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e-ISSN 2519-593X

Perspectives in Education

2021 39(1): 189-206

PUBLISHED:

12 March 2021

RECEIVED:

10 November 2020

ACCEPTED:

20 January 2021

PRIMARY SCHOOL-LEVEL RESPONSES TO THE COVID-19 PANDEMIC IN ETHIOPIA: EVIDENCE FROM PHONE SURVEYS OF SCHOOL PRINCIPALS AND TEACHERS

ABSTRACT

Located at the intersection of the education system, the school and community, school principals now have the responsibility for the effectiveness of school-level responses to the COVID-19 crisis. This includes translating directives into practice during school closures as well as supporting teachers to continue to provide learning and responding to local needs, including the specific needs of disadvantaged students. Subsequently, teachers have a direct responsibility for supporting students during school closures, especially those who are disadvantaged. This article aims to provide an understanding of the response of school principals and teachers during school closures using data collected in Ethiopia through phone surveys with 127 school principals and 316 teachers in August 2020. We explore the support school principals received from the government during school closures as well as contact by school principals and teachers with parents and caregivers. Our findings suggest an important role for the local government in supporting school-level responses to the COVID-19 pandemic while parents and caregivers are important in helping to cater for the needs of disadvantaged groups.

Keywords: COVID-19; primary schools, equity, school principals, teachers, Ethiopia.

1. INTRODUCTION

1.1 Education system response to COVID-19

As a result of the COVID-19 school closures in Ethiopia, beginning in March 2020, approximately 26 million students missed out on at least five months of schooling, which is expected to negatively affect their learning and wellbeing. The effects of COVID-19 on students' learning are believed to be unevenly distributed, with students who are most marginalised likely to experience the greatest losses, which in turn will have consequences for ongoing efforts to improve equitable learning in Ethiopia. In seeking to mitigate the effects of school closures on students' learning,



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the government put in place strategies to provide distance learning for students and placed special emphasis on supporting disadvantaged students¹.

Even with these efforts, reports suggest that distance learning has not reached all students in Ethiopia (Kim *et al.*, 2020; Wieser *et al.*, 2020). Globally, the evidence regarding the effectiveness of remote learning strategies is mixed at best, with challenges found in implementing even the most basic measures to support the continued learning of students (Srivastava, 2020). In Ethiopia, reaching all students is particularly challenging due to inequalities in access to resources, infrastructure and facilities needed to support students' distance learning by wealth, rural-urban location and regions within the country (CSA, 2016). For example, data gathered during the school closures indicates that families' access to electricity and technology to support learning varies considerably across rural-urban location and, as a result, rural families are much less likely to engage in any form of distance learning (Kim *et al.*, 2020; Wieser *et al.*, 2020).

Since October 2020, schools in Ethiopia started to open once again. However, they face a number of challenges ahead, including ensuring that all students return to school, helping students to catch-up on lost learning, catering for the diverse needs of different groups of students and ensuring that schools are resilient to future shocks. Given that many countries have seen a resurgence of the virus, it is very likely that there may be successive closures and reopening, with education shifting between in-person learning and remote learning or a combination of both approaches for the foreseeable future (Dreesen *et al.*, 2020; UNESCO, 2020; Srivastava, 2020). In this context, strengthening local-level capacity to respond to the COVID-19 pandemic will be imperative.

1.2 School level response to the COVID-19 pandemic

Located at the nexus of the education system, the school and the community, school principals are pivotal in the immediate response to COVID-19 and in efforts to strengthen education systems to ongoing and future crises and improve equitable learning outcomes (Leithwood, Harris & Hopkins, 2020; Yadete, 2012). School principals' roles have been dramatically changed by the crisis and beyond their traditional responsibilities; they are now responsible for the effectiveness of school-level responses to school closures, including implementing government strategies at the local level, supporting and encouraging teachers to provide distance learning and putting in place strategies to ensure a safe and healthy learning environment for all students as schools reopen (Harris, 2020; Harris & Jones, 2020; Leithwood, Harris & Hopkins 2020; Smith & Riley, 2012). Owing to the unprecedented nature of the current situation, there is no set direction for school principals to follow, yet they must continue to adapt and respond quickly to mitigate the effects of the pandemic (Harris & Jones, 2020). It is important that school principals receive sufficient support to respond to the ongoing pandemic and can communicate efficiently and effectively with other stakeholders, including the local community (Harris & Jones, 2020; Smith & Riley, 2012).

While school principals are fundamental in managing the school-level response to the COVID-19 pandemic, teachers have a critical role in engaging and supporting students (UNESCO/ILO, 2020; Wilichowski & Cobo, 2020). Like school principals, teachers have

1 Strategies to support students included a digital learning platform for those who have access to the internet and required technology, educational programmes broadcast through radio for the majority of primary school students and material distribution for students who were likely to be supported through other means (Ministry of Education, 2020).

also had to adapt to the new context and acquire new skills to enable them to interact and effectively engage with students and their parents and caregivers (Wilichowski & Cobo, 2020). As schools reopen, teachers play an integral role in creating a safe learning environment and helping students to catch up on lost learning (UNESCO/ILO, 2020). Teachers, therefore, need support and guidance in undertaking these new roles (UNESCO/ILO, 2020; Wilichowski & Cobo, 2020).

Despite the vital role of school principals and teachers in the effectiveness of school level responses to the pandemic, there is currently a lack of research that takes account of their experiences and perspectives during the COVID-19 school closures. As such, we do not sufficiently understand what is needed to strengthen the education systems and ensure equitable and quality learning. In this article we aim to address this gap, drawing on the data collected through phone surveys with school principals and teachers in Ethiopia in August 2020. Our aim is to explore the response of school principals and teachers to the COVID-19 pandemic, taking account of their perspectives. In doing so, we demonstrate the importance of strengthening school-level capacity in responding to the pandemic to ensure that strategies are adapted to the local context and take account of the needs of those who are most disadvantaged.

2. LITERATURE REVIEW AND ETHIOPIAN CONTEXT

2.1 Strengthening the education system

The COVID-19 crisis has highlighted the significant shortcomings of education systems worldwide, most of which were unprepared for the crisis and, as a result, were unable to ensure the continuity of learning outside schools especially for those who are most disadvantaged (Srivastava, 2020; UNESCO, 2020). In response, much discussion has focused on ensuring that education systems can respond to the ongoing crisis and also on what is needed to build back better and more resilient and equitable education systems (Harris, 2020; Srivastava, 2020; UNESCO, 2020; World Bank, 2020).

In Ethiopia, prior to the COVID-19 outbreak, the government was working hard to transform the education system to provide equitable and quality learning for all students. One of the primary means for achieving these aims has been through a large-scale government education reform programme, the General Education Quality Improvement Programme for Equity (GEQIP-E). This is the third phase of the programme, funded by a consortium of donors and implemented by the government (World Bank, 2018)². Strengthening local decision-making and capacity has been a central focus across the three successive phases of the GEQIP programme (Yadete, 2012; World Bank, 2018). According to the government's Education and Training Policy, improving school-based management and community participation can help to "...improve the relevance, quality, accessibility and equity of education and training" (Ministry of Education, 1994: 29). It is also expected to achieve greater responsiveness to local needs (World Bank, 2008/2013).

2.2 Challenges in local-level capacity

While efforts to improve local-level capacity have made good progress in recent years, a number of related challenges have been identified, which may also have consequences for

² See Asegdom *et al.* (2019) for more information on the GEQIP-E programmes, including the key stakeholders included in the design process.

the efficacy of local-level responses to the COVID-19 pandemic. First, the centralised nature of education planning is suggested to be at odds with efforts to decentralise the education system and building local-level capacity (Iyer & Rossiter, 2018). This often results in limited ownership and significant knowledge gaps at lower levels of the education system, which are in turn exacerbated by an over-reliance on inefficient modes of information communication and dissemination (Asegdom *et al.*, 2019; Gibbs *et al.*, 2020; Mitchell, 2015; Yadete, 2012). Secondly, the top-down nature of the system and upward nature of accountability upon which the education system is predicated leads to a lack of flexibility in adapting nationally/regionally mandated plans to local contexts, which limits the ability of school principals to respond to local challenges (Mitchell, 2015; Yadete, 2012). Thirdly, the nature of the relationship between the *woreda* (district) education offices and school principal is critical in enabling school-based management and local decision-making and in passing directives and regulations to schools (Yadete, 2012). However, where there is weak communication between the *woreda* education officials and school principals, implementation gaps appear (Yadete, 2012). Furthermore, due to the upward modes of accountability, school principals are often not in a position to hold *woreda* education officials accountable.

3. UNDERSTANDING LOCAL-LEVEL RESPONSES TO COVID-19

Ethiopia provides an important case study for understanding how to build back resilient and equitable education systems given that strengthening the education system has been a priority prior to the pandemic. Understanding local-level responses to the pandemic in the context of ongoing efforts to improve the education system and strengthen local capacity are important. As such we consider the interaction between the education system response and the school level response at the local level.

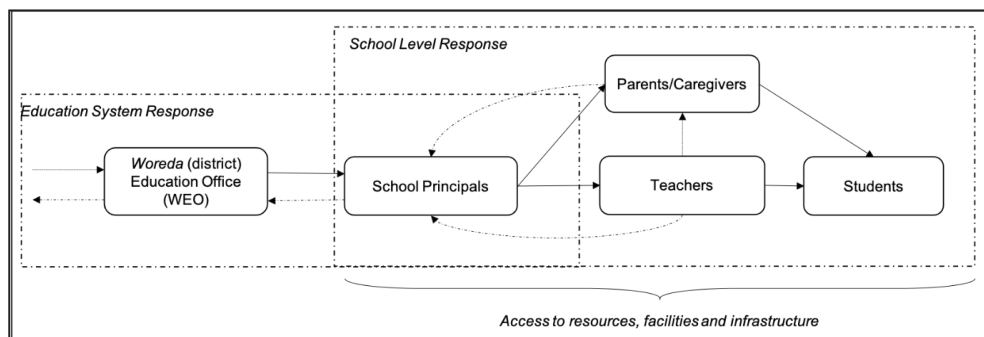


Figure 1: Schematic representation of school level response to COVID-19

Figure 1 provides a schematic representation of our approach for exploring the school-level response to the COVID-19 pandemic. We pay attention to the roles, responsibilities and relationships between different actors at the local level, including the *woreda* education office, school principals, teachers and parents and caregivers. First, to set the context, we take account of the level of access that school principals and teachers have to electricity and communication devices, which may have consequences for how they respond to the pandemic. We then focus on the interaction between the *woreda* education office and school principal, exploring in particular if and how school principals receive support on how to respond

to the COVID-19 pandemic. We use the term “support” to refer to the non-material support that stakeholders receive from others to help them to effectively respond to the COVID-19 pandemic, which may include advice, information and guidance. We subsequently explore how this affects the response of the school principal to the pandemic, including the support they provide to teachers and parents and caregivers, and the strategies that they put in place for school reopening. Finally, we consider if and how teachers support students during the school closures.

4. METHODS AND DATA

The data presented in this paper were gathered through a phone survey with school principals and teachers in August 2020. This was undertaken as part of the Research for Improving Systems of Education (RISE) in Ethiopia to examine the effects of school closures. We drew on the sample of schools included in the RISE Ethiopia baseline data collection, which included seven regional states and city administrations including Addis Ababa, Amhara, Benishangul Gumuz, Oromia, Southern Nations, Nationalities and People's (SNNP), Somali and Tigray in rural and urban locations. Although the sample is not nationally representative, it broadly reflects the distribution of the population across regions and rural-urban location in Ethiopia (see Hoddinott *et al.*, 2019 for an in-depth discussion of the RISE Ethiopia sampling strategy).

Phone surveys provided us with a means of collecting data during the COVID-19 crisis, allowing us to collect important information without compromising the safety of either the fieldworkers or the participants included in the study (Ballivian *et al.*, 2015; Dabalen *et al.*, 2016; Hoogeveen *et al.*, 2014).

We followed an iterative process of instrument design, which included instrument design, pre-piloting and piloting the instruments, refining the instruments and translation into the relevant languages. The phone surveys primarily consisted of closed-ended questions in order to enable us to reach a relatively large number of respondents and to avoid placing too much burden on the participants (Dabalen *et al.*, 2016; Hoogeveen *et al.*, 2014). The main areas of investigation included the flow of information during the COVID-19 school closures, the support that school principals and teachers received from the education system to assist their response to the crisis, if and how school principals and teachers were supporting students' learning during the school closures and the priorities of school principals and teachers in advance of schools reopening. Given the focus on equity of the RISE Ethiopia study and also the GEQIP-E reforms, we sought to identify the particular impacts of the COVID-19 school closures on students from disadvantaged groups including girls, children with disabilities, children in rural and remote locations and children from low-income families.

A benefit of the study was the ability to draw on the existing RISE Ethiopia school and community database from which to sample participants, and this is likely to have contributed to the high response rate to the phone survey (85%). All schools that participated in the school survey (2018/19) were contacted. The enumerators were provided with a detailed protocol for contacting participants and obtained informed consent from participants. Where interviews did not take place, this was mainly due to failure to reach the participant by phone or, less commonly, the participant declined to take part in the research. Compensation (100 ETB phone credit, equivalent to approximately £2 sterling) was provided to participants once the interview had been completed, drawing on best practice within Ethiopia and in consideration of ethical procedures (Morrow, 2009). All the data was captured through tablets and uploaded

directly to the designated online storage system and then anonymised. Ethical clearance was obtained from the ethical review board of the College of Education and Behavioural Studies at Addis Ababa University and from the Faculty of Education at the University of Cambridge.

A total of 443 participants were included in the phone surveys, including 127 school principals and 316 teachers (see Tables 1 and 2). As such, this cannot be considered a representative sample, but rather it provides a snapshot of the response to the COVID-19 pandemic across a number of regions and rural-urban locations in Ethiopia.

Table 1: School principals interviewed in the RISE Ethiopia phone survey

Region		Total	Rural	Urban	Female	Male
	(No.)	(%)	(%)	(%)	(%)	(%)
Addis Ababa	16	13	0	100	6	94
Amhara	17	13	71	29	6	94
Benishangul Gumuz	17	13	75	25	0	100
Oromia	31	24	77	23	6	94
SNNP	14	11	93	7	7	93
Somali	15	12	79	21	7	93
Tigray	17	13	71	29	6	94
Total	127	100	67	33	6	94

Table 2: Teachers interviewed in the RISE Ethiopia phone survey

Region	Total		Rural	Urban	Female	Male
	(No.)	(%)	(%)	(%)	(%)	(%)
Addis Ababa	47	15	0	100	42	58
Amhara	40	13	65	35	42	58
Benishangul Gumuz	41	13	69	31	41	59
Oromia	83	26	75	25	51	49
SNNP	28	9	89	11	82	18
Somali	37	12	65	35	52	48
Tigray	40	13	70	30	24	76
Total	316	100	61	39	45	55

As seen in Table 1, two-thirds of the school principals were from rural areas and one-third from urban areas. Only 6% of school principals were female, while 55% of teachers were female. This is similar to the proportion of female school principals and teachers in primary schools across Ethiopia. In general, females are found to be under-represented in decision making roles within the education system and over-represented in what are perceived as lower-status positions (Yorke, Rose & Pankhurst, 2021).

Data analysis was assisted by Stata software. We present a range of descriptive statistics, including chi-squared tests (χ^2) to test for the significance of differences across the various groups of participants (e.g. gender, rural-urban location). Building on the descriptive analysis presented in this paper, we also include three simple logistic regression models to provide

further insight into the factors influencing the likelihood that school principals reported that they received support during the COVID-19 school closures, provided support to teachers and were making plans for disadvantaged students to return to school.

5. FINDINGS

5.1 Access to electricity and technology

We first explored the level of access to electricity and technology for school principals and teachers. The majority of school principals and teachers had access to electricity, a phone, a television and a radio, while less than half of school principals and teachers had access to a computer/tablet, and very few school principals or teachers had access to the internet (Table 3). Based on *chi-squared tests* (χ^2), we found significant differences across rural-urban locations, with urban school principals and teachers more likely to have access to these resources than their rural counterparts, except for radio for rural teachers.

Table 3: School principals' and teachers' access to electricity and communication devices

	School principals			Teachers		
	Rural (%)	Urban (%)	Sig.	Rural (%)	Urban (%)	Sig.
Electricity	62	100	***	71	95	***
Phone	89	100	**	84	92	*
Television	57	98	***	63	89	***
Radio	71	85	*	76	75	-
Computer/Tablet	15	63	***	5	34	***
Internet	15	22	-	12	21	**

Chi2 significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5.2 Support provided to school principals during the COVID-19 pandemic

We then proceeded to ask the school principals if they had received any support on how their school can keep education going during the COVID-19 school closures. Almost three-quarters of the school principals reported receiving support about how to keep education going during the COVID-19 school closures (Table 4). Of these, 84% received support from the *woreda* education offices.

Table 4: Support received during COVID-19 school closures

	%	Female	Male	Sig.	Rural	Urban	Sig.
School principals	68	71	68	-	61	83	**

Chi2 significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Our *chi-squared test* (χ^2) indicated that urban school principals were significantly more likely to report receiving support than rural school principals, but there were no significant differences between male and female school principals. School principals reported support as mainly being provided by phone (36%) or face-to-face (28%).

The main types of support that school principals and teachers received included *guidance and counselling, how to use a radio to support students' learning at a distance and how to support students who did not have access to technology* (Figure 2). The type of support that school principals received was broadly similar to the type of support that teachers were likely to receive from school principals.

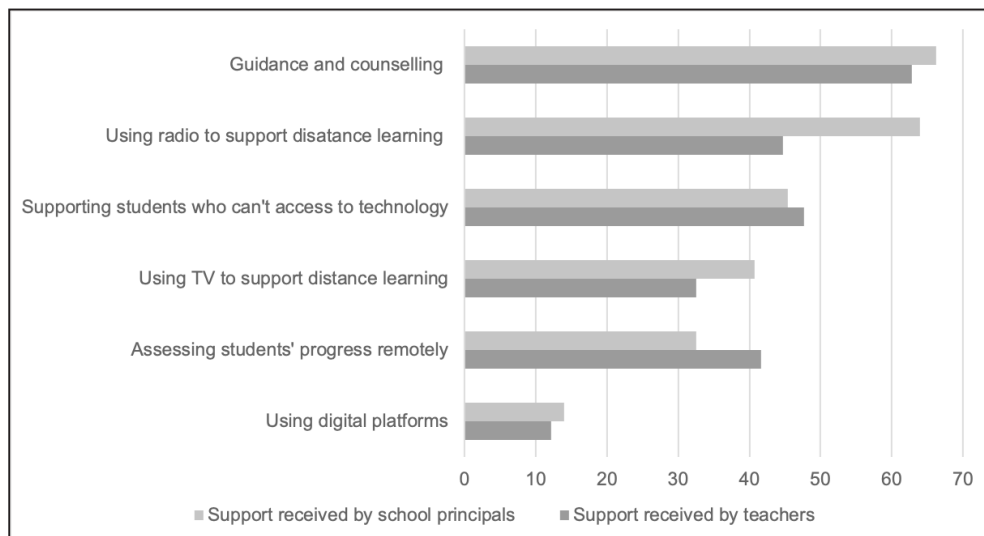


Figure 2: Types of support received by school principals and teachers

We ran a simple logistic regression to further explore the probability that school principals report receiving support during the school closures. Gender, rural-urban location and access to a phone were included as independent variables in the model (see Appendix A which identifies that the model was a good fit to the data). Access to a phone was most likely to be associated with whether school principals received guidance, with the odds of school principals receiving support more than three times higher among school principals who had access to a phone, controlling for other factors (Table 5). School principals in urban locations were almost three times more likely to report receiving support than those in rural areas, while the gender of school principals did not affect the likelihood as to whether they received support from the government.

Table 5: Probability that school principals report receiving support on keeping education going during COVID-19

	β	S.E	Odds ratio	95% Confidence interval	
Gender (male)	-0.07	0.94	0.94	0.15	5.88
Urban	1.02**	0.48	2.76	1.07	7.11
Phone	1.26**	0.75	3.52	0.81	15.32
(Constant)	-0.63	1.09	0.53	0.06	4.51

Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, β stands for coefficient, S.E stands for standard error

5.3 Support provided to teachers during the COVID-19 pandemic

Approximately two-thirds of school principals reported supporting teachers during the COVID-19 crisis and indicating that this support was mostly provided face-to-face. Our *chi-squared test* (χ^2) indicated that urban school principals were significantly more likely to report supporting teachers than rural school principals. In addition, our analysis revealed that school principals who had received support were significantly more likely to report supporting teachers (Table 6).

Table 6: Support provided by school principals to teachers during COVID-19

	%	Female	Male	Sig.	Rural	Urban	Sig.	Support	No Support	Sig.
Support to teachers	63	57	63	-	56	78	**	83	18	***

Chi2 significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

We also ran a simple logistic regression to further explore the factors influencing the probability that school principals reported supporting teachers during school closures. Three independent variables (gender, urban-rural location and support received) were included in the model (see Appendix A that shows the model is a good fit to the data). School principals who received support were almost six times more likely to report supporting teachers controlling for the effects of other variables (gender, rural-urban location) (Table 7). Gender was not found to have any significant effect in our model. Contrary to our *chi-squared tests* (χ^2), the rural-urban location of school principals did not have a significant effect on the likelihood that they reported supporting teachers when controlling for other variables.

Table 7: Probability that school principals report supporting teachers

	β	S.E.	Odds Ratio	95% Confidence Interval	
Gender (male)	0.61	0.91	1.85	0.31	11.09
Urban	0.77	0.47	2.16	0.85	5.45
Support Received	1.74***	0.43	5.67	2.47	13.06
(Constant)	-1.39	0.96	0.25	0.04	1.64

Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, β stands for coefficient, S.E stands for standard error

5.4 Support received by teachers

Less than half of teachers (42%) reported receiving any support to provide distance learning. The vast majority of those who had received support mainly received this from their school principal (91%). Important to note is how the proportion of teachers who reported receiving information from their school principals was much lower than the proportion of school principals who reported supporting teachers. This perhaps suggests that school principals were not supporting all teachers. As reported by school principals, the support was mainly

provided face-to-face (59%) while some (30%) teachers also reported receiving support via phone. Male teachers and teachers in urban areas were significantly more likely to receive support than female and rural teachers (Table 8). While it is not directly apparent why these gender differences exist, it could be that female teachers faced an increased workload within the home and were therefore less likely to be able to meet school principals face-to-face.

Table 8: Support received during COVID-19 school closures

	%	Female	Male	Sig.	Rural	Urban	Sig.
Teachers	42	35	53	***	38	48	*

Chi2 significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5.5 Teachers' support for students' distance learning

Around one-half of teachers (49%) reported supporting students, which was mostly provided face-to-face (Table 9). Urban teachers were significantly more likely to report supporting students than rural teachers, while no significant differences were found between male and female teachers despite the fact that female teachers were less likely to receive support from the school principal. The main types of support that teachers reported providing to students included *guidance and counselling*, and *monitoring others that are responsible for students* (e.g. parents and caregivers). The main barriers that teachers identified included their lack of technical equipment (such as computers) and their lack of experience in delivering online courses, with many teachers indicating that they were not confident in their ability to support distance learning.

Table 9: Support provided by teachers to students during COVID-19

	%	Female	Male	Sig.	Rural	Urban	Sig.	Support	No Support	Sig.
Support to students	49	47	53	-	45	57	**	65	35	***

Chi2 significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Amongst teachers who reported supporting students during the school closures, less than half (43% urban teachers, 49% rural teachers) reported adapting the information that they provided to students for disadvantaged groups including girls, students from low-income families, boys and low-performing students. Rural teachers were more likely to adapt information for girls, while urban teachers were more likely to adapt information for students from poor families.

In addition to facing difficulties in continuing their learning during the school closures, teachers believed that disadvantaged students would be likely to miss out on additional support during the COVID-19, particularly students from low-income families, girls and low-performing students. The types of support that teachers believed these students would be likely to miss out on included school feeding for students from low-income families, emotional support for girls and children with disabilities and peer-to-peer support for low-performing students and rural students (Figure 3).

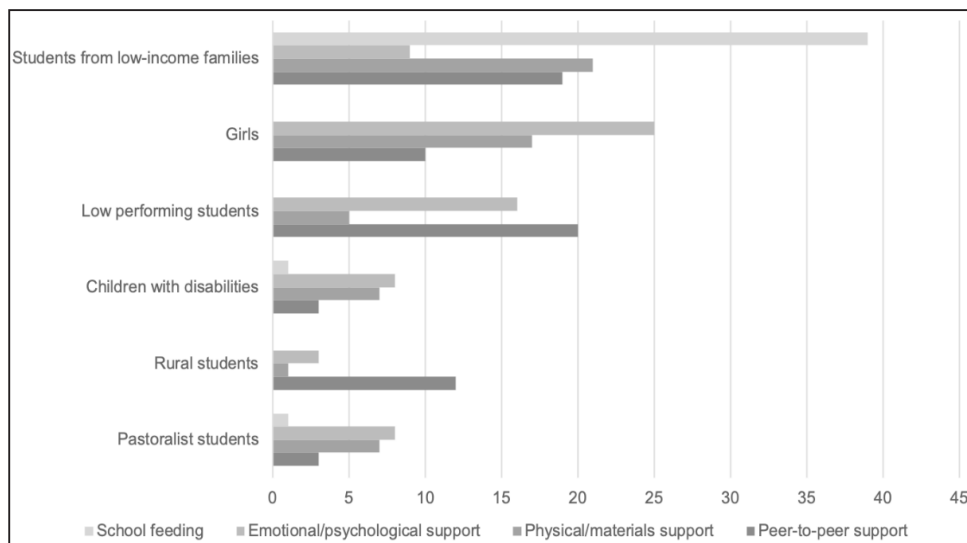


Figure 3: Support disadvantaged students are likely to miss out on (%)

5.6 Contact with parents and caregivers during the COVID-19 pandemic

We also explored the extent to which school principals and teachers had contact with the parents and caregivers of students during school closures. In our sample, school principals were more likely to report having had contact with parents and caregivers than teachers (85% and 54% respectively), which was mainly through face-to-face communication (Table 10). We found that male school principals were significantly more likely to have contact with parents and caregivers than female school principals, while no differences were found across rural-urban location. Again, these gender differences could perhaps point to the fact that female school principals also had other additional responsibilities within the home. The information that the school principals provided to parents and caregivers included information about health and safety measures and advice for supporting students’ learning.

Table 10: Contact with parents and caregivers during the COVID-19 school closures

	%	Female	Male	Sig.	Rural	Urban	Sig.	Support	No support	Sig.
School principals	85	57	87	**	85	86	-	70	30	-
Teachers	54	55	57	-	56	51	-	53	47	***

Chi2 Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The level of support that school principals received (primarily from the *woreda* education office) did not affect their contact with parents and caregivers. By contrast, the level of support that teachers received from the school principals did affect their contact with parents and caregivers. Many teachers in our sample suggested that parents and caregivers would be unable to effectively support students’ distance learning, which may be due to a number of

different factors such as parents and caregivers' heavy work demand, their low literacy levels and their low value for education.

5.7 Preparations for school reopening

School principals and teachers alike identified a range of anticipated challenges when schools reopen, including increased student dropout, inadequate number of classrooms to implement social distancing, inadequate handwashing facilities and decreased student performance (Table 11). In terms of increased student drop-out, students from low-income families, rural student and girls were perceived as those most likely at-risk of dropout.

Table 11: Perceived barriers when schools reopen (%)

	School principals			Teachers		
	Urban	Rural	Total	Urban	Rural	Total
Increased student drop-out	20	33	27	29	41	35
Lack of classrooms	27	25	26	22	16	19
Lack of handwashing facilities	24	19	22	10	17	14
Decreased student performance	27	17	22	31	20	26
Other	2	6	4	7	6	7

Almost two-thirds of school principals and less than half of teachers indicated that their school was preparing to support children who are less likely to return to school to be able to return to school (Table 12). No significant differences were found across gender or rural-urban location in terms of the likelihood that school principals and teachers would report that their school was making such preparations.

Table 12: Likelihood schools are making plans to support disadvantaged children to return

	%	Female	Male	Sig.	Rural	Urban	Sig.
School principals	60	43	61	-	63	54	-
Teachers	41	40	41	-	44	37	-

*Chi2 Significance: ***p<0.01, **p<0.05, *p<0.1*

We ran a simple logistic regression to further explore the factors influencing the probability that school principals reported making plans to support disadvantaged students to return to school. Four independent variables (gender, urban-rural location, support received and contact with parents and caregivers) were included in the model. The model was found to be a good fit (see Appendix A).

As shown in Table 13, contact with parents and caregivers and support received was significantly associated with the likelihood that school principals were preparing to support disadvantaged students to return. School principals who had contact with parents were almost five times more likely to prepare for disadvantaged students to return, controlling for all other factors. School principals who received support were more than twice as likely as those who did not received support to make plans to support disadvantaged students to return. In our

model, gender and rural-urban location has no impact on the likelihood that school principals were making plans to support disadvantaged students to return.

Table 13: Probability that school principals made plans to support disadvantaged students to return

	β	S.E.	Odds ratio	Confidence interval	
Gender (male)	0.23	0.87	1.26	0.23	6.99
Urban	-0.60	0.42	0.55	0.24	1.25
Support Received	0.87**	0.42	2.38	1.04	5.42
Contact with parents and caregivers	1.56**	0.58	4.77	1.54	14.72
_cons	-1.52	0.97	0.22	0.03	1.46

Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

6. DISCUSSION

The COVID-19 pandemic has revealed the need to strengthen local-level capacity and decision-making to respond to the current and future crises. With this in mind, in this article we have explored the school-level response to the COVID-19 pandemic from the perspectives of school principals and teachers. This section summarises the main findings from our analysis, relating it to other related evidence where available.

6.1 Support is critical in strengthening local-level capacity

Our findings point to the crucial and complementary roles of local-level actors in responding to the COVID-19 pandemic, including school principals, teachers, and parents and caregivers. School principals are pivotal in translating official government strategies into practice and supporting teachers, while teachers are essential in supporting and engaging students. Notably, our findings reveal the importance of providing school-level stakeholders with the appropriate support through the *woreda* education office to enable them to respond effectively. As other researchers have highlighted, the relationship between the *woreda* education office and school principals is key in strengthening school-based capacity (e.g. Yadete, 2012; Mitchell, 2015), and we found that this is particularly true in the context of responding to the COVID-19 pandemic. The support that school principals receive from the local government had knock-on effects for how they respond and interact with teachers, parents and caregivers, as well as *woreda* education officials.

According to our findings, school principals in rural areas receive less support from local government than their urban counterparts, thus highlighting the need for greater efforts to ensure that rural school principals are supported in responding to the pandemic. The fact that those school principals who do not receive support from the local government are less likely to respond perhaps suggest that they lack the appropriate information and are therefore unsure of how they should respond (Asegdom *et al.*, 2019).

While the gender of school principals did not have an impact on the level of support that they received from the *woreda* education office, gender did affect the level of communication between school principals, teachers, and parents and caregivers. Female teachers were less likely to report receiving support from school principals, while male teachers were more likely

to have contact with parents. This is perhaps related to the fact that communication between school principals, teachers and parents was most likely through face-to-face communication. It is possible that female school principals and teachers have additional responsibilities within the home that mean they have less time to have face-to-face contact with other stakeholders. By contrast, communication between the *woreda* education officials and school principals was most likely to be via phone, which could be more feasible for female school principals to engage with amongst their other responsibilities.

6.2 COVID-19 is likely to increase education inequalities

Similar to other research (Kim *et al.*, 2020; Wieser *et al.*, 2020), our findings suggest that COVID-19 is likely to increase education inequalities, especially for girls, rural students and students from low-income families. As found in other research, implementing even the most basic strategies to support students' distance learning has been a challenge (e.g. Srivastava, 2020). In our sample, less than half the teachers were engaged in supporting distant learning, with rural teachers even less likely to be involved. Where teachers were engaged in distance learning, they faced barriers such as a lack of access to the appropriate technology and a lack of confidence in their ability to support students, highlighting the importance of supporting teachers to respond. Given the challenges that teachers faced, it is likely that students who are harder to reach, notably those in rural areas, are also less likely to have been engaged in distance learning. Thus, while the government outlined the need to prioritise the needs of disadvantaged groups in responding to COVID-19 (Ministry of Education, 2020), in practice it seems that this has not been achieved.

According to teachers, disadvantaged students are also likely to have missed out on other essential support due to school closures including school feeding for students from low-income families, emotional support for girls and children with disabilities and peer-to-peer support for low-performing students and rural students. As such, it was not surprising that school principals and teachers believed that school dropout would increase because of the school closures, especially amongst these disadvantaged groups. Despite these concerns, only two-thirds of school principals reported that they were preparing to support disadvantaged students to return. These findings point to the need for greater efforts to support the needs of disadvantaged groups, which take account of local priorities and resources and the need to invest in local infrastructure and facilities for education going forward.

6.3 Engaging parents and caregivers helps to provide for the needs of students

The importance of communication between the school and parents and caregivers has also been highlighted through our study. Contrary to our expectations, school principals had more contact with parents and caregivers than teachers in our sample and communication usually occurs face-to-face. One possible explanation for the limited contact that teachers have with parents and caregivers could be that they are not confident of the parents and caregivers' ability to support students' distance learning and therefore do not make the effort to contact parents and caregivers. Another potential reason is that parents and caregivers in rural areas and those who are poorer are less likely to have access to forms of technology that will enable regular contact remotely (Kim *et al.*, 2020).

Although the capacity of some parents and caregivers to support students' distance learning has been questioned by teachers, our findings do suggest that parents and caregivers may have an important role in advocating for the needs of students. The contact

that school principals have with parents and caregivers is an important factor in determining whether they report making plans to support disadvantaged students to return to school. This might suggest that school principals who had contact with parents and caregivers were more aware of the challenges that disadvantaged students faced. Potential implications are that enhancing parents and caregivers' participation may help to achieve greater responsiveness to the needs of students, particularly those who are disadvantaged.

7. CONCLUSION

Drawing on the perspectives of school principals and teachers during the COVID-19 pandemic, our findings provide important insights into what is needed to build local-level capacity to respond to the COVID-19 pandemic. Our findings have implications for efforts to strengthen education systems going forward – an issue of ongoing relevance to Ethiopia and beyond (Harris, 2020; Srivastava, 2020; UNESCO, 2020; World Bank, 2020). The role of the *woreda* (district) education office in providing support to school principals and teachers proves critical.

Overall, our analysis suggests that in terms of providing support to school principals and teachers, a cascade approach is taking place where support is provided to school principals from the local government, they in turn are more likely to support teachers. And these teachers who receive support are more likely to engage with parents and caregivers during school closures. However, as a result of this cascade model, it appears that information is being lost from one level to the next, and as a result, our findings also suggest that not all school principals and teachers are receiving support and subsequently not all students are being reached. In particular, the evidence suggests that it is students who are most disadvantaged, due to poverty, living in rural areas and girls, who are potentially missing out the most. More explicit attention is needed concerning the manner in which support is provided by the government to school principals and teachers to ensure that support reaches even the most disadvantaged students.

An important caveat of our study relates to the fact that the school principals and teachers from our sample who are included in the phone survey were those who were relatively easier to contact than those who did not participate. It may be the case that those who were not included are even less likely to have been supported to respond to the COVID-19 school closures. Nevertheless, our findings provide important insights to the local-level response to the COVID-19 pandemic, paving the way for further analysis and a more in-depth assessment of the factors influencing the local-level response during school closures, including through engagement with local government stakeholders. Such analysis will continue to be important given the ongoing effects of the current pandemic as well as lessons for other crises in the future.

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Appendix A: Logistic regression model fit

	Support Received (by school Principals)	Supporting teachers during COVID-19	Supporting disadvantaged students to return
Obs.	127	127	127
Pseudo R2	.12	.16	.09
Chi2	Chi2(3) = 9.89 p<0.05	Chi2(4) = 26.29 p<0.05	Chi2(4) = 15.81 p<0.05
Hosmer-Lemeshow chi2	p>0.05	p>0.05	p>0.05
Pearson chi2	p>0.05	p>0.05	p>0.05
Correctly classified	70%	73%	68%