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for every child

Girls' education and digital learning: 2 key ingredients for a successful blended learning approach in Zimbabwe

Situation: what is at stake & why it matters

Girls' education has been recognized as a catalyst for development, yet many girls in Zimbabwe do not complete their education, and often do not take Science, Technology, Engineering and Mathematic (STEM) subjects. According to the World Economic Forum, only 19% of female students in Zimbabwe graduate from STEM subjects, compared to 39% of male students. This disparity is attributed to various factors, including societal stereotypes and a lack of role models. Unfortunately, as a consequence, Zimbabwean women remain underrepresented in STEM professions, with a mere 28.79 percent of them holding STEM degrees, compared to 71.21 percent of men. These statistics underscore the urgent need to educate more girls and women in STEM fields.

According to the Zimbabwe Education Management Information System (EMIS) 2024 report, only 32% of schools are connected to the internet. Among those connected, not all can afford the monthly internet costs, nor can they provide internet access to pupils. Furthermore, the pupil-to-computer ratio is 1:68 in primary schools and 1:27 in secondary schools. Additionally, most teachers lack the basic ICT skills necessary to effectively support digital and blended learning, making its implementation challenging.

While electricity is a key enabler of digital learning, 74.3% of schools have access to grid electricity at the primary level, and 78.9% at the secondary level. However, most of these schools are located in urban areas, and due to economic challenges, electricity supply is often unreliable. Power is frequently only available at night, making it difficult for schools to use it effectively during the day. As a result, the most reliable solution has been the installation of solar power, which is also climate friendly.

UNICEF's response

UNICEF Zimbabwe has supported the Ministry of Education in implementing a programme aimed at breaking gender stereotypes with regards to girls' participation in Science, Technology, Engineering, and Mathematics (STEM). Through this programme, 354 teachers (of whom 252 were women) strengthened their skills in gender responsive teaching methodologies; and through community outreaches and role model engagements, almost 2,500 community members and 965 community members (849 women) were reached with messages promoting parental involvement in encouraging uptake of STEM. The project also made use of role models in the STEM field who provided career guidance and mentorship to girls from the 34 project schools. Based on feedback from the pupils on limited access to STEM resources, UNICEF procured mobile science laboratories for all 34 schools (1 per school) to give the pupils a hands-on experience with science.

To support digital learning, UNICEF has supported the installation of solar power in 154 rural schools, provided an offline version of the Learning Passport, and procured digital learning devices, including laptops, projectors and tablets. As these resources are distributed to schools, UNICEF will also provide training for teachers on digital literacy to ensure the effective use of the new technology. To ensure sustainability, UNICEF is collaborating with the Ministry of Primary and Secondary Education, the Ministry of Energy and Power Development, Ministry of ICT and local communities to increase awareness and ownership.

Beyond the Textbook: Chidazuru Primary School Embraces the Learning Passport Journey

Impact

In the 34 schools where the STEM project has been implemented, short term results show that girls are motivated to take up STEM subjects and this was demonstrated during STEM fairs. The fairs provided a platform for pupils to display their innovativeness through STEM projects, representing their creativity, problem-solving skills and critical thinking.

In the 154 schools were solar has been installed, there has been an increase in the pass rate and also retention of the teachers who had always been wanting to transfer.

Specific gaps & needs

Most rural schools do not have enough teachers trained in STEM nor do they have functional science laboratories; and the problem is more dire in primary schools. Given the traditional and social norms in the country, there is need to addresses cultural barriers existing in the communities and among girls themselves. Additional support is also required to equip schools with science laboratories so that children, girls in particular, can equally be exposed to the world of science at an early age.

There is a need to solarize more schools, particularly in rural areas, and to provide devices along with training for teachers to ensure that in both development and emergency contexts, education remains provided.

Powered Education:
Solar's Positive Impact in Schools

Call to action (How you can help)

With USD 100,000: UNICEF can train 2,000 teachers in gender responsive teaching methodologies

With USD 500,000: UNICEF can procure 250 mobile science laboratories expected to benefit over 20,000 children in rural Zimbabwe, including girls

With 46,000 USD: you can **Adopt a School**! we can solarize it with a 10kVA system, connect it to the internet, provide ICT devices (laptops, projectors, and tablets), train teachers, and ensure security and community ownership.
With USD 500,000: you can adopt 11 schools!

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