

## Transforming education in Guyana: Challenges, innovations and future prospects

Wazim Rafeek Sharif <sup>1,2,\*</sup>, Mark Anthony Lyte <sup>1</sup>, Ganda Soodoo <sup>3</sup>, Azad Khan <sup>4</sup> and Mohandatt Goolsarran <sup>4</sup>

<sup>1</sup> Department of Curriculum and Instructions, Faculty of Education and Humanities, University of Guyana – Berbice Campus, Guyana.

<sup>2</sup> Department of Graduate Studies, UNICAF University, Malawi.

<sup>3</sup> Cyril Potter College of Education, Tyrkeyen, Guyana.

<sup>4</sup> Department of Curriculum and Instructions, Faculty of Education and Humanities, University of Guyana – Turkeyne Campus, Guyana.

World Journal of Advanced Research and Reviews, 2025, 26(03), 2150-2155

Publication history: Received on 12 May 2025; revised on 18 June 2025; accepted on 21 June 2025

Article DOI: <https://doi.org/10.30574/wjarr.2025.26.3.2395>

### Abstract

While the educational system of Guyana has hugely grown, numerous persistent obstacles are observable, particularly in hinterland Guyana. The major barriers of education in Guyana are socioeconomic disparities, colonial traditions, and insufficient infrastructures, all which serve to undermine the provision quality of education. Compounding factors of inadequate internet services, insufficient resources, and inadequate numbers of suitably qualified educators heighten these within the hinterland communities of Guyana. Policymaking gaps, as well as the inefficiencies within governance, further complicate the efforts to enhance the education system.

Guyana has taken massive steps to deal with these challenges. It first developed an Education Sector Plan 2021 – 2025 with the objective to modernize the curricula, the integration of digital learning in schools, and the assurance that teachers undergo intensive training programs. Moreover, the government has joined hands with both local and international organisations to work with to support reform of the education sector. The future of Guyanese education depends on the growth of Science, Technology, Engineering and Mathematics (STEM), all schools from Nursery through Primary through Secondary and through Tertiary levels. This can be achieved in significant collaboration with the local private sector and regional and international donor agencies with experience in advancing STEM. This article addresses some issues, offer creative solutions, points to future directions of education, and suggests policy changes to enhance the country's education system.

**Keywords:** Education Reform; Digital Learning; Guyana; Stem Education; Rural Education; Governance; Policy Implementation

### 1. Introduction

Guyana is a nation in the Caribbean that is rich in resources, has a small population, and has a moderate and decreasing ratio of public debt to GDP (Bhattacharya, 2024). Education in this nation has undergone crucial advancements. Nonetheless, different systemic barriers like socioeconomic inequalities, colonial legacies and infrastructural limitations continue to deter progress (Singh, 2011). Cheong et al. (2019) explain different educational challenges, such as poor infrastructure and shortage of teachers, among others. The problem is prevalent in the rural and underserved areas of Guyana. Moreover, there are disparities in digital access between rural and urban regions in Guyana, which restricts equitable learning opportunities (United Nations Development Programme, 2023).

\* Corresponding author: Wazim Rafeek Sharif

Nonetheless, the Government of Guyana has established different initiatives, such as the Education Sector Plan 2021–2025, which aims to expand education and address the education sector's challenges. The aim of the sector plan is to modernise curricula, improve teacher training, and integrate technology into classrooms. Despite all of these initiatives, success only relies on the proper allocation of resources, strategic implementation, and the involvement of stakeholders at the community and national levels.

The current study assesses Guyana's education system, focusing on the challenges, reforms, and prospects. It also assesses the effects of the governance structure, collaborations, and initiatives associated with digital learning on the accessibility, and quality of education delivery in Guyana. The analysis of these factors provides different recommendations for educators, stakeholders, and policymakers, thus ensuring that there are improvements in the long term and that all learners have equitable access to education.

---

## **2. Challenges in Guyana's Education System**

### **2.1. Historical and Socioeconomic Barriers**

Colonial legacies and systemic inequalities play a major role in the education system, resulting in social barriers, especially for marginalised students, particularly those with Special Education Needs and/or Disabilities (SEND). Historically, Guyana experienced social inequalities and racial prejudices which impacted on the delivery of quality education. (Lashley, 2023). According to Lashley (2023), Amerindian students in Guyana experience exclusion for their cultural and linguistic differences that tend to favour colonial norms and languages.

In addition, socioeconomic disparities in Guyana negatively affect education, especially for marginalised people like those living in rural areas and different Indigenous communities. According to Lape et al. (2023), Guyana's poverty rate is 43%, one of the highest in the Western hemisphere. Many families lack the financial resources needed to support their children's education. The authors also explain that the national early childhood education programmes in Guyana lack adequate resources and managed by low levels of trained personnel. This, in turn, contributes to restricting access to quality learning experiences before formal schooling begins. Guyana rural and Indigenous learners face greater educational challenges as a result of long travel distances, limited of learning institutions and even insufficient infrastructure. As a result of these disparities, there are lower literacy rates and increased school dropouts. Teenage pregnancies are also another major issue that accounts for around 20-22% of pregnancies in Guyana, and this plays a massive role in limiting the educational opportunities for young girls because many find themselves dropping out of school. Moreover, high level of outward migration of trained professionals puts a strain on human resources to provide quality education.

### **2.2. Infrastructure and Resource Constraints**

The lack of resources and infrastructure significantly impacts the Guyanese education system. In rural and interior regions in Guyana, schools lack adequate learning materials and facilities, and the problem is worsened by the shortage of qualified teachers (Rupnarain, 2024). The schools in those regions also lack crucial resources needed for better education, such as electricity, internet, and proper school buildings. This is not the same in Guyana's urban regions, which are associated with access to all these necessary resources for quality education and higher pass rates at the National (NGSA) and Regional Examinations (CSEC/ CAPE). There is also the problem of other qualified professionals, especially in secondary schools and higher education. The study by Baker-Gardner (2023) explained that despite most of the secondary schools in Guyana having adequate library accommodation, they lack trained staff.

The challenge of resources on education in Guyana was intensified further by the COVID-19 pandemic. With the onset of the COVID-19 pandemic, there was a global shift to remote and online learning to ensure that education continued during the disruption. Guyana was not left behind, "at the early childhood and primary levels, the Ministry decided that television would be the preferred modality where infrastructure was available, whereas secondary schools would incorporate online learning methods" (Bleeker and Crowder, 2022). However, it was still challenging due to Guyana's limited internet and computer access. A study by Baker-Gardner (2023) found that Guyana (28%) schools rank the lowest in the Caribbean with the lowest access to the internet and 28% with the second lowest in computer access. This indicates that the lack of resources also restricted better learning with digital learning tools and education in general.

### **2.3. Policy and Governance Issues**

Policy and governance issues in Guyana have established themselves as key factors affecting Guyana's education system. One of these major issues is the disparity in access to and quality of education, especially in the hinterland and urban regions. As a result of Guyana's vast and difficult terrain, it is very challenging to communicate with communities in the

nation's interior or the generally isolated communities. This results in the educational services provided in Guyana's Hinterlands and Deep Riverian regions being below the national standards (Taysum and Abery, 2017). To this end the government over the years have consistently increased the Education sector budget over the years. In the Guyana Budget 2025 presented to the National assembly the Education Sector budget was increased to 175B from the 2024 amount of 135.2B. In the 2025 budget the government has further prioritised universal access, particularly universal primary and secondary education, and access to tertiary and technical and vocational education (Meusa, S. (2025, January 18). Political turbulence in Guyana has also had a massive impact on education reforms. Taysum and Abery (2017) explain that educational policies in Guyana have been massively frustrated by corruption, market forces, lack of equitable participation in state constitutions and institutions, trafficking people and political turbulence. Education in Guyana faces major challenges stemming from corruption and the management of finances by the people of power and policymakers. In addition, the lack of effective monitoring and evaluation policy outcomes has massively impacted education.

Moreover, there has been a lack of effective monitoring and evaluation of policy outcomes. This is seen in previous strategic plan reviews. For instance, Taysum and Abery (2017) report that the Ministry of Education reported that the "review of the 2003-2007 Education Strategic Plan impact revealed it had not improved education and the quality of education was still a matter of great concern with a particular focus on the attendance rates of the students, number of teachers in the system, availability of equipment and operationalising of child centred schools."

---

### **3. Innovations and Reforms in Guyana's Education Sector**

#### **3.1. Government Initiatives and Policies**

Guyana's government has taken significant reforms and investments to improve education, ensuring equitable access to quality education nationwide. One of the major initiatives in the nation is the Guyana Education Strategic Plan (ESP) 2021-2025 – Vision 2030, whose aim is to ensure equal opportunities for equitable and quality education for everyone. The initiative also aims to embed Science, Technology, Engineering, and Mathematics (STEM) in the teaching-learning process by stressing the need for structured digital literacy programmes at both the primary and secondary education levels using different ICT tools such as robotics (Sweeney et al., 2024).

Curriculum has also been a major priority for the government of Guyana. The nation has identified that secondary school education should not be left to be enjoyed by a certain group but should be accessible to every learner who has left primary school. Therefore, the government has introduced a six-year curriculum for people failing the national grade 6 assessment test. The transitional curriculum programme is anticipated to be more interactive, participatory, centred on the child, and integrated. This ensures that all the learners are exposed to "basic education", including "secondary education". An article by Guyana's Ministry of Education (2021) addresses the government's mission to sweep the curriculum reform within an estimated 20 years. The government of Guyana has allocated \$337.4 million to this initiative. The government also invests intensively in training teachers in different subjects, as the article by the Ministry of Education (2021) reports.

#### **3.2. Technological Integration in Education**

Guyana's education has been extensively changed by technological integration. Through the Ministry of Education in Guyana, the government has identified the role that digital tools could play in modernising education. As a result of this vision, initiatives have been set in place to improve technology accessibility in Guyana. The Ministry of Education (2021a) reports an initiative involving a \$174 million online digital platform, whose aim in Guyana is to provide an integrated online platform for educators, principally for curriculum delivery but also associated with many other applications and capabilities.

Guyana's classrooms utilize different computer educational projects; learners and instructors use laptops or tablets, interactive smart boards, and different learning software. The platform also integrates projectors, video cameras, cell phones and video conferencing in the learning classrooms. Policymakers and educators have been forced to come up with clear objectives and proper ethical and relevant educational frameworks as a result of the rapid growth and use of Guyana's communication and technology sector (Lewis, 2025)

Nonetheless, challenges associated with improving digital learning remain in Guyana, especially regarding accessibility. The nation is associated with a serious deficit in internet connectivity, ranking last in the Caribbean region in matters of connectivity (Baker-Gardner, 2023). The challenge creates a digital divide between the rural and the urban schools, thus making it very challenging for some learners to benefit fully from the education incorporated with technology. In

response, initiatives like Guyana's smart classroom program have been set in place, aiming to bridge this gap by equipping schools with digital tools and enhancing teachers' ICT capabilities (Lewis, 2025).

### **3.3. Community and International Partnerships**

Guyana's education reforms have not been left to the government alone. Community and international partnerships, especially through local engagement, Non-Governmental Organisations (NGOs), and foreigners, have all played a massive role. By working together, they have contributed massively to addressing deficits in infrastructure, advancements in technology, and teacher training gaps.

Different NGOs like UNICEF and the Global Partnership for Education (GPE) work closely with Caribbean nations with the aim of improving learning opportunities through funding them, and Guyana is not exempt. For instance, the International Development Association (2021) reports that "UNICEF is executing a GPE COVID-19 Accelerated Funding (US\$3.75 million) supporting continuity of learning, wellbeing/psychosocial support, and Water, Sanitation and Hygiene (WASH) and safe school activities." This is an indication that global partnerships play a massive role in fostering innovative solutions to challenges that education faces.

The engagement of local communities in Guyana has also played a massive role in reinforcing the educational reforms. According to Zaballos and Nakata (2012), there are different public-private partnerships, such as Broadband, which have been able to expand internet access in rural schools in Caribbean nations like Guyana, thus contributing to the reduced digital divide. Guyana also has different grassroots organisations that have implemented mentorship initiatives or literacy programs whose aim is supporting the underprivileged learners.

---

## **4. Future Prospects for Education in Guyana**

Education's future in Guyana seems influenced by massive transformations, technology, global cooperation, and policy reforms. After what Covid-19 did to education, nations must combine face-to-face learning with online learning to harness the potential of technological tools to improve their learning experience and meet their expectations (García-Morales et al., 2021). This is not exempt in Guyana, where the Ministry of Education will partner with other organisations to ensure that the nation advances its e-learning, digital literacy initiatives and virtual classrooms. Doing so will play a massive role in improving educational resources and ensuring reduced disparities between rural and urban learners.

It is also expected that Guyana's future of education is that there will be strengthened STEM education. As Guyana's economy continues to shift positively due to the booming energy sector and its large spillovers into the non-oil economy, one of the challenges identified is skilled labour (Rosenblatt et al., 2024). This, in turn, shows the need to equip learners with STEM-related skills to prepare them for emerging industries. As the Guyana Ministry of Education reported, the future of Guyana's education might expand the Education Sector Plan 2021–2025 that embeds STEAM in the learning process, thus stressing digital literacy programmes through ICT tools and robotics and also improving "the quality of teaching mathematics for all teachers at the primary level" (Sweeney et al., 2024 p15).

Another priority for the future of Guyana's education will be to expand access to quality education in the hinterland communities and other rural areas. Guyana's government and different organisations are working to set up new modern schools in rural areas. For example, with the World Bank's support, Guyana has created the latest and modern schools, such as Westminster Secondary School and Good Hope Secondary School, among others (World Bank, 2023). In doing so, there are an additional 1,800 spaces for learners in the secondary education system, increasing the enrolled "from 87 per cent to 93 per cent by transferring students from SD departments" (World Bank, 2023 p23). By focusing on building new schools in rural Guyana, the government will offer increased capacity and provide an enhanced learning environment for learners. In turn, the investment will ensure that in the future, Guyana will enjoy increased enrollment rates, reduced dropout levels, and an uplift in all-around educational experiences for Guyana learners (World Bank, 2023).

The nation will also strengthen its international partnerships with different organisations. According to IIEP-UNESCO (2025), different organisations, such as UNESCO, play a massive role in education in Guyana. The collaboration will not stop in the near future as Guyana will try to work with other organisations to receive support for its educational projects. By offering financial resources and policy guidance, collaboration will improve learning outcomes.

---

## 5. Conclusion

Guyana faces three primary issues in its educational structure: inefficient governance systems combined with poor infrastructures and economic inequalities. The nation's marginalised communities, especially in underserved areas, face challenges stemming from insufficient resources, the lack of trained teachers and financial constraints. Digital accessibility is also a major issue in Guyana. Nonetheless, through reforms like the Education Strategic Plan 2021–2025 and investing in digital learning, the government is trying to improve education. The government has not shied away from partnering with local and international organisations to address the shortcomings or even tackle the challenges in the education system. The education future of Guyana will focus on serious investment in STEM education, school improvement in the rural areas, and teacher training. Additionally, international partnerships will also be intensified to contribute meaningfully towards developing the education sector, ensuring there is long-term sustainable development.

---

## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

---

## References

- [1] Baker-Gardner, R. (2023). The State of School Libraries in the Caribbean. *Caribbean Library Journal*, 93-126. <https://journals.sta.uwi.edu/ojs/index.php/clj/article/download/8995/7367>
- [2] Bhattacharya, M. R. (2024). A Suggested Medium-Term Fiscal Framework for Guyana. *International Monetary Fund*. <https://papers.ssrn.com/sol3/Delivery.cfm?abstractid=4904569>
- [3] Bleeker, A., and Crowder, R. (2022). Selected online learning experiences in the Caribbean during COVID-19 (No. 47742). Naciones Unidas Comisión Económica para América Latina y el Caribe (CEPAL). <https://repositorio.cepal.org/server/api/core/bitstreams/e0fd3ec4-e87f-40e8-b09e-39ea5f5aae53/content>
- [4] Cheong, K. A., Kellems, R. O., Andersen, M. M., and Steed, K. (2019). The education of individuals with disabilities in Guyana: An overview. *Intervention in School and Clinic*, 54(4), 246-250. [https://www.researchgate.net/profile/Ryan-Kellems/publication/326135013\\_The\\_Education\\_of\\_Individuals\\_With\\_Disabilities\\_in\\_Guyana\\_An\\_Overview/links/5c816a1b299bf1268d44986a/The-Education-of-Individuals-With-Disabilities-in-Guyana-An-Overview.pdf](https://www.researchgate.net/profile/Ryan-Kellems/publication/326135013_The_Education_of_Individuals_With_Disabilities_in_Guyana_An_Overview/links/5c816a1b299bf1268d44986a/The-Education-of-Individuals-With-Disabilities-in-Guyana-An-Overview.pdf)
- [5] Cummings, K. (2021). Sociodemographic Factors, Socioeconomic Factors, and Teenage Pregnancy Outcomes in Guyana (Doctoral dissertation, Walden University). <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=11490&context=dissertations>
- [6] García-Morales, V. J., Garrido-Moreno, A., and Martín-Rojas, R. (2021). The transformation of higher education after the COVID disruption: Emerging challenges in an online learning scenario. *Frontiers in Psychology*, 12, 616059. <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.616059/pdf>
- [7] International Development Association. (2021, June 18). Project appraisal document on a Global Partnership for Education grant in the amount of US\$6.7 million to the Co-operative Republic of Guyana for an education sector program project. World Bank. <https://documents1.worldbank.org/curated/en/487521631549455802/pdf/Guyana-Education-Sector-Program-Project.pdf>
- [8] Lape, M. E., Roopnarine, J. L., Krishnakumar, A., and Blake, C. (2023). Socioeconomic and home educational resource risk factors and Children's literacy and social skills in Guyanese families: Mediating role of parental cognitive engagement and parental guidance. *International Journal of Psychology*, 58(6), 554-562. <https://onlinelibrary.wiley.com/doi/full/10.1002/ijop.12931>
- [9] Lashley, L. (2023). Marginalized by Social Inequalities in Two Mainstream Primary Schools in Postcolonial Guyana. *Global Journal of Human-Social Science: C Sociology and Culture*, 23(1), 55-71. [https://www.researchgate.net/profile/Lidon-Lashley/publication/369374823\\_Marginalized\\_by\\_Social\\_Inequalities\\_in\\_Two\\_Mainstream\\_Primary\\_Schools\\_in\\_Postcolonial\\_Guyana\\_Marginalized\\_by\\_Social\\_Inequalities\\_in\\_Two\\_Mainstream\\_Primary\\_Schools\\_in\\_Postcolonial\\_Guyana/links/6418607292cfd54f841661de/Marginalized-by-Social-Inequalities-in-Two-Mainstream-](https://www.researchgate.net/profile/Lidon-Lashley/publication/369374823_Marginalized_by_Social_Inequalities_in_Two_Mainstream_Primary_Schools_in_Postcolonial_Guyana_Marginalized_by_Social_Inequalities_in_Two_Mainstream_Primary_Schools_in_Postcolonial_Guyana/links/6418607292cfd54f841661de/Marginalized-by-Social-Inequalities-in-Two-Mainstream-)

Primary-Schools-in-Postcolonial-Guyana-Marginalized-by-Social-Inequalities-in-Two-Mainstream-Primary-Schools-in-Postcolonial-Guyana.pdf

- [10] Lewis, A. A. (2025). Enhancing Classroom Learning Experience: A Comprehensive Study on the Integration and Influence of Technology in 21st Century Education in Guyana. *International Journal of Research and Innovation in Social Science*, 9(1), 2030-2044. [https://www.researchgate.net/profile/Andre-Lewis-3/publication/388819888\\_Enhancing\\_Classroom\\_Learning\\_Experience\\_A\\_Comprehensive\\_Study\\_on\\_the\\_Integration\\_and\\_Influence\\_of\\_Technology\\_in\\_21st\\_Century\\_Education\\_in\\_Guyana/links/67a76f2f645ef274a47570a9/Enhancing-Classroom-Learning-Experience-A-Comprehensive-Study-on-the-Integration-and-Influence-of-Technology-in-21st-Century-Education-in-Guyana.pdf](https://www.researchgate.net/profile/Andre-Lewis-3/publication/388819888_Enhancing_Classroom_Learning_Experience_A_Comprehensive_Study_on_the_Integration_and_Influence_of_Technology_in_21st_Century_Education_in_Guyana/links/67a76f2f645ef274a47570a9/Enhancing-Classroom-Learning-Experience-A-Comprehensive-Study-on-the-Integration-and-Influence-of-Technology-in-21st-Century-Education-in-Guyana.pdf)
- [11] Meusa, S. (2025, January 18). \$175B allocated for further development in the Education Sector. *Guyana Chronicle*.
- [12] Ministry of Education (2021, December 12). Education Minister promises innovations, notable improvements in 2017. <https://education.gov.gy/en/index.php/media2/news-events/1247-education-minister-promises-innovations-notable-improvements-in-2018>
- [13] Ministry of Education (2021a, April 21). Education Ministry launches \$174M online learning platform. *Ministry of Education, Guyana*. <https://education.gov.gy/en/index.php/media2/external-news/3771-education-ministry-launches-174m-online-learning-platform>
- [14] Rosenblatt, D., Beuermann, D., Dohnert, S., Clayton, K., Saboin, J. L., Mazzocca, A., ... and Vargas, L. C. (2024). Caribbean Economics Quarterly: Volume 13, Issue 3: Innovation for Faster Economic Growth in the Caribbean: Are We There Yet?. <https://publications.iadb.org/publications/english/document/Caribbean-Economics-Quarterly-Volume-13-Issue-3-Innovation-for-Faster-Economic-Growth-in-the-Caribbean-Are-We-There-Yet.pdf>
- [15] Rupnarain, R. Z. (2024). The changing role of teachers and teaching styles in the classroom of high schools in Guyana amidst the pandemic. *International Journal of Education, Learning and Development*, 12(1), 45-58. <https://uwispace.sta.uwi.edu/bitstreams/1538ea34-2acb-444f-a31c-f3aefc3df55f/download>
- [16] Singh, B. S. (2011). Guyana's declining secondary school retention and completion rates: causes and solutions. [https://library2.smu.ca/bitstream/handle/01/24816/singh\\_binder\\_s\\_masters\\_2011.PDF?sequence=2&isAllowed=y](https://library2.smu.ca/bitstream/handle/01/24816/singh_binder_s_masters_2011.PDF?sequence=2&isAllowed=y)
- [17] Sweeney, A. E., Williams, H. K., and George, L. (2024). STEM Education Research, Policy and Practice in the Caribbean: Imperatives for the Next Five Years. *Caribbean Journal of Education and Development*, 1(1), 87-102. <https://caribed.scholasticahq.com/article/121137.pdf>
- [18] Taysum, A., and Abery, V. M. (2017). Shifts in education policy, administration and governance in Guyana 1831–2017. Seeking 'a political' agenda for equity and renewal. *Italian Journal of Sociology of Education*, 9(Italian Journal of Sociology of Education 9/2), 55-87. [https://ijse.padovauniversitypress.it/system/files/papers/2017\\_2\\_4\\_0.pdf](https://ijse.padovauniversitypress.it/system/files/papers/2017_2_4_0.pdf)
- [19] United Nations Development Programme (UNDP). (2023). Bridging the digital divide: Empowering Indigenous regions through internet connectivity in Guyana. *UNDP Guyana*. <https://www.undp.org/guyana/news/bridging-digital-divide-empowering-indigenous-regions-through-internet-connectivity-guyana>
- [20] World Bank. (2023, July 7). Guyana, on a path towards universal secondary education. *World Bank*. <https://www.worldbank.org/en/news/feature/2023/07/07/guyana-on-a-path-towards-universal-secondary-education>
- [21] Zaballos, A. G., and Nakata, G. T. (2012). Bridging Gaps, Building Opportunity: Broadband as a Catalyst of Economic Growth and Social Progress in Latin America and the Caribbean: A View from the Industry. <https://publications.iadb.org/publications/english/document/Bridging-Gaps-Building-Opportunity-Broadband-as-a-Catalyst-of-Economic-Growth-and-Social-Progress-in-Latin-America-and-the-Caribbean-A-View-from-the-Industry.pdf>