turyamureba says, his voice heavy with memory.

"Everything was in disarray," he continues. "Teachers were killed or fled, and the education system needed a complete overhaul. Yet, from the ashes, the new government of national unity emerged and education began to take shape."

The beginning was arduous. "It was a time of hardship," he recalls. But the new government ushered in inclusive education, allowing all children to attend school regardless of background.

This inclusivity meant more children were now able to attend school and strained the already dilapidated infrastructure and created further shortage of the teachers. Makeshift classrooms made from tents and donated materials became battlegrounds against illiteracy.

"We used tree trunks for chairs," he chuckles. "It wasn't ideal, but it was a start."

Teachers were initially paid in food rations because the new government inherited empty coffers that were stripped dry by the genocidal regime as it fled. But they persevered. "Anyone with minimal education became a foot soldier in this new war to educate our children," he says.

Charles Turyamureba, a veteran teacher at GS Mulindi.

Driven by optimism

"Education after the genocide became open to everyone," Turyamureba declares, his voice brimming with optimism. "Schools mushroomed across the landscape, symbols of a brighter future built on unity of a nation."

Today, every child has access to education. "Schools are everywhere with world class infrastructure," he says, pointing to the dramatic increase in schools compared to the single secondary school that served the former four communes in his area.

Today, his region boasts over 50 secondary schools and more primary schools.

"Children no longer need to travel long distances," he adds.

A dignified retirement

Progress wasn't without its challenges. Finding qualified teachers was a major hurdle, addressed through workshops and training programs.

"It wasn't easy," he admits, "but we were determined to rebuild our nation, one student at a time."

The rewards are undeniable. "My biggest pride lies in the products I've personally helped create," Turyamureba beams, referring to his students who are now accomplished professionals in different fields. His own children, a testament to the transformed system, thrived in well-equipped schools.

"My children attended schools based on their performance unlike myself," he shares. "One graduated university, and the others are still in school."

Turyamureba feels a sense of accomplishment. "If I retire soon," he says, "I'll do so with dignity." Improved teacher salaries and his ability to build a house and acquire land through a teacher's cooperative illustrate his progress.

He acknowledges ongoing challenges: overcrowded classrooms and limited resources. The biggest challenge, however, is ensuring quality education for all through investments in infrastructure, ICT, and TVET programs.

"Education is everything, worth every investment," he emphasizes.

Rwanda Basic Education Board

Rwanda Basic Education Board

Robotics and AI take root in Rwanda's education system

There is no turning back, Robotics and Artificial Intelligence (AI) is no longer the future but the present, and Rwanda is continuously doing what it takes to expose its young population to be key players in using technologies for the intended development.

This was cemented by President Paul Kagame who attended the Rwanda First Lego League (FLL) challenge and Artificial Intelligence (AI) Hackathon at the Intare Conference Arena on March 16 2024.

He was accompanied by First Lady Jeannette Kagame, and other dignitaries.

The FLL program is an internationally recognized initiative that challenges students to explore real-world problems, research solutions, and build and program educational robots to accomplish specific missions.

The AI Hackathon was designed for secondary schools, with the aim of introducing students to the world of artificial intelligence, providing them with hands-on skills to solve real-world challenges using technology and inspiring them to explore the fields of science, technology, engineering and Mathematics (STEM).

This being the second edition of the FLL in Rwanda, which was combined with AI hackathon, the students competed under a challenge theme which is shared annually. The competition began in November 2023 involving 100 schools from Rwanda and across Africa.

President Kagame commended the achievements of the national robotics program and the FLL challenge and AI Hackathon, citing that they hold great significance in the country's development journey and Africa as a whole.

He underscored the value of robotics and artificial intelligence, emphasizing the educational benefits of the program extending beyond mere competition.

"Robotics and Artificial Intelligence are outstanding ways to learn science, engineering, technology, and also teamwork," he added.

The Head of State awarded the winners of the competition and gave prizes of laptops to all finalists from Rwanda, Botswana, Nigeria and Uganda, as his contribution to advancing innovation in this field.

The FLL competition featured 25 teams from Rwandan schools and 10 from international schools, each competing in three matches on designated tables. Using programmed educational robots, the teams tackled 15 missions within a tight timeframe of 2 minutes and 30 seconds.

Cheerleaders from their respective schools were on hand to uplift team morale throughout the intense matches which took place on March 16, where the award ceremony would proceed.

College du Christ-Roi's Team 1 emerged as the national champions of the FLL, while the Federal Government College of Nigeria secured the international championship in the same challenge. Additionally, a team of three students from Ecole Secondaire de Kayonza were declared the winners of the AI Hackathon challenge.

For Armel Shema, a senior four student at College du Christ-Roi in Physics, Chemistry, and Biology (PCB), robotics and AI is not a strange concept, but rather a passion he has developed even at a young age.

The eloquent and enthusiastic 16 year-old attended the Rwanda First Lego League (FLL) challenge and Artificial Intelligence (AI) Hackathon, and his team clinched the national championship in the FLL challenge.

Growing up in a home where he had access to information about emerging technologies through movies, games, and the internet, Shema went on to explore the space and how it could be used in real life, through attending different workshops in the holidays.

"My parents are my motivation, they really encourage me to work even harder to explore the opportunities in this field and assure me that I will reap great benefits since AI is the future of this world."

This allowed him and his teammate to develop a project, prototyped with precision, to harness the power of virtual reality—an innovation aligning with the competition's theme, "Masterpiece," which merges art, science and technology to ignite artistic inspiration.

He said their robot, which they used to maneuver through the robot game, has compact design and efficiently completes numerous tasks within the designated timeframe, which increased their chances to win.

According to him, it took the team at least one month to build the project and produce a prototype, thanks to the teachers that provide them with the space and time to hone their skills and the parents support them in pursuit of excellence.

Nelson Mbarushimana, Director General of Rwanda Basic Education Board (REB), said there has been great efforts invested in building the students' exposure to AI and robotics knowledge, and the results are evidently shown in the ability to participate in such international competitions.

He noted that students in both Kigali City and upcountry are all competitive which is even demonstrated with the schools that participated and won some awards in the competition.

To further drive such knowledge and innovations, a national program of coding and robotics was launched as a pilot project to inform the integration of robotics and AI in national curriculum with the start of the next academic calendar.

This, according to Mbarushimana, will enhance quality education is such a way that both the student and teacher get particular focus in these fields and technologically transform the delivery and learning of other subjects as well.

Gaspard Twagirayezu, the Minister of Education, described the FLL and AI challenge as a culmination of a process that encourages students to work in teams, celebrate discoveries as well as increase confidence in their ability to solve problems.

He noted that adding AI in the challenge in partnership with International Baccalaureate (IB) and Global learning council, meant that the students had to use AI to solve various issues such as in education and agriculture where it ended with presentations in order to select the winners.

"At this stage, we hope students to have the enthusiasm and belief to be problem solvers especially since they are still in school, this is a foundation of building them into real engineers," he said, adding that the goal is ensuring that robotics and AI are integrated into the school curriculums for students to learn these principles.

"When you look at the quality of the projects they presented; if provided with enough resources, they can go on to work at a continental level. They have proven to be promising engineers that are highly demanded on the market."

The Minister said that they will be invite more African countries so as to transform this competition into a real continental phenomenon where students can learn from each other and ultimately develop the sense of ability to create solutions from the available technologies.

"With the demographics of Africa, we are the only region with a rapid growing population; that means that our future relies on the quality of our people and education plays a huge part in it. We view this competition as a way to raise quality talents on the continent," he said, adding that parents also have a crucial role to play.

Furthermore, Twagirayezu noted that while the resources may not be sufficient in every school, laying a foundation and principles has to be done as the ministry continues to train and increase the number of qualified teachers and equipment.

Rwanda's curriculum that promotes technology starting with primary school level, nurtures future technologists, according to Ildephonse Mungwarakarama, the managing director of Creativity Lab, an education platform that offers innovative teaching and equipment to build students' skills in robotics, coding, engineering, and artificial intelligence.

"The campaign to promote technology and the capacity of future engineers in our communities gives hope that the sector will be developed, and there is a confidence that the talented engineers will export their skills to other countries."

However, he said that there is some improvement in daily activities with the use of robots, expressing optimism that every sector will be able to benefit from robotics in the near future, enabling Rwandans to have access to all kinds of services.

According to the young technologist, Shema, robotics has equipped him with engineering and critical thinking skills as he looks forward to furthering his studies in that domain.

The competition was organized by the Ministry of Education in collaboration with the Ministry of ICT and Innovation.

Other sponsors and organizers also included the First Lego League, CODERINA, STEM Inspires, Global Learning Council, GIZ, Right to Play, ICT Chamber among others.

Special thanks to Greg Wyler, an American tech entrepreneur and executive chairman of OneWeb and the founder of O3b Networks, who attended the ceremony with his daughter, Amelia Wyler.

Key milestones as four-year teachers' capacity development project ends

Another milestone in improving quality education is achieved with the successful completion of CADIE (Capacity Development for ICT in Education), a four-year project that sought to empower in-service teachers to use technology as an educational tool.

Launched in 2019 through a partnership between the Korean International Cooperation Agency (KOICA) and the Ministry of Education with a financing of $7 billion, the project delivered critical ICT skills and knowledge to 29,851 in-service teachers out of which 17, 006 were certified with Microsoft Certified Educator, as well as trained 416 education inspectors and 129 CADIE master trainers.

In addition, the saw the construction of 69 centers of excellence across all 30 districts and they were equipped with 3,120 laptops and 60 projectors, 60 complete sound systems and internet connectivity, 540 tables and 1,060 chairs.

Emmanuel Shyaka, Coordinator of Single Project Implementation Unit (SPIU) at REB, said the project that is due to end 30th June 2024 was a success whereby evaluate indicate that they exceeded the initial targets and impact is seen with the improved teachers' skills to integrate ICT tools in lesson preparation and delivery, as well as improved students' learning engagement.

The commendable outcome, he said, will see Rwanda share best practices of integrating technology in education from this project at the upcoming Korea-Africa Summit.
Below is an infographic presentation showing key milestones registered under the highly impactful project.

1. Rationale

CADIE Project budget

$7M

Training facilities

69

69 centers of excellence have been established and rehabilitated

Project components

2. Current progress

29,191

In-service teachers trained

416

Sector Education Inspectors trained

129

CADIE Master Trainers trained and certified

60

District Education Officers trained

30

NESA Pull of inspectors trained

17,006

Certified with Microsoft Certified Educator

3. Establishment of Centers of Excellence / Planned target / Current progress

60/69

centers of excellence

3,120/3,588

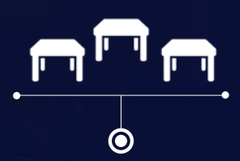
Laptops

60/69

Projectors

3,060/3,511

Chairs



570/651

Tables

60/61

Complete sound systems

60/69

Security alarm systems

Rwanda's basic education has come of age 30 years down the road – REB Director General

Rwanda Basic Education has undergone a transformative journey over 30 years and is ready to embark on a new journey to produce a workforce ready to contribute significantly to the social economic development of the country. In an interview with **Dr. Nelson Mbarushimana, the Director General of Rwanda Basic Education Board (REB)**, he shared how the journey was, what has changed over the years and what the future holds for the country's basic education. Below are excerpts

Today we are talking about the evolution of Rwanda Basic Education sector over the last 30 years, what would be celebrated as key achievements?

REB DG: Rwanda Basic Education (REB) has evolved over the years. Our mission is to promote quality education in basic, specialized and adult schools and we have a lot to celebrate as achievements registered over the last 30 years. We have championed universal education where every child has the right to education. This came with the construction of more classrooms and bringing schools closer to the learners.

Today, the number of schools has grown to 4,923 including 4,051 schools with pre-primary level; 3,932 with primary level and 1,977 schools with general and professional level as of 2023.

Presently, the distance learners trek to access schools has significantly reduced and this motivates them to attend school, which has led to a significant reduction in drop out.

We have worked on improving the quality of education and replaced the knowledge based curriculum (KBC) with a Competence based Curriculum (CBC) starting from primary to build a solid foundation of the labour force. We also initiated different programs to improve teachers' welfare as teachers are the foundation of quality education. Like other sectors, basic education in Rwanda embraced the use of technology and several services have been digitalized. ICT is today at the forefront of teaching and learning process.

You talk about improving teachers' welfare as a catalyst for better learning outcomes; what has been done in this regard?

REB DG: To start with, we have centralized teacher recruitment and we currently have an e-recruitment portal to ensure the process is quick, transparent and efficient. The e-recruitment has been so efficient that we could hire over 40,000 just in two years. Teachers salary has been increased and it will progressively increase as means allow it.

The government has also introduced and strengthened Umwalimu SACCO to cater for teachers' access to affordable finance among other incentives.

Similarly, hundreds of in-service teachers have been given a chance to undertake tertiary education through fully funded university scholarships and their levels have been upgraded which went along with the salary increment, among other initiatives.

As a way to recognize the efforts of our teachers, we have over the years begun celebrating International Teachers Day where we bring them together and recognize the outstanding ones with different prizes. On such events, teachers get an opportunity to interact with different national leaders like the Prime Minister.

What has the government done to equip teachers with needed skills set to offer quality education based on the Competence Based Curriculum you earlier talked about?

REB DG: Teachers Training Colleges (TTC) have been well equipped to produce enough, motivated and knowledgeable teachers and we introduced in-house training for uncertified teachers to help them acquire diplomas in education through the 100% university scholarships for in-service teachers as I mentioned earlier. The government has also strengthened training for teachers on the use of English as a medium of instruction to improve teachers' proficiency levels hence increasing their ability to teach other subjects and facilitating students to acquire skills in different subjects.

We deployed English school-based mentors from Uganda and Kenya and later on Rwandans for both existing and newly recruited teachers on subject-based teaching methodology while the newly recruited teachers acquire induction training on general pedagogy.

To get quality candidates for TTCs, we ensured that TTCs get best performing students like those enrolled in general education and we introduced a 50% bursary (school fees) to students joining TTCs as a motivation. We also provided pre-primary and lower primary teachers training in Kinyarwanda to improve early grade literacy as a foundation of education.

Most recently, the government of Rwanda received volunteers from Organization Internationale de la Francophonie (OIF) to teach French in TTCs as well as those from Zimbabwe to teach English in TTCs and in general education. All this goes with empowering school managers through consistent training and capacity building programs.

Rwanda introduced the 9YBE/12YBE in early 2000s and at first, these were misconceived as schools for the poor and little was expected, what is the perception at present?

REB DG: The attitude towards 9YBE/12YBE schools is steadily changing. Admission in these schools is fairly distributed. Some students who have passed the national exams are posted in these schools too. Competent teachers are recruited and placed in these schools just like other public schools.

These schools receive the same teaching and learning materials like textbooks and computers just like other schools and so there is no question of quality. In fact, we have seen 9YBE/12YBE schools competing favorably with boarding schools in national examinations. In co-curricular activities especially in sport, they are doing well too.

However, these schools need to be further equipped with science laboratories and this is something we have started doing.

Speaking of science laboratories, we have been rolling out such in schools that were built as part of the Integrated Model Village projects which have been built in different corners of the country by the Ministry of Defense specifically for vulnerable families. The schools in each of these villages are equipped with both science and ICT laboratories.

How has been the journey to promote basic education in the immediate aftermath of the 1994 genocide against the Tutsi?

REB DG: In the aftermath of the 1994 Genocide against the Tutsi, Rwanda embarked on a transformative journey to integrate ICT in education system. Despite the devastating period of the genocide, Rwanda recognized the critical role education plays in rebuilding society and fostering socio-economic development.

The commitment to use education as a vehicle for positive change has been central to Rwanda's remarkable progress. Also, Rwanda recognized that ICT could be a catalyst for positive change and socio-economic transformation. The journey to promote ICT in basic education is marked by determination, policy formation, teacher training, curriculum review and infrastructure development. We have been able to integrate ICT in policy framework, curriculum, education and ICT infrastructure, teacher training and capacity building and digital literacy among others.

Integrating ICT in Education has been critical in the journey to transform Rwanda's education sector. How has been the journey?

REB DG: Before 1994, ICT was not taught anywhere; not in pre-primary, primary or even in secondary schools. It was not integrated in the national curriculum in basic education until 2006 when the government decided that ICT should be taught as a subject to increase the digital literacy in secondary schools.

Later in 2008, the XO laptops or laptops for children were introduced under One Laptop per Child (OLPC) and these were distributed in primary schools across the country. In 2015, the competence-based curriculum (CBC) was adopted and included ICT as a subject and as a tool in all subjects and at all levels.

Today, we are proud to say that the country has made significant progress when it comes to integrating Information and Communication Technology (ICT) in basic education. This includes policy formulation, ICT devices distribution to schools, teacher capacity development, internet infrastructure and digital content development.

Beyond integrating ICT into basic education, how can schools effectively leverage emerging technologies to prepare students for a rapidly changing world?

REB DG: We have worked on promoting virtual labs by digitalizing science experiments for Senior Two and developed similar resources for Senior One and Senior Three math and science which I believe is a fantastic way to overcome limitations of physical labs. This allows for broader access to experiments, promotes safety, and potentially opens doors to simulations not possible in a real lab.

Launching a National Robotics Program in March 2024 was also another milestone and an exciting development. The pilot program integrating robotics into the curriculum across primary and secondary schools, both public and private, fosters valuable Science, Technology, Engineering, and Mathematics (STEM) skills and problem-solving abilities.

Similarly, national and international competitions like those in Morocco (2023) and the USA (2024) respectively provided excellent platforms for our students who participated to showcase their learning and gain exposure to global competition.

We also heard Artificial Intelligence (AI) hackathons both at national and international level, how did they help students to acquire new skills and gain experience?

REB DG: The first AI Hackathon in 2024 organized by the Ministry of Education, the Ministry of ICT and Innovation as well as the ICT Chamber attracted 200 projects submitted from 10 schools that participated in the national competition.

Students who participated displayed a strong national interest in AI. This initiative not only cultivates critical thinking and problem-solving but also identifies and nurtures future talent in this rapidly growing field. The best teams participated in the international hackathon held in Switzerland and it was a great opportunity to gain valuable global experience.

What is being done to prepare TTC students to implement the CBC once they graduate?

REB DG: Between September 2019 and April 2020, REB revised the TTC curriculum to ensure TTC leavers would be well prepared to implement the competence-based curriculum in basic and professional education. As such, over 480 TTC curriculum frameworks and 4,600 subject syllabi were developed ,printed and distributed in TTCs and in all options such as for Early Childhood and Lower Primary Education (ECLPE), Science and Mathematics Education (SME), Social Studies Education (SSE) and Language Education (LE) options.

In support for the implementation of the revised curriculum, REB also produced 211 TTC textbook titles for Year 1, 2 and 3 from May, 2019 up to January 2020 through its in-house textbook production approach.

So far, we have achieved the one-to-one ratio, where each student in TTC has their own textbook in each of the subjects they undertake.

Given the efforts you have talked about to promote ICT, how are students and teachers benefiting?

REB DG: We have been working on the distribution of ICT devices over the past years. Schools at all levels have benefited from this initiative. For instance, we distributed laptops to 1868 primary schools and to 958 secondary schools. For the secondary schools that benefited from laptops, each has a smart classroom equipped with 50 laptops, a projector and access to internet connectivity.

The smart classrooms aim at enhancing the learning experience by providing access to educational content and interactive tools. Teachers have also benefited more from ICT tools as more than 16,350 teachers acquired laptops to be able to use them and integrate ICT in teaching. We have also provided 500 pre-primary schools, 418 primary schools and 958 secondary schools with projectors for them to be able to teach smoothly.

To ensure smooth learning, hundreds of schools were connected to internet; similarly, in a bid to promote digital content, an e-learning platform was developed and is currently operational and accessible at www.elearning.reb.rw where you can find all textbooks, audio and visual content as well as 178 edutainment episodes for pre-primary and lower primary levels. In the same vein, we have worked with our partners to extend Starlink high-speed satellite internet and we have already connected 50 pilot schools under the 'School Connectivity Program'.

And how are teachers equipped to keep up with emerging technologies using available ICT tools and promote digital literacy among students they teach?

REB DG: Teachers' capacity development has been at the forefront. For instance, over 10,000 primary school teachers have been trained in digital literacy and certified as Microsoft Innovative Educators (MIEs) and were equipped with basic digital pedagogical skills. In addition to this, More than 25,000 secondary school teachers acquired training in the effective integration and utilization of IT in teaching and learning, a course based on UNESCO ICT Competence Framework for Teachers (CFT) and certified as Microsoft Certified Educators (MCE).

Teaching about the 1994 Genocide against the Tutsi has been a serious issue over the years, with some teachers shying away from it, what has been done to ensure Genocide history is taught in schools, and accurately?

REB DG: Topics on the 1994 Genocide against the Tutsi have been included in the history curriculum and teachers' guides and textbooks. We also organize regular training for history teachers to guide them on how to teach history topics including Genocide against the Tutsi. History teachers have also been able to attend Itorero, a civic education program that mainly focused on encouraging and training them on teaching the history of our country.

Most importantly, we have collaborated with the Ministry of National Unity and Civic Engagement (MINUBUMWE) to revise the national history curriculum to introduce tailored academic packages for students right from pre-primary to secondary levels of education.

We have also worked with other partners such as University of Rwanda, Aegis Trust, CNLG, Never Again-Rwanda, among others to develop the teachers' guide on teaching Rwandan history for primary and secondary schools. Together with partners, teachers of social studies in primary school and History in secondary schools were also oriented on how to teach the history of Rwanda.

How is the Competence-Based Curriculum being implemented in schools and what difference has it been able to make?

REB DG: The Competence-Based Curriculum is learner-centered and schools have been increasing students' engagement in a lesson to make it more participatory over past years. School head teachers and deputy head teachers have been encouraged to regularly monitor and provide feedback on how teaching and learning using CBC can be improved for better.

This regular inspection has yielded positive results and I am sure it will continue getting better in the years to come. Externally, the National Examination and School inspection Authority (NESA) does regular monitoring of how courses are dispensed while generally, we ensure fair recruitment and placement of competent teachers.

For starters, what does the competence based curriculum entail?

REB DG: For Rwanda to realize its ambitious vision of becoming a knowledge-based economy, there was a need to embark on a new national curriculum that accounts for shortfalls identified in the Knowledge Based Curriculum (KBC). These included little or no emphasis on competences, social skills and limitations in application of what is learned from school to real life.

As such, Rwanda rolled out the Competence based Curriculum (CBC) in 2015-2016 in a bid to train up a competent workforce that reflects not only skills of employability but also humane, social skills fit for a socially cohesive Rwanda as articulated in Vision 2020, EDPRS, NST and the overall Vision 2050.

The key features of the new curriculum will address social and educational requirements such as; employability, civic competence and academic success. It also emphasizes the entrenching peace values across all subjects undertaken by learners.

The CBC also operates an education system that safeguards citizens from discrimination in all forms; to contribute to a general culture of justice, peace, and tolerance; to establish a moral, intellectual, and professional academic programme towards the reconstruction and sustainable development of the country.

Some of the key deliverables was to create a workforce that would have the necessary skills, values and attitudes. In pre-primary and primary, basic skills must provide the solid foundation upon which to build literacy, numeracy, language, science and social life skills.

In secondary education, we want to create a work-focused school system that imparts skills that are transferable to situations commonly experienced in the employment marketplace.

In all levels of formal education, we want to emphasise on skills like problem-solving, critical thinking, creativity and innovation, interpersonal communication as well as specific skills in basic literacy and numeracy, language social life skills as earlier put including a basic mastery of national and international languages, ICT and financial literacy.

Technology has been singled out as a strategic pillar to prepare learners who upon completion of their studies, are able to compete on the world job market. How then are educators prepared to offer this knowledge?

REB DG: Science and technology is one of the key priorities of the Government of Rwanda. As such, REB in collaboration with the University of Rwanda-College of Education have developed 888 ICT integrated scripted lessons for P4-P6 (math and SET) and uploaded on teacher's laptops to improve delivery of STEAM in schools.

On the other hand, 1,185 scripted lessons for S1-S3 (Biology, Physics, Math and Chemistry), were also developed and uploaded on teachers laptops for secondary schools.

Learning mathematics and other sciences also require enough didactic materials, how is the status currently?

REB DG: The math and science experimental user guide is a document developed for teachers and students and includes experiments/activities for science-practical lessons. Experiments play a very crucial role in the intellectual development of students as they help them become active learners and not passive recipients of knowledge when carrying out experiments. They also get time, space and resources to explore different things they are curious about while developing their critical thinking skills as well.

To ensure that we have enough user guides, over 12,776 Mathematics and SET experiment user guides for (P4-S6) and 5664 Mathematics, Biology, Physics and Chemistry experimental user guides for S1-S6 were developed in In printed and delivered to schools with a copy on REB e-learning platform only in the year 2023/24.

Rwanda roots for inclusive development and this can't be possible without promoting inclusive education. What has been done to ensure inclusivity in education over the past years?

REB DG: Promoting inclusive education has been made a priority in the post-genocide education and at all levels. More schools are accessible for learners with physical impairment and schools are required to have special amenities for them. For learners with impairments such as visual or hearing, there are schools that are dedicated to that and are supported in different ways including furnishing them with special teaching aids while teachers are also trained to teach them.

We have ensured schools get inclusive high quality curricula (LTMs) in both print and digital formats for education is the goal for Curriculum teaching and Learning Resources Department. We have also made CBC textbooks more learner-engaging and accessible to all learners, as part of the long-term framework to adapt all CBC textbooks into accessible and interactive Multimedia Textbook and Teacher's guides.

So far, 12 pre-primary and 42 primary student books have been adapted into inclusive multi-media textbooks that can be used by learners with disability at primary school level. After the pilot phase that is now underway, the materials will be distributed to other inclusive schools.

Recently news about visual Science labs spread all over, would you tell us more about visual science labs and what to expect from them?

REB DG: Virtual science laboratory (VSL) is interactive, digital simulations of activities that typically take place in physical laboratory settings. VSL offers a digital environment for students and researchers to conduct experiments, analyze data, and learn scientific concepts. VSLs are being used to provide students with hands-on learning experiences in a safe and accessible manner.

So far, over 29 such labs have been developed for Mathematics, Biology, Chemistry and physics for secondary schools in collaboration with University of Rwanda's College of Education (UR-CoE). So we expect that those labs will help learners, especially in STEM to acquire more experience and complement traditional physical labs.

What is the status of in-house publishing of textbook initiative as a homegrown solution?

REB DG: The In-House Textbook Production Initiative; a "Home-grown solution" inspired by the "Made in Rwanda Policy" was endorsed as the most sustainable solution to the elaboration, production and distribution of best-cost, good quality teaching and learning materials for Rwandan Schools.

This was Established in 2018; this initiative has not only brought key gains to the Ministry of Education (Copyright Ownership for textbooks for all grades) but to saving over 7.7b for the government by 2022 alone.

Today, over 18.9 million (75%) Competency-Based Curriculum textbooks have been elaborated, printed and distributed to schools in addition to 253,697 competence based curriculum framework as per 2022/2023.

It has also significantly contributed to job creation for thousands of content developers, writers, graphic designers and workers in printing companies to mention but a few.

As you talk about distribution of textbooks which were locally published, how are teaching and learning resources inclusive? In other words, how are students with disabilities catered for?

REB DG: We worked on this and I hope we are on good track to avail more CBC text books which more learner engaging and accessible learners of all categories. This is eventually part of the long-term framework to adapt all CBC textbooks into accessible and interactive Multimedia Textbooks.

So far, I would confirm that 12 pre-primary and 42 primary student books have been adapted into inclusive multi-media textbooks that can be used with learners with different disabilities at the primary school level. After the pilot phase that is ongoing, the materials are expected to be in inclusive schools in academic year 2024/2025.

To make it more fun and entertaining, we have produced edutainment episodes to improve delivery of CBC in the classroom and beyond as this is really REB's priority. Presently 178 edutainment inclusive animated cartoons, first ever teaching and learning materials in the country have been developed under the In-house resource development initiative.

Such rich resources not only help improve the delivery of competence-based curriculum in lower grades but also complement learning in the post Covid-19 era.

Nurturing students with competence and skills set needed on the labor market is critical but again, students need to be equipped with practical skills to be job creators is key, where do you stand today?

REB DG: The Competence based curriculum is as inclusive as possible and we managed to revise Entrepreneurship

syllabus in 2015 as one of the solutions to unemployment. We believe that the best way to make entrepreneurship real is to learn entrepreneurship is through experience. To do this, our students practice planning for their businesses and do business simulations on how to fund and properly manage their businesses. As a result, senior 4 students learn how to identify business opportunities; in senior 5 they develop business plans while in senior 6 they do business plan pitching to seek support for their business implementation after school. With this support, we are nurturing future entrepreneurs who will contribute towards job creation and contribute to social-economic development.

Where do you think you need to put more focus to promote quality of education in the coming years?

REB DG: More efforts will be put in strengthening pre-service teacher education by continued support to TTCs through admitting high performing students and subsidized schools fees in order to produce competent and highly motivated teachers. We also need to continue supplying teaching and learning materials like textbooks and science equipment among others.

Like we have seen, STEM related sciences are promising. We have seen young students compete in Internet of Things (IoT) and robotics both at national and international level and we need to keep investing in such competitions and support young innovators to be more competent and get ready for the labor market once they graduate. We will continue supply of ICT equipment and extension of internet to all schools to further integrate ICT in education.

More efforts shall also be invested in building capacity for in-service teachers and the newly recruited to improve their quality. We will increase the capacity for uncertified and ensure recruitment of only teachers with education in the future and ensure the number of teachers is increased with an aim of reducing student-teacher ratio to accepted international standards of 43 students per teacher.

In 2021, the government introduced the associate nursing program at secondary school level. What was the rationale and the current status of the program?

REB DG: Despite the fact that the African continent bears around 25% of the global burden of disease, it has only 3% share of the skilled healthcare professionals. Over the last 10 years, there have been very little improvement in the health workforce density in Africa. More innovative and robust interventions are needed in order to respond to this growing crisis.

In response to the above situation, Rwanda has embarked on the "4x4 reform"; which aims to quadruple the number of skilled health workers in the next 4 years. Not only this reform will answer the health workforce density issue, but also it will enable the country to achieve an equitable distribution of the available skilled health workers.
One of the priorities of the 4x4 reform is to boost the nursing education and ensure nurses embark on this educational path much earlier, follow a well-calibrated competency-based curriculum and are able to take up more sub-speciality education tracks along their career path. There was also a pressing need to recalibrate the health education in a way that efficiently respond to the local disease ecology (i.e., residual pockets of infectious diseases, growing burden of NCDs etc.).

The Associate Nurse Program is one of the key programs which is bringing us back on the right path, with remarkable qualitative and quantitative goals. Since its reintroduction in Rwanda, this year we count 203 candidates from the inaugural class who have progressed impressively and are now seating for the national examinations including both theoretical and practical exams. This program has been revised in a way that equips these nursing trainees with the knowledge and skills that are needed to transport the nursing practice to a superior level across Rwanda.

Currently, the program is being offered in 18 schools, 13 of them public and government-aided, and five private schools across the country.

Finally, REB has been active on the sports front and the institution's volleyball team has done well in the national competitions; what do you think is the impact of this initiative on our education sector?

REB DG: We created this team principally because we are responsible for sports in schools where we have to set an example. We have staff in charge of sports promotion, including those in the curriculum department, teacher training departments, and others.

The government is responsible for sports development in schools, and the schools have to learn from the leaders. If the leader sets a good example, others will follow.

We want the team to be a strong one in the future where all staff from the education sector interested in sports can participate during national competitions to inspire schools to get engaged in sports. We have also embarked on providing sports equipment to different schools.

How mentorship program for primary school teachers is helping boost foundational learning

At Bukane Primary School in Musanze district, Rwandan teacher Francois Mayira would spend most of his days in front of a government school classroom.

Now he finds himself mentoring fellow teachers.

This is part of the mentoring program for teachers introduced by the Ministry of Education to strengthen foundational skills as a priority.

The idea is to ensure that school-based mentors support other teachers to do better in promoting pupils' literacy and numeracy at a younger age.

The number of teacher mentors under the program varies from school to school.

"Mentors do a great role in facilitating foundational learning in schools. This is carried out through different activities in school, including making sure that all teachers receive training through planned monthly and termly activities," Mayira said.

Mayira is one of the teachers who spoke at the 5th edition of the National Foundational Learning Symposium co-organized by the Ministry of Education and the World Bank on March 25 in the capital Kigali.

It was held under the theme: "Delivery for Learning - Implementation of the Foundational Learning Strategy for improved learning outcomes in the early grades."

The Minister of Education Gaspard Twagirayezu.

"From the training, the mentors check to see what teachers are doing in classes through what is called peer learning observations. After which they conduct a meeting to offer feedback to ensure quality education," said Mayira, speaking on a panel discussion.

The two-day symposium drew more than 100 participants from government institutions, teachers, pupils, development partners, civil society and the private sector, to foster a critical dialogue on the key catalysts to Foundational Learning in Rwanda.

Jacqueline Umurerwa, the head teacher at GS Camp Kanombe in Kigali said mentors are helping fellow teachers as well as head teachers in school administration to support learners to ensure improvement in academic performance.

The schools help to provide resources to mentors to help their fellow teachers.

"Schools also give mentors time off to learn from other mentors from other schools to see the best practices," Umurerwa said, adding that the head teacher also plans together with the mentors to ensure they stay on track.

An exhibition stand showcasing different activities by REB displayed during the symposium.

Eric Ngendahimana, a lower primary teacher at GS Nyiragiseke in Bugesera district said school-based mentors are very critical at school.
His school has two mentors one for lower and the other for upper primary.

He said mentors have introduced him to new concepts as a teacher including teaching methods, techniques as well as materials.

"Besides training, mentors' activities include classroom observations, at the end of the lesson they provide us with constructive feedback on how to deliver lessons in the best way to facilitate learning for all pupils," he said.

Ngendahimana, a graduate of Nyamata Teachers Training College (TTC) cited inadequate teaching aids such as books, videos and audio materials among the challenges.

Mentors use innovative approaches to enhance teaching of languages Kinyarwanda and English but also Mathematics in lower primary classes.

At GS Camp Kanombe, mentors demanded library time for lower primary classes to help pupils get used to reading.

The idea of sending children to the school library makes them learn how to read, and over time pupils learn a lot, according to Umurerwa.

The mentors also do remedial and as such helping learners who are behind academically to help them improve performance in both Kinyarwanda and English.

"We make sure teaching becomes interactive through grouping pupils, we try to see that pupils are given different tasks to make them become problem solvers and critical thinkers to make them competitive in the future through building a strong foundation," said Mayira.

He cited large numbers of between 50 to 60 pupils in class among the challenges that affect interactive learning.

The teachers meanwhile urged parents to involve more in the language, reading and numeracy learning of their children.

At the event, the Minister of Education, Gaspard Twagirayezu, said the symposium occurred at a critical moment and urged collaboration among

Some of the students' teachers who have undergonne mentorship program.

stakeholders to ensure that all pupils receive a strong foundation at an early age.

"When we put our efforts, our expertise, and resources, together, we can ensure that every child receives a strong foundation they deserve. And that's a foundation that unlocks their full potential and sets them on a path to lifelong success," Twagirayezu said.

Some 66 percent of Primary 3 pupils are proficient in English, but comprehension drops to 46 percent, according to data from the Ministry of Education.

Twagirayezu mentioned the need for continuous improvement and the eradication of learning deficits, by leveraging expertise, setting higher ambitions, and staying connected with the real experiences of stakeholders involved in early education.

Foundational learning refers to basic literacy, numeracy, and transferable skills such as socio-emotional skills, acquired in the early learning years, particularly Primary 1 to 3.

The minister reaffirmed the ministry's commitment to advancing the foundational learning agenda through comprehensive costing exercises, and the establishment of a delivery mechanism to ensure swift and effective implementation.

In terms of foundational learning, school enrolment has significantly improved, according Dr. Bernard Bahati, the Director General of the National Examination and School Inspection Authority (NESA).

On student performance in numeracy, over 50 percent of Primary 2 pupils attained scores of 70 percent, or higher, in Kinyarwanda, according to NESA.

However, more efforts are needed to enhance performance in English and Mathematics.

According to NESA, there has been progress in literacy, where the percentage of Primary 2 pupils unable to read, decreased from 47 percent in 2018 to 20 percent in 2022.

Also, there has been an increase in fluent readers in Kinyarwanda, which rose from 16 percent to 32 percent.

For comprehension rates in Kinyarwanda, it rose from 36 percent to 57 percent.

Experts outlined several key strategies to advance foundational learning such as consistent data collection through various tools, refining inspection tools for pedagogical focus, using data to generate report cards and identify learning gaps, creating simplified monitoring tools for parents and the community as well as designing remedial programs based on data.

On his part, Sahr Kpundeh, the World Bank Country Manager, noted foundational learning fits in Rwanda's broader goals of sustainable growth and inclusive development.

"There is no doubt that foundational learning is central to the development of Rwanda's education sector," he said, adding that Rwanda has shown that "we can do better, and that learning, recovery, and acceleration is possible."

Kpundeh hailed the government's achievements in education over the past five years in terms of expanding access to basic education and bringing children back to school after Covid-19 school's shutdown, through coordinated national efforts.

He also commended the government and partner investments for positive outcomes in learning as evidenced by improved learning achievements across schools.

Kpundeh noted that the Ministry of Education has formulated a clear and well-articulated national foundational learning strategy through a collaborative and consultative process.

Addressing the most persistent challenges hampering learning and reaching the most marginalized children, he said, requires collaboration of all sectors.

Kpundeh reaffirmed the World Bank's commitment to supporting the government and to collaborate with development partners to operationalize foundational learning strategy.

Nelson Mbarushimana, the Director General of Rwanda Basic Education Board (REB), said the board supports foundation learning through efficient use of curriculum, teaching and learning materials, high quality teacher education and teacher development as well as innovative ICT support.

> "We make sure teaching becomes interactive through grouping pupils

REB with development partners has been able to train thousands of primary and lower secondary teachers in English proficiency, he said.

It has also introduced Rwanda primary teacher residence program, where 100 graduates from TTCs have been sent to two TTCs to be trained in English proficiency, ICT, and pedagogy after which they will be employed.
Primary and lower primary teachers have been trained on early grade reading.

In addition, REB has revised the curriculum for P1 to P3 Mathematics, English and Kinyarwanda to align it to evidence based foundational skills, Mbarushimana added.

The school time table has also been adjusted, allocating more time "to literacy and numeracy for Kinyarwanda, English and Mathematics."

Thanking development partners for their support, Mbarushimana said the implementation of interventions towards improving foundational learning is not without challenges, which REB is working to address.

Dr. Bernard Bahati, Director General of NESA speaking during the symposium.

Up-close with Amelia Wyler, the founder of STEM Inspires

Rwanda in March this year hosted the First Lego League and Artificial Intelligence (AI) Hackathon competition finals drawing students from different parts of the African continent. The competition is part of the efforts to help students explore real-world problems, research solutions, and build and program educational robots to accomplish specific missions.

One of the key organisers of the competition was STEM Inspires, an initiative of two American sisters; Amelia and Vienna Wyler, aimed at inspiring students to embrace the challenge, power and fun of STEM.

We caught up with **Amelia Wyler** to get more insights on the initiative and what the future holds.

Tell us more about your work at STEM Inspires:

As the founder of STEM Inspires my work at the organization ranges from introducing new schools to the FLL program to pitching the program to government officials. As someone who participated in FLL for 5 years, I understand the fundamentals of the program and the benefits that students receive from participating in competitive robotics.

Over the past two years, I have developed curricular resources for schools, focusing on the building and programming aspects of the FLL program, as well as project development for students. Another significant part of my work involves raising funds to purchase robot kits for schools and to cover the costs of our trainers.

What has been the impact so far?

The impact has been profound. We have worked with over 1,000 students in Rwanda and partnered with 100 schools to participate in the program. The FLL program's network grows daily, and we currently have about a dozen student ambassadors and over 50 volunteers helping us nurture the next generation of innovators.

Students are already applying the skills they have learned by creating their own startup groups or working at makerspaces in Kigali during the summer. Many have developed an interest in engineering and computer science, and some have even built relationships with robotics teams from around the world.

This level of engagement is precisely what we aim for, as we want students to apply what they have learned to their own lives. We are excited to see how the training these students have received will impact their long-term career paths.

What is it like to work in Rwanda drawing from existing or past projects you have implemented?

I have really enjoyed my time working in Rwanda. My colleagues are always extremely friendly and open to discussing ways to improve. Particularly with STEM Inspires, working with REB has been a very positive experience and they have been extremely supportive in expanding the program so more students have the opportunity to participate.

I have also enjoyed working with the local organizations such as the Creativity Lab who is always open to supporting the students and lending their space for trainings. Overall there is a very supportive energy from the people of Rwanda and everyone wants to offer the youth as many opportunities as possible.

How can we speed up the penetration of STEM in Rwandan Schools?

> “ The next steps for STEM Inspires and the FLL program involve expanding our reach to more schools, allowing more students to explore competitive robotics. Additionally, we aim to develop a curriculum incorporating engineering fundamentals and programming into the daily schedule

For forward development in those areas investment in new computers will be necessary at some schools. Well trained ICT managers that handle the internet and understand how the internet systems at school's work will be important to ensure that schools who may be equipped with internet know how ensure it is functional.

I think particularly for FLL we have been sharing key information through USB drives so it can be downloaded without the internet and that has been a helpful tactic so far.

Going forward, what are the next steps?

Going forward, the next steps for STEM Inspires and the FLL program involve expanding our reach to more schools, allowing more students to explore competitive robotics. Additionally, we aim to develop a curriculum incorporating engineering fundamentals and programming into the daily schedule, providing students with the opportunity to explore the engineering field through robotics as part of their regular coursework.

Celebrating the enduring 30 years of progress in Rwanda's basic education

Rwanda has come a long way in rebuilding its basic education system after the devastating 1994 Genocide against the Tutsi. In a society left in ruins, starting the process to rebuild Rwandan education was an almost impossible endeavor.

The country had lost over 1 million innocent people in the tragedy that lasted for 100 days.

Against all odds, the government has spearheaded remarkable achievements over the last 30 years.

According to Dr. Nelson Mbarushimana, the Director General for Rwanda Basic Education Board (REB), much effort has been invested in improving teachers' welfare and their intellectual capacity for them to drive the way to promote quality education.

REB's dedication to transforming Rwanda's education landscape. With a focus on teacher development, improved recruitment processes, and a commitment to continuous improvement, the REB is paving the way for a brighter future for Rwandan students.

"The focus has been on building a competent, motivated, and well-supported teaching force," he said.

Over the years, he said that the government worked on prioritizing teachers' well-being.

"We've introduced salary increments, scholarships for in-service teachers, and even provided housing in remote areas to reduce commute times," he added.

Teachers today enjoy increased salaries at all levels and their salaries get increased at 10% annually.

Besides, more in-service teachers have been able to further at University of Rwanda's college of Education, enabling them to improve their knowledge as well as have their salaries increased.

To improve teachers welfare through financing, Umwalimu Saving and Cooperative was established and strengthened, allowing thousands of teachers to acquire affordable loans to invest in other income generating projects.

"This has also increased lending capacity to teachers on subsidized interest rates to increase teachers' purchasing power," Mbarushimana said.

He noted that the government also supported more teachers through Gir'inka Mwalimu, a program that sought to ensure that each teacher's family has a cow.

A Streamlined Recruitment Process:

One of the most significant strides has been the digitalization of teacher recruitment process which has no only improved efficiency, but has also promoted transparency.

"This has made the process quicker, more transparent, and more efficient," he said, highlighting that before, they would have exams would be conducted in districts and transported to REB in Kigali for marking which exposed the process to malpractice.

"It was also costly, because you had to pick these written exams from the districts," he said.

Additionally, REB has introduced the Teacher Management Information System (TMIS) to ensure efficient management of teachers' data and professional development.

REB also ensured Continuing Professional Development (CPD) activities to teachers in order to increase their teaching ability.

Boosting English Language Skills:

A key initiative is the focus on English as the medium of instruction. "By training teachers and providing English mentors, we aim to improve their proficiency and equip them to effectively teach a wider range of subjects," Dr. Mbarushimana remarked.

"This will not only benefit students' learning but also equip them with valuable skills for the future."

Continuous Upskilling and Support:

The REB offers comprehensive training programs for teachers, including induction training, digital literacy skills, and pedagogy development for uncertified teachers. "We are committed to continuous professional development for our educators," Dr. Mbarushimana stated.

According to him, REB recognizes the importance of strong leadership and invested in boosting the capacity of school managers and school leaders at different levels.

"We've developed professional standards for school leaders and introduced online oral interviews to ensure a transparent selection process,"

He said that REB together with partners introduced Diploma Course in Effective School Leadership for Head teachers and Deputy Head teachers in charge of Studies and Certificate in Mentoring and coaching for School based mentors to improve school leadership.

"Furthermore, leadership development programs and the introduction of Professional Learning Communities (PLCs) provide ongoing support for school leaders," he said.

Building a solid foundation for the future

In a bid to keep building a strong foundation through empowering teachers for today and for the future, REB offers a holistic approach of producing quality teachers.

"Unlike before, currently we admit best performing students in Teacher Training Colleges (TTCs) and students have 50% school fees covered as bursary to attract best students to join TTCs," he said.

For in-service teachers, the government offers 100% scholarships to allow them to increase their education level and contribute to quality education.

Over the years, the government, through REB, has been training teachers on the use of English as a Medium of Instruction is expected to improve teachers' proficiency levels hence increasing their ability to teach other subjects and facilitating students to acquire skills in different subjects.

It also provided English school-based mentors from Uganda and Kenya and later on Rwandans for both existing and newly recruited teachers on subject-based teaching methodology.

"TTCs were also upgraded and equipped to produce enough, motivated and knowledgeable teachers," he said.

The government has managed to increase the number of schools over the years in the post genocide era.

Currently, the number of schools has grown to 4,923 including 4,051 schools with pre-primary level; 3,932 with primary level and 1,977 schools with general and professional level as of 2023, according to figures from the Ministry of Education.

Invested efforts hailed

Long serving staff from Rwanda Basic education Board have hailed efforts the government has invested over the years to improve quality of education.

Nehemie Bacumuwenda, 60 is an Entrepreneurship officer at REB. Having spent 22 years, Bacumuwenda is a witness of progressive changes that revolutionized the education sector.

He holds bachelors in Education, and Management and master's in Public health Currently serving as entrepreneurship curricula officer at REB has been in the education sector – including holding school managerial positions for 36 years altogether.

"Restarting education in the immediate aftermath of the 1994 Genocide against the Tutsi was almost impossible," Bacumuwenda who also served as a teacher form more than a decade before joining REB said. "The country did not have enough teachers as some were either killed or had played a role in the Genocide and had to face justice," he said.

Besides, Bacumuwenda said there were not enough teaching materials.

"There was a dilemma everywhere, due to the influx of more Rwandans who had repatriated, there was a need to teach in two languages {French and English} but using the same curriculum which was complicated," he added.

But Bacumuwenda admits that the government provided swift response to issues that hindered the provision of quality education and 30 years later the country is able to provide education to all Rwandan children.

More efforts to educate more children were put in and today every child has access to education which is much improved than the one they could get 20 years back," he says.

"More schools were built and students no longer have to trek longer distances to study, besides more teachers were trained and we have qualified teachers who are also motivated. Today a teacher is paid almost the same salary as any other staff in other positions while they also enjoy specific incentives," he added.

Another huge boost the veteran officer celebrates is review of the school curriculum from knowledge based to competence-based curriculum, which enables students to complete secondary education with needed skills set to face the challenges in the society.

"The shift from knowledge based to competence based curriculum was a huge boost and is worth celebrating. Today we have students from general education who are equipped with competence to innovate and create jobs," he noted, referring to the recent Rwanda First Lego League completions that the Rwandan students excelled in both locally and internationally,"

According to Bacumuwenda the country today boasts of young people who benefited from the post genocide education and they are the driving force of the country's social economic development.

"I am proud that today we are producing young and innovative people who are driving the country's development. We have a big number of young people in top leadership positions and are products of the revamped education system," he said, emphasizing his pride to have people who will replace him when he retires.

What do teachers say?

For teachers like Ernestine Tuyisenge, who teaches at GS Rugarika in Kamonyi district, teaching has become a profession teachers are proud of and more is expected in the future.

"I enrolled in TTC but I had no motivation as teachers were at the time earning little compared to their counterparts in other services," she said.

"But as the time went by, the government kept working on improving teachers' welfare and things had changed when I graduated, today, my salary has been increased and I enjoy other incentives like benefiting from Umwalimu SACCO among other benefits," she added.

For Dr. Mbarushimana, the progress registered so far is impressive but the journey continues.

"We are proud of the progress we've made, but the journey continues," he noted. "By investing in our teachers and strengthening school leadership, we are building a future where every child in Rwanda has the opportunity to excel," he concluded.

New REB studio to fuel path towards Rwanda's ICT-led education

COVID-19 forced governments across the world to take strong precautions. Schools took their fair share, where Rwanda shut schools in March 2020 after confirmation of the first case of COVID-19 in the country.

The Rwanda Basic Education Board (REB) moved swiftly to bolster remote learning measures in order to keep students engaged.

Besides the national radio broadcaster and its affiliated community radios, REB used several private radio and television stations to deliver lessons to students after schools were shut to avoid the spread of the highly contagious pandemic.

Now in a renewed effort to further promote remote learning solutions, REB with support from its education partners has opened its own studio.

Innocent Hegenimana, in charge of public relations and Communication at REB, and REB Multimedia Production Studio Project Manager says the fully furnished studio located at the board's offices in the capital Kigali, is set to launch operation this year.

The move aligns with the government's bid to transform Rwanda's education sector to make it ICT-led education, he says. The spacious studio, with several sections, will be managed by professional permanent staff operating five days a week from Monday to Friday.

It will offer all manner of content to teachers and students including Continuous Professional Development (CPD), girls' education, education policy, STEM, ICT in education, career guidance, gender, literacy and numeracy, co-curricular content, and inclusive education, according to Hegenimana.

The content will be provided by REB, education development partners and schools among others. "The education sector is moving with technology, are we going to rely on only traditional ways of teaching and learning or can we combine the technology and existing ways if we are promoting technology in learning? That's why we decided to have our own multimedia production studio which can support the existing mode of teaching and learning," Hegenimana says.

"This studio has the capacity to communicate directly with teachers and students wherever they are. We have even tested its operation. We believe it's going to help our education sector. In case the Ministry of Education wants to communicate something to all teachers in Rwanda, a senior official will be able to communicate directly to teachers or students."

The studio will cater for students from all levels from pre-primary to secondary as well as parents. The benefits of the studio according to Hegenimana are numerous: to increase in-house capacity to produce quality media programs in form of campaign, dialogue, and talk shows to engage all stakeholders in key education issues.

It will also increase in-house capacity in production of quality multimedia learning and teaching materials for all, enhance capacity to air multimedia materials through social media and increase the country's capacity to ensure learning continuity even in emergency periods through remote learning.
"Of course this will reduce the cost we normally incur. Digitalization costs will be reduced and broadcasting costs for in-house development of materials will be reduced. It will also be time saving whereby, audio and video production time as well as delivery time will be reduced," says Hegenimana.

REB had some sort of studio, but it was not fully furnished.
As such, officials realized there is a need to acquire new sophisticated equipment which can make a well-designed studio to support teaching and learning. "It is one of the best equipment you can have," said the official.

Hagenimana said the studio is significant because it could also support in-service teacher training. Besides, it will facilitate production of documentaries, and model lessons whereby best teachers for particular subjects will be hosted to deliver lessons which will be shared for other teachers to learn best practices from. "We shall be having education campaigns. The studio will also host talk shows, STEM experiments will be recorded and shared. We have been having edutainment episodes, this studio will boost the way we produce edutainment episodes," he said.

Recalling the crisis caused by COVID-19, Hagenimana underlined the government's commitment to making Rwanda's education system more resilient to make sure it would not be affected by another similar pandemic in the future. To close digital divide and ensure effective remote learning the government previously reached out to telecom companies in the country to ensure the learning portals are zero-rated for all public and private learning institutions and to ease access to internet.

The government also distributed solar panel radios to more than 900 selected poor families to provide learning opportunities for all. "At least 90% of content will be pre-recorded content in the studio and will be posted on the existing e-learning platforms and REB YouTube channel. The studio will be helping all these channels to have content," said Hagenimana.

STEM teachers tipped on innovative delivery math and science classes

In the modern and ever-evolving educational system, it is important for teachers to constantly train and improve on their skills as beacons of knowledge transfer to future generations.

Under the Rwanda Quality Basic Education for Human Capital Development (RQBEHCD) project implemented by the Ministry of Education (MINEDUC) through Rwanda Basic Education Board (REB) in collaboration with the World Bank Rwanda, Mathematics and Science teachers underwent training on Continuous Professional Development-Innovative Teaching Mathematics and Science (CPD-ITMS).

The project started in 2021 and has a sub-concept that aims to improve pedagogical content knowledge, modernize instructional tools, and practices of Mathematics and Science in upper primary through lower secondary grades (P4-S3).

Towards more effective teaching, the project initiative emphasizes on four pillars including; increase teacher content knowledge, improve classroom teaching practices, ensure availability of critical teaching materials and ICT tools in the classroom, and provide continuous support to teachers in their work.

Awarded best performers with DG REB, Dr Nelson Mbarushimana (5th from left); Acting Principal of UR-CE, Prof. Nsanganwimana Florien (6th from left); and the Minister of State in charge of ICT and TVET, Mrs.Claudette Irere (6th from right), on February 23,2024.

Coming from 16 districts across the country, at least 2,268 teachers graduated after successfully completing the CPD-ITMS training programme and top performers were awarded with laptops as a gesture of support for their professional growth, in a ceremony held on February 23, 2024 at Kigali Convention Center.

In her remarks, Claudette Irere, Minister of State in charge of ICT and Technical Vocational Education and Training, emphasized the importance of investing in teachers as it ultimately benefits future generations.

She highlighted the need for continuous self-improvement to meet the demands of modern classrooms and encouraged the graduates to consider further education using the credits earned from their CPD courses.

Mrs. Claudette Irere, Minister of State in charge of ICT and Technical Vocational Education and Training, on February 23,2024.

Irere also noted the importance of teaching in English to connect with the world, a component that is critical in the project.

Dr. Nelson Mbarushimana, Director General of Rwanda Basic Education Board (REB) congratulated the graduates for completing the CPD courses.

"Your journey through continuous professional development has been a testament to your unwavering dedication to the advancement of education in our country. Today, as you receive your well-deserved certificates and diploma, I commend you for your commitment, passion and transformative in your professional growth."

In partnership with the University of Rwanda-College of Education (UR-CE), the project developed and provided training modules and modernised instructional tools such as scripted lessons aligned with the Rwandan Competence-Based Curriculum, Math and science kits, laptops and projectors and formative assessment packages.

Besides the Innovative Pedagogy, Mathematics and Science content, the training also focused on Laboratory experiments, and E-learning and Integration of ICT in the Teaching and learning Mathematics and Science subjects.

The trainees were equipped with skills on an inquiry- based teaching and learning involving the 5Es (Engage, Explore, Explain, Elaborate, and Evaluate) instructional mode in lesson preparation and delivery, while addressing some misconceptions in some topics of Mathematics and Science.

Research had shown that most Mathematics and Science teachers experience challenges in teaching some topics or skip them due to a limited content knowledge.

Assoc. Prof. Pheneas Nkundabakura, Team Leader and the Principal Investigator of RQBEHCD, stressed that improvements in teaching and learning are achieved when teachers are well-equipped with both content knowledge and pedagogical skills, active participation of students in the learning process, and continuous coaching, mentorship, and support for teachers.

'Laboratory experience'

Another important aspect on which teachers were trained is about preparing effective laboratory experiments and practical works for making their lessons very concrete to the students.

Laboratory experiments play a vital role in promoting students' participatory interaction and give them chance to explore new scientific concepts.

According to trained teachers, the training addressed teachers' challenges including lack of confidence to prepare and perform experiments, to demonstrate some concepts and formulae in Mathematics through practical work activities and how to manipulate and use Math and science kits, apparatus and chemicals in a fun, engaging and enjoyable way.

Marie Claire Nyampinga Ingabire who spoke on behalf of all graduates, giving her remarks.

Related to the integration of ICT in teaching and learning Mathematics and Science, trained teachers are now able to teach in an interactive way using laptop and projector, scripted lessons, videos, animations, simulations and plickers. They can now use confidently software like Geogebra in Mathematics and Chemdraw in Chemistry.

Marie Claire Nyampinga Ingabire, a chemistry teacher at Notre Dame de Lourdes Byimana in Ruhango District, and representative of the graduates, said that the CPD programmes helped them learn innovative teaching methods, including the use of ICT and assessment techniques, tailored to their needs as Math and Science teachers.

"As we complete this training, we do so not just as individuals, but as a united group. Our commitment to improving education extends beyond the classroom," she added.

Prof. Florien Nsanganwimana, the Acting Principal of UR-CE, said that the graduation ceremony served to demonstrate the accomplishments of the RQBEHCD project in basic education.

He noted that UR-CE in collaboration with REB strived to provide the teachers not only with competences but also with the tools to amplify their impact in teaching and learning processes, tasking them to not only implement what they learned but also to be agents of change.

"Be mentors, guides, and an inspiration to your colleagues who have not been fortunate enough to benefit from these CPD programs. We expect you to share your knowledge generously, showcase the positive transformations you bring to your classrooms, and ignite a spark of enthusiasm in your fellow educators."

Lilian Mutesi, an education specialist at the World Bank-Rwanda, also applauded the graduates' role in realizing project objectives and encouraged them to embrace challenges as opportunities for growth.

"We hope that you will embrace the challenges as opportunities for continuous growth and improvement. Remember that you are not just imparting knowledge. You are shaping the future of Rwanda by nurturing young children and instilling a love for learning," she said.

The trained teachers requested the Ministry of Education to scale up innovative programs to keep the professionals updated with the latest knowledge and skills.

REB moves to roll out new curriculum for learners with intellectual disabilities, autism

A mother helps her autistic child write on a flip chart at Kigali Autism Centre at Kagugu in Gasabo District on December 23, 2022

With the right learning approach and tailored-care, children with intellectual disabilities and autism can grow to fend for themselves and become active contributors to societal development.

While there has been strides to inclusion in Rwanda, a great mile lies ahead given that a bigger number of children with severe and/or particular intellectual disabilities are left behind because of their limited learning pace and other barriers hindering them from enjoying their rights in education and realizing their potential.

The Government of Rwanda has expressed its commitment in ratifying the United Nations Convention on the rights of persons with disabilities (UNCRPD) and the political commitment to reinforcing inclusive and quality education for all under the SDGs agenda 2030.

On this foundation, the Ministry of Education and Rwanda Basic Education Board (REB) has moved to harmonize pedagogical practices and ensure consistency in quality in Rwandan special schools and inclusive model schools, by developing a curriculum for children with intellectual challenges, as an adjunct to the national curriculum.

Simonie Mukarekeraho, Intellectual Disabilities Officer in the Special Needs Unit at REB, said the current Competence-Based Curriculum used in education system in Rwanda was found not to be relevant to students with intellectual disabilities, hence, the need to develop a tailored curriculum at their competence level.

"There were many scattered private and public centers for these children across the country and the gap of uncoordinated care was evident. We needed to develop a guiding curriculum that offers clear orientation on how educators would respond to the needs of children who are intellectually challenged," she explained.

In essence, educators are able to identify children's strengths and needs, decide on educational placement and improve their learning outcomes as active and autonomous members of the society.

Launched in 2021, the curriculum aims to enable young people with intellectual challenges to participate as equal members in national and global economic development by realizing their optimum potential and promoting the highest attainable level of appropriate education in terms of knowledge, competences and attitudes.

It proposes pedagogical contexts, content and practical procedures, process and tools, in close alignment with the Competence-Based Curriculum, considering the learner with intellectual challenges as a learner with adequate potentials to achieve in school with appropriate support.

It targets different children with intellectual and developmental impairments who were not able to learn with their age mates.

"They are enrolled after a thorough assessment that involves the head teacher, the parent, a class teacher, and a medical professional," said Mukarekeraho, pointing out that they are categorized as moderate, severe, and profound levels of intellectual challenges.

The levels are determined based on key aspects of life such as communication, self-care, home living, interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health and safety.

Children with disabilities play at Jordan Foundation in Karuruma, Gasabo District

Accordingly, a learner with moderate intellectual challenges is considered as somebody who can achieve in school with limited support while one with severe and profound intellectual challenges may require higher level of support.

"We have many examples of children with intellectual disabilities who turned from not having cognitive skills such as controlling their body waste or brushing their teeth to growing into people with skills such as painting or farming and are able to take care of themselves," Mukarekeraho noted.

She noted that so far, at least 130 teachers from special and inclusive model schools of Bugesera, Kicukiro, Gasabo, Nyarugenge and Kamonyi districts were trained on the use of the curriculum.

"It is important not only that the teacher is trained on the use of this curriculum but also for them to have the heart to take of these children because it requires patience and kindness in addition to professionalism to cater for their needs." There are 30 inclusive model schools and 24 special need schools in the country.

> "We needed to develop a guiding curriculum that offers clear orientation on how educators would respond to the needs of children who are intellectually challenged

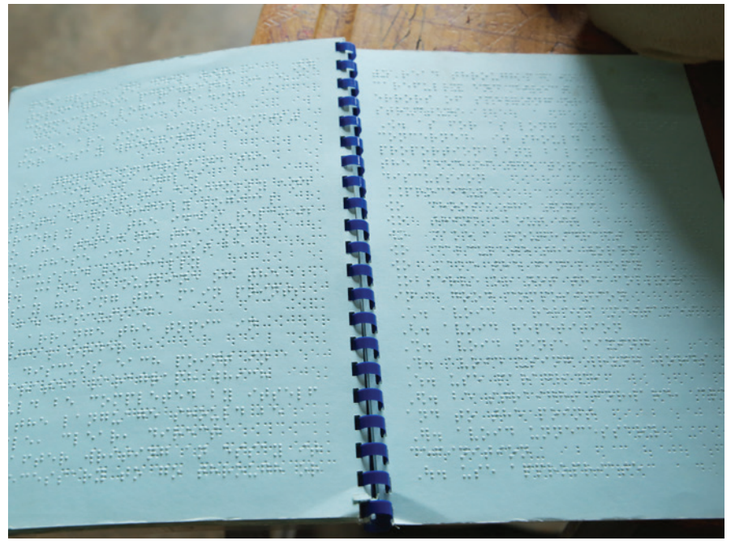
Need for curriculum teaching materials

Mukarekeraho noted that the trained teachers pointed out the need to have supporting teaching materials (books) for this curriculum that allows them to deliver the subjects and for students to better familiarize themselves with taught concepts.

She added that this part of the next step that REB will follow to further promote inclusive education.

The curriculum, currently available in soft copies while hard copies are yet to be distributed in target schools, was developed along with a training manual for teachers. The training, according to her, lasts for a minimum of five days.

The utmost focus of the curriculum is to shape an individual and enable them to influence their own destiny.



Elevating Rwanda's digital transformation through expert facilitation in blended CPD for school leaders

School leaders participating in the onboarding course to blended learning

Introduction and background

"Our generation has no excuse to adopt technology in education. We need to invest in technology so that those who come after us will benefit from this." This is what one of the lecturers from the University of Rwanda – College of Education mentioned when reflecting on blended learning.

Rwanda has been leading the way in digital transformation in education. A variety of policies exist which emphasise the use of ICTs in education to improve quality in teaching, learning and research, and consequently in continuous professional development (CPD).

Rwanda Basic Education Board (REB), in collaboration with the University of Rwanda – College of Education (UR-CE) and VVOB – education for development provide accredited CPD programmes for teachers and school leaders. Spurred by the COVID-19 pandemic, these CPD programmes are delivered in a blended modality, with the use of technology.

The delivery method of these programmes is based on a thoughtful fusion of online and in-person learning activities connected by bridging activities. This combination allows for a staggered learning approach based on the flipped classroom.

Each CPD programme starts with an in-person session to introduce participants to the purpose and delivery approach of the programme. Moreover, such in-person sessions offer the opportunity to build relationships. After these introductory in-person sessions, teachers and school leaders engage in interactive online course content. In this component, participants gain new knowledge and understanding of the topics of the CPD programme through interactive, authentic and memorable course content.

Throughout the online course, bridging activities are introduced. Such bridging activities offer participants the opportunity to start reflecting on the content of the course and to translate the content into their own work practice.

After the online component, participants go to an in-person session in their districts to practice the content with their peers and to deepen their learning about the content of the course. Whereas the online course focuses on knowledge and comprehension, these in-person sessions are competence-based and focus on acquiring skills. At the end, participants submit an assignment and e-portfolio in which they analyse the content, apply it to their work practice, and create an output which illustrates their learning.

Twice during the programme, a support visit is organised to participants' schools. The first visit is a coaching and support visit to help participants implement their learning in their daily activities. The second visit is organised towards the end of the programme to assess the application of competences acquired.

The steps taken in blended learning correspond with the different levels in Bloom's taxonomy. The taxonomy offers a hierarchical classification of various levels of thinking when developing course objectives. These levels are all lying along a continuum from simple to complex and concrete to abstract: remember, understand, apply, analyse, evaluate and create. The staggered learning approach culminates into the assignments while creating multiple opportunities for feedback and adjustments.

Onboarding participants in blended learning

This thoughtful instructional design to deliver blended CPD programmes enhances the learning experience for teachers and school leaders. However, for many of them, it is the first time to participate in an online course. This new mode of learning demands digital literacy skills and self-regulated learning strategies such as time management, effort regulation and critical thinking. If not carefully addressed, these requirements can lead to drop out during the online component of the blended CPD programme. To anticipate these potential challenges, all teachers and school leaders participate in a blended learning onboarding course prior to the start of the CPD programme.

Next, it is known that first-time online learners express the need for a more visible teacher presence in the online course to ease their adjustment to the online environment. Many online learners prefer to have their learning sequenced and directed through the assistance of a teacher or trainer. The trainer role is shifting from a traditional purveyor of knowledge, commonly used in in-person sessions, to a facilitator of learning. Instead of lecturing knowledge during in-person sessions, trainers from the University of Rwanda – College of Education (UR-CE) become active facilitators of both online and in-person learning. Specific skills trainers need in this new role are: monitoring participants' online learning progress, moderating participants' learning over the various components of the blended CPD programme, and providing effective (coaching) feedback to participants.

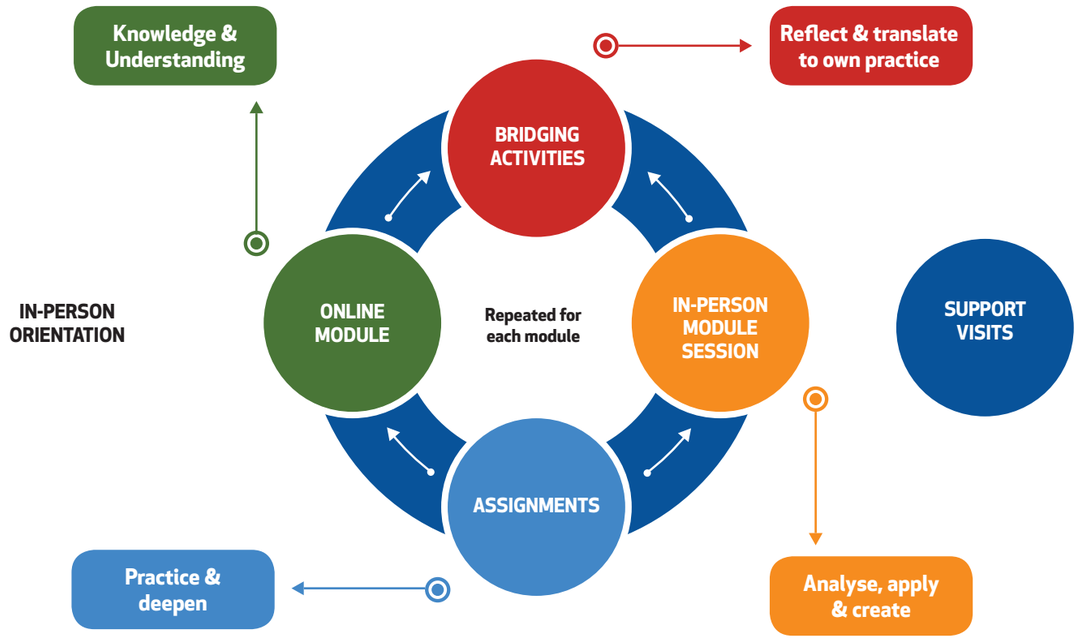
Monitoring the learning of participants

Because of the online component, UR-CE trainers have access to automatically generated participant data to monitor and remediate CPD participation and learning. On a regular basis, trainers access course activity completion data to detect challenges with online course engagement early on and to provide tailored support to participants to avoid (early) dropout. Principally, what trainers are doing is building the agency of teachers and school leaders to take ownership of their own learning. Teachers and school leaders need to understand that they are not simply passive recipients of teaching: they are actively engaged in the learning process. They need to develop the skills to establish their own paths to learning, acting as professionals who take account of mandatory requirements but make their own decisions about their learning goals and how to achieve them.

UR-CE trainers help participants to self-regulate their learning by using an activity planner which clearly sets out which online learning activities school leaders and teachers are expected to complete by a certain date. Trainers send regular reminders and follow up with participants at risk of dropping out. During the in-person sessions, they also reflect with participants on their online learning progress, and they build the confidence of participants to take responsibility for their own learning.

Moderating learning of participants

In addition to this monitoring role, trainers actively moderate participants'



online learning. They do this by expressing interest in participants' learning and by expanding their thoughts and knowledge, for instance, by moderating forum discussions.

As a next step, trainers ensure a smooth transition from the online component to the in-person sessions. By closely analysing participants' online learning progress, for instance, by analysing forum discussions, bridging activities, quizzes and assignments, trainers identify how they can remediate or scaffold participants' learning in the next in-person session. They address potential learning gaps identified while monitoring and moderating participants' online learning, or they identify how they can expand participants' learning. Potential learning gaps can be different for each group of participants and hence, the in-person sessions can slightly differ for each group. As such, the blended CPD modality offers an opportunity for a differentiated teaching and learning approach.

During the in-person sessions, trainers no longer need to convey new knowledge. The in-person sessions serve to practice and apply the knowledge which participants gained online, in line with the flipped classroom approach. For instance, trainers facilitate group work or role-playing activities which allow teachers and school leaders to take the next step in their learning, higher up in Bloom's taxonomy.

Providing (coaching) feedback to participants

Throughout the blended CPD programme, participants receive feedback on their learning. Trainers provide timely and detailed feedback on submitted bridging activities, assignments, e-portfolio tasks and participants' inquiries. Trainers identify both strong points in participants' learning and areas in which they can further grow.

Mid-way through the CPD programme, trainers visit teachers or school leaders at their school to provide coaching support. These coaching visits help participants to reflect, identify areas for growth and take the next step in their professional development. Instead of giving direct instructions, trainers unlock teachers' or school leaders' potential to maximise their own performance. In short, trainers challenge and inspire participants to take the next step in participants' learning in line with the CPD learning outcomes.

Preparing trainers for this new role

Online learning is not just an add-on but an indispensable teaching modality that can contribute to meaningful learning if carefully facilitated. This new role for trainers requires joint learning among all partners (REB, UR-CE and VVOB). The role of stage'. Trainers are no longer only in an expert position when facilitating blended CPD for teachers and school leaders. They no longer lecture and convey knowledge. Instead, they become active facilitators of online and in-person learning of participants. This changing role can create resistance. However, by involving trainers in the design and development of the blended CPD programmes, and by trying out their new roles in action, the benefits of their new role start to appear. For trainers to become confident in their new roles, UR-CE, REB and VVOB enter into joint learning trajectories. These learning trajectories consist of several workshop activities, each addressing a specific skill needed to facilitate the blended CPD programmes.

Before the start of each CPD component, trainers participate in a preparation activity with UR-CE, REB and VVOB. During these preparations, trainers try out facilitation skills, both for online facilitation and for in-person sessions. For instance, for the online component, they learn how to access and interact with data from Moodle,

Trainers facilitating an in-person session with teachers

UR-CE trainers designing the blended CPD approach

VVOB's Learning Management System (LMS), to strengthen participation and learning in online courses, through moderating online forums, and providing effective feedback on bridging activities and assignments. For the in-person component, they learn how to co-facilitate active learning in action, for instance, on how to guide a role-playing activity.

After each CPD component, trainers come back together to reflect on their new role. What went well? What can I improve next time? By reflecting with their peers, they inspire each other with facilitation strategies to try out next.

At the end of each module in a CPD trajectory, trainers also identify suggestions to improve the blended CPDs for the next cohorts of teachers and school leaders. This iterative design process offers opportunities to continuously improve the content and delivery modality of the CPD programmes over time.

Using monitoring data to grow into this new role

To ensure effective and personalised learning during these workshop activities, monitoring data of trainers' online and in-person facilitation are key. Apart from participants' online learning data, the LMS also generates data on trainers' online facilitation. For instance, how regularly do trainers log in? How effectively are trainers moderating forum discussions? Are they grading submitted bridging activities and assignments and providing effective feedback? For monitoring the in-person facilitation, an observation protocol is available which unpacks data on observable indicators related to active facilitation and co-facilitation. This observation protocol is completed by partners from REB and VVOB.

LMS and observation data are used to understand how trainers are growing in their new facilitation roles of blended CPD. These data inform the focus of each workshop activity in the joint learning trajectories. What is going well in trainers' blended CPD facilitation and which learning gaps should be addressed? Trainers reflect on their data, together with their co-facilitator, and identify how they can continue growing in their facilitation roles.

This article was written by Loran Pieck, Strategic Education Advisor, VVOB Rwanda & Lieve Leroy, Strategic Education Advisor, VVOB Rwanda

About the program
Implemented jointly by REB, UR-CE and VVOB, the program: Learning through Assessment and Data (LEAD), runs from 2022 – 2026 and is targeting over 1,500 school-based mentors, school leaders, Sector Education Inspectors (SEIs), District Directors of Education (DDEs) and District Education Officers (DEOs). They are being trained on Effective School Leadership and Educational Mentorship and Coaching with a focus on the use of school-based data for decision making for improved learning outcomes and to close equity gaps.

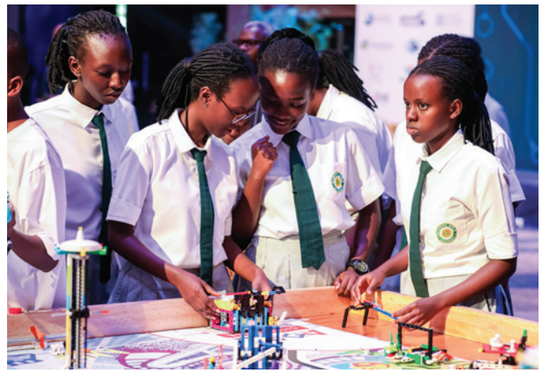
President Kagame, First Lady grace Artificial Intelligence, First Lego League challenge finals

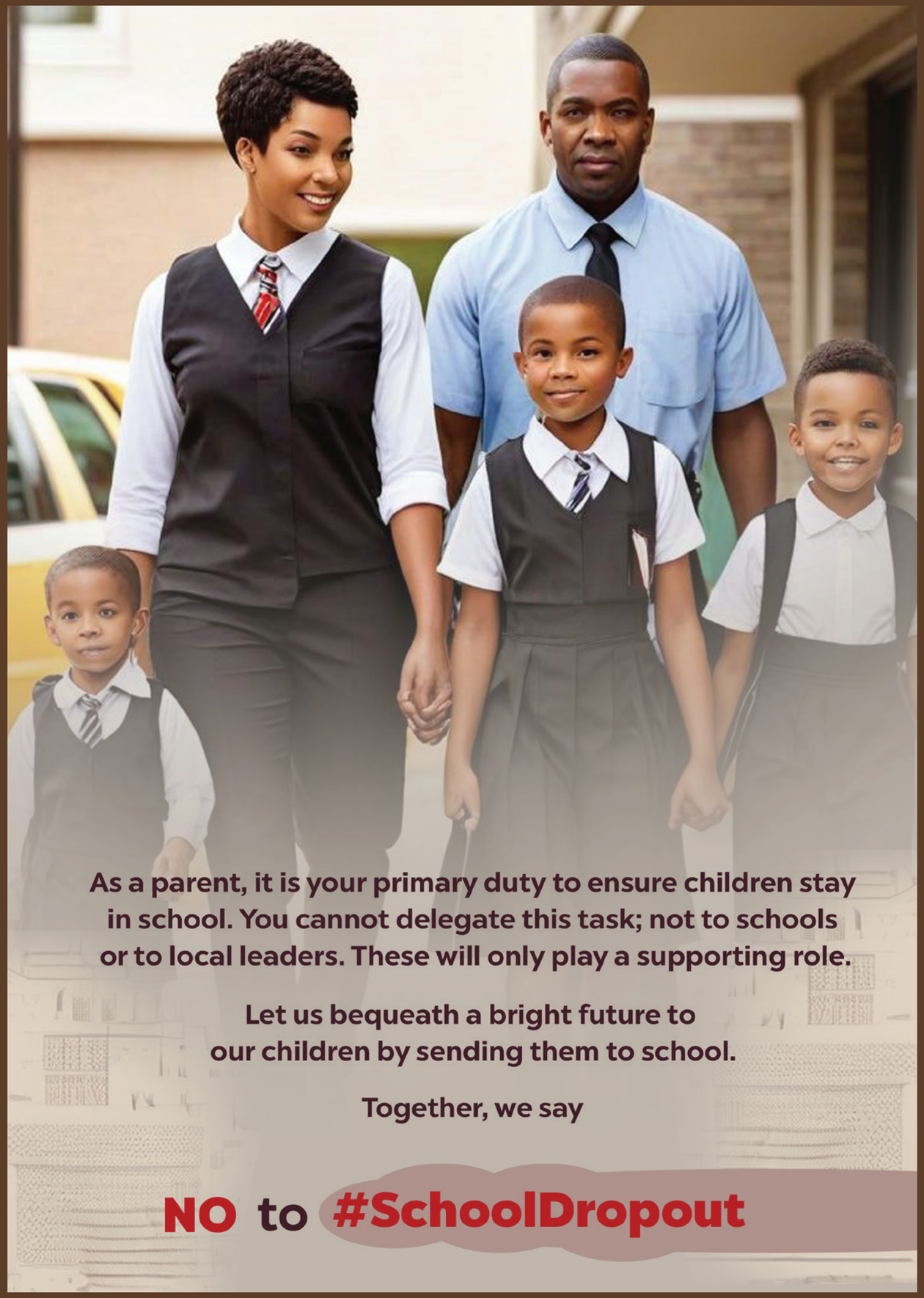
H.E President Paul Kagame and First Lady Jeannette Kagame in March this year presided over the award ceremony for the winners of the Rwanda First Lego League (FLL) challenge and Artificial Intelligence (AI) Hackathon at Intare Conference Arena.

The competition, which attracted students from across Africa, saw College du Christ-Roi Team 1 emerging as the national champions, while the Federal Government College of Nigeria secured the international championship in the same challenge.

The AI Hackathon Challenge was won by the E.S Kayonza Modern team.

President Kagame commended the achievements of the national robotics program and the FLL challenge and AI Hackathon saying; “robotics and Artificial Intelligence are outstanding ways to learn science, engineering, technology, and also teamwork”.





As a parent, it is your primary duty to ensure children stay in school. You cannot delegate this task; not to schools or to local leaders. These will only play a supporting role.

Let us bequeath a bright future to our children by sending them to school.

Together, we say

NO to #SchoolDropout

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Requirements for private schools that want to order for Competence-Based Curriculum (CBC) textbooks from printing companies which were contracted to print and supply them

- **A letter addressed to the Director General of REB requesting to have access to CBC textbooks at affordable prices**
- **In addition to the letter, the following information should be provided:**
  - ☑ *Address of the school*
  - ☑ *Telephone number and email of the school head teacher*
  - ☑ *Title and quantity of needed textbooks per title and per level/class*
  - ☑ *Number of students per class*

Required information for private schools to order for CBC textbooks

The Schhol Address:

- ☑ *School name:*
- ☑ *District:*
- ☑ *Sector:*
- ☑ *Cell:*
- ☑ *Tel. Number for school Headteacher :*
- ☑ *Active school/ Headteacher's email:*

Textbooks' titles	Textbooks quantity per level														
	N1	N2	N3	P1	P2	P3	P4	P5	P6	S1	S2	S3	S4	S5	S6
1															
2															
3															
4															
...															

Note: Information regarding the number of student per level should be also provided.

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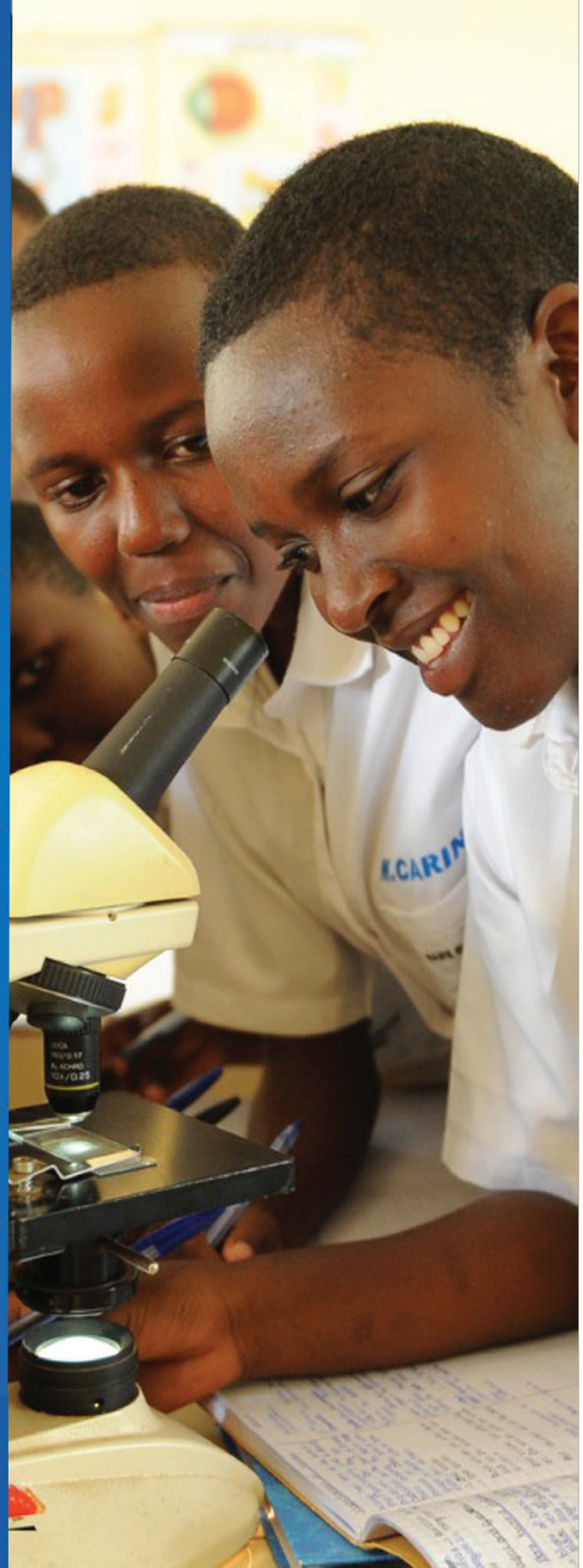
Kigali, Rwanda

books@reb.rw
+250 788658622

VISION

The vision of REB is to promote the quality of education in basic, specialised and adult schools



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REB has the following main responsibilities:

- *To prepare and distribute curricula, teaching materials, teacher's guides, methodologies and establish teaching methods for nursery, primary, secondary, specialised schools and adult literacy schools;*
- *To establish and monitor the E- learning program in basic education;*
- *To promote the use of information and communication technology in basic education;*
- *To coordinate programs and activities to ensure teachers development, build their capacities and monitor their management;*
- *To contribute to the development of education policy;*
- *To coordinate and fast track basic education programmes and activities aimed at providing to all categories of Rwandans the quality education;*
- *To advise Government on all activities which may fast track basic education development in Rwanda.*

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