

WORKING PAPER

The Power of Girls' Reading Camps

Exploring the impact of radio lessons, peer learning, and targeted paper-based resources on girls' remote learning in Kenya

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Abstract

This study explored the learning experiences of girls in Arid and Semi-Arid Lands (ASAL) areas of Kenya during school closures due to Covid-19. Specifically, the study explored the impact of reading camps, radio lessons, and paper-based resources individually and when used in combination. A mixed-methods approach was adopted involving a survey and reading and mathematics assessments of 640 girls in Turkana, Kilifi, Tana River, and Samburu. Interviews and focus groups were conducted with girls, caregivers, and community members in Tana River and Kilifi.

The reading camps were facilitated by remedial teachers contracted by Wasichana Wetu Wafaulu (WWW) programme with support from Community Health Volunteers (CHVs) as well as mentors, who were mainly pupils at secondary school or university level. Results suggest that reading camps combined with paper-based learning resources had the greatest impact on learning. The median scores for girls that used both modalities were 8.3 percentage points higher for reading and 17.6 percentage points higher for mathematics compared to girls who accessed neither. Radio lessons were not associated with higher performance in reading and mathematics, except where girls listened to the radio in groups. Qualitative data suggests that barriers to listening to radio lessons, even when girls have radios in their households, may have contributed to the limited impact of radio lessons. Reading camps were found to have mitigated against the constraints of some girls not living with literate household members. The peer-learning element of the reading camps was also a motivating factor that provided structure to girls' days through periods of prolonged school closures.

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Abbreviations and acronyms

AMURT	Ananda Marga Universal Relief Team
ASAL	Arid and Semi-Arid Land
CHV	Community Health Volunteer
ELA	Empowerment and Livelihoods for Adolescents
FCDO	Foreign, Commonwealth and Development Office
FGD	Focus group discussion
GBV	Gender-Based Violence
GoK	Government of Kenya
MoE	Ministry of Education
ODI	Overseas Development Institute
PGI	Pastoralist Girls Initiative
SeGRA	Senior Grade Reading Assessment
SeGMA	Senior Grade Mathematics Assessment
WWW	Wasichana Wetu Wafaulu

Executive Summary

Background and context

Kenya confirmed its first case of Covid-19 in mid-March 2020. This prompted closure of all learning institutions as part of the containment measures to curb the spread of the virus. To ensure continuity of learning, the Ministry of Education (MoE) provided online, television, and radio lessons. Despite the government's best efforts, a survey conducted by Education Development Trust in May / June 2020 found that many girls in marginalised areas had limited access to remote learning.

In response to the challenge of supporting educational continuity for disadvantaged girls, the Wasichana Wetu Wafaulu (WWW) programme's¹ emergency response included an innovative partnership with Community Health Volunteers (CHVs), who supported the development of reading camps as a form of peer learning in Arid and Semi-Arid Lands (ASAL). Each camp typically consisted of five girls from within a community coming together to engage in learning activities which included listening to radio lessons, group discussions, and engagement with WWW paper-based resources. Reading camps were facilitated by mentors and remedial teachers contracted by the WWW programme. The groups met about four to five times per week throughout the period of school closures (May–December 2020). This study was conducted in March–April 2021.

Purpose

The purpose of this study was to explore the impact of radio lessons, reading camps, and targeted paper-based resources on girls' remote learning in the WWW programme in the ASAL areas of Kenya. The study also examined how reading camps functioned and their interaction with and use of tech-assisted and no-tech approaches, as well as new skills girls developed, namely learning to learn, self-confidence, and self-efficacy.

¹ [Wasichana Wetu Wafaulu](#) or WWW ('let our gGirls succeed') is a six-year FCDO / UKAid funded programme (as part of the Girls' Education Challenge) implemented in Kenya by Education Development Trust through collaboration with the MoE and four other consortium partners (Ananda Marga Universal Relief Team (AMURT), Concern Worldwide, Pastoralist Girls Initiative (PGI) and Kesho Kenya). The project is supporting a cohort of about 72,000 girls complete their current phase of education, achieve improved learning outcomes and transition successfully to a productive and positive phase.

Methods

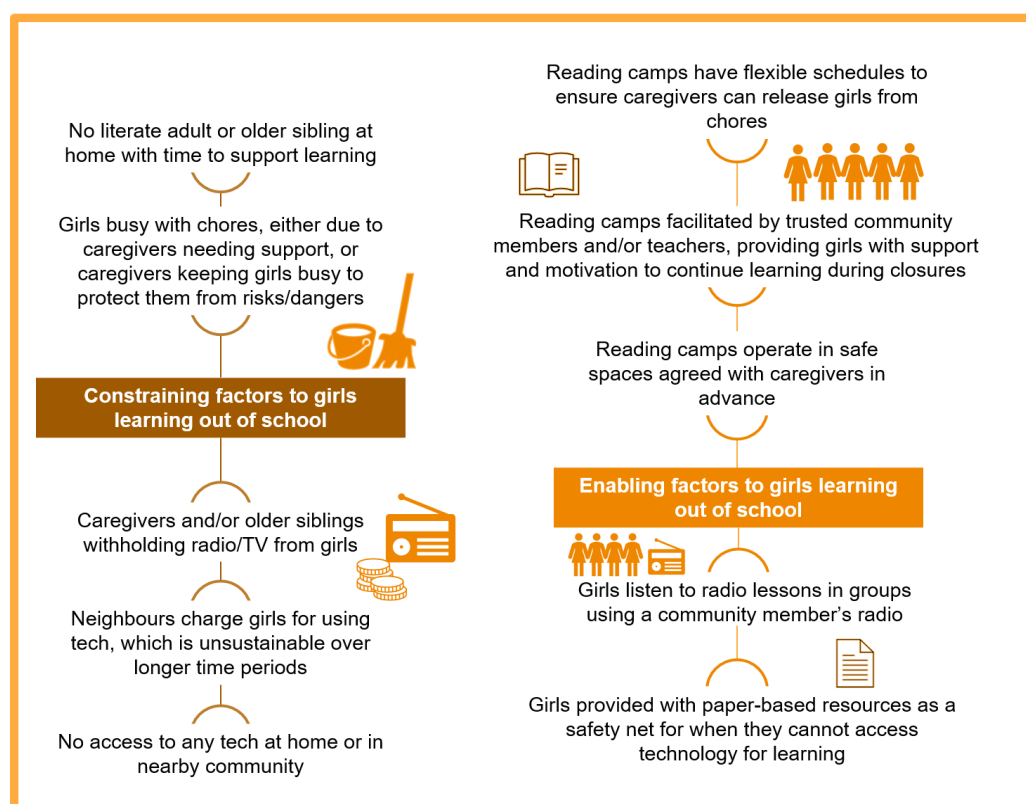
A mixed-methods approach was adopted to determine the impact of different learning modalities on girls' performance in reading and mathematics, their experiences of school closures, and their attitudes towards learning. Senior Grade Reading Assessments (SeGRA) and Senior Grade Mathematics Assessments (SeGMA) were conducted to assess girls' learning levels when they returned to school. A survey was also distributed to collect data about girls' learning experiences during school closures, self-efficacy in learning, and attitudes and behaviours towards education. Focus group discussions and interviews were also conducted in two counties (Kilifi and Tana River) with key stakeholders, including girls who did and did not attend reading camps, CHVs, reading camp mentors, teachers, caregivers, and community members who supported the organisation of reading camps.

Key findings

1. **Remedial teachers played a crucial role in supporting learning continuity by providing feedback** whenever girls encountered challenges in their learning while in the reading camps. The teachers also guided the girls on how to use the WWW paper-based resources as a prompt for wider reading to be able to answer questions they struggled with.
2. **The scores in both SeGRA and SeGMA assessments of girls who attended reading camps were significantly higher.** The difference in median reading scores was small (23.3% compared to 21.7%) but the difference in median numeracy scores was large (17.4% compared to 9.3%)
3. **Use of WWW paper-based learning resources was also strongly associated with higher learning outcomes, especially for girls attending camps.** Median scores of girls accessing reading camps and WWW paper-based learning were 8.3 percentage points higher for SeGRA and 17.6 percentage points higher for SeGMA compared to girls who accessed neither.
4. **The use of radio and television lessons was not significantly associated with higher learning outcomes, except where girls accessed media as a group outside of camps.** Among girls not attending camps, those who accessed learning media as a group scored significantly higher in both SeGRA (5.0% higher median) and SeGMA (3.9% higher median).

5. Caregivers were happy to let girls attend reading camps as they provided a structured environment that ensured girls were safe. Holding the reading camps in a **location that was close to home and agreed with caregivers in advance** was essential to ensuring girls could attend.
6. Working with **camp mentors and CHVs who were well known and trusted members of the local community eased caregivers' concerns** about letting girls attend camps.
7. Having a **structured learning arrangement** comparable to school settings helped girls in time management as they were required to develop group and personal timetables to guide their learning during and outside of reading camps.
8. Girls interviewed reported learning how to use **peer feedback to advance their understanding of education concepts**. Learning in groups provided a particularly supportive learning environment for girls who did not have literate household members available to support them with their studies during school closures.

Figure 1. Summary of enabling and constraining factors for girls' out-of-school learning during Covid-19 closures.



1. Introduction

This section presents the background to the study, the purpose and aims, and the research questions. It also summarises the implications for policy and practice and the contribution to literature.

1.1. Background to study

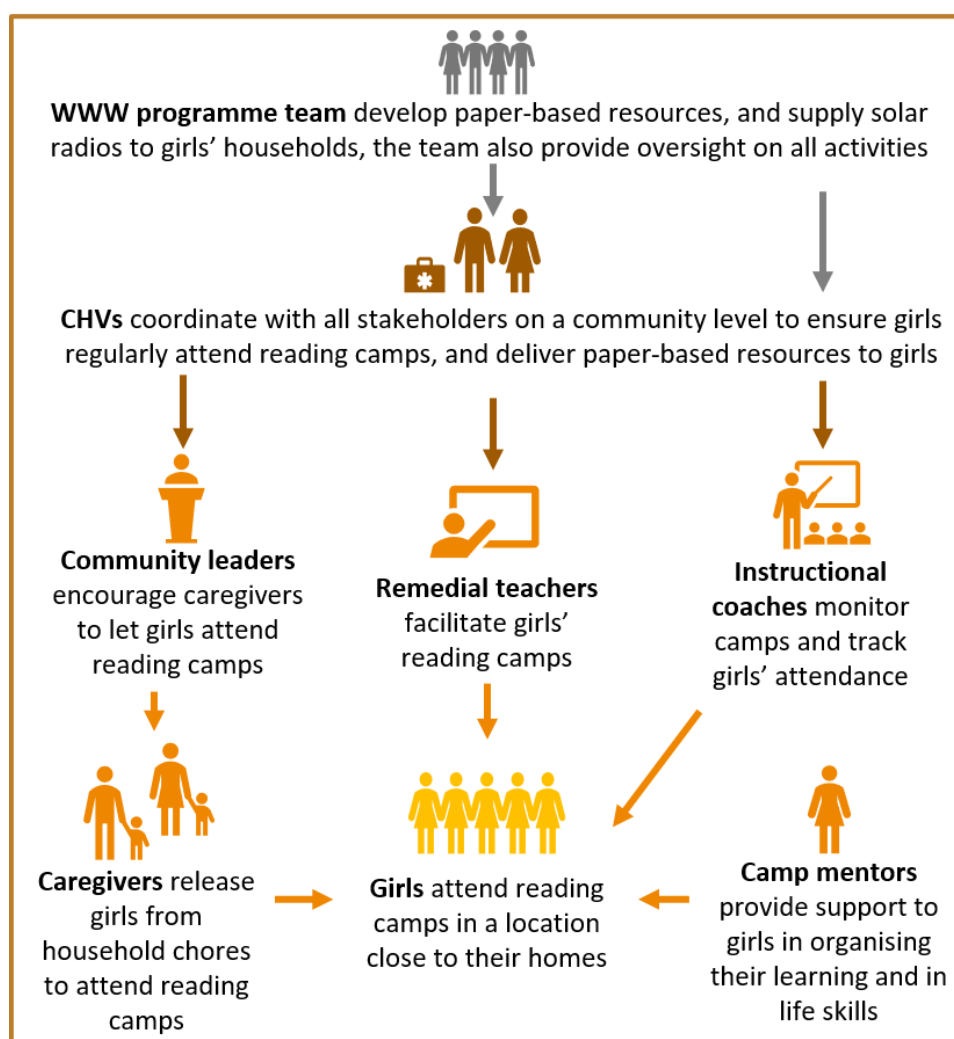
[Wasichana Wetu Wafaulu](#) or WWW (translation: Let our Girls Succeed) is a six-year FCDO / UKAid funded programme (as part of the Girls' Education Challenge) run in Kenya by Education Development Trust. WWW is an extension of the Wasichana Wote Wasome ('let all girls learn') programme that was implemented by Education Development Trust from 2013 to 2017 and aimed at facilitating re-enrolment of 7,400 out-of-school girls, enhancing retention of 6,400 girls who were at risk of dropping out of school, and improving attendance and learning outcomes among 64,000 marginalised girls. By 2017, when the Wasichana Wote Wasome programme was ending, girls supported were between grade four and eight.

Due to poor performance, most vulnerable girls in Kenya drop out of school at two transitional levels, namely from lower primary to upper primary and from primary to secondary. With that in mind, the WWW programme began in May 2017, supporting the same cohort of girls from the Wasichana Wetu Wasome programme with a view of improving performance and facilitating transition to a positive next phase (further education and employment). Through collaboration with the Ministry of Education (MoE) and four other consortium partners — Ananda Marga Universal Relief Team (AMURT), Concern Worldwide, Pastoralist Girls Initiative (PGI) and Kesho Kenya — the programme is implemented in predominantly impoverished contexts: the urban slums of Nairobi and Mombasa counties as well as in six Arid and Semi-Arid Lands (ASAL) counties, namely Turkana, Samburu, Marsabit, Tana River, Kwale and Kilifi. The WWW programme is holistically designed to address complex and multidimensional challenges faced by girls at personal, school, home, and community levels. Currently, WWW programme is supporting about 72,000 girls.

Closure of schools in Kenya in 2020, as a result of the Covid-19 pandemic, prompted the MoE to develop an emergency education plan to support the continuation of learning remotely. This included provision of radio and television programmes at primary and secondary levels. While the MoE interventions provided hope in continuity of learning, concerns on equity emerged as the majority of learners, especially those from disadvantaged

backgrounds, did not have access to digital platforms due to a lack of devices and internet connectivity at home as well as different levels of caregiver knowledge and attitudes towards supporting their children's learning ([Uwezo & Usawa Agenda, 2020](#)). A survey on learning continuity among marginalised girls conducted by Education Development Trust in May / June 2020 found that most girls in marginalised areas did not have access to TV or radio lessons ([Amenya et al., 2020](#)).

In response to the challenge of supporting educational continuity for girls in some of the most remote parts of the country, the WWW emergency plan included partnership with Community Health Volunteers (CHVs) to develop reading camps as a form of peer learning in ASAL areas. The CHVs were first inducted by WWW programme team on Covid-19 safety protocols, their role in ensuring girls meet regularly, and identifying suitable locations for girls to meet locally. Each camp typically consisted of five girls in grade six and seven from within the community coming together to engage in learning activities. The camps were facilitated by remedial teachers contracted by WWW programme. Camp mentors who were mainly secondary and university level students, provided more targeted facilitation focusing on areas such as timetable development, time management, values, adolescent sexuality, and reproductive health. WWW programme instructional coaches provided support in monitoring reading camps, which included tracking attendance of girls. Learning activities consisted of using paper-based resources (revision questions) provided by the WWW programme team, listening to radio lessons (in camps where CHVs or mentors provided radio), and holding group discussions. Selection of venues was based on proximity to the girls' homes or communities and included nearby schools, community learning centres, religious worship buildings, or a household of one of the girls participating in the reading camp. Most camps operated for half a day, with sessions running from about 8am to 12pm. The groups met about four to five times per week throughout the period of school closures (May–December 2020). CHVs tracked girls' attendance at camps and made household visits when girls did not attend.

Figure 2. *Actors involved in organising and facilitating reading camps.*

WWW programme monitoring data indicated that reading camps were playing a key role in continuity of learning for girls in ASAL contexts. As part of Education Development Trust's learning agenda, underpinned by the need to generate new evidence on what works and share insights to support broader debate and policy, there was a desire to better understand:

1. How the camps functioned and why the data showed positive trends.
2. The camps' interaction with and use of tech-assisted and no-tech approaches.
3. What new skills girls developed (learning to learn; self-confidence, and self-efficacy for example).

As a result, the aim of this study was to understand how reading camps and low-tech solutions such as radio and paper-based learning materials supported continuity of learning among marginalised girls during school

closures. The study also intended to offer insights for the WWW programme about the dynamics of reading camps and how they could be leveraged to facilitate learning recovery as schools reopen. The team has an explicit intention to use and adapt successful innovations in our work to support learning recovery.

Figure 3. *About the WWW programme and the Covid-19 school closure response.*

About WWW

- WWW is UKAid funded and part of the Girls' Education Challenge programme
- It is implemented in predominantly disadvantaged contexts: urban slums of Nairobi and Mombasa as well as six ASAL counties, namely Turkana, Samburu, Marsabit, Tana River, Kwale, and Kilifi.
- It supports about 72,000 disadvantaged girls in completing their current phase of education, achieving improved learning outcomes, and transitioning successfully to a productive and positive next phase.

WWW response to school closures

- During the period of school closures, the WWW programme partnered with health teams (CHVs) to complement government efforts in ensuring continuity of learning.
- Covid-19 response interventions included provision of solar-powered radios as well as printed tutorials for disadvantaged girls.
- In ASAL areas, reading camps were formed with support from CHVs.
- Reading camps were facilitated by remedial teachers contracted by WWW programme.
- Camp mentors provided more targeted facilitation on areas such as development of a timetable, time management, values, adolescent sexuality, and reproductive health.
- In the groups, girls would engage in activities such as listening to radio lessons, and reading and / or working on different learning activities.

1.2. Purpose, aims, and research questions

The purpose of this study was to explore the impact of radio lessons, reading camps, and targeted paper-based resources on girls' remote learning in ASAL areas of Kenya. The intention was to explore whether reading camps, alone or combined with other learning modalities, led to better learning outcomes for those that took part. Such understanding is of direct use to the programme and the MoE in efforts to recover learning as schools reopen and as Covid-19 continues to pose challenges for school attendance face-to-face.

The study was guided by the following research questions:

1. What can we learn about the impact of radio lessons, reading camps, and targeted paper-based resources on girls' learning (when combined or used separately)?
2. In what ways do radio lessons, reading camps, and targeted paper-based resources interact to support learning for marginalised girls?
3. How can members of the community (particularly caregivers, CHVs, and reading camp mentors) support girls' learning using radio, reading camps, and targeted resources?
4. How have these different interventions supported girls' approaches to *learning to learn*?
5. How have these different interventions impacted girls' attitudes towards learning?

1.3. What this paper adds to the knowledge base

The existing literature provides compelling evidence that safe spaces and girls' clubs (referred to as reading camps when referring to the WWW intervention discussed in this study) more broadly can play an important role in developing girls' self-confidence as well as providing important psychological support networks for girls. In Ghana, researchers found that girls' clubs that engaged in critical self-reflection and questioning led by trained female mentors were effective in combating discriminatory and oppressive gender norms (Parkes, Jenny, and Jo Heslop cited in [↑Sperling et al., 2016](#)). A study conducted in Swaziland found that girls' clubs helped increase girls' social assets (for example, friendship or participation in extracurricular activities) and their awareness of and resistance to school-related Gender-Based Violence (GBV) ([↑Marcus et al., 2017](#); [↑Sperling et al., 2016](#)).

There is convergence in literature ([↑Marcus et al., 2017](#); [↑Sperling et al., 2016](#)) on the potential of girls' clubs in supporting girls to re-enter formal education systems. However, there is limited evidence of impact on academic learning as measured in literacy or numeracy scores developed through this kind of programme, particularly where a formal life-skills curriculum is not being developed ([↑Page, 2020](#)). In addition, there is a lack of understanding about how girls' clubs function and what drives success in community-supported approaches to education and the ingredients for making the best use of EdTech in these settings.

This study expands upon the existing literature by exploring how reading camps function and the interaction with and use of tech-assisted and no-tech approaches, as well as the development of new skills, namely learning to learn, self-confidence, and self-efficacy among girls. In addition to the immediate use of the findings for the programme and more widely in Kenya, there is also the opportunity to learn broader lessons on how to support learning continuity during crisis and non-crisis contexts where school-based learning is interrupted. Such lessons can offer insights on how to improve distance and blended learning with a view of supporting better educational delivery in emergency contexts where schools must close, through longer term blended modalities.

1.4. What follows

This paper is in six sections.

- Section one introduces the study.
- Section two presents a review of relevant literature and contributions of this study.
- Section three presents methodology which includes research questions, research design, research framework, methods, stakeholders involved, ethical considerations, and limitations of the study.
- Section four presents data and the results of the study.
- Sections five and six present policy recommendations and conclusions, respectively.

2. Literature Review

2.1. Approach used to identify literature

The literature review was guided by the research questions that underpin the study. The searches included published studies about learning continuity during the period of school closures; global, regional, and national trends in access to technology; and learning loss driven by prolonged school closures. The following search terms were used individually and in combination as part of this rapid evidence review: Covid-19 school closures, learning continuity, girls' clubs, radio lessons, remote learning, girls education. The searches also focused on contemporary issues around safe spaces for girls and girls' clubs, including what is known about their potential impact.

The review draws on searches of academic and other online resources conducted as part of Education Development Trust's ongoing work on the impact of Covid-19 in the education sector.

2.2. Discussion of literature

Lessons from past epidemics such as the 2014–2015 West African Ebola crisis show that prolonged school closures put girls at a higher risk of falling behind in their education ([↑Carvalho et al., 2020](#)). As girls undertake most domestic and childcare tasks, which multiply during people's confinement at home, opportunities for learning remotely are constrained ([↑UN, 2020](#)). This can contribute to more pronounced learning loss (*ibid*).

Projections and estimates suggest a long-term negative impact on learning. For instance, World Bank estimates show that the Covid-19 pandemic could result in a loss of 0.6 years of schooling, adjusted for quality ([↑Azevedo et al., 2020](#)). Cumulatively, it is projected that 25% of learners may fall below the baseline level of proficiency needed to participate effectively and productively in society due to prolonged school closures ([↑UN, 2020](#)).

Early evidence from the Covid-19 pandemic suggests that girls and other vulnerable groups would be particularly disadvantaged by the school closures ([↑UN, 2020](#)). Besides facing loss of learning due to prolonged school closures and limited access to remote learning opportunities, existing literature shows that the incidence of violence against girls and women increased during Covid-19, jeopardising their health, safety, and overall wellbeing ([↑Azevedo et al., 2020](#)). Emerging literature also suggests that the economic impact of Covid-19 has further amplified challenges faced by vulnerable learners. For

example, in Kenya, student respondents to a survey indicated that in addition to lost learning time from school closures, the impact of Covid-19 on caregivers' lost employment and subsequent need to relocate to the countryside interrupted their private studying ([↑Kathula, 2020](#)).

Despite the bleak situation created by school closures and social isolation for girls, there is potential for adaptation and resilience. Adolescent girls' groups offer protective and supportive spaces in which participants can build the foundations for health, social, and economic success ([↑Briggs et al., 2020](#)). These groups may also provide mechanisms or assets that girls can draw upon to cope during system shocks and mitigate adverse outcomes (ibid).

Remote learning and access to tech during school closures has not been equitable — even where tech is available at household level, girls may not have access. Despite high uptake of the various online modalities, stark differences across income groups reflect great inequality in access to the technology required for remote learning ([↑UNESCO et al., 2020](#)). The [↑International Telecommunication Union & UNESCO \(2020\)](#) established that nearly 40% of pupils whose schools were closed as of May 2020 did not have access to the internet. Eastern and South African regions had the highest minimum share of pupils without internet access (49%). In low-income countries, 47% of pupils who did not have internet access were girls ([↑UNICEF et al., 2020](#)).

A study conducted in Kenya mirrored international trends in access to digital learning among developing countries. On average, 22 out of 100 learners were accessing digital learning during the period of school closures. Children in higher grades had a higher probability of accessing digital learning. Learners in private schools were twice as likely to access digital learning compared to their counterparts in public schools ([↑Uwezo & Usawa Agenda, 2020](#)). Even when girls did have access to technology at home, they did not always have access to it for learning purposes. In 2020, Education Development Trust surveyed and interviewed girls in urban and ASAL areas of Kenya during school closures and found that even when households had access to radio, girls were not permitted to use it for learning ([↑Amenya et al., 2020](#)). This was largely attributed to gender-biased investment decisions and structural inequalities that undermine girls' access to emergency learning solutions.

Table 1. *Proportion of households with access to a resource compared to the proportion using that resource for learning (Amenya et al, 2020, p.13).*

Resource	% households with access to resource	% households (with access to the resource) reporting girls using those resources for learning
Radio	45%	38%
Television	44%	44%
WWW remedial exercises (paper-based)	90%	90%

In addition to disparities in internet access ([International Telecommunication Union & UNESCO, 2020](#)), wide variations exist in TV ownership rates. A household survey data in 40 out of 88 countries showed that TV ownership rates among urban households were more than double that of rural households, with the largest disparities appearing in sub-Saharan Africa ([Dreesen et al., 2020](#)). Overall, a majority of low-income countries relied more heavily on broadcast media, including radio (93%) and television (92%) to provide education content remotely during school closures. Use of online platforms was lower (64%) and largely attributed to low internet penetration (Dreesen et al. cited in [UNESCO et al., 2020](#)).

While the effectiveness of remote learning may not be known for some time, early indications point to a variation by modality and income groups. Findings from a survey of ministries of education on national responses to Covid-19 (ibid) show that online learning platforms were rated as either very effective (36%) or fairly effective (58%), particularly among high- and upper-income countries. Despite wide use of television across low- and middle-income countries, varying degrees of effectiveness were reported. Among upper-middle-income countries, 37% reported television as very effective, compared to only 16% among lower-middle-income countries and 27% among low-income countries. Across low- and lower-middle-income countries, radio was widely used and rated as very effective by about 16% and fairly effective by 65% of countries.

There is promising evidence that girls' clubs have a positive impact on protection, empowerment, and life-skills development. However, literature is less consistent about their impact on learning outcomes.

Safe spaces and girls' clubs are an increasingly popular approach to promoting adolescent girls' wellbeing. There is a considerable proportion of literature showing that girls' clubs can offer protective and empowering spaces in which participants can develop economic assets; develop cognitive, social, and emotional skills; build connections; and foster rights and equitable gender norms, all of which can help protect adolescent girls and young women during external shocks ([↑Briggs et al., 2020](#)). Prior studies show that girls' clubs and safe spaces can also help girls cope with the physical and emotional changes they experience during adolescence ([↑Marcus et al., 2017](#); [↑Temin & Heck, 2020](#)).

Evidence drawn from past emergencies shows that reading clubs hold promise in mitigating learning loss in times of prolonged school closures. For instance, in highly disrupted villages in Sierra Leone, the Empowerment and Livelihoods for Adolescents (ELA) programme offset loss of literacy and numeracy skills, decreased pregnancy risk, and mitigated school discontinuation after the crisis, relative to villages without the programme (Bandiera cited in [↑Briggs et al., 2020](#)). A review by [↑Marcus et al. \(2017\)](#) found mixed results on the impact of clubs on educational attainment. In nine of the programmes reviewed, positive changes were noted in learning outcomes while six of the programmes showed both gains and losses. In Mozambique, increases in self-efficacy and a sense of belonging at school were reported among girls that participated in a club that focused on peer-to-peer learning and help with homework ([↑Coffey International, 2017](#)). Despite these promising results, literature is scanty on how girls' clubs are run or implemented ([↑Temin & Heck, 2020](#)) as well as their impact on learning as measured by literacy or numeracy scores.

2.3. Gaps / weaknesses in literature which this research will help fill

We have presented the analysis of existing literature in three thematic areas. In summary, the evidence is emerging and indicative but not yet conclusive. Our study seeks greater certainty about the impact of girls' clubs — in this case Education Development Trust's WWW Reading Clubs — on learning and the development of skills such as self-directed learning, self-confidence, and self-efficacy.

Our analysis of the literature suggests that protracted school closures and social isolation impact negatively on learning and increase vulnerability. We also see that remote learning and access to tech during school closures has not been equitable and that even where tech is available at household level, girls may not have access to this for learning.

More positively, the available evidence does suggest that there is promise of impact from girls' clubs. There is evidence that girls' clubs offer some level of protection and support; that there is a positive impact on empowerment and life skills and a hint that, in some settings, girls' clubs could improve learning outcomes.

Based on this analysis, the study investigates the learning outcomes of girls' who did or did not attend reading camps. The study explores what access girls had to technology to support their out-of-school learning and to support their participation in reading camps; and whether girls who participated in reading camps developed new skills (learning to learn; self-confidence, and self-efficacy for example).

The study generates new evidence and expands what we know about the impact of girls' clubs on learning outcomes.

3. Methodology

3.1. Research questions

This research was guided by the overarching question:

1. What can we learn about the impact of radio lessons, peer learning, and targeted paper-based resources on girls' learning (when combined or used separately)?

The following sub-questions were used to guide further exploration of the impact of girls' clubs, and how different learning modalities interacted with them.

2. In what ways do radio lessons, peer learning, and targeted paper-based resources interact to support learning for marginalised girls?
3. How can members of the community (particularly caregivers, CHVs, and reading camp mentors) support girls' learning using radio, peer learning, and targeted resources?
4. How have these different interventions supported girls' approaches to *learning to learn*?
5. How have these different interventions impacted girls' attitudes towards learning?

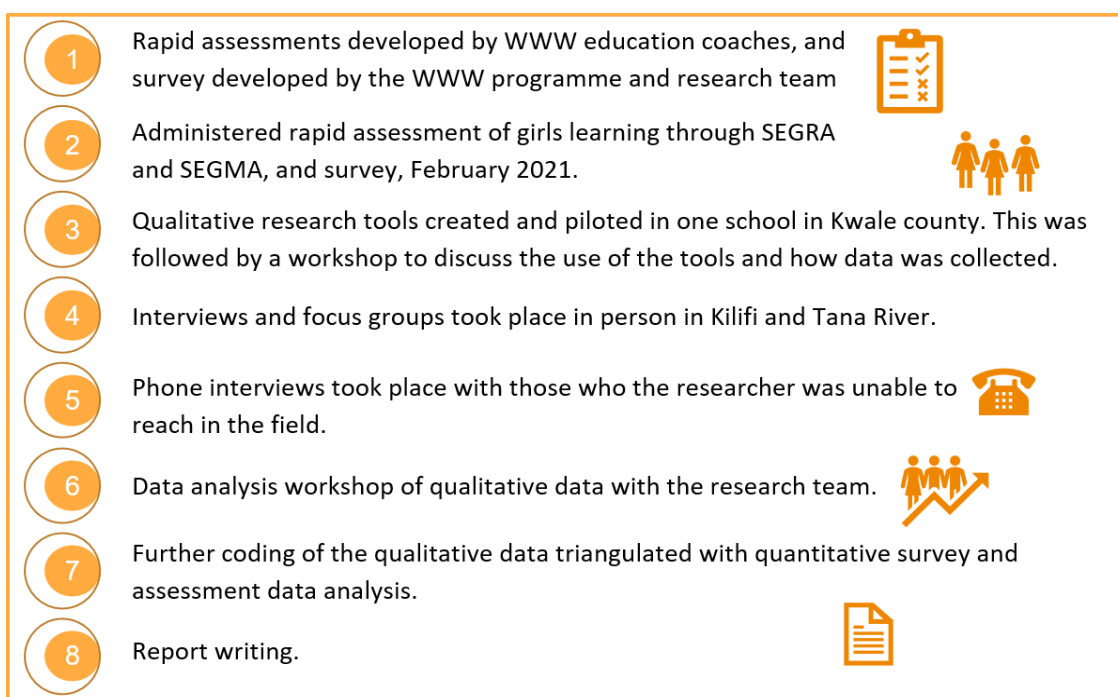
3.2. Research design and methodology

Education Development Trust's Research and WWW programme teams worked together to design research activities that aligned with programme data collection activities. The team mapped programme activity against the data requirements of the study to identify areas where there would be insufficient data to respond to all of the research questions. Based on this mapping, the research team adopted a mixed-methods approach, comprised of the following elements:

- A rapid assessment of girls' performance in mathematics and reading upon return to school after closures — providing quantitative data that could be used to analyse girls' performance (responding to research questions 1 and 2)

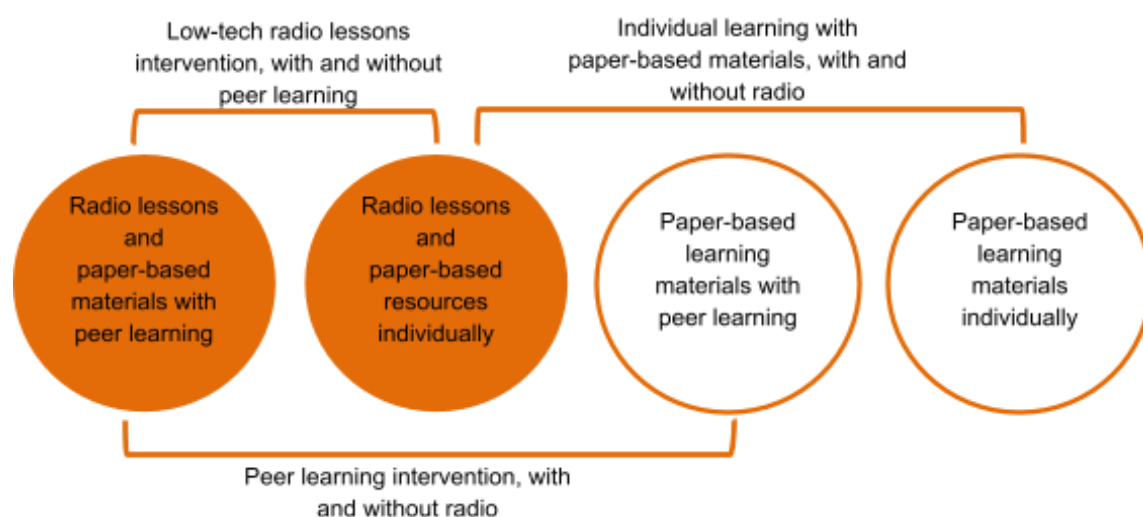
- A survey of girls' learning activities during school closures, in addition to their attitudes and beliefs about education — providing quantitative data (responding to research questions 1–5).
- Semi-structured interview and focus group discussion with girls who did and did not attend reading clubs, in addition to members of the wider community who played a role in girls' education during school closures — providing rich qualitative data (responding to research questions 1–5); interviews and focus groups were conducted with the following groups:
 - Girls who attended reading camps (focus groups — in person)
 - Girls who did not attend reading camps (focus groups — in person)
 - CHVs (interviews, in person or by telephone)
 - Teachers (interviews, in person or by telephone)
 - Caregivers of girls who participated in focus groups (interviews, in person or by telephone)
 - Reading club mentors (interviews, in person or by telephone)
 - Community members who helped to promote girls' attendance at the reading camps (interviews, in person or by telephone)

Figure 4. *Research process.*



The team discussed the various learning modalities available to girls during school closures and developed an analytical framework to support the exploration of how these different learning modalities may have interacted. The team considered how radio, paper-based resources, and peer learning through reading camps could have interacted on different levels to impact girls' learning levels and experiences during school closures. This is illustrated in Figure 5 below.

Figure 5. Analytical framework outlining different combinations of girls' learning activities during school closures.



3.2.1. Sampling

As reading camps predominantly took place in ASAL counties in Kenya, this study focused on girls located in these areas. The rapid assessment of girls in reading and mathematics, and the survey, were conducted in Kilifi, Turkana, Samburu, and Tana River. Qualitative data collection then took place in Kilifi and Tana River. Commonalities across both settings include high levels of responsibility for household chores expected of girls and strong local culture influencing girls' education.

Sampling for quantitative data collection

The rapid assessment in reading and mathematics involved learners in Grades 6 and 7 (ages 13 to 15). Girls participating each took a Senior Grade Reading Assessment (SeGRA) and Senior Grade Mathematics Assessment (SeGMA) test during February 2021, in addition to a survey with closed-ended questions. In each school selected, five girls from each grade were randomly sampled, with ten girls in total taking the tests and completing the surveys in each school. The table below provides a breakdown of the sample by county.

Table 2. *Sample of learners assessed using SeGRA and SeGMA, and participating in the survey.*

	Kilifi	Turkana	Samburu	Tana River	Total
Total population of grade 6 & 7	1221	1021	145	844	5,599
Sample of grade 6 & 7	170	180	90	240	1,230
% of the total population	13.9%	17.6%	62.1%	28.4%	22.0%

Sampling for qualitative data collection

Qualitative data collection tools were piloted in Kwale prior to the primary data collection phase in Kilifi and Tana River. Following completion of the pilot, an internal workshop was organised for finalisation of the tools. The pilot study showed that the FGD sessions took longer to complete than scheduled as there was some repetition in girls' responses to questions to different questions. This informed finalisation of the tools by merging questions and dropping those that were repetitive. The researcher found the focus groups to take a particularly long time for girls who attended reading camps, identifying areas of repetition that were refined before being used with further participants.

All interviews and focus groups were conducted by one consultant to ensure consistency in approach. The field researcher held debrief meetings with the central research team in Kenya and the UK throughout the data collection phase. During the debrief, the team was updated on progress in data collection which included adaptations to tackle challenges in reaching community level respondents. In each county, four schools were sampled. The table below outlines the number of stakeholders participating in interviews and focus groups in each county.

Table 3. *Sample of learners participating in interviews and focus groups in Kilifi and Tana River.*

County	FGDs with girls who attended reading camps	FGDs with girls who did not attend reading camps	Reading camp mentors	CHVs	Teachers	Caregivers	Village elders
Kilifi	20	20	1	3	4	4	2
Tana River	19	20	1	4	4	4	3

About Kilifi and Tana River counties

Kilifi and Tana River were selected as the two fieldwork locations for qualitative data collection due to the cultural differences between the two counties providing insight into how girls in different localities were impacted by school closures.

Both counties are coastal, though each has different cultural practices that presented different challenges in organising reading camps. In Kilifi, communities are more settled, potentially making it easier for girls to consistently attend camps. This allowed for an exploration of how camps could operate in settings with more consistency. In Tana River, there are more pastoralist communities that do not typically stay in the same location for long periods. This allowed for exploration of how reading camps could be organised in settings where girls' consistency in attendance could pose more challenges.

3.2.2. Note-taking and data analysis

All interviews and focus groups were audio recorded, with notes taken during each. Members of the research team listened to interviews to verify notes and to identify quotes for inclusion in reporting. Notes were shared with the research team, who reviewed prior to attending a remote data analysis workshop. Jamboards and other online tools were used during the workshop to explore findings. Notes were then coded and organised into frequency tables.

Due to the nature of focus groups, with girls participating in different ways and different themes emerging across groups, it was not possible to create

frequency counts for all thematic areas. Counts were only provided for themes that were raised by girls in all focus groups (see Annex A). Quantitative data was disaggregated by location, age, disability, and modalities of out-of-school studying. The distributions of SeGRA and SeGMA scores were found to be highly skewed towards zero.² The analysis therefore compared medians and used a non-parametric test (Mann-Whitney U test) to test for significance of observed differences between groups.

3.3. Research tools

This research study used a variety of quantitative and qualitative research tools. Qualitative research tools were designed specifically for this research study. Quantitative research tools were designed by the WWW programme team for their use in adapting interventions for vulnerable girls when returning to school. The survey tool created by the WWW programme team was then adapted and added to the study to respond to the study research questions.

Quantitative research tools included the below:

3.3.1. Rapid assessment of girls' learning when they returned to school using SeGRA and SeGMA

SeGRA assessments covered the following areas:

- Comprehension skills that include retrieval of information, inferences, summary evaluation, and vocabulary
- Complex inferences on: language use and style, literary appreciation, authors' intention / purpose, plot and subject matter, and stylistic devices
- Guided narrative composition.

SeGMA assessments covered the following areas:

- Multiplication and division, fraction and proportion, geometry and measurement
- Algebra (simplifying algebraic expressions in one unknown, forming and simplifying algebraic expressions involving one unknown, working out the value of algebraic expressions

² The frequency of zero scores was very low: 0% for SeGRA and 6% for SeGMA, but there was a predominance of very low non zero scores.

through substitution, solving equations in one unknown and forming and solving equations in one unknown)

- Data skills, time speed, distance and average speed, commercial arithmetic, applying the knowledge of fractions to real life problems.

3.3.2. Survey of girls focusing on the following areas

- Activities engaged in during school closures.
- Perceptions of learning generally and during school closures.

3.3.3. In addition to the assessment and survey tool, the following interview and focus group tools were used (see Annex B for FGD questions)

- Focus group guide for girls who participated in reading clubs.
- Focus group guide for girls who did not participate in reading clubs.
- Interview guide for teachers of the above girls.
- Interview guide for CHVs.
- Interview guide for reading club mentors.
- Interview guide for caregivers.
- Interview guide for other members of the community who played a role in promoting the reading clubs (such as village leaders).

3.4. Stakeholders involved

The research team engaged with the MoE at the project inception phase and when findings began to emerge. The WWW programme team and research team worked closely together to ensure the research would be beneficial not only for policy purposes, but also for informing adaptations to the programme team's approach to supporting participating girls throughout the pandemic and beyond. The team also consulted with education coaches based in Kwale to help shape the research questions.

A full list of stakeholders who participated in assessments, interviews, and focus groups has been included below, alongside data collection approaches used.

Table 4. *Study participants by data collection method used.*

Stakeholder	Data collection method used
Girls (who did and did not attend reading camps)	SeGRA, SeGMA, survey, focus group discussions
Caregivers	
Teachers	
CHVs	Interviews
Reading camps mentors	
Community members	

3.5. Ethical considerations

The research study followed Education Development Trust's Research Ethics Policy and Procedures. WWW safeguarding policy and procedures were also adhered to in designing and implementing the study. A Kenyan research permit was obtained for the study.

The girls and families participating in this research were considered vulnerable due to a range of factors, including poverty, rurality, and safeguarding risks, among other factors. Participants were given information about the study prior to participating in interviews or focus groups. This was read out loud by the research consultant, with participants asked if they understood the purpose of the study, how their data would be used, and their right to withdraw. Consent was collected in writing or verbally dependent upon the preference of the participant. Participants were provided with contact details for the programme and research teams in the event they had questions or wished to withdraw from the study.

3.6. Challenges and limitations

The following challenges were faced during data collection:

1. Small time window to collect the qualitative data. As exams were taking place in Kenya and there was an increasing likelihood of further lockdowns, collecting the data quickly while following safety regulations was a challenge. Original plans were for the data collection phase to take place in Kilifi first, with a gap for data analysis before collecting data in Tana River, to enable the researchers to reflect and identify further areas for investigation. Due to the time constraints, these two visits needed to take place consecutively with no time for analysis in-between. However, the field researcher did have regular phone conversations with the central research team to discuss emerging findings and ways in which the tools could be adapted to gain more insightful information.
2. Inability to measure learning losses and gains comprehensively. Girls assessed at midline were different from those assessed when schools reopened. Therefore, it was not possible to measure learning losses or gains for individual girls, or compare the losses and gains of different groups. The analysis therefore included a comparison of other potential predictors of learning levels of girls attending and those not attending camps to check for differences between the two populations.
3. Due to the transitory nature of some of the communities included in the research study it was sometimes difficult to reach all participants. This has resulted in fewer interviews with mentors than initially intended. Original plans were to conduct interviews with two to three mentors in each location, but was only possible to conduct one interview with mentors in each location due to difficulties locating them.
4. Some of the mentors of the reading camps were university students or teachers who were based in other locations. In some cases, CHVs were working in different localities on the days the researcher was present in Kilifi and Tana River. This meant that it was not possible to reach them during the in-person data collection. The research consultant collected phone numbers of those she was unable to speak to during in-person data collection, and phone interviews were conducted after they had returned to Nairobi.

4. Results

The results have been organised thematically to shed light on the most salient issues about the impact of radio lessons, peer learning, and targeted paper-based resources on vulnerable girls' learning and how the different modalities interact to support learning. In addition, this section presents key insights about the contribution of the different modalities towards development of new skills (learning to learn, self-confidence, and self-efficacy among girls). This section answers the overarching research question:

What can we learn about the impact of radio lessons, peer learning, and targeted paper-based resources on girls' learning (when combined and used separately)?

4.1. Profile of girls

The survey data collected allows a comparison of the profile of girls who did and did not attend reading camps in ASAL areas in surveyed regions. The profile of girls attending and not attending was the same among most metrics with the exception of the percentage living with both caregivers and reporting having a disability. Girls who attended the reading camps were more likely to be living with both caregivers at the time of school closures than those who did not attend (68% and 58% respectively). There was also a small difference in the proportion of girls with a disability attending and not attending the camps, with 3% of those who attended the camps reporting having a disability, compared to 7% of those who did not attend a camp.

Table 5. *Profile of girls in ASAL regions who did and did not attend reading camps.*

	Attended reading camps	Did not attend reading camps
Mean age	14.2	14.1
% live in rural areas	75%	72%
% live within 30 minute walk from school	74%	75%
% living with both caregivers	65%	58%
% with a disability	3%	7%
% reporting reading with caregivers / siblings	34%	17%
N included in survey (ASAL)	192	350

Figure 6. *Girls engaging in a reading camp in Tana River.*

4.2. Girls' access to learning resources / interventions during school closures

Figure 7. *Key findings: girls' access to learning resources/interventions during school closures.*

Key findings:

- Girls reported an increase in domestic chores during school closures, which was a barrier to studying at home.
- Girls in ASAL areas had limited access to technology for out-of-school learning, with only 20% of girls surveyed reporting listening to radio lessons individually, and 27% listening to radio lessons in groups.
- Not having a literate adult at home was cited as a barrier to out-of-school learning for girls participating in focus groups.
- Limited engagement with radio lessons was cited as being due to the following:
 - Caregivers / carers or older siblings were given priority access to radios at home.
 - Caregivers were fearful girls would break the radio.
 - Neighbours allowed girls to use their radios, TVs or phones, but charged for their use, limiting girls' access.

Data drawn on in this section: survey data and qualitative interview data.

4.2.1. Barriers to home learning during the period of school closures

Nearly all girls who participated in focus groups reported an increase in domestic chores as a major barrier to private study at home during the period of school closures. In Kilifi county, 39 girls who participated in focus groups reported an increase in domestic chores compared to 38 girls in Tana River county. All girls interviewed that did not participate in reading camps (40) reported an increase in domestic chores compared to 37 of their counterparts that participated in the reading camps. Domestic chores mainly involved laundry, preparing meals for the family, household cleaning, fetching water, collecting firewood, and helping their caregivers on the farms. In Tana River county, some of the girls reported involvement in taking care of domestic

animals that sometimes involved moving out of the community in search of water and pasture.

“I had to keep my daughter [busy] with a lot of [house]work so that she does not get time to loiter around. I understand even if I give time to study, she will sneak out and go to her friends especially if I am not around.”

– Caregiver of a girl who attended reading camps, Kilifi

Besides an increase in domestic chores, some of the girls interviewed also reported **frequent distraction from caregivers, siblings, and friends** who demanded their time. In Kilifi county, seven of the girls interviewed complained of distraction from their friends compared to 16 of their counterparts in Tana River county. These distractions put additional strain on the girls as they struggled to learn away from their familiar school teachers.

“I had a lot of interruptions from my younger brother and sisters. My mother would also interrupt asking me to do something for her or run some errands like going to pick something from a neighbour or going to the shop.”

– One of the girls who attended reading camp, Tana River

Most of the girls interviewed reported **challenges in getting support from their family members in their private studying**. In Kilifi county 13 girls acknowledged receiving support from their family members compared to only six girls in Tana River county. When asked if they got support from another person outside their family, seven girls in Kilifi county acknowledged receiving support from outside the family compared to three girls in Tana River county. Help from non-family members was mainly from teachers within their communities, and older pupils in secondary schools, colleges, and universities.

“I did not go to school and so I don’t know how to read.”

– Caregiver, Tana River

Overall, not having a literate adult to consult was cited as a major challenge to private studying. Only a minority of girls (22%) reported that they read with a household member. But those that did had significantly higher scores on SeGRA (8.3 percentage points higher median score, $p=0.000$) and on SeGMA (6.8 percentage points higher median score, $p=0.0016$) than girls that did not. This may partly explain why girls who participated in reading camps had higher scores on average in reading and mathematics than girls who did not, as they may have been more likely to receive support from a literate adult than girls who did not participate in peer learning (see Section 4.5).

“...[studying] was challenging as I had no one at home to help in tackling difficult areas”

– One of the girls who did not attend reading camps, Tana River

4.2.2. Access to technology during school closures

A total of 35% of girls surveyed attended reading camps, which was the highest frequency of all learning activities reported. Girls were more likely to listen to radio in groups than alone (27% compared to 20%). Only 16% of girls reported having contact with teachers via Text / WhatsApp, and 8% of girls responding did not access any learning materials at all.

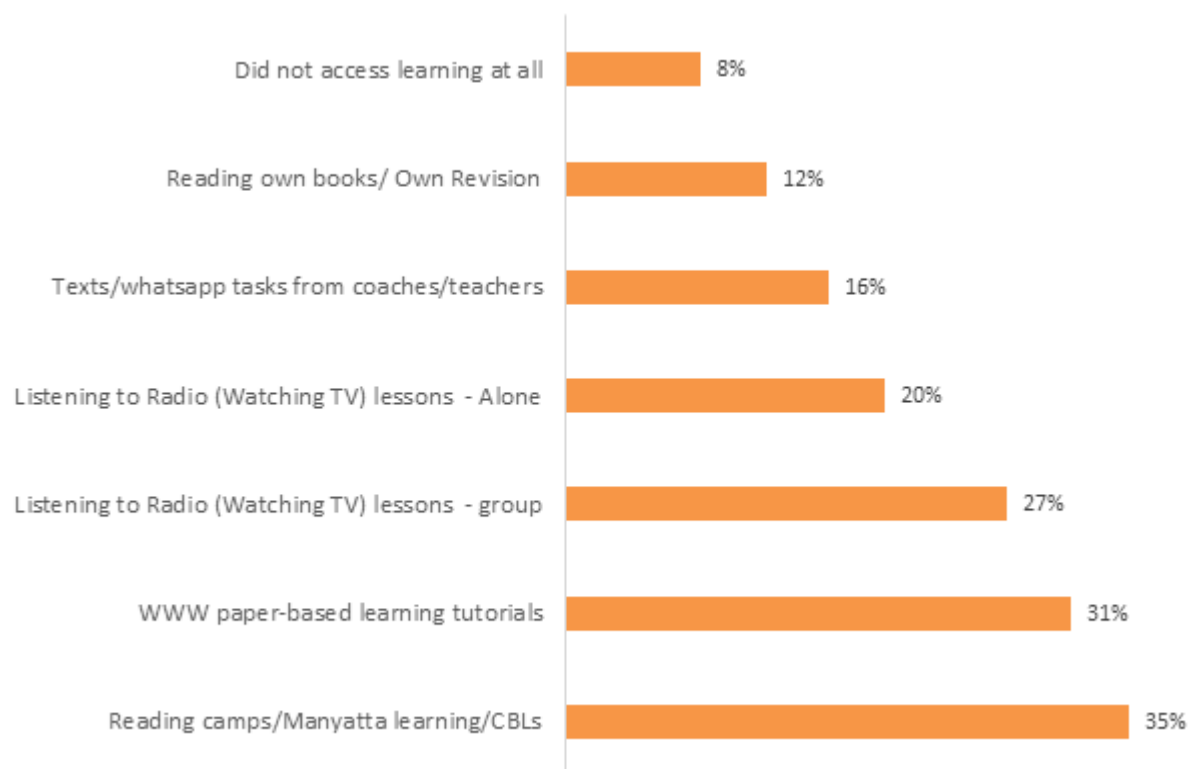
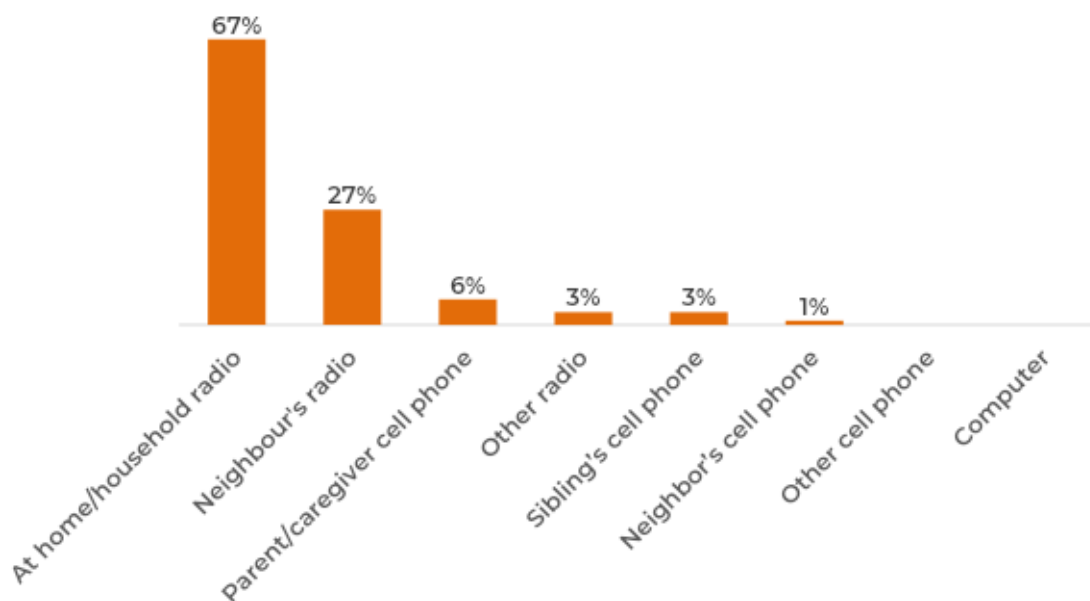
Figure 8. *Uptake of learning at home by modality.*

Figure 9 below outlines the ways in which girls typically accessed radio lessons during school closures. The majority of girls who reported listening to radio during school closures listened to the household radio (67%, N=186), with 27% of girls reporting using a neighbour's radio.

Figure 9. Mode of accessing radio lessons.

Findings from focus groups offer some insight into the inconsistent use of radio lessons during closures among girls in ASAL areas. As part of the Covid-19 emergency response, the WWW programme supplied households with solar-powered radios that did not require mains electricity to operate. This was aimed at ensuring girls had access to radio lessons during the period of school closures. However, findings from focus groups show that even when households have a radio, there is no guarantee the girls can access the lessons. Girls reported not being in control of who uses the radio or TV in their household. In Tana River county, only one girl stated that she had followed some of the TV lessons. Regarding radio lessons, ten girls in Tana River county said that they listened to some of the lessons broadcast on radio compared to seven of their counterparts in Kilifi. **More often, older siblings and caregivers are in control of the radios and determine the channel listened to at any given time.**

“The radio was with my father all the time, which made it difficult for me to follow the lessons as he would go with it to the farm. My father was afraid I may mishandle it.”

– One of the girls that attended reading camps, Kilifi

“I followed the radio lesson at home for only one day and could not continue because my father said the radio had a problem.”

– One of the girls that attended reading camps, Tana River

Having a television at home did not guarantee following the education channel as older siblings and caregivers often dictated the channel of choice. Lack of batteries for radios was cited as another barrier to following radio lessons.

“I watched TV lessons for only one day. My mother did not allow me watch ‘Elimu TV’ channel that was airing the lessons because she together with other family members were watching other programmes.”

– One of the girls that attended reading camps, Tana River

In some cases, **accessing technology had costs associated with it which effectively cut off disadvantaged girls**. In Tana River, one of the caregivers sought assistance from her neighbour to access online content through their smartphone. The daily internet costs of KES 100 (approximately USD 0.92) were too high and the caregiver opted out.

“My radio has been having problems and I would be happy if assisted to repair it or if given a new one. You see I had to request my neighbour to allow my daughter to use her phone and I had to pay Kshs 100 for only 2 days. This was expensive for me and she could not continue listening.”

– Caregiver of a girl who attended reading camps, Kilifi

The experiences of girls in accessing radio and TV during closures, even with technology available to them in the household, may explain why radio lessons had limited impact on girls' reading and mathematics scores (see Section 4.6). Girls in focus groups reported inconsistent use of radio, and it is possible that even where girls reported listening to the radio in the survey, this was not consistent enough to have any impact on learning loss.

4.2.3. Learning using the WWW printed tutorials / revision questions

WWW revision questions and printed tutorials were developed as alternative safety nets for most girls who could not access online and digital content. A total of 31% of girls surveyed in ASAL areas reported using WWW paper-based revision materials. All the girls interviewed stated that they had received WWW revision questions and had been engaging with them at home. Some of the girls stated that the revision questions had helped them do wider reading as they searched for answers. In addition, the revision questions helped in group learning with peers as they searched for answers together.

“Some of the questions were difficult to understand on my own. I would try to answer the questions and if I found any of them difficult, I would look for the topic where it is coming from, read and answer the questions.”

– One of the girls that attended reading camps, Kilifi.

Girls typically reported needing support to use the paper-based resources, with many girls struggling to respond to all revision questions on their own. Some family members were dedicated in helping the girls whenever they encountered challenges with WWW revision questions. This help included guidance on referencing other materials in their search for answers, using mathematical formulae to solve the exercises, and narrowing down to a specific content area as per the focus of the questions.

“I was helped by my father and three of my brothers in solving Math problems and answering English questions. They also helped me to search for answers in encyclopaedia.”

– One of the girls that attended reading camps, Kilifi

Teachers from the local community also helped the girls with learning using WWW revision questions. Sometimes the assistance was received during informal encounters with the girls as the teachers went about their daily errands.

“I was helped by a teacher who does not live very far from our home when he had visited my father.”

– One of the girls that attended reading camps, Tana River



Figure 10.
teacher marking girls' work outdoors with Covid-19 precautions in Kwale county.

4.2.4. Attendance at reading camps

Reading camps were organised within the community and operated a flexible schedule to enhance attendance. In both Tana River and Kilifi, half of the girls interviewed stated that they attended reading camps at least four days per week. In total, ten of the girls interviewed stated that reading camp sessions ran three days per week. The venues of the reading camps varied and included nearest schools, community learning centres, and in some cases religious worship buildings. The locations for the camps were collectively agreed with the girls' caregivers in advance.

Information about reading camps was passed to the girls through various stakeholders including CHVs, caregivers, other siblings / peers and community elders. Overall, a majority of the girls interviewed who attended reading camps (19) stated that they learnt about reading camps from CHVs. On the other hand, 18 of the girls interviewed learnt about reading camps from caregivers. Education Development Trust staff also played a role in informing the girls and their families about the reading camps.

“I got to know about the reading camps through the CHVs and teachers who came to our home to tell my caregivers about them.”

– One of the girls that attended reading camps, Kilifi

Girls' motivation for attending reading camps varied. In Kilifi, 20 of the girls stated that they **attended reading camps to learn with their peers** compared to 14 of their counterparts in Tana River county. **Having a teacher in the camps** was also cited as another motivation behind attendance. Other factors that motivated the girls to attend reading camps include the desire to hold discussions with peers (24) as well as to avoid too much work at home (11).

“I attended the camps to study, do revision and also get away from too much work at home.”

– One of the girls that attended reading camps, Tana River

Various factors contributed to community buy-in and thus ensured that caregivers did not have a problem releasing their girls to attend the reading camps. Having facilitators (camp teachers and mentors) from within the community helped increase the confidence of the caregivers. Overall, nearly all the girls interviewed (20 in Kilifi; 15 in Tana River) stated that their **caregivers did not have problems with them attending the reading camps as the facilitators were people well known to them**. Safety of girls was a concern for caregivers, and reading camps were perceived as a safe option to keep girls occupied during school closures.

“The facilitators in the reading camps were well known to us and to our caregivers as they were people from within the community. There was no problem attending.”

– One of the girls that attended reading camps, Tana River

Having a flexible schedule for the reading camps created room for acceptable compromises and ensured caregivers released girls from household duties to attend the reading camps. As most camps operated a flexible schedule, the girls could go back home and support caregivers with household chores. These trade-offs worked well as the caregivers were happy to have the girls support them at home in the afternoons.

“The reading camps were not for all the days of the week and they were half day. We were able to help caregivers with home chores and allow them time to go to the hospital, market or to the farm.”

– One of the girls that attended reading camps, Tana River

Most of the girls interviewed (20 in Kilifi and 14 in Tana River) confirmed being relieved of household chores during morning hours to attend reading camps. In Kilifi, some of the girls interviewed stated that even when they returned

home in the afternoon, they were given light duties to enable them to complete their homework.

“I was relieved from most of the chores and only helped with light duties after getting home from reading camps such as cleaning dishes and fetching water so as to have time to do homework.”

– One of the girls that attended reading camps, Kilifi

Community support was critical in helping all eligible children attend reading camps. In Kilifi, community members allowed any girl who was in grade 6 or 7 to attend any reading camp that was convenient to them. Even where the reading camp venue was in the community school, children from other schools were allowed to attend.

Participation of girls in the reading camps seemed to have influenced their caregivers' attitude towards education. Girls interviewed unanimously agreed that their caregivers liked the idea of reading camps and released them to attend all sessions.

“Our caregivers know that after we do well in our education, we will be able to help them in future.”

– One of the girls that attended reading camps, Kilifi

WWW revision questions / printed tutorials were also used for learning in the reading camps. In Kilifi, girls interviewed stated that camp teachers gave some of the WWW questions as homework, which was marked the following day. Sometimes, the teachers could ask the learners to do the revision questions collaboratively during group sessions in the reading camps. Some of the girls interviewed stated that camp teachers taught topics in reference to the questions.

“The teacher used to give us some of the WWW revision questions as homework which would be marked the following day.”

– One of the girls that attended reading camps, Tana River

4.3. The role of the community in supporting girls' learning using radio, peer learning, and targeted resources

Figure 11. Key findings: the role of the community in supporting girls' learning.

Key findings:

- Girls were able to attend reading camps together in school buildings, irrespective of what schools they attended.
- Parents released girls from household chores to enable them attend reading camps and find time for doing homework.
- CHVs leveraged on their networks within the community to pass information about reading camps and sensitise parents on the need to allow their daughters to attend reading camps.
- CHVs supported background checks on camp mentors and teachers to ensure those selected have a good moral standing and are trusted by the community.

Data drawn on in this section: qualitative data

The success of community approaches to learning largely depends on stakeholder support from the local community and commitment to oversee existing systems. The girls that were interviewed attributed community support as one of the ingredients that made attendance at reading camps work. Specifically, allocating community space as venues for reading camps meant girls did not have to travel long distances that would otherwise have impeded attendance. In addition, allowing children to attend camps / groups nearest to them irrespective of their schools ensured there were no barriers to access for learners who did not live nearby the school they usually attended. The finding highlights the importance of the community in

combining efforts to ensure venues are provided and learners allowed to attend organised groups convenient to them irrespective of their schools.

“The community allowed any girl who was in Standard [grade] 6 and 7 to attend any reading camp that was convenient for the girls. Even where the reading camp venue was in the community school, children from other schools were allowed to attend.”

– One of the girls that attended reading camps, Kilifi

Insights from this study suggest that listening to radio lessons as a group is more effective than listening to radio lessons individually at home (see Section 4.6). Pulling together resources to acquire low-cost solar-powered radios may contribute to effectiveness of reading camps / communally organised learning groups.

Participation of girls in reading camps largely depends on permission and goodwill from caregivers. As such, caregivers should release girls from domestic chores to allow them to participate in reading camps. In addition, girls should be released from domestic chores early enough in the evening to enable them to complete their homework.

Reading camp mentors spend more time with girls in the camps and their roles extend beyond just learning. They should create sessions for addressing the well-being of girls and be able to understand their challenges, fears, and aspirations so as to provide more targeted support. The mentors should put in place strong safeguarding measures to ensure the camps are truly safe spaces for the girls.

Community Health Volunteers were key liaison to the community and played a key role in mobilisation of caregivers and girls. As they are well known and trusted by community members, they should leverage existing structures to sensitise the community about reading camps, mobilise caregivers to allow girls to attend the camps, and continuously update the caregivers about learning in the camps in order to maintain a high level of trust. In addition, the CHVs should support background checks on camp mentors and teachers to ensure those selected have a good moral standing in the community and are well known to the caregivers.

Findings from this study suggest that having a flexible reading camp schedule is key to ensuring support from caregivers and the wider community. As such, camp mentors, teachers, and CHVs should be open to changes in the camp timetable to suit the needs of girls. In addition, girls should be allowed to draw up the timetable for camp activities to minimise conflicts with parents.



Figure 12. *CHV on a household visit in Kilifi.*

Figure 13. Summary of the ways community members supported girls to attend reading camps.

Caregivers ■ Allow their children to attend the camps. ■ Give girls minimal chores to allow them time to do their homework and private studies at night. ■ Provide learning materials to the girls for use in the camps. ■ Encourage / motivate children on the need for peer learning. ■ Show interest in children's private studying and do routine follow ups. ■ Provide low-cost, solar-powered radios to the children to access radio lessons. ■ Supervise their children during the radio / TV lessons to ensure that they are following the lessons accordingly.	Community ■ Provide required learning materials and venue. ■ Allow the children to meet for discussions in any of the community's facilities, such as schools. ■ Collaborate with remedial teachers and give them necessary support. ■ Pool resources to buy radios for each class in all schools to ensure learners are able to access the lessons.
Camp mentors ■ Follow up on girls' progress even at home. ■ Teach girls life skills. ■ Should be flexible on reading camps' schedules and allow girls to draw up the timetable to minimise conflicts with parents.	CHVs ■ Work with village elders to encourage and support caregivers to allow all the girls to attend the camps. ■ Ensure safety of girls in the camps. ■ Sensitise caregivers on online and distance education programmes to ensure a wider reach.

4.4. The impact of girls' attitudes towards learning

Figure 14. *Key findings on the impact of reading camps on girls' attitudes towards learning.*

Key findings:

- Engagement in group discussions helped in building self-confidence among girls.
- Studying with their peers in the reading camps contributed towards enabling girls to become more positive in their beliefs in their ability to succeed in their studies.
- By providing a structured learning environment, caregivers interviewed observed that reading camps instilled discipline in their children and helped them to take their studies more seriously.

Data drawn on in this section: qualitative data.

Data indicates that reading camps have had an impact on girls' attitudes to learning. Analysis of the impact of reading camps on girls' attitudes towards learning mainly focused on behavioural domains such as self-confidence and self-efficacy. In both counties, the majority of the girls stated that they felt more confident after studying with others in the reading camps. Some of the girls interviewed narrated how group leadership responsibilities helped them realise their potential and self-belief in succeeding in their education.

"I was happy to be a group leader in my discussion group. One day, we tried to solve a problem in Mathematics, but we were not able to get the answer. Then the girls in my group asked me to go to the teacher for help. The teacher explained to me how to solve it and when I went back to my group, I was able to explain to the girls. I realised I can be a good teacher."

– One of the girls that attended reading camps, Kilifi

The caregivers interviewed reported that they had noted changes in their daughters' attitudes towards education after having participated in the reading camps. In Kilifi, one of the caregivers stated that his daughter had become more committed in her studies at home. The caregiver also stated that she had noted improvements in her daughter's performance. Similarly, some of the teachers interviewed concurred they had seen improvement in some of the girls that participated in reading camps.

“Girls that participated in reading camps are [more] able to read freely and display their reading skills than those who did not attend.”

– Teacher, Tana River

Overall, 34 of the girls interviewed stated that they felt they could succeed in their studies after engaging with other girls in the reading camps. This was attributed to support received from peers as well as the reading camp teacher. In addition, the girls felt that they learnt more content in the reading camps than they could have covered had they studied alone at home.

Prolonged school closures created uncertainty and led some learners to lose hope in continuing with their studies. In Kilifi, one of the girls interviewed stated that participation in reading camps restored confidence and hope in progressing with their education. To some girls, they felt motivated to work harder and achieve good grades that would secure placement in their secondary school of choice.

“After I was allowed to attend the reading camp, I realised I had a chance to continue with my studies. I was afraid of not continuing and would want to join [name of school].”

– One of the girls that attended reading camps, Kilifi

Evidence from Tana River county suggests that prolonged school closures presented risks of forced early marriages. However, participation in reading camps helped girls maintain focus in their education and confidence in progressing to the next levels.

Collaborations in the reading camps appear to have had positive impacts on girls' attitudes towards learning. For some girls, election as a group leader had important knock-on effects as their peers showed them more respect, which in turn led to the girls having improved self-efficacy and an overall positive attitude in their learning.

4.5. How different modalities supported girls' approaches to *learning to learn*

Figure 15. *Key findings: girls' approaches to learning to learn.*

Key findings:

- Reading camps provided a predictable routine that helped girls organise their studies systematically.
- Peer support in the camps ensured girls could get help whenever they encountered challenges, and this motivated them to continue with their studies.
- Having a variation in activities made learning in the reading camps more enjoyable than studying alone at home.

Data drawn on in this section: qualitative data and survey data

Reading camps provided a structured environment comparable to school settings, which helped in continuity of learning. The majority of the girls interviewed (20 in Kilifi and 14 in Tana River) felt that they were adequately supported by the camp teachers and their peers. For some girls, being in the camps ensured they had time for individual studies, which was not possible at home. The reading camps were considered more conducive to learning as there were minimal distractions; in addition, having teachers in the camps ensured girls could get assistance whenever they encountered any challenges.

“The environment was conducive for studies; no noise like was the case at home.”

– One of the girls that attended reading camps, Tana River

In exploring development of learning-to-learn skills, the study considered how reading camps provided opportunities that helped girls in the following areas:

time management, setting goals / targets, prioritising tasks, seeking help to enhance understanding of concepts, finding motivation to persist in learning even in difficult areas, receiving / giving feedback during learning, and focusing on relevant content. In total, 16 of the girls interviewed stated that in participating in reading camps they embraced the need to set daily targets and ensure they achieved them before leaving for home.

“We had to finish the exercises / tasks first and finish with homework [set during the reading camp] before going home.”

– One of the girls that attended reading camps, Tana River

Having a structured learning arrangement helped girls with time management and prioritisation of tasks. Girls interviewed narrated how participation in reading camps helped them to manage their time more effectively by developing personal and group timetables which guided their daily activities. In both counties, 17 girls acknowledged that participation in reading camps had helped them to manage their time better. Caregivers interviewed corroborated views from girls on how participation in reading camps had helped their daughters with time management.

“My daughter made her own timetable that she was using in her studies.”

– Caregiver of one of the girls that attended reading camps, Tana River

Reading camps provided a predictable routine which enabled girls to prioritise their learning activities and to organise their learning. Thirteen of the girls interviewed stated that reading camps had helped them learn how to prioritise tasks as part of their daily learning routine (for example, deciding which pieces of homework to prioritise over others). Camp mentors observed that girls prioritised completing their homework once the reading camp had ended, before going home, as the first activity of the day involved teachers reviewing the previous day's work.

“The girls also learned how to prioritise activities in their studies. For example, they had to do the homework given to them after [the reading camp] before studying other things because they were to hand in the homework to the teacher the following day.”

– Camp mentor, Kilifi

As reading camp sessions included group discussions, girls interviewed observed that they learnt how to use peer feedback to improve their understanding. Nearly all the girls interviewed (31) stated that giving and receiving feedback was a core part of learning in the reading camps. In seeing that their peer feedback was relevant, they became more engaged and invested even more effort in their studies. In fact, peer feedback was cited as the all-important difference between studying alone at home and studying in the reading camps.

“Reading camps helped us learn how to engage in group discussions, seek help from each other and also from the teacher in getting answers to difficult questions. During normal schooling, there was not as much group discussion. We exchanged ideas and helped each other in the groups.”

– One of the girls that attended reading camps, Kilifi

Caregivers interviewed echoed girls’ observations, noting that reading camps provided a supportive learning environment. This ensured each participant got assistance whenever they encountered challenges.

“They were in the company of their peers, friends. It was easier to read and understand because they had friends and teachers in case [they] got stuck, they would [help] each other. They studied in groups at the camp most of the time. Reading alone can be discouraging especially if [you don’t understand].”

– Caregiver of one of the girls attending reading camps, Tana River

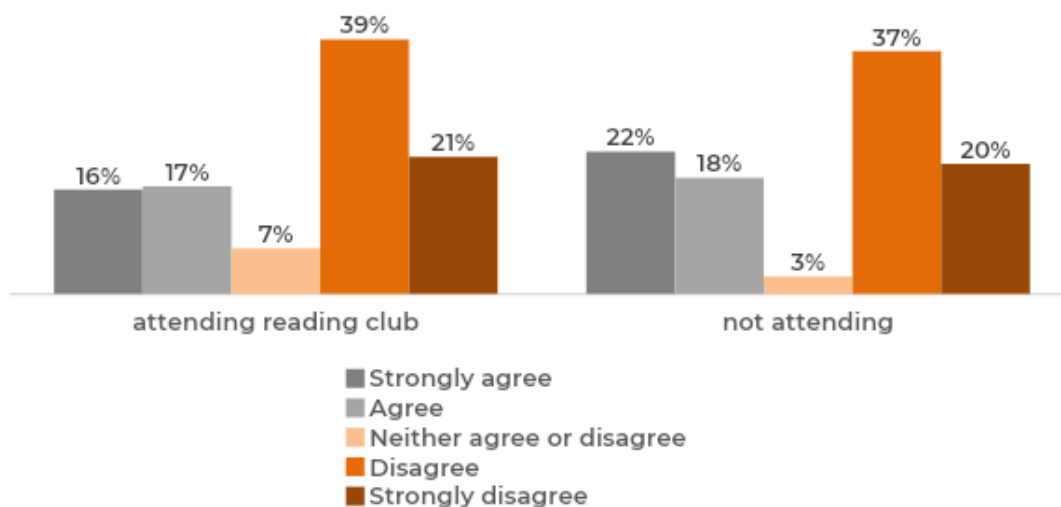
In studying using WWW revision questions, girls interviewed stated that they had embraced the practice of reaching out to others for help whenever they encountered challenges. Help was frequently sought from older siblings, caregivers, and teachers in the neighbourhood, among others.

“Some of the questions were difficult to understand on our own. I sought help from my siblings, relatives, and teachers in the community.”

– One of the girls that attended reading camps, Kilifi

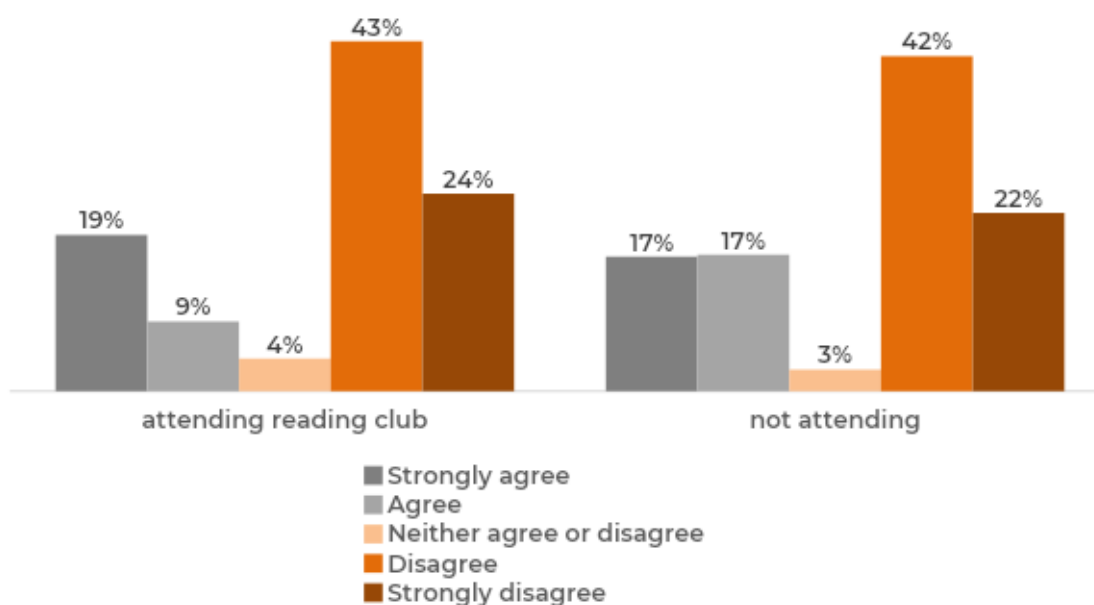
Survey findings suggest that participation in reading camps had an impact on girls’ transitioning to school and adapting to the learning culture after prolonged school closures. Girls surveyed who attended reading camps were slightly less likely to agree with the statement “I get nervous when I have to read in front of an adult” compared to girls who did not attend camps (40% compared to 33%).

Figure 16. Agreement with the statement: “I get nervous when I have to read in front of an adult.”



Similarly, survey findings suggest that girls in ASAL regions who attended reading camps were slightly less likely to agree with the statement “I get nervous when I have to read in front of a group of people my age” compared to girls who did not attend camps (67% agreed compared to 64%, Figure 17), though both scores were lower than girls’ nervousness when reading in front of adults.

Figure 17. Agreement with the statement: “I get nervous when I have to read in front of a group of people my age”



Girls who attended reading camps were slightly more likely to ‘agree a little’ with the statement “*You are able to remember what you were taught before school closure*”, though only a small proportion of pupils overall stated they could not remember what they were taught before closures. Those that attended reading camps were less likely to report they agreed ‘a lot’ with the statement. However, when combining ‘agree a little’ and ‘agree a lot’ the scores were identical (82% of girls ‘agreed a little’ or ‘agreed a lot’ that they could remember what they were taught before school closures).

Table 6. *Agreement with the statement: “you are able to remember what you were taught before school closure”.*

	Attended reading camps	Did not attend reading camps
Agree a lot	26%	33%
Agree a little	58%	49%
Disagree a little	7%	7%
Disagree a lot	11%	11%

Figure 18. *Summary of the ways reading camps supported girls’ ‘learning to learn’.*

- Reading camps offered a more structured learning environment than learning at home during school closures. This prompted girls to develop **personal and group timetables** to guide their learning (**time management**). They also learnt how to balance time between household chores and private studies to ensure their daily homework was completed on time.
- Learning activities in reading camps helped girls to **plan and prioritise** their learning. The first activity during the reading camps involved teachers checking girls’ homework. Girls prioritised completing homework before leaving camps at the end of the day so

they would be prepared for the next session and avoid the distractions likely to be encountered at home.

- Camp activities included group discussion sessions. During group discussions, girls could **ask questions, give feedback to their peers, and use feedback received to expand their understanding of concepts.**
- WWW remedial papers helped to direct girls on what to study (focusing on relevant content) to be able to answer the questions. **During group discussions, girls could agree on what concepts to focus on.** This helped them to be more systematic in their learning by focusing on one content area at a time.
- Reading camps offered a predictable routine comparable to school settings. This helped girls in **setting their daily targets.** For example, some girls aimed at **completing written exercises** before leaving for home. Once CHVs delivered WWW revision questions in the households, girls were given deadlines to complete the written exercises for marking / feedback. This helped girls in setting targets on **completion of the WWW remedials** as well as covering specific concepts that required them to do further reading.
- As girls revised using WWW remedials, they sometimes encountered challenging questions. This prompted them to conduct wider reading to answer the questions. When facing challenging questions, they approached their older siblings, caregivers, or any literate community member in their neighbourhood. Girls persisted on a task even when challenged.
- Peer learning offered social support and encouraged girls to sustain focus on their learning during the emergency period.

4.6. The impact of radio lessons, peer learning, and paper-based resources on girls' learning, and the ways in which learning interventions interacted

Figure 19. Key findings: the impact of different learning modalities on girls' learning.

Key findings:

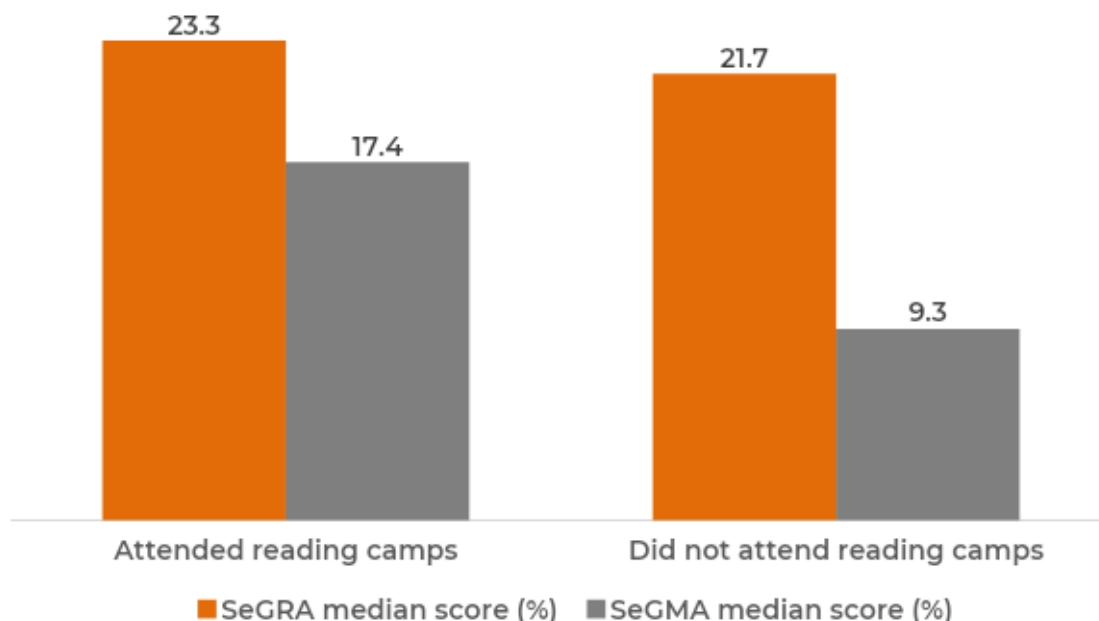
- The scores of girls who attended reading camps were significantly higher in both SeGRA and SeGMA assessments. The difference in median reading scores was small (23.3% compared to 21.7%) but the difference in median numeracy scores was large (17.4% compared to 9.3%).
- Use of WWW paper-based learning resources was also strongly associated with higher learning outcomes, especially for girls attending camps. Median scores of girls accessing reading camps *and* WWW paper-based learning were 8.3 percentage points higher for SeGRA and 17.6 percentage points higher for SeGMA compared to girls who accessed neither.
- The use of radio and television lessons was not significantly associated with higher learning outcomes, except where girls accessed media as a group outside of camps. Among girls not attending camps, those who accessed learning media as a group scored significantly higher in both SeGRA (5.0% higher median) and SeGMA (3.9% higher median).

Data drawn on in this section: SeGRA and SeGMA assessment data

4.6.1. Girls' performance in SeGRA and SeGMA by learning modality

The scores of girls who attended reading camps were significantly higher in both SeGRA and SeGMA assessments. Girls scored lower overall in SeGMA (median score 11.4%) compared to SeGRA (median score 21.7%). Girls attending camps scored significantly higher than those that did not. For SeGRA, the difference in medians was relatively small (1.7 percentage point higher median, $p=0.0037$). For SeGMA the difference in medians was much larger (8.2 percentage points higher, $p=0.000$).

Figure 20. Girls' median score (%) in SeGRA and SeGMA on return to school (ASAL) by girls who did and did not attend reading camps.



Use of the WWW paper-based learning resources also appeared to be strongly associated with higher learning outcomes, especially for girls attending camps. Girls using paper-based materials scored significantly higher than those who did not. The medians were 3.3 percentage points higher for SeGRA ($p=0.0095$) and 5.0 percentage points higher for SeGMA ($p=0.0001$). The group of girls with the highest median score for both SeGRA (median score = 30.0%) and SeGMA (median score = 26.4%) were those that used the WWW printed materials and accessed the reading camps. This group scored considerably higher than girls who accessed just one or neither of these (8.3 percentage points higher for SeGRA and 17.6 percentage points higher for SeGMA compared to girls who accessed neither).

Figure 21. Girls' median score (%) in SeGRA on return to school (ASAL) by reading camp attendance and using paper-based resources.

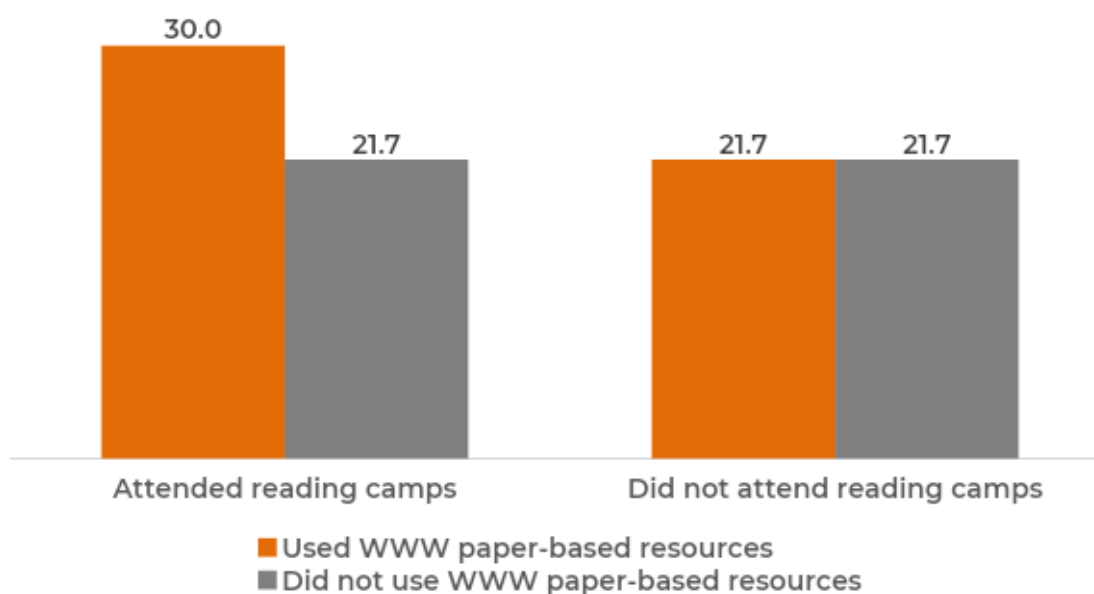
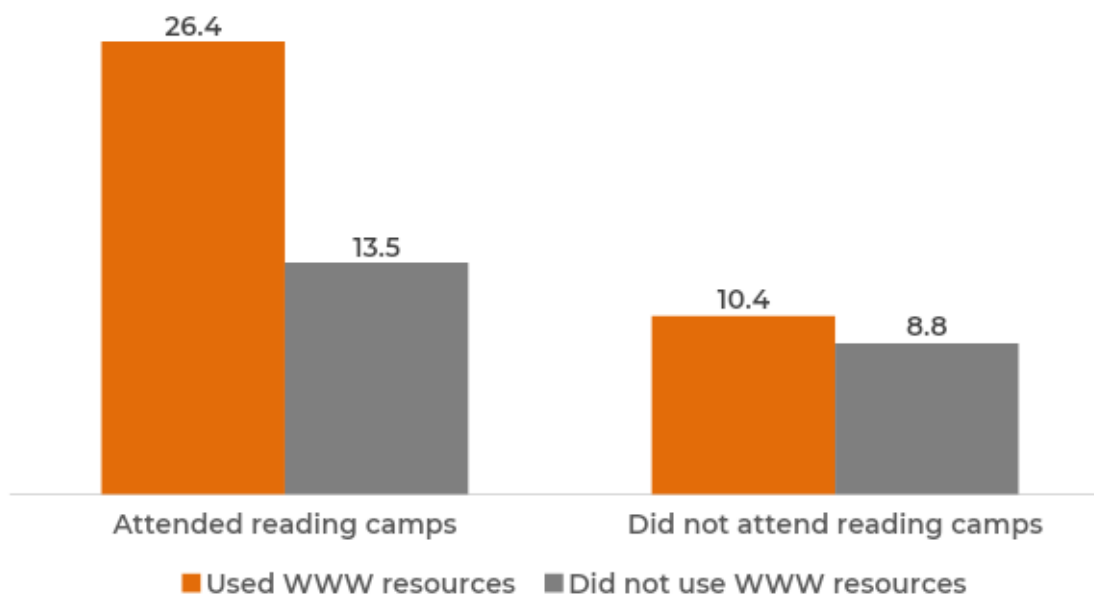


Figure 22. Girls' median score (%) in SeGMA on return to school (ASAL) by reading camp attendance and using paper-based resources.



The use of radio and television lessons was not significantly associated with higher learning outcomes, except where girls accessed media as a group outside of reading camps. There was no significant difference in SeGRA or SeGMA scores of girls reporting using technology to access learning

(radio, television, phones) as individuals, and those who did not. Girls who reported accessing media (television and radio) as a group scored significantly higher in SeGRA (4.2 percentage points higher median, $p=0.0029$), but not in SeGMA. This association was strongest for girls not attending reading camps. These girls scored significantly higher in both SeGRA (5.0 percentage points higher median, $p=0.009$) and SeGMA (3.9 percentage points higher median, $p=0.001$). The differences between those accessing media in groups were not significant for girls attending camps. Accessing radio lessons (through any means) was not associated with higher learning outcomes for girls in or out of camps.

Figure 23. *Girls' median score (%) in SeGRA on return to school (ASAL) by reading camp attendance and accessing radio / television lessons in groups.*

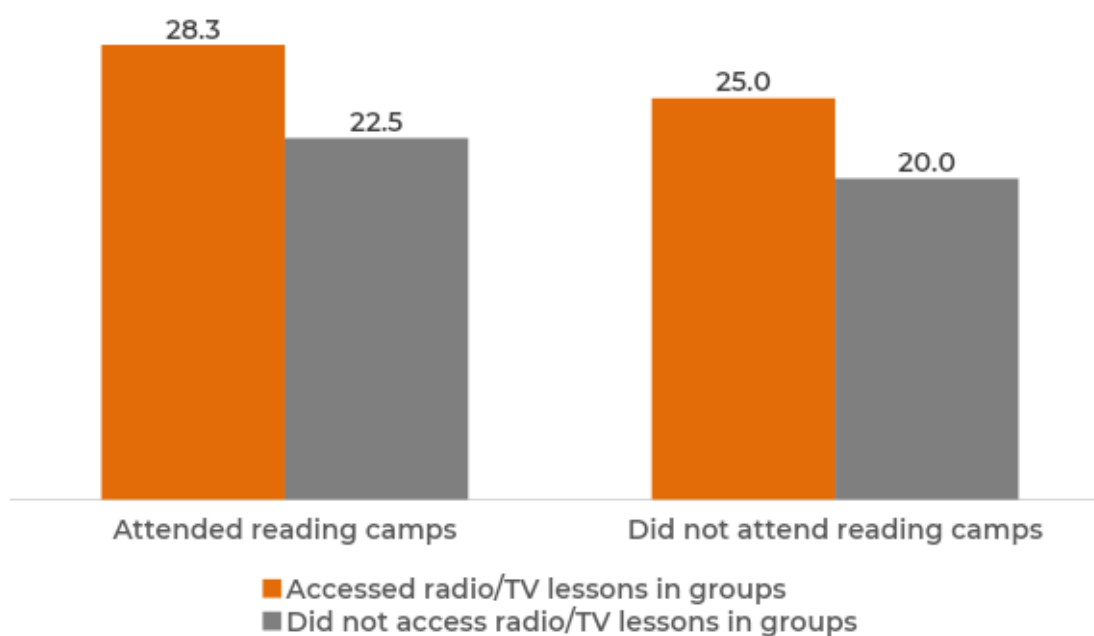


Figure 24. Girls' median score (%) in SeGMA on return to school (ASAL) by reading camp attendance and accessing radio / television lessons in groups.

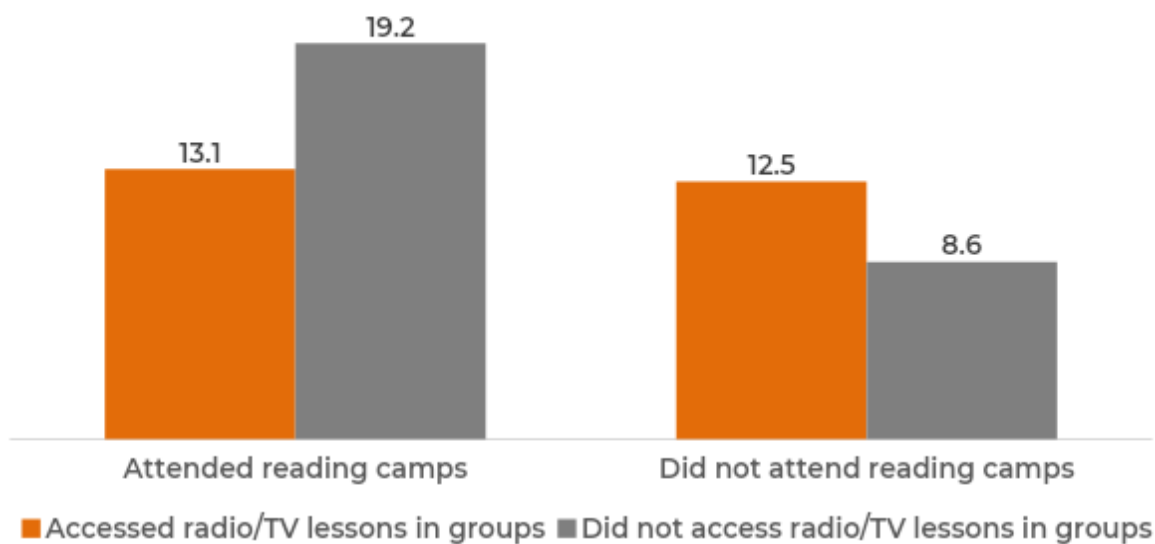


Figure 25. Girls' median score (%) in SeGRA on return to school (ASAL) by reading camp attendance and accessing radio lessons.

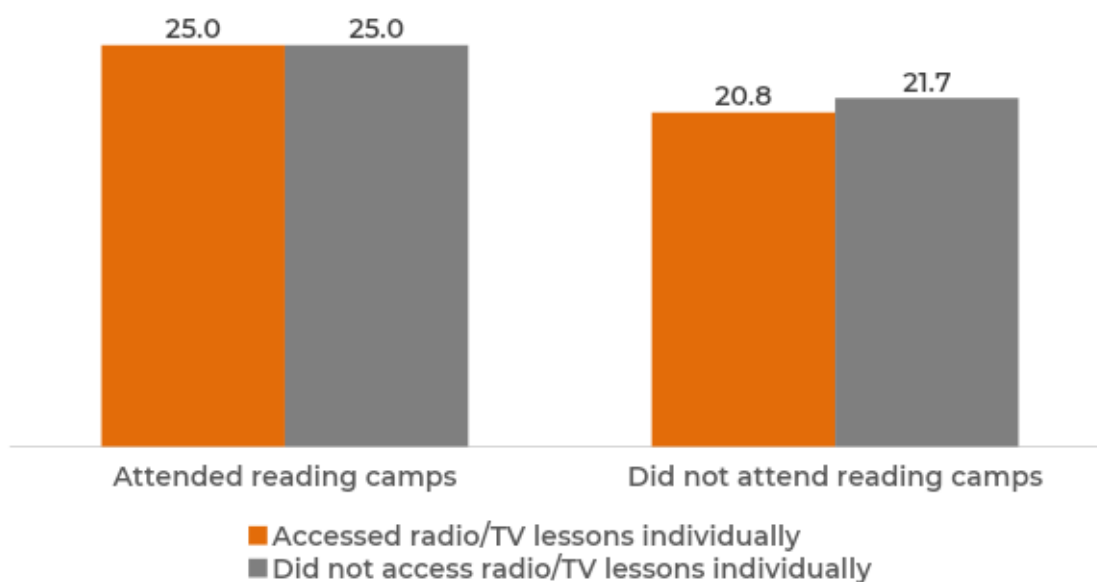
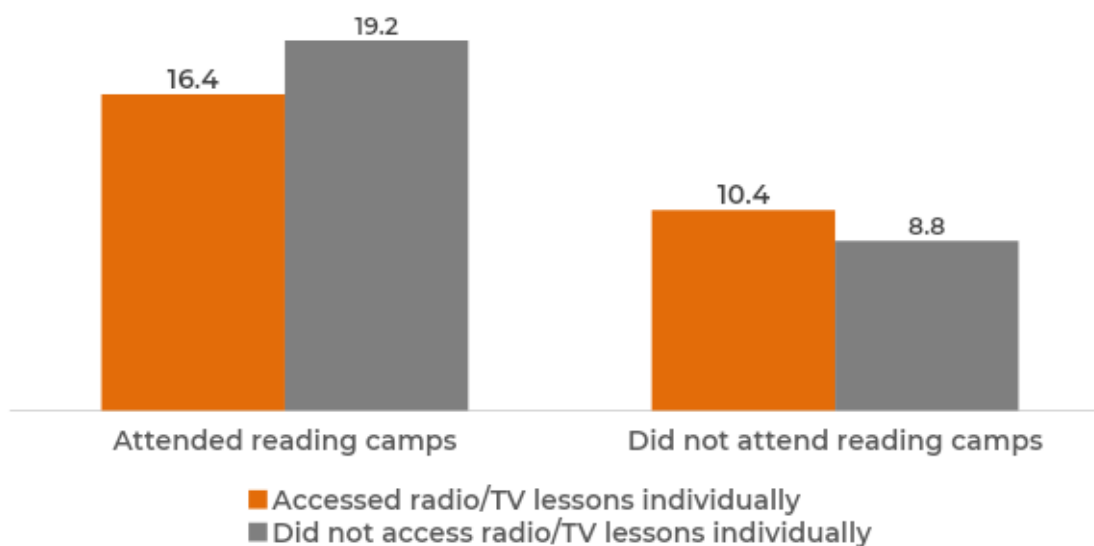


Figure 26. *Girls' median score (%) in SeGMA on return to school (ASAL) by reading camp attendance and accessing radio lessons.*



5. Policy implications

The policy implications from this study centre around mitigating the barriers to girls' access to learning resources when out of school. The below table outlines the findings from this review alongside the policy implications.

Table 6: *key findings alongside associated policy implications.*

Key finding	Policy implications
Girls had more access to technology in their communities than at home.	Provision of radios at a household level may not have the intended impact. In interventions where technology, such as radios, is provided to girls for continuity of learning, consider identifying community level actors who can act as mediators in the use of technology, ensuring all girls in a community have access. In Kenya, this may be CHVs, teachers, or others within communities who can play a role in supporting the continuity of learning during periods of school closures.
Working with community members who are trusted by caregivers to facilitate the reading camps ensured caregiver buy-in for girls to regularly attend reading camps, and was an essential component of the success of reading camps.	The role of CHVs has been particularly important in the successful operation of reading camps. Consideration of how CHVs could play an active role in supporting continuity of learning for girls during school closures (including summer holidays) will potentially keep more girls engaged in learning.
Providing paper-based resources provided a safety net for some girls who had limited access to technology. This was particularly important even when girls had radios or TVs in their households, as they did not always have access to them for learning purposes.	In periods of school closures, ensure girls have access to books and other paper-based resources.
Girls who attended reading camps reported wanting those camps to continue to operate during school holidays.	Have reading camps operate during future periods of school closures, including school holidays. Having the camps operated by a trusted member of the local community ensures girls' caregivers permit them to attend.

6. Conclusion

This study has explored the experiences of girls from ASAL areas in Kenya during school closures, comparing the impact of different learning interventions. Findings indicate that the most powerful combination of learning activities may be girls attending reading camps alongside using WWW paper-based learning materials. Listening to radio lessons or watching lessons on television appeared to have had minimal impact on girls' reading and mathematics assessment scores, except where this activity was performed in groups. The findings suggest that approaches that combine learning content (technology or paper-based) with opportunities for girls to interact with their peers in the learning process are more effective than approaches that rely on the provision of distance learning content alone.

Qualitative data provides some possible explanations behind the variation in assessment scores among girls using different learning modalities during school closures:

1. **Even when girls had radios at home, they did not always have access to the radio for learning purposes.** Girls often reported caregivers and older siblings having priority over radio usage. Girls also reported being charged for using neighbours' radios, which was financially unsustainable for the period of school closures. It is likely that this had an impact on the consistency in girls accessing radio lessons, which in turn limited the impact of radio.
2. **When girls used paper-based resources alone, without attending reading camps, some girls reported not having a literate adult in their household to help them.** This potentially limited the impact of the paper-based resources for those who received them, as girls using them alone may not have been able to work through all the content.
3. **When paper-based resources were used in reading camps, the revision questions included in the resources may have provided structure to the camps.** The combination of structure and tailored support from a literate facilitator in a small group is potentially the reason this activity was associated with the highest reading and mathematics scores.

The success of community approaches to learning largely depends on stakeholder support and commitment to oversee existing systems. Having a known and trusted facilitator in communally organised learning groups is critical to winning the confidence of caregivers regarding safety and well-being of their daughters. Given that reading camps may largely operate

outside school hours when caregivers expect girls to support them with domestic chores at home, it is critical to maintain a flexible schedule with room for compromise that would be acceptable to caregivers.

Reading camps hold the promise of supporting girls' approaches to *learning to learn* in multiple ways. By providing a structured learning environment with a predictable routine, girls gain agency over how to direct their learning by developing personal and collaborative timetables. In addition, reading camps give girls more control of their learning, which helps them to learn how to prioritise various activities to accomplish set targets. As reading camps include sessions for group discussion, girls learn how to use feedback from their peers to improve their understanding.

Peer learning in the reading camps provides a promising platform for influencing girls' attitudes towards education. Analysis of interview data revealed contours of group dynamics and interpersonal relations that girls found particularly appealing. The reading camps provided a forum through which girls could take up teacher roles and explain concepts to their peers. Being relational learners, girls valued opportunities for connection, bonding, and collaboration with peers, which contributed to deeper learning experiences leading to increased commitment and overall positive attitude in their studies. Some girls narrated how peer learning had helped them realise their talents, hence prompting them to work harder to realise their dreams.

This research has highlighted further areas for exploration in relation to reading camps and how radios can support girls' learning during periods of school closures:

1. The programme team will further explore girls' access to radio, particularly the potential for community provision of radio to enhance girls' access.
2. Limited data was collected on the profile of reading camp mentors. Further research is required to explore the impact of the profile of the mentor on girls' learning and behaviours during reading camps.
3. Due to the small proportion of learners with disabilities included in the sample, it was not possible to explore the impact of reading camps on girls with disabilities. Further research is required in this area.

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8. Annex A: Qualitative data tables

Qualitative data was coded based on the research questions and themes that emerged during the focus groups and interviews. Data was then combined into codes, with frequency counts for the number of girls who raised the same points or issues. The counts should not be considered as exhaustive for all topics. If a thematic area only emerged in the third focus group, for example, it is possible that previous girls had the same experiences but it was simply not covered in their focus groups. The following tables (A1 to A6) show the basic frequency analysis from the interview and focus groups.

Table A1 below shows the numbers of girls who reported engaging in different learning activities whilst schools were closed.

Table A1. Responses to questions about learning engagement in learning activities during school closure, disaggregated by county and FGD

	Girls that participated in reading camps		Girls that did not participate in reading camps	
	Kilifi	Tana River	Kilifi	Tana River
I struggled to study at home	17	19	20	20
I had many chores at home	19	18	20	20
My siblings distracted me a lot	13	11	15	17
My friends interrupted my study at home	4	9	3	7
I did not have a peer to study with at home	16	17	14	15
I got help from my family members with studying at home	7	4	6	2
I got help from another person outside the family	4	2	3	1

Table A2 below shows the number of girls that reported engaging in different types of learning activity during school closure.

Table A2. *Responses disaggregated by county and FGD — responses to questions about what learning activities were engaged with.*

	Girls that participated in reading camps		Girls that did not participate in reading camps	
	Kilifi	Tana River	Kilifi	Tana River
I followed TV lessons	6	1	1	0
I followed radio lessons	4	7	3	3
I used WWW revision papers in my private studying	20	19	17	19
I attended reading camps to study with others	20	14	0	0
I attended reading camps to run away from too much work at home	15	14	0	0
I attended reading camps because they had a teacher	18	14	0	0
I attended reading camps because we could discuss with others	16	8	0	0

Table A3 below shows the ways in which girls heard about the reading camps.

Table A3. *Responses disaggregated by county and FGD — responses to questions about how girls heard about the reading camps and ability to attend.*

	Girls that participated in reading camps		Girls that did not participate in reading camps	
	Kilifi	Tana River	Kilifi	Tana River
I learnt about the reading camps from my caregiver	9	9	0	0
I learnt of the reading camps from the CHV	14	5	0	0
I learnt about the reading camps from other children	1	0	0	0
My caregiver did not have problems with me attending the reading camps	20	15	0	0
My family relieved me of the chores to attend the reading camps	20	14	0	0

Table A4 below shows the responses to questions about who was running the reading camps.

Table A4. *Responses disaggregated by county and FGD — responses to questions about who was running the reading camps.*

	Girls that participated in reading camps		Girls that did not participate in reading camps	
	Kilifi	Tana River	Kilifi	Tana River
The facilitators were from the community	20	14	0	0
Reading camp took place 5 days / week	10	10	0	0
Reading camp took place 4 days / week	10	4	0	0
Reading camp took place 3 days / week	5	5		0
Reading camps were held in a school	10	5	0	0
Reading camps were held in a church	0	0	0	0
The reading camps were run by the CHV	0	0	0	0

Table A5 below shows responses to questions about what took place during reading camp meetings.

Table A5. *Responses disaggregated by county and FGD — responses to questions about what took place during reading camps.*

	Girls that participated in reading camps		Girls that did not participate in reading camps	
	Kilifi	Tana River	Kilifi	Tana River
I did individual reading in the reading camps	20	14	n / a	n / a
We did group discussion in the reading camps	20	14	n / a	n / a
We did exercises given by the teacher in the reading camps	20	14	n / a	n / a
I did homework in the reading camps before going home	7	0	n / a	n / a
We gave each other feedback in the reading camps	20	19	n / a	n / a
We discussed our well-being in the reading camps	6	4	n / a	n / a

Table A6 below shows the number of girls who reported gaining different skills and / or learning from attendance at reading camps.

Table A6. Responses disaggregated by county and FGD — responses to questions about what girls gained from attending reading camps.

Girls that participated in reading camps		
	Kilifi	Tana River
Reading camps helped me develop a personal timetable	9	6
Reading camps helped me with prioritising my tasks	7	11
Reading camps helped me to prepare for school reopening	16	14
I learnt more in reading camps than I could have learnt alone	20	14
Reading camps freed me from many distractions at home	20	14
Reading camps helped me to be with my friends	20	14
Reading camps provided an opportunity to have discussions with friends	20	14
I felt supported in the reading camps	20	14
Reading camps helped me learn how to set targets	5	11

Reading camps helped me learn how to manage time	10	7
Reading camps helped me learn how to prioritise tasks	7	6
Reading camps helped me to learn new things from our group discussions	20	14
We motivated each other in the reading camps	13	14
I learnt how to give my friends feedback in the reading camps	17	14
Reading camps helped in directing me on what to study		14
I felt good after studying with others in the reading camps	20	14
I felt more confident after studying with others	20	14
I felt I could succeed in my studies after learning with others	20	14
I learnt how to lead others in the camps	2	3

9. Annex B: Qualitative data collection tools

9.1. FGD guide for girls who participated in the reading camps

1. What was your typical day like when schools were closed?

- What chores were you undertaking at home when schools were closed? Was this different from the usual chores you undertook before school closures? If yes, how did this affect your well-being and private studying at home?
- Did you have time and energy to study?

2. What was studying at home like?

- Did you receive any help in your private studying at home? Who helped you?
- Did you follow radio and / or TV lessons? Did your family help you to access radio and / or TV lessons? What help did you receive?
- Did you receive WWW revision questions during the period of school closures? How did you use the revision questions in your private studying at home? (*probe if WWW revision questions complemented what was learnt from radio lessons*)
- Did your family help you in your private studying using the WWW revision questions? What help did you receive? Did you get help from anyone else who is not your family member? If yes, who and what type of help?

3. Can you tell me about why you attended reading camps, and what they were like?

- How did you learn of the reading camps? Who else was attending the reading camps?
- Who was running / facilitating the reading camps? (*Probe: how the camp was organised, how learners and caregivers were mobilised*)
- What was helpful in ensuring you participated in the reading camps? (*Probe: support from the community, being freed up from*

household chores, predictable routine in the reading camps, having a facilitator in the reading camps trusted by the caregivers, having reading camps closer home, having radio to follow lessons with others in the reading camps, presence of other girls / peers)

- What activities were you doing in the reading camps? *(probe if learning / activities were done individually or jointly with others; did you have sessions for giving each other feedback; did you just listen to the radio or listen and discuss together; learning vs life skill sessions).*

4. How did the reading camps help you?

- Did the reading camp help you learn new things you could not have learnt had you studied alone at home? Which ones?
- How did learning in the reading camps compare to how you learn in school? Did you feel supported?
- Did reading camps help you follow radio lessons? *(Probe if she could have accessed more / fewer radio lessons had she studied alone at home and why)*
- Did reading camps help you learn how to study in the absence of your teachers? *(Probe skills around setting goals / targets on what to achieve at the end of each session, managing time / prioritising tasks, seeking help when necessary, motivating each other to keep going even in difficulty areas, receiving / giving feedback, and focusing on relevant content).*
- How did you feel after learning with other girls in the reading camps? Did your self-confidence change in any way? How?
- Having learnt with other girls in the reading camps, what can you say about your ability to succeed in your studies? Did you have similar feelings prior to participating in the reading camps?

5. How have you found going back to school after long period of closure?

- Are you happy now that you are back to school? Were you motivated to go back to school? Why? How did you feel when you were told schools were reopening?
- Did reading camps help you to transition back to school upon reopening? *(Probe: Aspects of the reading camp they would want in the classroom; any challenges encountered in going back to school)*

- What are your goals for your education? Did this change because of school closures? What influenced you? What encouraged you to come back to school?
- Now that schools have reopened, would you be interested in continuing with reading camps after school or during holidays?
- If you had more education like reading camps, what would you want it to look like? (*probe on when-weekends, holidays*), *duration (few hours, half day, full day)*, *having / not having a facilitator / teacher*, *complemented with radio lessons, online resources, etc*).

9.2. FGD guide for girls who did not participate in the reading camps

1. What was your typical day like when schools were closed?

- What chores were you undertaking at home when schools were closed? Was this different from the usual chores you undertook before school closures? If yes, how did this affect your well-being and private studying at home?
- Did you have time and energy to study?

2. What was studying at home like?

- Did you receive any help in your private studying at home? Who helped you?
- Did you follow radio and / or TV lessons? Did your family help you to access radio and / or TV lessons? What help did you receive?

3. Can you tell me how WWW revision questions helped you in private studying at home?

- Did you receive WWW revision questions during the period of school closures? How did you use the revision questions in your private studying at home? (*probe if WWW revision questions complemented what was learnt from radio lessons*)
- Did your family help you in your private studying using the WWW revision questions? What help did you receive? Did you get help from anyone else who is not your family member? If yes, who and what type of help?

- Did WWW revision questions help you to learn new things that you could not have learnt by following radio lessons alone.
- Did WWW revision questions help you learn how to study in the absence of your teachers? (*Probe: setting targets on when to complete the questions, managing time / prioritising tasks, seeking help from literate adults, using feedback to improve understanding, and focusing on relevant content*).
- Did you receive feedback on the WWW revision questions? How did you feel after receiving feedback? Did your self-confidence change in any way?
- Having studied in the absence of your teachers, what can you say about your ability to succeed in learning? Did you have similar feelings prior to the school closures?
- What did you enjoy about studying using WWW revision questions? How would you have studied at home had you not received WWW revision questions? Would you have learnt more / less?
- If schools close again, what support would you need to learn more using WWW revision questions? (*Probe on complementing the materials with tech such as radio, support from teachers and literate family members, and having face to face discussions with peers*).

4. How have you found going back to school after a long period of closure?

- Are you happy now that you are back to school? Were you motivated to go back to school? Why? How did you feel when you were told schools were reopening?
- Having studied in the absence of your teachers, how do you feel now that you are back to school?
- What are your aspirations for your education? Has this changed because of school closures? What influenced you? What encouraged you to come back to school.
- Do you think girls in your community will continue to attend school? Has this changed? Why?

9.3. Interview guide for camp mentors / CHVs

1. Can you tell me how reading camps functioned?

- How were the reading camps formed? What role did you play in the running of the reading camps?
- How often did the girls attend the reading camps per week? How long was each session?
- Who facilitated the reading camps? Was the facilitator from the community? *(probe if the facilitator had prior training on facilitation or teaching, or is a pupil)*
- What was the reaction of caregivers regarding their children's participation in the reading camps?
- Did the girls find it easy to attend reading camps? *(Probe: Having a facilitator known and trusted by the caregivers, camps having a flexible schedule, being freed up from some chores in the homes, proximity of the camps to the homes, having a radio to follow lessons, presence of other girls / peers)*
- What kind of support did the caregivers and community give in the running of the reading camps?

2. How were the girls learning in the reading camps?

- What activities were the girls doing in the reading camps? *(probe individual activities, group activities, listening to the radio, listening to the facilitator, learning vs life skill sessions)*
- Did the girls enjoy activities in the reading camps? Why?
- Did reading camps provide an environment that helped girls learn how to study in the absence of their teachers? *(probe skills on setting goals for what is to be learnt, managing time / prioritising tasks, using feedback from peers to improve understanding, giving feedback to their peers, seeking help when necessary, and focusing on relevant content)*
- Did reading camps provide the opportunity for girls to collaborate / learn together with their peers? How did this help them in their learning?

- Did you see any changes in girls' self-confidence as they interacted with each other in the reading camps? What were these changes? Why do you think this happened?
- Did you observe any changes in girls' attitudes towards learning as they engaged with their peers in the reading camps? What changes?

3. Use of tech in the camps

- Did reading camps help girls follow radio lessons? To what extent did the schedule of radio lessons inform timing of reading camp sessions? Was this communicated to caregivers?
- Were there any follow up activities after listening to the radio lessons? What activities?
- Were WWW revision questions used in the reading camps? How? (were the questions used individually, in groups or both)
- Did WWW revision questions help in building on what was learnt from radio lessons? How? What combination of activities do you think were most effective for the girls' learning?
- To what extent did reading camps provide an environment that maximised peer learning, listening to radio lessons, and using WWW revision questions?
- Are girls interested in participating in reading camps after school or during holidays?
- If reading camps were to be continued, what support would be needed (from caregivers, CHVs, and camp mentors) to maximise girls' learning using radio, peer learning, and targeted resources?

9.4. Interview guide for teachers

1. Access to tech solutions such as radio lessons and paper-based learning materials

- During the period of school closures, the Kenya Institute of Curriculum Development provided online, television, and radio lessons to ensure continuity of learning. Were the children able to access the lessons?
- What support did the caregivers, CHVs and / or community provide to ensure the children accessed radio and / or TV lessons? Did the support help children access more lessons?

- Are you aware of WWW revision questions that were given out to vulnerable girls? How effective were the remedial materials in supporting the learning of vulnerable girls?
- Were you engaged in supporting the learning of vulnerable girls using WWW revision questions? How?
- Can WWW revision questions be used to help girls catch up on missed learning? How?
- What support would be needed from caregivers, CHVs, and the community to support learning using WWW revision questions?
- If distance learning were to continue in the future, what support would be needed from caregivers, CHVs and other community members to ensure children access radio and / or TV lessons?

2. Can you tell me something about children's return to school?

- How did you prepare for school reopening? What was the process like?
- Did all the children in your school return? If not, why? (*probe the gender differences (boys vs girls)*)
- What is your overall impression of the learning of pupils? Has there been any learning loss? Can you describe it?
- Do you think girls' attitudes to education have changed since they re-entered school? What changes can you see?
- Have there been any changes in the pupils outside of learning — in confidence, beliefs in capabilities, relationships with each other?
- Have there been any changes in the way that pupils interact with you or interact in the classroom?
- How well are pupils able to learn? Have there been any changes in their motivation or study skills?
- Are you aware of the reading camps? Do you notice changes in girls who attended the reading camps?
- Do you think the camps have had a role in learning for the girls?
- Would you like to see reading camps continue? Do you think girls would like them to continue?
- How can the camps be used for learning recovery?

9.5. Interview guide for caregivers

1. What was studying at home like?

- Were you aware of teaching that was provided through radio and / or TV? Was your daughter able to follow radio and / or lessons? How often?
- Did you provide any help to ensure your daughter followed radio and / or TV lessons?
- If teaching through radio and / or TV is to be continued, what help would be needed to ensure your daughter is able to follow the lessons?
- Did your daughter receive WWW revision questions during the period of school closures? How did she use the revision questions in her private studying?
- Did you help your daughter with private studying using the WWW remedial exercises? Did she get help from anyone else who is not a family member?
- Did WWW revision questions help in building on what was learnt from radio lessons? How?
- If schools were to close again, what support would your daughter need to ensure she learns more using WWW revision questions and radio lessons?

2. Are you aware of reading camps that were organised around the school?

- Who organised the reading camps? Was your daughter able to attend the reading camps?
- Who was teaching children in the reading camps?
- Are you aware of what the children were doing in the reading camps? (*probe individual activities, group activities, listening to radio lessons, listening to the facilitator, learning vs life skill sessions*)
- Did reading camps enable your daughter to follow more radio lessons? How?
- Did your daughter enjoy learning with others in the reading camp? Why?

- Did you notice any changes in your daughter's attitude towards learning after participating in the reading camps?
- Did reading camps help your daughter know how to study in the absence of teachers? How?
- Now that schools are open, would you like your daughter to continue participating in the reading camps after school or during holidays?
- If reading camps are to be continued, what help would be needed from caregivers, CHVs, and the community to support children's learning?