



Scratch 2050: future-proof coding skills in secondary education in Rwanda

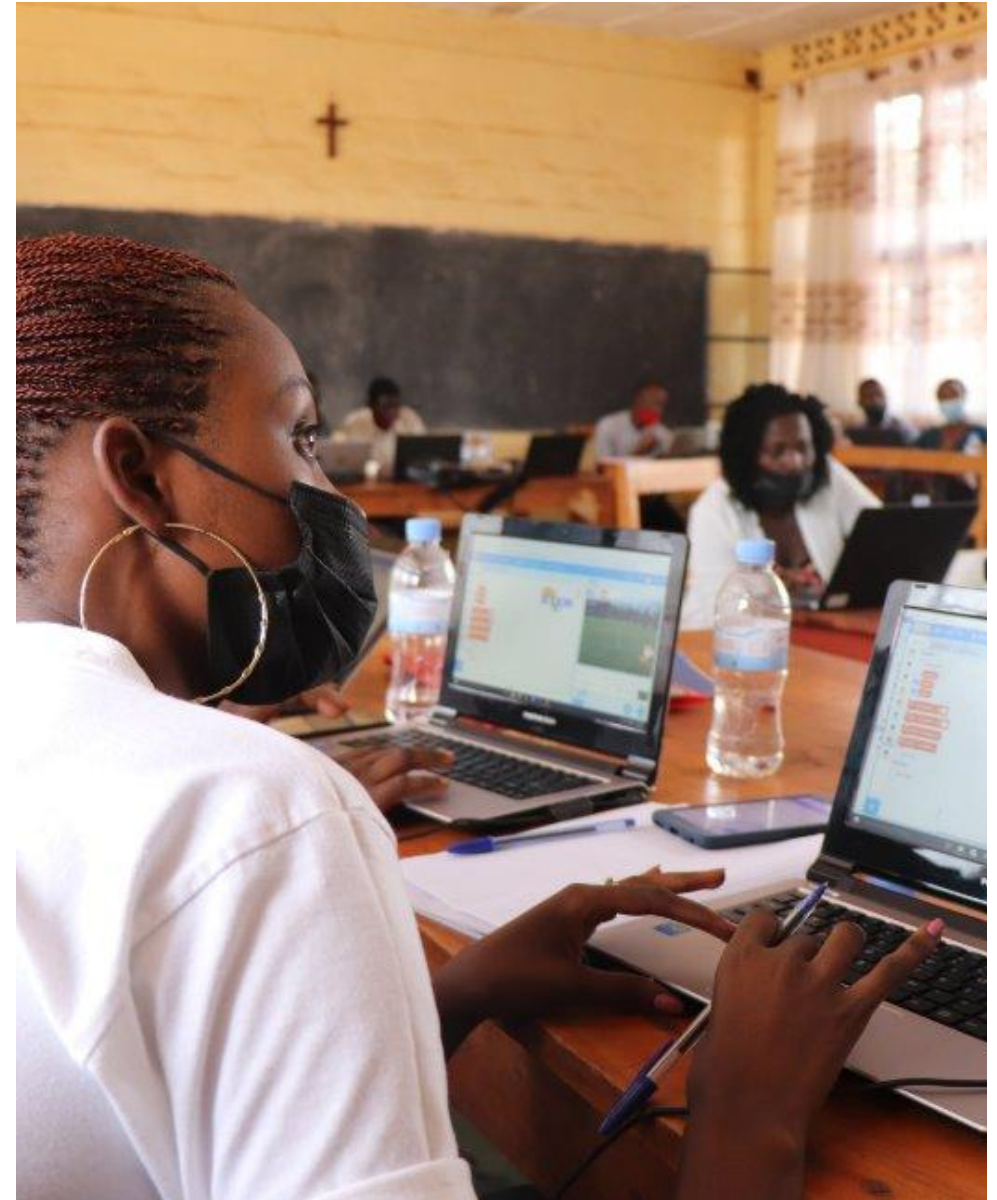
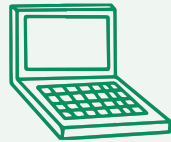
Education & Technology

Scratch²h 2050



WEHUBIT

1. Project background (Diane)
2. Working with the world of work (Diane)
3. The digital divide (Jennifer)
4. Q&A





Diane Sengati



Jennifer Batamuliza





Scratch 2050 Rwanda

Project background



July 2020 – June 2022



All 54 secondary schools in Kayanza district



158 STEM/ICT teachers trained on digital literacy & Scratch



274 coding clubs reaching 3,724 learners of which 50% girls



Hackathon competitions after each coding club cycle



Exposure visits to leading tech companies to showcase the link with the world of work

Scratch 2050 Rwanda

Working with the world of work

- Alice Niyomukiza: *"I am more open-minded, willing to innovate, think outside the box, explore and learn...."*
- 21st century skills: critical thinking, public speaking, entrepreneurial mindset...
- Staying competitive in a changing job market



Scratch 2050 Rwanda

Working with the world of work



- **Exposure** visits to leading tech companies
- **Link** with existing Scratch initiatives & networks
- Long term **ambitions** & **career** perspectives
- **Entrepreneurship**: teacher organized coding summer camps in 2024



The digital divide

I didn't believe girls could
pursue a career in ICT

Meet
Emerance...



I thought computer science was hard and
complicated and more of a 'boys-thing'

and her
teacher
Didacienne



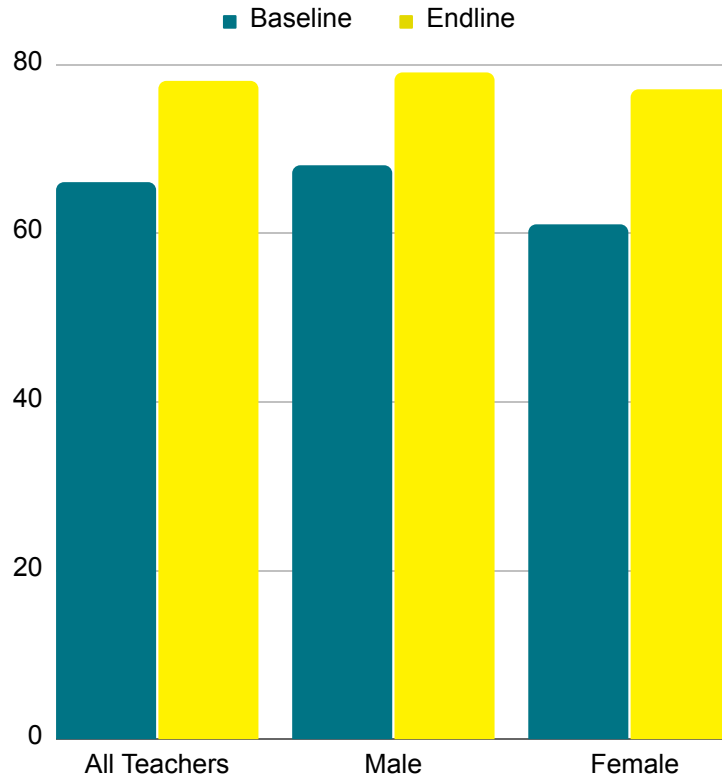
Yes, Scratch was part of the
curriculum but I lacked digital skills
and confidence to teach or use
Scratch in my lessons

The digital divide

Results

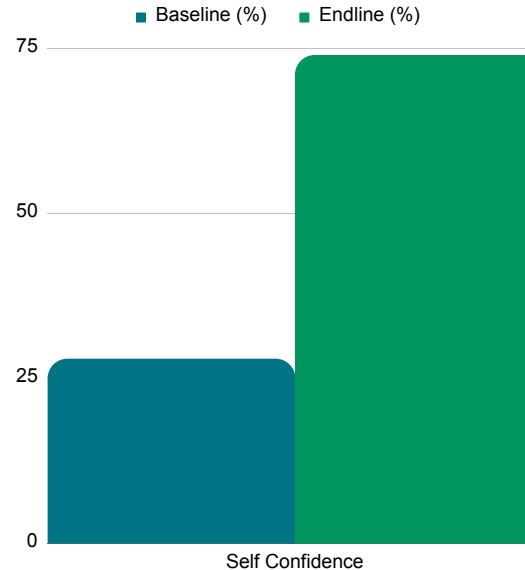
For teachers such as
Didacienne

Comparison in Teachers' Average Digital Literacy Scores



The training put me on a good standard regarding the use of Scratch and other technology skills that helped me to teach to the students, and I am confident about what I am teaching.

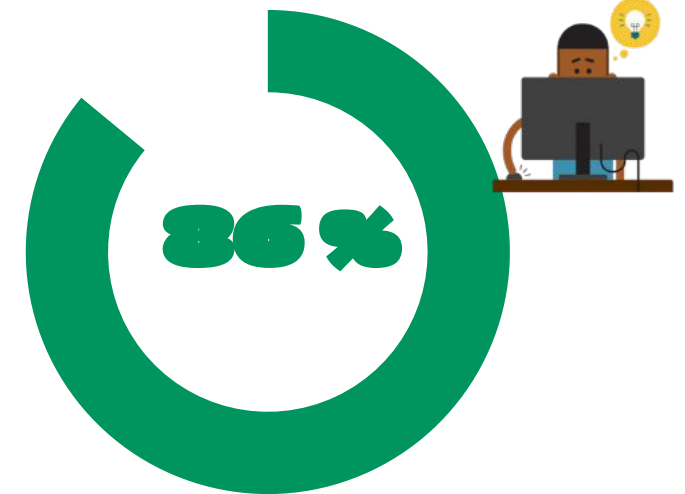
Confidence when leading Scract²h clubs



For learners such as
Emerance

274 coding clubs, reaching 3724 learners
of which 50% girls

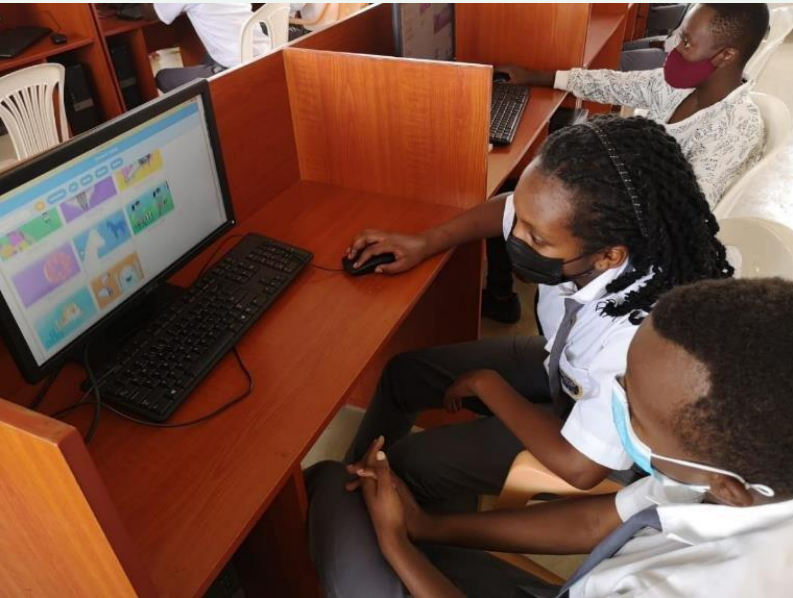
Percentage of learners meeting high level
of proficiency on the digital literacy
assessment



In 2023, Ornella Irahari, a female student who participated in the coding clubs in Kayonza during the project, won the national Scratch competition for secondary education. Ornella in 2022: "I learned that I can do anything with coding. You can even reach your dreams"

Scratch 2050 Rwanda

Closing the digital divide



Role modelling



Involvement of RAWISE-**trainers** as role models for teachers and students

Self-perception



Improved self-efficacy of (female) **teachers** to lead coding clubs, as crucial component to close gender gaps

Balancing numbers



Gender-intentional selection of female **learners** for participation in coding clubs, respecting 50% balance

Thank you!

Got questions?

