

A Comprehensive Study on the Impact of COVID-19 on Secondary Education in Uganda

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ABSTRACT

The impact of the COVID-19 pandemic on global education has been profound, especially in Uganda. Secondary school students in Uganda have encountered numerous challenges as a result of this crisis. This paper offers a thorough examination of the specific obstacles faced by these students, encompassing impacts on academic achievements, mental well-being, and their overall educational path. The closure of schools has disrupted the educational advancement of secondary students in Uganda, and the transition to online learning has exacerbated the digital divide due to limited access to the internet and technology resources. This scenario has led to educational disparities for students from underprivileged backgrounds. The pandemic's socioeconomic repercussions have also imposed financial burdens on students' families, compelling some students to seek employment or care for unwell relatives, thereby restricting their study time. School closures have affected students' social interactions, resulting in feelings of seclusion. The absence of peer and teacher interactions can have adverse effects on students' mental health, escalating feelings of stress, anxiety, and depression. Furthermore, the discontinuation of essential services such as school meals and healthcare support has impacted students' well-being. School meals are crucial for many students, and their unavailability due to school closures has deprived students of essential nutrition. It is imperative for the Ugandan government and educational stakeholders to enact the comprehensive strategies delineated in this research paper in pre and post-pandemic era. These will prioritize equitable access to education by supplying technology and internet connectivity to marginalized communities and ensuring that mental health support services are easily accessible to students. Finally, the various challenges faced by secondary students in Uganda during the COVID-19 crisis necessitate a collective effort from all sectors. By effectively addressing these concerns, students can receive the necessary assistance to pursue their education and excel in a post-pandemic era.

Keywords: COVID-19, Student, Uganda, online learning, Academic achievement, Pandemic

INTRODUCTION

The COVID-19 pandemic has had an unparalleled disruptive impact, touching every facet of global society. As nations grapple with the multifaceted repercussions of this crisis, one sector that has faced significant adversity is education. The sudden closure of schools worldwide and the transition to remote learning have posed substantial challenges, causing widespread disruptions in the field of education. This impact has been particularly pronounced in nations like Uganda, where secondary education holds a pivotal role in a student's academic journey. The pandemic has exacerbated existing inequalities,

ranging from access to resources to the quality of education, while also laying bare the deficiencies of educational systems in effectively managing large-scale emergencies [1][2]. This research article seeks to comprehensively Review the existing literature, analyze its impacts, evaluating the disruptions in education and offering solutions to mitigate adverse outcomes. Through an examination of the specific challenges encountered by Uganda and other developing nations, this paper aim to glean insights into how to build more resilient and equitable education systems capable of withstanding future

crises. The COVID-19 pandemic has presented unprecedented challenges to the global education sector, including Uganda. Particularly affected are secondary school students. The closure of educational institutions in response to the pandemic has significantly disrupted the academic progress of secondary students in Uganda [3]. The abrupt transition to online learning, inaccessible to many due to limited internet connectivity and technological resources, has exacerbated the digital divide. Consequently, students from disadvantaged backgrounds face educational inequalities, limiting their learning opportunities. The socioeconomic ramifications of the pandemic have also impacted students' families, resulting in heightened financial burdens [4][5]. Many students have had to undertake income-generating activities or assume caregiving responsibilities for ill family members, diminishing the time and energy they can allocate to their studies. School closures have further disrupted students' social interactions, fostering sentiments of isolation and loneliness.

The absence of peer and teacher engagement can detrimentally affect students' mental health, leading to heightened stress, anxiety, and depression. Moreover, the discontinuation of essential services like school meals and health assistance has compromised students' overall well-being. School meals are a vital source of nutrition for many students, and the closure of schools has deprived them

of this essential support. To tackle these challenges, it is imperative for the Ugandan government and education stakeholders to implement comprehensive strategies [6]. These initiatives should prioritize equitable access to education, encompassing the provision of technological tools and internet connectivity to marginalized communities. Furthermore, mental health support services must be readily available to students to address the psychological toll of the pandemic [7]. In conclusion, the challenges faced by secondary students in Uganda during the COVID-19 crisis are multifaceted and demand a unified approach from all stakeholders. By effectively addressing these issues, we can ensure that students receive the necessary assistance to pursue their education and flourish in a post-pandemic world. Institutions may encounter obstacles and problems when integrating technology. The researcher in [8] identified first-order (external) and second-order (internal) barriers to technological integration. First-order barriers are related to equipment, education, access, time, and technical support, while second-order barriers (specific to teachers) are linked to pedagogy, belief, and personal preferences. The scholar in [9] suggested that student barriers to online learning could include misinterpretation of expectations, time management, and interpersonal communication. Instructors may face barriers related to identifying expectations, providing feedback, and managing interpersonal relations.

Literature Review

The Challenges of COVID-19 among the Secondary Education Students

In recent academic research, a variety of challenges have arisen for both educators and students in light of the COVID-19 pandemic, resulting in a significant shift in the educational landscape commonly referred to as the "new normal." The researcher in [10] discovered that parents of kindergarten and primary school students encountered numerous hurdles, such as supporting their children's education, addressing issues of focus and engagement, and adapting to online learning. The obstacles faced by teachers, including limited internet access, challenges in lesson planning and delivery, and collaboration with parents [11]. The diverse issues teachers encountered, ranging from technical difficulties to student engagement and lack of familiarity with online learning [12]. The researcher in [13][14] pointed out significant obstacles to online learning in medical training and teacher education, respectively. They have emphasized time constraints, technical shortcomings, infrastructure limitations, and the absence of institutional support and strategies as key challenges. The insufficiency of high-speed internet, reliable technology, and the need for skilled trainers

and students as impediments to the integration of web-based distance education [14]. It is noteworthy that much of the existing research has predominantly concentrated on administrators and managers, with limited comprehensive studies on the broader challenges encountered across various learning environments and the in-depth knowledge and quality of research undertaken such as distance education, online learning, quality research, quantitative research and electronic learning [15][16][17][18]. The challenges teachers faced in implementing remote education, such as technical difficulties and student engagement are so numerous and cannot be over emphasized. Furthermore, the researcher in [19][20] explored the mental health impacts of the pandemic on college students. To address these difficulties, students sought assistance from educators, family members, and engaged in recreational activities. A research study by [21] examined online teaching approaches among engineering students. The study revealed dissatisfaction with communication and interactive Q&A sessions, but a positive response to flipped

classrooms, enhancing engagement and overall course satisfaction. The researcher in [22] found similar effectiveness in the transition from traditional to fully online flipped classrooms using a cloud-based video conferencing platform. Conversely, the scholar in [23], identified challenges to at-home learning, including technical issues and limited social interactions, while [24] highlighted disruptions in academic performance due to anxiety, depression, and unsupportive learning environments, which particularly affects underprivileged learners. The author in [25], emphasized the positive outcomes of student isolation, noting improved performance with effective learning techniques, while [26] acknowledged the advantages of online learning during the pandemic, but students preferred traditional classroom settings. The researcher in [26], evaluated synchronized online learning in a medical school, noting positive feedback on time management, but challenges such as technical issues and content delivery. They also recognized the constraints in meeting practical learning requirements in a virtual setting.

E-learning encounters numerous overarching challenges, encompassing issues of accessibility, affordability, flexibility, educational pedagogy,

Impact of COVID 19 on Secondary Students on Access and Enrollment

The disruption of secondary education in Uganda due to the pandemic has been multifaceted, underscoring the importance of addressing its impacts on access and enrollment. The widening digital divide, particularly pronounced with the transition to online learning, presents a considerable obstacle for many

lifelong learning, and educational policy. A critical concern is the inconsistent Internet connectivity and the lack of access to digital devices in many countries like Uganda, significantly affecting children from disadvantaged economic backgrounds [27]. This digital disparity has the potential to worsen existing educational inequalities and increase screen time for learners. To address this, students must strike a balance between online activities and offline participation in self-directed learning. However, the lack of parental guidance, especially for younger learners, presents an additional hurdle, particularly when both parents are employed. Furthermore, the availability of physical environments that accommodate diverse learning approaches is also a pertinent consideration. Despite studies covering a range of educational levels and disciplines, there is limited literature specifically focusing on the challenges encountered by students, parents, teachers, and administrators in distance education during the Covid-19 pandemic. Therefore, further research is essential to gain a comprehensive understanding of the pandemic's impact on the distance learning landscape and to identify effective strategies to tackle the associated challenges.

students, particularly those hailing from low-income households [28]. Consequently, there has been a decline in enrollment rates and a surge in dropout rates among vulnerable groups, further exacerbating existing educational disparities [29][30].

Strategies to Ameliorate Impact of COVID 19 on Secondary students Access and Enrollment

- **Government Support for Technology Access:** The government can offer financial aid or subsidies to low-income families to acquire or lease essential technology for online learning, such as laptops, tablets, or internet connectivity.
- **Investment in Infrastructure:** Ensuring reliable internet access and connectivity in rural and remote areas is paramount. This may involve expanding broadband infrastructure and assisting schools in establishing the necessary technological framework.
- **Support for Teachers and Students:** Teachers and students require training and assistance in adapting to online learning. This could encompass professional development opportunities for teachers and digital literacy programs for students.
- **Flexible Learning Options:** Providing adaptable learning choices, such as blended learning or a mix of online and in-person instruction, to cater to the diverse needs of students and families.
- **Community Involvement:** Involving local communities and parents in the educational process to guarantee that students receive essential support at home.
- **Addressing Socioeconomic Factors:** Addressing wider socioeconomic factors like poverty and lack of access to fundamental services that contribute to educational inequalities can also enhance access and enrollment rates.
- **Research and Evaluation:** Conducting research and evaluations to comprehend the specific needs and challenges of various communities and customizing interventions accordingly.

Impact of COVID 19 on Secondary students on Learning Loss and Academic Achievement

The swift transition to remote learning has exacerbated the issue of learning loss and academic achievement. The sudden change from in-person to online instruction has resulted in a noticeable decrease in student engagement and motivation. The absence of face-to-face interaction and the unique challenges of online learning have contributed to a decline in academic performance. This, coupled with the restricted access to essential resources and support, has further exacerbated the situation [31][32]. The abrupt shift to remote learning has presented a range of challenges leading to learning loss and decreased academic achievement as shown below:

1. **Lack of face-to-face interaction:** One of the most notable impacts of the pandemic on secondary students is the absence of face-to-face interaction with teachers and peers. This has led to reduced engagement and motivation among students, as the social aspect of learning has been diminished. Students may experience feelings of isolation and disconnection, resulting in a decline in their academic performance.
2. **Challenges of online learning:** The move to online learning has brought about numerous challenges for students, including technical issues, lack of access to reliable internet or devices, and difficulties in maintaining focus during online classes. Additionally, some students may find it challenging to develop the self-discipline and time management skills necessary for successful online learning.
3. **Limited access to resources and support:** Not all students have equal access to the resources and support required for successful remote learning. This may include

access to high-speed internet, computers or tablets, textbooks, and other learning materials. Moreover, some students may lack a quiet and conducive learning environment at home, further impacting their ability to learn effectively.

4. **Decline in academic performance:** The culmination of these challenges has led to a decline in academic performance among secondary students. Many students have encountered learning setbacks in critical subjects, which could have lasting effects on their future educational and career opportunities.
5. **Potential long-term effects:** The consequences of the decline in academic achievement are expected to be enduring. Students who have fallen behind may face difficulties in catching up, and the pandemic's impact on their education could influence their future prospects. Additionally, the psychological effects of the pandemic, such as heightened stress and anxiety, may further hinder students' ability to learn and excel academically.

Finally, the COVID-19 pandemic has significantly impacted secondary students' learning loss and academic achievement. The lack of face-to-face interaction, challenges of online learning, limited access to resources and support, and decline in academic performance are all contributing factors to this impact. It is imperative for educators, policymakers, and parents to continue addressing these challenges and providing support to ensure that secondary students can achieve academic success despite the obstacles posed by the pandemic.

Impact of COVID 19 on Secondary students on Mental Health and Well-being

The pandemic has not only had academic implications but has also deeply impacted students' mental health and well-being. The disruptions in routines, social isolation, and uncertain future have notably affected students, leading to increased stress, anxiety, and depression. Limited access to mental health services and resources has exacerbated these difficulties, leaving many students struggling to cope [33][34]. The following are insights and potential strategies to mitigate these effects:

1. **Disruption of Routines:** The pandemic has disrupted students' daily routines, including

school, extracurricular activities, and social interactions.

2. **Social Isolation:** Social isolation from peers and classmates due to remote learning and limitations on social gatherings.
3. **Uncertainty about the Future:** Anxieties about the future, such as academic performance, college applications, and career prospects.
4. **Increased Stress, Anxiety, and Depression:** The pandemic has exacerbated stress, anxiety, and depression among students.

5. **Lack of Access to Mental Health Support:** Limited access to mental health services due to financial constraints or lack of awareness.
6. **Coping with Challenges:** Difficulty in coping with pandemic-related challenges, such as academic pressures, familial stress, and personal issues.

Modes of Teaching and Learning during COVID-19 Lockdown

To ensure the continuity of education during the pandemic, distance education processes have been implemented worldwide, leveraging various technological tools and Internet-based systems [35]. Online face-to-face lessons accommodating multiple participants and offline lessons on websites have been provided by utilizing modern educational technology [36]. The success of distance education significantly relies on teachers' infrastructure and technological proficiency in effectively using distance learning tools [37][38]. For instance, China, with its robust technological infrastructure, has excelled in delivering distance education, while countries like Vietnam and Mongolia encounter challenges due to limited Internet connectivity, smartphone access, or televisions

Even before the COVID-19 outbreak, it was evident that not all students globally had equal access to devices such as computers, tablets, and the Internet [39]. Many school districts serving children from low-income families or rural areas lack the necessary resources for a smooth transition to distance education [40][41][42]. Hastening the transition without considering crucial success factors for distance education could exacerbate existing inequalities [36].

Adopted Techniques used for Promoting Education Systems in Uganda

The government of Uganda has committed to enhancing the number of secondary schools nationwide by initiating the establishment of a seed secondary school in each sub-county that currently lacks one or is experiencing significant educational deficiencies. The Education Strategy Investment Plan (ESIP) of 2015 articulates this dedication. Nonetheless, the Ministry of Education and Sports (MOES) reported in 2012 that out of the 450 sub-counties, 236 were without secondary schools. According to press reports, in [51], mentioned that 41 seed secondary schools were under construction in sub-counties without existing secondary schools to alleviate overcrowding, although challenges persist. The scholar in [52], summarized effective classroom teaching as characterized by warmth, understanding, organization, stimulation, imagination, emotional engagement with students, clear content presentation, and supportive attitude. Achieving all these aspects requires substantial investment in

It is essential to acknowledge the distinct difficulties faced by secondary students during the pandemic and prioritize their mental health and well-being. By addressing these issues through a combination of individual support, community resources, and systemic changes, students can be empowered to thrive in the face of adversity.

The quality of education worldwide has been affected by school closures during the pandemic. Unequal access to distance education intensifies disparities and inequities in education [43][44][45]. Moreover, the pandemic has significantly diminished support services for students with special needs provided by specialists such as special education teachers, speech and language therapists, and psychologists [46]. The primary goal of educating students with special needs is to promote their integration into society by providing equitable and effective educational services, both in special education schools and through inclusive education.

Ensuring that students with special needs continue to receive support and general education services alongside their peers in accordance with an Individualized Education Program (IEP) in the least restrictive educational setting, such as general education classes, is the most effective approach to facilitate their integration [47][48][49]. However, literature highlights that students with special needs or disadvantages are at significant risk, as distance education often represents the sole means to meet their educational needs [50].

students' lives, necessitating adequate remuneration to cultivate teacher dedication. Students should possess their own materials and be responsible for taking notes. The researcher in [53], suggested that this approach aids students in developing stronger arguments and perspectives. As education moves towards a student-centered approach, teachers should encourage students to identify their strengths and weaknesses, guiding them from passive to active learning. Teachers should assist students in developing critical thinking skills. With the rise in student enrollment in numerous secondary schools, there is a growing need for diverse teaching methodologies. The researcher in [54], argued that the diversity of teaching strategies, rather than class size, has the most significant impact on learning. Teacher's personality markedly contributes to creating a conducive learning atmosphere, where teachers must earn students' respect and appear approachable. Just as digital learning materials boost

students' self-efficacy, stories from adolescent literature can help students challenge fixed mindsets and foster resilience.

Summary of Literature Review

From the review it was obvious that during the COVID-19 pandemic, secondary students have faced numerous challenges that have significantly impacted their education and well-being. The digital divide has worsened, making it difficult for students from low-income families to access online learning resources. As a result, enrollment has decreased, and dropout rates among vulnerable groups have increased. The shift to remote learning has led to decreased student engagement and motivation, as well as difficulties in accessing resources and support. This has resulted in lower academic performance among secondary students, affecting their future educational and career opportunities. Disruptions in routines, social isolation, and uncertainty about the future have caused increased stress, anxiety, and depression among students. Limited access to mental health services has exacerbated these issues.

Proposed Solutions and the Way Forward

It is crucial to identify and implement solutions to mitigate the impact of the pandemic on secondary education in Uganda. This could involve specific interventions to narrow the digital divide, like providing students with technology tools and internet access. Additionally, efforts should focus on supporting students' mental health and overall well-being by providing counseling services and additional assistance. Furthermore, investing resources in teacher training and professional development to enhance their skills in remote and blended learning could be beneficial. The potential strategies and a roadmap to mitigate the impact of COVID-19 on secondary education in Uganda are as follow:

1. Digital Infrastructure: A robust digital infrastructure is essential for enabling remote learning during the pandemic. This includes internet connectivity, access to devices like laptops or tablets, and the use of suitable learning platforms. The Ugandan government should prioritize investments in digital infrastructure, especially in remote and underserved regions.

2. Teacher Training: Educators need training in effectively delivering online and blended learning. This can be achieved through workshops, online

The COVID-19 pandemic has significantly affected secondary education in Uganda, resulting in disruptions in access, enrollment, learning, and students' overall well-being. The long-term repercussions of these disruptions remain uncertain. Nevertheless, it is evident that swift action is required

courses, or partnerships with educational institutions. Teachers should also receive guidance on proficiently using digital tools.

3. Curriculum Adaptation: The curriculum should be adjusted to meet the needs of remote learning. This involves digitizing textbooks, creating online learning resources, and incorporating interactive elements into lessons.

4. Community Engagement: Communities can play a crucial role in supporting education during the pandemic. Parents and local leaders can help by monitoring student progress, providing resources, and advocating for educational support.

5. Mental Health Support: The pandemic has significantly affected students' mental well-being. Schools should provide counseling services and create a supportive environment for students.

6. Hybrid Learning: Implementing a hybrid learning model that combines in-person and remote education can help reduce disruptions. This may involve rotating student groups or offering some classes online and others in person.

7. Flexible Assessment: Assessment methods should be adaptable to different learning environments, including a mix of traditional exams, projects, and portfolios.

8. Equity and Inclusion: Steps should be taken to ensure all students have equal access to education, addressing obstacles like poverty, disability, and gender inequality.

9. Collaboration and Partnerships: Collaboration among government entities, schools, NGOs, and other stakeholders is vital for a unified response to the pandemic. Partnerships can aid in resource mobilization, knowledge sharing, and reaching out to more students.

10. Long-term Planning: as the immediate efforts focus on lessening the immediate impact of COVID-19, it is crucial to plan for the future. This involves strengthening education systems, enhancing resilience, and preparing for potential future emergencies. These are initial suggestions, and the specific solutions will depend on the Ugandan context and available resources. The key is to maintain flexibility, adaptability, and collaboration in addressing the challenges posed by the pandemic.

CONCLUSION

to address these challenges. Through a comprehensive understanding of these issues and the implementation of tailored interventions, we can strive to guarantee that all students have access to high-quality education and the necessary support to

flourish, even in the midst of unprecedented crises such as the COVID-19 pandemic.

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