

Health Systems Research Unit:  
Research Briefs

# The HERStory Series

Educational equity and transformation in a digital age: Lessons learned during the COVID-19 pandemic

## SUMMARY

- The vast majority of school-age children in South Africa have experienced severe interruptions in their education due to multiple deprivations including food and income insecurity, challenging home environments, and lack of access to appropriate technology and internet connection.
- The closure of schools and tertiary institutions during the COVID-19 pandemic has disproportionately impacted the most vulnerable and marginalised children, adolescents and young people, worsening existing disparities and educational inequity within the South African education system.
- Despite efforts by the South African government to provide accessible online learning resources during the period of school closures, through zero-rated applications, and mobile network operators reducing data costs, poor network connectivity and lack of access to personal internet enabled devices, continued to be a challenge for learners from poor families, and those in rural areas or under resourced communities.
- The development of appropriate, gender-sensitive policies and programmes is needed to ensure equity in education.
- On-going and routine digital learning strategies need to include efforts to improve technological skills and digital literacy amongst both learners and teachers.
- Efforts are needed to address structural drivers of school dropout and the 'digital divide'.

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**These research briefs were developed by scientists at the South African Medical Research Council's Health Systems Research Unit to share findings from studies conducted by the organisation.**

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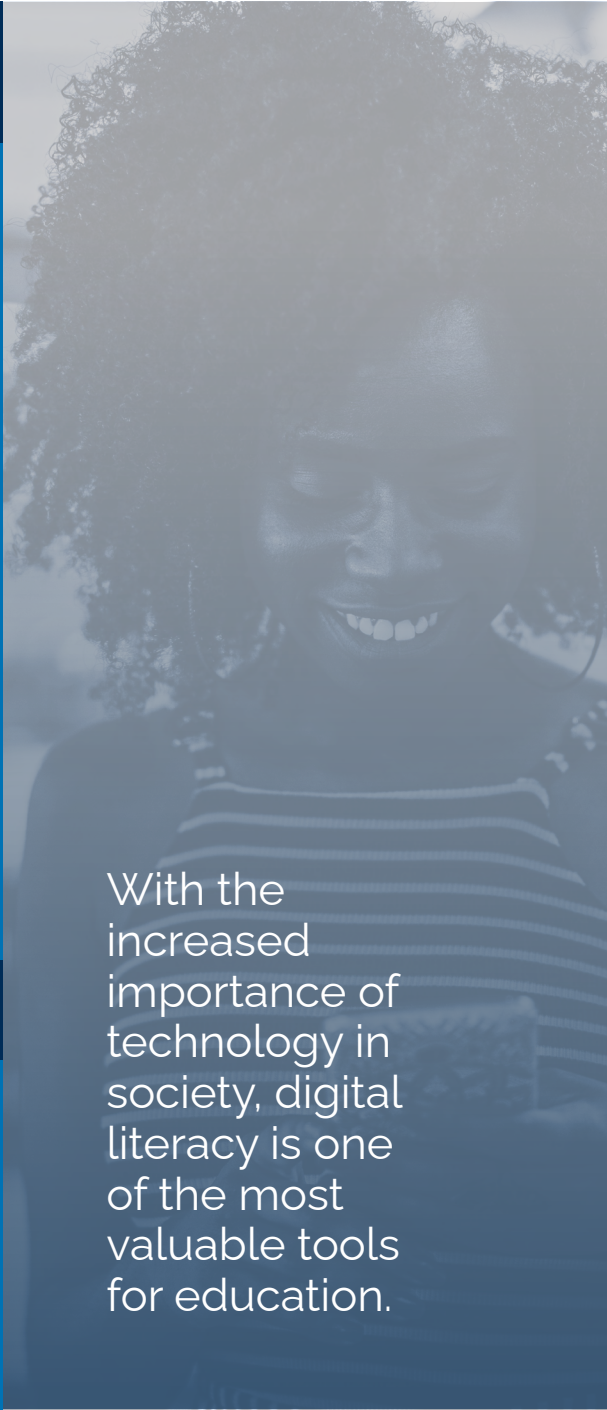
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### EDUCATIONAL TRANSFORMATIONS AND DIGITAL TECHNOLOGY

- Educational institutions have an opportunity to rethink and improve the learning experience through online learning.
- With the growing rate of education disruptions due to political, environmental and health crises, institutions must become proactive in their planning for future emergencies.
- With the increased importance of technology in society, digital literacy is one of the most valuable tools for education and to improve employment prospects; students who utilize online research and display computer skills are more likely to attain successful educational outcomes and find employment.
- Digital competency, being able to use technology and navigate the internet is critical for in adolescents and young people to ensure they are able to interact responsibly in a digital society, learn about digital citizenship and appropriate online behaviour, and ensure safety.

### THE ISSUE / CONTEXT / SCOPE OF PROBLEM

- Globally, the sudden closure of schools and education institutions as a response to COVID-19 resulted in rapid and dramatic shifts to replace in-person teaching with various forms of technology based, remote and distance education.
- COVID-19 has accelerated the adoption of remote learning in South Africa, but access to the internet is not universal, with socio-economically disadvantaged communities facing various barriers to accessing fast, reliable, and affordable internet solutions.
- Whilst remote learning ensured some level of continuity and reduced disruption to education, the shift to online and internet-based learning disproportionately impacted those learners from disadvantaged socioeconomic communities, particularly female learners.
- There is a gender gap in digital literacy skills in sub-Saharan Africa – adolescent girls and young women (AGYW) are more likely than their male counterparts to have experienced learning losses during the pandemic due to gender disparities in accessing and benefiting from online learning, including social inequalities and technological constraints.



With the increased importance of technology in society, digital literacy is one of the most valuable tools for education.

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- Gender related vulnerabilities and inequalities place female learners at higher risk of school disengagement and attrition due to COVID-19 disruptions compared with their male counterparts.
- Being out of school significantly reduces AGYW's social networks, interaction and support from peers and educators, access to sexual and reproductive information and services, and safe spaces, resulting in increased vulnerability to sexual violence and exploitation, early marriage, and unintended pregnancies.

### RESEARCH OVERVIEW: THE HERSTORY<sup>2</sup> STUDY

Research activities took place in 6 sub-districts in 6 South African provinces: Klipfontein, Cape Town (Western Cape), King Cetshwayo (KwaZulu Natal), Ehlanzeni (Mpumalanga), Bojanala (North West), Nelson Mandela Bay (Eastern Cape), and Thabo Mofutsanyana/DiHlabeng (Free State). These communities are characterised by high HIV prevalence, and high rates of teenage pregnancy. Between November 2020 and March 2021 we conducted a cross-sectional telephone survey with 515 AGYW aged 15-24 years, and in-depth interviews with 50 AGYW.

### WHAT WE FOUND

#### Online learning / Educational Disruptions - High levels of inequity in online learning accessibility

- Many adolescents and young people in South Africa live in households with limited access to technology devices and internet.
- Learners from socio-economically disadvantaged households are often unable to afford e-learning technologies (devices and data) necessary for remote learning.
- Lack of access to reliable internet and data for mobile phones is a key barrier to successful remote learning and 'virtual schooling' for many South African adolescents and young people, particularly those in communities characterised by poor infrastructure, unreliable electricity supply, and limited access to information and communications technology.



Gender related vulnerabilities and inequalities place female learners at higher risk of school disengagement.

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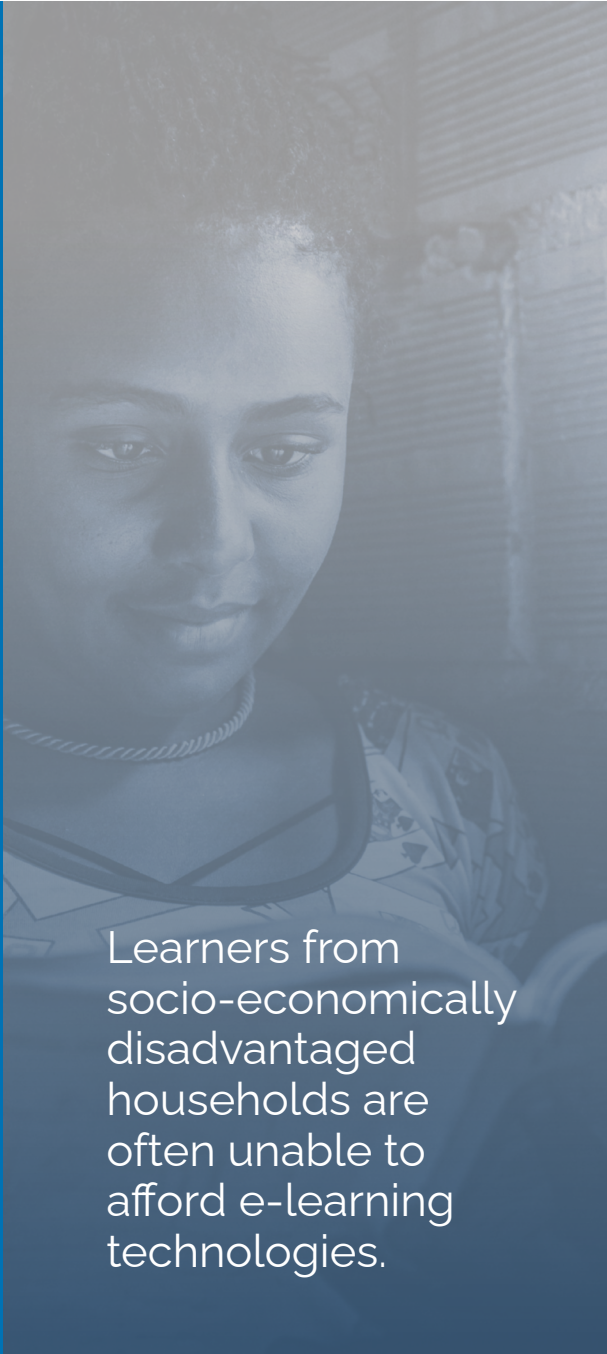
- Resource disparity is not only an issue at the household and individual learner level, but also at the institutional level – many schools have restricted resources, and not all schools were able to offer remote learning to learners.
- Lack of access to online learning compounds pre-existing inequalities in the education system in South Africa, further entrenching intergenerational cycles of poverty.
- Loss of face-to-face interaction with teachers makes it harder for learners to access both educational and psychosocial-support from teachers – creating barriers to comprehension of course material, as well as fostering feelings of isolation and lack of support, and reducing AGYW access to trusted adults and mentors.
- Many AGYW live in household situations that are not conducive to learning – distractions from family members, caring responsibilities (childcare and household members in ill health), and lack of suitable space for studying, materials, internet connectivity, a computer, or educated adults who are able to assist, making home-schooling challenging.

### Drop-out

- A substantial proportion of AGYW dropped out of or discontinued education in 2020 – many AGYW reported being unable to continue with their studies due to COVID-19 related factors.
- Dropping out of school has significant consequences for the life trajectories of AGYW – those that spend a significant amount of time out of school are unlikely to return.
- Adolescents and young people who drop out of school are more likely to have limited earning potential, chronic unemployment, lower socio-economic status, poor mental health outcomes and are more likely to engage in risk behaviours.

### Resilience

- Some AGYW found ways of coping, remaining motivated and focused, demonstrating resourcefulness and creativity, in order to reduce disruption to their education and not fall behind academically.
- Multi-level factors enabling resilience exist at the individual, family, school, structural, and socio-economic levels. Factors in AGYW's environment that supported resilience included receiving assistance with studying from other people at home such as parents or partners, and receiving educational support from fellow students, teachers, online learning platforms, and volunteer-supported online programs.



Learners from socio-economically disadvantaged households are often unable to afford e-learning technologies.

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### Implications for Disaster / Pandemic Situations

- The development of appropriate, gender-sensitive policies and programmes is needed to ensure continuity in education, and reduce negative impacts of school closures on the most vulnerable and marginalised learners, particularly AGYW.
- South African educational institutions, public and private sector stakeholders, civil society organisations, and government entities need to work together to develop intersectoral strategies to ensure a smooth transition to remote learning in disaster scenarios.
- Teachers and educators require support, guidance and capacity-development in order to best support learners, and make the transition to remote education successful.
- The provision of support to enable, motivate and encourage learners to return to school and continue with their education after educational disruptions is critical.

### Implications for Education and Routine Practice

- The development of appropriate, gender-sensitive policies and programmes is needed to ensure equity in education.
- On-going and routine digital learning strategies need to include efforts to improve technological skills and digital literacy amongst both learners and teachers.
- Efforts are needed to address structural drivers of school dropout and the 'digital divide'.
- Since a vast proportion of South African learners only have access to smart-phones for online learning, there is a need to consider creating user-friendly interfaces adapted to smart-phones when designing learning platforms and applications.
- Free and open-source digitized teaching and learning resources and materials need to be made available for access on a variety of devices, operating systems and software applications optimised for restricted bandwidth and sporadic internet access.
- Capitalising on near universal access to a mobile phones in South African households, compared to low availability



The AGYW intervention was funded by the Global Fund to Fight AIDS, TB and Malaria. The combination HIV prevention interventions were implemented in 12 districts in South Africa by a range of civil society organisations that were appointed by the organisations responsible for the management of the AGYW programme: the Networking HIV and AIDS Community of Southern Africa (NACOSA); the AIDS Foundation of South Africa (AFSA) and Beyond Zero. The programme is aligned with the She Conquers campaign and is implemented with support from the South African National AIDS Council (SANAC) through the Country Coordinating Mechanism (CCM) and the CCM Secretariat. This research has been supported by NACOSA.

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of desktop and laptop computers, and ensuring that online learning is mobile-friendly would help to ensure access by the widest possible user base.

- Infrastructure at government schools needs to be improved, to ensure that both teachers and learners have access to basic digital technology and internet connectivity.
- Facilitating internet access at all educational institutions would be a step in the right direction, however, it would be of limited benefit during school closures if internet could only be accessed on campus.
- Investment in technology such as Wi-Fi-capable devices for use by both learners and teachers could help to address inequities in technology.
- Given that mobile data in South Africa is prohibitively expensive, with South African users paying more for data than those using the same mobile operators in other countries, it is important that the government and private sector jointly consider strategies to lower these costs, particularly when they impact negatively on education.
- Mobile operators should enable zero-rated educational sites, and digital learning platforms should be developed with minimal data usage.
- Educational institutions are not only sites of learning, but can also be nodes of care and support, and conduits through which to provide preventive and support measures to adolescents and young people.
- Strengthening psychosocial support services for learners, teachers and parents is critical.
- In addition to building technological infrastructure to enable internet-based remote learning, simple, lower-tech interventions have been shown to mitigate learning loss in lower socio-economic settings and contribute to better learning outcomes, especially when combined with teacher support, learning materials, and involvement of parents.

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