

**Going beyond the challenge: School leaders' strategies for ensuring teachers' engagement in student learning during COVID-19 related school closure in Rwanda**

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**Abstract**

*This study aimed at assessing how school leaders managed to continuously engage teachers to support students during remote learning conducted amidst COVID-19-related school closure in Rwanda. The study adopted an explanatory sequential mixed-method research design. A total of 54 school leaders from seven different districts (urban and rural) were involved. A questionnaire survey and an interview guide served as primary data collection tools. The findings revealed that school leaders could not afford to monitor lessons aired on radio, TV, or other digital platforms alone. Hence, they opted to delegate responsibility to respective teachers, trusting them with independent decision-making. Findings reiterate that professionals, teachers, and school leaders make decisions on how best to overcome the imposing circumstances. The present study recommends that continued personal and collective structured professional development opportunities should be offered, especially regarding ICT devices and online learning platforms.*

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**Keywords:** School leaders, leadership strategies, remote learning, COVID-19 pandemic, school closure

**Introduction**

School leaders play a key role in effective teaching and learning. With the eruption of COVID-19 as a global pandemic on 11th March 2020 (Kaup et al., 2020), traditional in-class instruction (Di Pietro et al., 2020) has been put on halt, and more than 1.57 billion students globally forced to go home (Alam & Tiwari, 2020). This has destabilized the usual school leaders' practices as the learning shifted to remote technologies such as television (TV), radio, telephone, YouTube, and web-based e-learning platforms. In some countries and schools, remote learning used advanced internet-based platforms such as Google Hangouts, Slack, CiscoWebEx, and Zoom platform as well as sending interactive worksheets for learning (Reddy & Ramesh, 2020).

According to Kirschner, Mohammed, and Weiner (2020), school closure was unpredictable, implying little preparedness from the school and school leaders in particular to organize and monitor virtual classrooms. This is again emphasized by Audrey Azoulay, UNESCO Director-General, who declared during the launch of the COVID-19 Global Education Coalition that nearly overnight, the world entered a radically new age of learning (Pandey, 2020). On this ground, Harris and Jones (2020) affirmed that remote or screen-based learning limited most learners from teacher support.

COVID-19 will undoubtedly be remembered for having significantly impacted human existence in every conceivable way (Azorin, 2020). During the school closure, school leaders reacted in different ways to support the

continuation of learning despite students being away from school. Headteachers supported and implemented the Government's remote learning initiatives that aimed at minimising COVID-19 repercussions on learning since face-to-face teaching and physical classrooms were no longer possible (OECD, 2020). It is also true that head teachers had to constantly help their communities understand the challenges associated with COVID-19, a global threat. In this vein, despite being exhausted, anxious, and uneasy, many school leaders had to take the initiative and appear confident (Gurr, 2020). Their top concerns were always the education and welfare of their students. In addition, they had also to fulfil parental expectations at the same time (Van Wart & Kapucu, 2011).

Beyond that, it was indeed challenging for many school administrators to keep track of students' development and ensure that the improvised "connect to learn, learn to connect" reality pioneered by the pandemic (Harris & Jones, 2020) was taking shape.

In Rwanda, schools were closed on 18<sup>th</sup> March 2020 as a strategy to mitigate the rapid spread of the COVID-19 pandemic. To minimize learning losses, the Government of Rwanda, through the Cabinet Resolutions of 1<sup>st</sup> April 2020 recommended the use of technology for continued learning (Office of the Prime Minister, 2020). Therefore, exploring how school leaders fulfilled their roles under these special circumstances is essential.

This study is vital in that it recalls the core and prime role that school leaders should play to ensuring that learning happens. It underlines that supporting and capacitating teachers to fulfil their duties is a core responsibility of the school leader, be it in the usual schooling conditions or abnormal circumstances imposed by the COVID-19 pandemic. Thus, this study sought to respond to the following objectives:

- Explore the extent to which school leaders supported continuous professional development for teachers to support learning during COVID-19;
- Assess the extent to which school leaders worked with teachers to support their self-efficacy to monitor remote learning;
- Determine the extent to which school leaders used distributed leadership as a means for teacher engagement in student learning during COVID-19..

### **The review of literature**

Teachers and school administrators put a lot of effort into making their classrooms/schools a safe place to learn. Also true, there cannot be student well-being without teacher well-being (Hargreaves et al., 2019). Hence, school leaders must provide teachers with the support they need by setting up procedures and expectations that consider teacher needs and feedback.

In a short time, the COVID-19 pandemic brought about several changes to schooling. The pandemic highlighted the crucial role that schools play in giving learners, staff, families, and communities stability, routine, and

necessary support during this time of crisis (Karasavidou & Alexopoulos, 2019). Teaching and learning at home can be challenging given the complexity of both teachers' and parents' lives (Shirley et al., 2020). Also, teachers who work from home have extra obligations because they must manage their work and personal lives (Dabrowski, 2020).

Teachers naturally look to the school leadership for direction. These leaders also have other responsibilities they must accomplish, including dealing with the intellectual, social, emotional, and physical requirements of their staff. It is envisaged that the leader of tomorrow's schools must be one with the information, skills, and dedication required to handle expanded responsibilities (Head & Alford, 2015). Leaders must be prepared to deal with the inevitable social, cultural, and technological obstacles that may impede instructional efforts (Cunningham & Cordeiro, 2012). According to Van Horn et al. (2004), the expression work-related teacher well-being refers to people's favourable opinions of and normal functioning in their workplace environment. It is thus perceived that, more than ever, the COVID-19 pandemic created the need for good leadership that will help followers adapt to change.

Each element of the school leadership role is stressed and just as easily evaluated in times of crisis (Direen, 2017). The primary reason for this is that a school administrator, in the event of the disaster still needs to make careful decisions about how to best serve teachers (Netolicky, 2020). It is apparent that the basics of strong leaders such as a clear vision, nurturing others, managing people and developing capacity, remain constant (Leithwood, Harris, & Hopkins, 2020). As work shifts between online and in-person formats, school leaders have been fast adapting their typical approach to administration, teaching, and learning. In such situations, it is essential for school leaders seeking to continue school improvement efforts in urban and rural school settings to recognize the relevance of interpersonal skills and also teaching and learning capabilities (Farmer, 2010).

It has been essential to adopt digital technology in teaching and learning (Francisco & Barcelona, 2020). School officials are expected to make provisions that will be crucial to students' learning and achievement (Asio, & Jimenez, 2020). However, educational leaders grappled over whether to provide continuous, standards-aligned content via remote teaching to support teachers after the quick switch to it (Reich et al., 2020). Effective school leaders should be aware of teachers' concerns and support them in altering the curriculum and teaching techniques if required to support the learning process. They must act quickly and creatively and carefully evaluate all their options, possible ramifications, and any negative effects before acting (Netolicky, 2020).

During school closure because of COVID-19, teachers received support from school leaders with planning, educational technologies, distance learning, feedback techniques, and evaluation strategies (Handoyo & Anas, 2019). Teachers were encouraged to share materials, processes, and lessons learned using social media platforms (Hargreaves & O'Connor, 2018). In some instances, the provision of extensive online professional development by school leaders was critical in keeping teachers abreast of the new dynamics. Some leaders could include opportunities for collaboration, such as instructional coaching and professional learning communities (Stone-Johnson & Weiner,

2020). They also intended to give teachers the resources they need to use technology to support student learning. This was to enable teachers to provide flexible instruction that can accommodate students with different learning styles.

### Methodology

This study adopted the explanatory sequential mixed methods research design (Creswell & Clark, 2011; Creswell, 2012, Ivankova & Stick, 2007;). The total target group was 419 secondary schools from seven districts. Two of these Districts were urban, i.e., Rubavu and Kicukiro Districts. The remaining five (Kirehe, Rutsiro, Nyaruguru, Burera, and Gatsibo Districts) were rural. Of these above-mentioned schools, 54 were sampled, and public and private categories were considered.

**Table 1**

*Target and sampled secondary schools*

#	District	Total schools	Sampled secondary schools
1	Kirehe	63	9
2	Gatsibo	96	15
3	Kicukiro	37	3
4	Rubavu	57	7
5	Nyaruguru	50	5
6	Burera	53	6
7	Rutsiro	63	9
	Total	419	54

**Source: Ministry of Education (2022)**

A questionnaire in Likert scale format (comprising all the themes as derived from the research objectives) enabled the collection of quantitative data (Moseley, 2021) from 54 school leaders. All questionnaires (100%) were filled by the targeted respondents. This could be possible because data collectors visited individual schools and in the absence of the school leader, the Deputy in Charge of studies responded on behalf of the school administration. An interview guide was also designed around the key emerging themes from the research objectives. The interview guide particularly helped collect qualitative data from seven key informants to triangulate the quantitative data (Orodho, et al., 2016). These seven key informants were drawn from the earlier surveyed pool of school leaders and were purposively chosen based on the foreseen well-grounded information and unique experience they had around the research topic. A research permit was obtained from the University of Rwanda-College of Education. Data collectors

were trained prior to data collection. Ethical issues such as informed consent, voluntary participation, and anonymity were upheld throughout the study. Data were collected during the second term of Rwanda's 2023 secondary school calendar. The reliability of the instruments was ensured through a pilot test. Here, Cronbach Alpha was computed for the questionnaire survey. This instrument was adopted since the computed alpha was 0.8, which was far above the set 0.75. Quantitative data were analyzed using descriptive statistics (frequency, percentage, and means). They reported table format whereas qualitative data were analyzed under the guidance of themes created around research objectives and reported in narrative forms. Trustworthiness of the qualitative data was also ensured through adequate reporting, interpretation, and comments from the audience of the 1st International Conference on “Re-shaping Education for Sustainable Development” that took place in Kigali-Rwanda from 28th -30th March 2023.

### Findings and discussion

The COVID-19 plague necessitated school leaders to devise strategies to ensure that teachers actively engage in helping students with remote learning. Teachers were expected to provide support for student' online learning. Therefore, this study sought the respondents' perspectives on how frequently the school leaders implemented the different strategies.

#### ***Promoting teachers' professional capacity during COVID-19 period***

The current study explored the strategies used by school leaders in building teacher capacity to support learning during school closure and school reopening. A specific focus was put on the frequency of CPD activities organized to facilitate teacher learning on the development and use of remote learning tools, facilitating remote learning, supporting students affected by COVID-19, supporting students from low-income families, and preparing for school reopening.

**Table 2**

*CPD activities organised to build teacher capacity during school closure and school reopening*

SN	Statements	Never (1) %(n)	Rarely (2) %(n)	Sometimes (3) %(n)	Often (4) %(n)	Very often (5) %(n)	Mean
1	Organise face-to-face/online CPD activities (workshop, training, community of practice) for teachers to support students affected by the consequences of COVI D-19	7.4 (4)	18.5 (10)	18.5 (10)	40.7 (22)	14.8 (8)	3.4
2	Arrange face-to-face/online CPD activities (workshop, training, community of practice) for teachers to support students from low-income families	11 (6)	13 (7)	13 (7)	46.3 (25)	17 (9)	3.4
3	Conduct face-to-face/online CPD activities (workshop, training, community of practice) to prepare teachers for school reopening	16.5 (9)	11.1 (6)	13 (7)	39 (21)	20.4 (11)	3.4

4	Organise face-to-face/online CPD activities (workshop, training, community of practice) for teachers to learn about the development and use of remote learning tools	11.1 (6)	20.4 (11)	18.5 (10)	38.8 (21)	11.1 (6)	3.2
5	Implement face-to-face/ online CPD activities (workshop, training, community of practice) for teachers to learn about the facilitation of remote learning	12.96 (7)	22.2 (12)	12.9 (7)	37 (20)	14.8 (8)	3.2

Table 2 presents the respondents' views on the frequency of CPD activities organised in schools to build teachers' capacity during school closure and re-opening. According to the findings in Table 3, CPD activities (face-to-face/online workshop, training or community of practice) for teachers could not happen as regularly as possible due to COVID-19. Indeed, sessions to ensure that teachers are ready for school reopening were organised occasionally (M=3.4). Similarly, the results show that face-to-face or online synchronous CPD activities (workshop, training, community of practice) for teachers to learn about the development and use of remote learning tools as well as learning about the facilitation of remote learning had a volatile frequency (M=3.2).

Asked why at least an online mode of delivery was not used to substitute the usual face-to-face mode, the interviewed rural public school leader from Rutsiro District said:

*“The only means to reach out to our teachers was the use of individual phone call; which was expensive and not the best way to conduct CPD...Using online meeting software could have been the best alternative but there were limitations caused by the fact that some teachers had never used these tools while others had challenges to access internet in their homes.... that is how we ended not to have CPD during school closure; much that they were important.”*

These findings imply that there were limitations for school leaders to build teachers' competencies around roles to play amidst the circumstances imposed by COVID-19, yet this was essential during times of crisis to equip teachers with skills to envisage continuous student learning (Stone-Johnson & Weiner, 2020). That is the only pathway teachers can be successful in their core responsibilities (Direen, 2017), especially during the unpredicted COVID-19 times as underlined by Kirschner, Mohammed, and Weiner (2020).

### ***Work with teachers to support their self-efficacy to monitor remote learning***

The responses to various statements about how frequently school leaders worked with teachers to support their self-efficacy in student remote learning are presented in Table 3.

**Table 3***Frequency of school leaders in working with teachers to support their efficacy*

SN	Statements	Never (1)%(n)	Rarely (2) %(n)	Sometime s (3) %(n)	Often (4) %(n)	Very often (5) %(n)	Mean
1	Delegation of responsibility	3.7 (2)	13.0 (7)	7.4 (4)	50.0 (27)	25.9 (14)	3.8
2	Giving teacher freedom to take initiative	5.5 (3)	9.3 (5)	11.1 (6)	55.6 (30)	18.5 (10)	3.7
3	Guidance and counselling to students	3.7 (2)	13.0 (7)	16.7 (9)	44.4 (24)	22.2 (12)	3.68
4	Trusting teachers with independent decision-making to support their learners	7.4 (4)	5.6 (3)	27.8 (15)	44.4 (24)	14.8 (8)	3.5
5	Guiding teachers on how to support learners with Special Needs	3.7 (2)	16.7 (9)	24.0 (13)	38.9 (21)	16.7 (9)	3.48
6	Guidance to teachers on how to use platforms (e.g. WhatsApp) to share information with learners	7.4 (4)	25.9 (14)	9.3 (5)	40.7 (22)	16.7 (9)	3.33
7	Guiding teachers on how to assess learners remotely	7.4 (4)	16.6 (9)	25.9 (14)	38.8 (21)	11.1 (6)	3.29
8	Guiding teachers on how to support learners who do not have technology	9.3 (5)	20.3 (11)	16.7 (9)	44.4 (24)	9.3 (5)	3.2
9	Guidance to teachers on how to use radio to support learners during the remote instruction	16.7(9)	22.2 (12)	14.8 (8)	37.0 (20)	9.3 (5)	3
10	Guidance to teachers on how to use TV to support learners during the remote instruction	22.2 (12)	13.0 (7)	18.5 (10)	35.2 (19)	11.1 (6)	3

**Researcher (2022)**

As shown in Table 3, the responses to most of the assessed aspects (seven out of ten) regarding the frequency with which school leaders worked with teachers to support their self-efficacy are skewed towards 'often' and 'very often'. Close to three-quarters (74.1%) and slightly more than three-quarters (75.9%) of respondents indicated that they either frequently or very frequently delegated responsibility to teachers. The implication here is that a shared and decentralized responsibility mode of operation are quick wins to success. This situation is indeed supported by the fact that delegation of responsibility and giving teacher freedom to take initiative have the highest weighted mean (3.8 and 3.7 respectively). On this note, a key informant who is also a rural school leader in one District said:

"I remember one of our teachers was very worried about how social distancing would be possible, how families would afford face masques for students and how younger children would maintain face masques on all the time. S/he had the fear of potential COVID-19 quick spread at school and the high risk of school closure due to failure to contain the spread of the pandemic in the school community.... The teacher was talking about

personal experience! I heard the concern and engaged the teacher further. That is how we came up with our own strategies not only to adhere to COVID measures but also to help children and other members of the school community to get rid of fear and rather help enforce all due measures.”

Another key informant revealed that by decentralizing the responsibility to follow up on students' learning, some teachers were innovative, and their innovative practices benefited the whole community. This informant who was also a school leader of a private school in Rubavu District, said:

“You know, not individual parent in this area has got a smartphone which in COVID-19 was used much to check on the learning schedule of aired lessons via TV and Radio as well as accessing learning materials including readings and past papers that were shared in different WhatsApp groups. Having identified those parents with smartphones, one of our teachers opted to group parents- COVID-19 measures like social distance and face mask respected- and introduced a neighboring peer support mechanism. S/he would request those parents with smartphones to avail these so that students in the neighborhood could come and copy (using handwriting) the shared learning materials on WhatsApp.... It really worked ....”

However, the findings in Table 3 indicate that school leaders provided to teachers less guidance on the use of Radio and TV to support remote teaching and learning. The guessing is that the use of these technologies for learning was not embedded in the local education system. These were rather quick solutions for learning continuation which required individual quick adaptation and adjustment (Di Pietro et al., 2020) instead of relying on training or support by externals to grasp the know-how.

**Collaboration and use of distributed leadership to teachers**

Table 4 shows school leaders' responses to the question regarding collaboration and the assignment of leadership responsibilities to teams of teachers during COVID-19.

**Table 4**  
*Frequency of leadership responsibilities distributed to teachers during school closure*

SN	Statement	Never (1) %(n)	Rarely (2) %(n)	Sometimes (3) %(n)	Often (4) %(n)	Very often (5) %(n)	Mean
1	Collaborate with teachers to track and share information on vulnerable learners	9.1 (5)	18.2 (10)	10.9 (6)	32.7 (18)	29.1(16)	3.7
2	Collaborate with teachers to track and share information on learners facing emotional distress and health problems	7.3 (4)	18.2 (10)	16.4 (9)	27.3 (15)	30.9 (17)	3.5
3	Collaborate with teachers to track and share information on learners	12.7 (7)	16.4 (9)	10.9 (6)	32.7 (18)	27.3 (15)	3.4



	facing challenges in remote learning						
4	Delegate responsibilities to teams of teachers to respond to the challenges raised by remote learning	7.3 (4)	21.8 (12)	12.7 (7)	41.8 (23)	16.4 (9)	3.3
5	Provide communication facilitation to teachers so they can share information regarding remote learning	10.9 (6)	20.0 (11)	12.7 (7)	36.4 (20)	20.0 (11)	3.3

Ensuring learning continuation was not the sole panacea for school leaders. Teachers, under the guidance and support of school leaders played the pivotal role. As shown in Table 4, school leaders indicated that they sometimes delegated responsibilities to teachers to respond to the challenges raised by remote learning, such as students' attention, motivation to learn and time management. For teachers to do this, school leaders would provide communication facilitation in terms of airtime to teachers so they can share information regarding remote learning (M=3.3). This method of assigning responsibilities to teachers is in line with Harris and Jones (2020) assertion that school leaders distributed leadership not only builds strong relationships among staff but also triggers effective and efficient fulfilment of stakeholders' responsibilities.

### Conclusion and recommendation

The present study has indicated that despite the novelty of COVID-19 times, expectations around roles to be fulfilled by school leaders, especially regarding supporting and engaging teachers, were not put to rest. Rather, school leaders strived to cope with the newness of the situation and mitigate limitations imposed by the context. That is how school leaders' success could be observed through strategies such as delegating responsibility and allowing teachers to take initiative. It is also drawn from this study that the main challenge for school leaders was linked to the unpredicted halt of in-person learning, limited access and familiarity of ICT-mediated channels to organize CPD, and the uncertainty around how the pandemic could be contained totally to enable education to go back to normalcy.

Findings from this study pave the way for the recommendation that school leaders are professionals, implying that they must adapt to the changing landscape. It is also put forward that teachers themselves are leaders in their own capacities in the sense that they decide on what to do and how to do it depending on the imposing personal or collective challenges. Also, it is true that in some circumstances, teachers connect better and faster among themselves and with parents/ communities than school leaders would.

Therefore, the present study recommends that the Ministry of Education of Rwanda ensure that all head teachers and teachers have access to continued and structured personal development learning opportunities on contemporary topics. For this to happen, there should be mechanisms to enhance access to digital tools and online learning platforms and to revitalise existing peer learning and peer support structures among teachers. Of course, the

progressive penetration of ICT devices in the community and the continued sensitization of parents on their role in supporting innovative practices in education should always be upheld.

## References

- Alam, A., & Tiwari, P. (2020). Putting the 'learning' back in remote learning: Policies to uphold effective continuity of learning through COVID-19, *Issue brief*, June 2020, Office of Global Insight and Policy, UNICEF
- Asio, J.M.R., & Jimenez, E.C. (2020). Professional development, organisational climate, supervisory rapport and overall satisfaction of employees: An attitudinal study. *International Journal of Scientific Research in Multidisciplinary Studies*, 6 (4), 34-40. <https://doi.org/10.6084/m9.figshare.12698195.v2>.
- Azorin, C. (2020). "Beyond COVID-19 Supernova. Is another education coming?", *Journal of Professional Capital and Community*. 5 (3/4), pp. 381-390, DOI 10.1108/JPC-05-2020-0019
- Clark, I. (2012). Formative assessment: Assessment is for self-regulated learning. *Educational Psychology Review*, 24(2), 205–249. doi:10.1007/s10648-011-9191-6
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 4th Ed. Boston: Pearson.
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting Mixed Methods Research* (2<sup>nd</sup> ed.). California: SAGE Publications, Inc.
- Cunningham, G., & Cordeiro, P. A. (2012). *Educational leadership: A bridge to improved practice* (5th ed.). Boston: Pearson.
- Dabrowski, A. (2020). Teacher Wellbeing During a Pandemic: Surviving or Thriving? *Social Education Research*, 2(1), 35-40.
- Di Pietro, G., Biagi, F., Costa, P., Karpiński Z., Mazza, J. (2020). The likely impact of COVID-19 on education: Reflections based on the existing literature and international datasets, EUR 30275 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-19937-3, doi:10.2760/126686, JRC121071
- Direen, G. (2017). School leadership in a post-disaster setting. *Teaching and Learning*, 2,9-15
- Farmer, T. A. (2010). Overcoming Adversity: Resilience Development Strategies for Educational Leaders, *Georgia Educational Researcher*: 8 (1), 1. DOI: 10.20429/ger.2010.080101 Available at: <https://digitalcommons.georgiasouthern.edu/gerjournal/vol8/iss1/1>
- Francisco, C.D.C., & Barcelona, M. C. (2020). Effectiveness of an online classroom for flexible learning. *International Journal of Academic Multidisciplinary Research*, 4 (8), 100-107. [www.ijeais.org/ijamr](http://www.ijeais.org/ijamr)

- Gurr, D. (2020). Editorial note. *International Studies in Educational Administration*, 48 (1), 1-3
- Handoyo, S., & Anas, S. (2019). Accounting Education Challenges in the New Millennium, Era. *Journal of Accounting Auditing and Business*, 2(1), 35-46
- Hargreaves, A., Wangia, S. & O'Connor, M. (2019), Flipping their lids: teachers' wellbeing in crisis. in Netolicky, D.M., Andrews, J. and Paterson, C. (Eds.), *Flip the System Australia: What Matters in Education*, Abingdon: Routledge, pp. 93-104.
- Harris, A. & Jones, M. (2020) *COVID-19 – school leadership in disruptive times*. *School Leadership & Management*, 40:4, 243-247, DOI: 10.1080/13632434.2020.1811479
- Harris, A. (2020). COVID-19 – school leadership in crisis? *Journal of Professional Capital and Community*, 5 (3/4), 321-326
- Head, B. W., & Alford, J. (2015). Wicked problems: Implications for public policy and management. *Administration & society*, 47(6), 711-739
- Ivankova, V. N., & Stick, L. S. (2007). Students' Persistence in a Distributed Doctoral Program in Educational Leadership in Higher Education: A Mixed Methods Study. *Research in Higher Education*, 48 (1), 93-135.
- Karasavidou, E., & Alexopoulos, N. (2019). School crisis management: attitudes and perceptions of primary school teachers., *European Journal of Educational Management*, 2(2), 73-84.
- Kaup, S., Jain, R., Shivalli, S., Pandey, S., & Kaup, S. (2020) Sustaining academics during COVID-19 pandemic: The role of online teaching-learning. *Indian Journal of Ophthalmology*, 68:1220-1221.
- Kirschner, R., Mohammed M., & Weiner, Y. (2020). *How COVID-19 Changed the Way Students Experience Learning: A Blending of Remote and Conventional Education*. An Interactive Qualifying Project submitted to the Faculty of Worcester Polytechnic Institute in partial fulfilment of the requirements for the degree of Bachelor of Science. London: Worcester Polytechnic Institute.
- Leithwood, K., Harris, A. & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 40 (1): 5–22. doi:10.1080/13632434. 2019.1596077.
- Ministry of Education (2022). *Education statistics yearbook 2021-2022*. Kigali.
- Moseley, C. (2021). *A Complete Guide to Likert Scale Survey Questions*, <https://www.viewpointfeedback.com/blog/a-complete-guide-to-likert-scale-survey-questions/>

- Netolick, D. M. (2020). School leadership during a pandemic: navigating tensions. *Journal of Professional Capital and Community*, 5, (¾), 391-395 <https://www.emerald.com/insight/publication/issn/2056-9548#earlycite>.
- OECD (2020). *Keeping the Internet up and running in times of crisis*, OECD Publishing, Paris
- Office of the Prime Minister (2020). Cabinet Communiqué 1st April 2020, Available online at <https://primature.prod.risa.rw/news-detail/cabinet-communique-1st-april-2020>
- Orodho, J.A., Nzabwirwa, W., Odundo, J. Waweru, P. N., & Ndayambaje, I. (2016). *Quantitative and qualitative research methods: A step by step guide to scholarly excellence*. Nairobi: Kanezja Publishers.
- Pandey, A.K. (2020). Embracing digital learning in the COVID-19 era. *Teacher*, 14 (2), 10-12.
- Reddy, D. S. & Ramesh, L.S.R.C.V. (2020). *Pros and Cons of E-Learning by Children in Rural Areas during Lockdown Situations and Ways to Empower it*. Proceedings of Cloud-based International Conference, "Computational Systems for Health and Sustainability (CSFHS)" 5th June 2020.
- Reich, J., Buttner, C. J., Fang, A., Hillaire, G., Hirsch, K., Larke, L. R., Littenberg-Tobias, J., Moussapour, R., Napier, A., Thompson, M., & Slama, R. (2020). Remote learning guidance from state education agencies during the COVID-19 pandemic: A first look. *Journal of Contingencies and Crisis Management*, 16 (1), 1423.
- Stone-Johnson, C., & Weiner, J.M. (2020). Principal professionalism in the time of COVID-19. *Journal of Professional Capital and Community*, 5(¾), 367-374.
- Van Horn, J. E., Taris, T. W., Schaufeli, W. B. & Schreurs, P. J. G. (2004). The structure of occupational well-being: A study among Dutch teachers. *Journal of Occupational & Organisational Psychology*, 77, 365-375.
- Van Wart, M. & Kapucu, N. (2011). Crisis management competencies. *Public Management Review*, 13 (4), 489-511. doi:10.1080/14719037.2010.525034