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A Comparative Review of Education Policy in Brazil and South Africa: Divergent Trends in Inequality

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The literature identifies that education policies in Brazil are the backbone of their success in reducing inequality as measured by the GINI index. Since 1994, Brazil is the only BRICS (Brazil, Russia, India, China, South Africa) nation to achieve this. This article presents a comparative study of South Africa and Brazil, and the policies applied towards achieving the Sustainable Development Goals (SDG) of ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. Using the analytical framework of the SDG, the strategies of South Africa, and Brazil regarding education are considered in order to identify patterns and themes that can potentially explain the divergence of inequality trends of the two nations. The overarching finding is that subtle differences in education policies perpetuate inequality in South Africa, whereas analogous policies contribute to equality in Brazil. The main contribution of this study is that it locates faults in otherwise well-meaning education policies in South Africa.

Keywords: comparative education, policies, Brazil, South Africa, inequality

Introduction

A quality education system should allow people to accumulate human capital, which in turn will lead to the achievement of Sustainable Development Goals (SDGs), and in turn, decreased inequality and increased development. However, the fundamental nature of a country's education system may unintentionally, make it unable to fulfil this role. The repercussions of this are at best stagnation, at worst an increasing divide in society. These negative consequences manifest in static or increasing Gini indices. Brazil is a nation experiencing education success, whereas South Africa's fortunes are less discernible. This research endeavours to illuminate why two similar countries, pursuing the same goals, are experiencing contrasting patterns of success.

The United Nations Member states adopted the SDGs in 2015 (United Nations, 2022). These goals are pursued by member states, and provide a framework for achieving peace and prosperity for people and the planet, now and into the future. This study focuses on SDG 4 – quality education, which is expressed as, "ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all" (United Nations, 2015). We use the vantage of this SDG as a systematic framework for our analysis. The SDG also provides a fresh perspective in comparing and evaluating education policy.

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The primary research question that this study aims to answer is, "How and why has education policy led to contrasting outcomes?" In other words, we try and solve why, with identical goals, has there been a divergence in results between Brazil and South Africa. This research is in the same thrust of Andreoni and Tregenna (2020) who emphasise how structural and institutional configurations are important in escaping the middle-income trap. Crossley and Broadfoot (1992, p. 102) advocate that research in comparative international education should follow a multi-disciplinary approach. The multidisciplinary approach that this study follows is from the perspectives of education and economics. Additionally, the study also sets out to analyse similarities and differences in educational policies and their outcomes (Crossley & Broadfoot, 1992, p. 106). According to Crossley (2019, p. 181) context matters when conducting research in comparative education. Hence this comparative study, adopts a multi-disciplinary approach, between two BRICS, countries, Brazil and South Africa whose contexts are similar. Furthermore, the intention of this study is to help gauge what policy lessons South Africa can learn in order to foster an environment where inclusive and equitable quality education and promoting lifelong learning opportunities is ensured. This study therefore also invites future research into the key differences of South African and Brazilian education policies.

To create a framework, the researchers have selected South Africa and Brazil, as both their economies are not classified as a high-income by the World Bank. Additionally, a Sustainable Development Goal (SDG) was selected, for which each country applies policy measures that contribute towards achieving the specific SDG. This provides a starting point for the analysis.

Webster (2019) identifies South Africa as the most unequal society in the world. This pervasive feature is the main underlying developmental issue facing South Africa in the twenty-first century. The fact that inequality is persistent and is increasing, is of concern.

In order to find solutions to these challenges, this study endeavours to identify a peer country that has had more success at reducing inequality. Specifically, policy divergences between the two countries are considered to suggest what South Africa could potentially implement in order to turnaround the situation. Indeed, Brazil also experiences high levels of social inequality (Pimentel, 2022). Understanding what causes inequality can help policymakers design plans and institutions in order to mitigate it.

The research method is a literature review and the findings will be presented in narrative format with a comparative study between the two selected countries. Several policies and academic sources were consulted for this article. In the literature review, the researchers (1) selected a low- or middle-income country that is an economic peer of South Africa; (2) chose a SDG; and (3) described which policies are being implemented in both countries to achieve this SDG, and specifically policies that aim to reduce inequality.

Literature Review

Introduction

The SDGs are a set of goals, targets and indicators that should frame policies for United Nation member states from 2015 to 2030 (Ford, 2015). The SDGs follow and expand on the Millennium Development Goals (MDGs), which applied over the 2000 to 2015 period. The sustainability aspect emphasises the underlying aims of economic development, environmental sustainability and social inclusions (Sachs, 2012, p. 2206).

MDGs applied to all countries but were geared towards poorer countries, whereas the SDGs are more universally pertinent (Ford, 2015). Specific objectives differ globally, between and within societies (Sachs, 2012, p. 2206) but, targets facilitate planning, and give focus to a vision and purpose for the future (Richards-Gustafson, 2015).

Country Selection

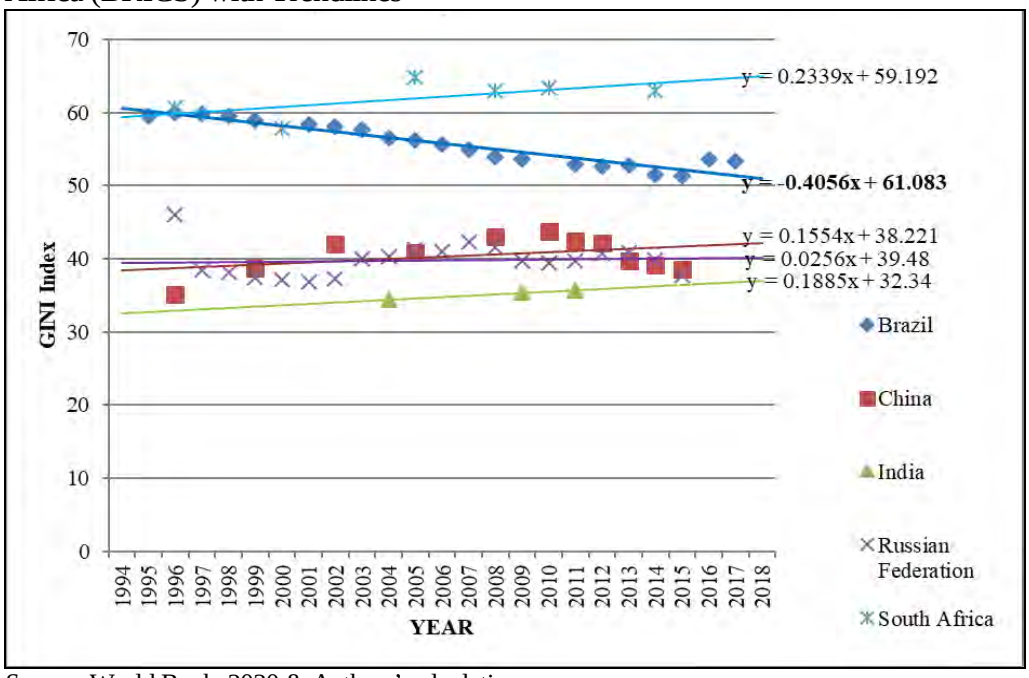
Brazil has an upper-middle income economy and like South Africa, is a BRICS (Brazil, Russia, India, China, South Africa) member, a grouping of emerging economic powers with a significant influence on regional affairs. Brazil and South Africa similarly have highly unequal income distributions (Patel, 2012).

The GINI Index measures income distribution. We use the GINI index because it encompasses the story of how policy and institutions lead to societal progress. In Figure 1, Brazil's linear trend-line's coefficient is negative, implying a decreasing GINI Index, which suggests decreasing inequality (data source: The World Bank, 2020). Brazil is the only BRICS nation where inequality is falling (Green, 2013). A consequence of this is that, since 2003 almost 40 million Brazilians were lifted out of poverty (Corbett, 2013).

In fact, we see that the shift in the GINI index for Brazil is orders of magnitude greater than the shift of the other countries. It is not only the direction of the shift that makes Brazil an interesting case study, it is the size that is significant. This is illustrated in the size of the leading coefficient, which indicates that on average as the years go by, inequality declines by 0.4 points every year. When we compare this to the other countries, as indicated in Figure 1, we note that Russia, China and India for instance have experienced mixed outcomes over the sample period.

Brazil is the world's ninth largest economy in terms of gross domestic product (GDP) (The World Bank, 2016b, p. 1). Furthermore, like South Africa, levels of inequality in Brazil are also considered to be high. What is of interest is how Brazil has been successful at reducing inequality. In fact, the time series indicates that in 1994, Brazil had a higher level of inequality than South Africa. This highlights how, in terms of inequality, the countries are heading in opposite directions.

Figure 1. GINI Index (1994-2019) for Brazil, Russia, India, China, and South Africa (BRICS) with Trendlines



Source: World Bank, 2020 & Authors' calculations.

Brazil is selected because of its successes in reducing inequality, the link through BRICS and similarities it has with South Africa. Using Brazil as a paradigm, may give insights of how South Africa can use policies to reduce inequality. Reducing inequality is a strategic objective identified in the National Development Plan of South Africa (Republic of South Africa, 2012, p. 115). It is noted that there are additional similarities between South Africa and Brazil, such as their high levels of diversity, and abundant natural resources.

Sustainable Development Goal Selection

Improvements in education and cash transfers are cited by Hailu and Soares (2009, p. 1) as the leading policies attributed towards increasing equality in Brazil. The SDG (4) of *ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all* (United Nations, 2015) has therefore been selected. This SDG follows MDG (2) *achieving universal primary education* (Perkins, Radelet, Lindauer, & Block, 2013, p. 47).

Education produces positive externalities for society; including increased capacity for: productivity (due to increased human capital), civic duty; furthermore, it facilitates distribution, creating a more equal society. Private benefits include increased productivity and therefore increased income (and capital accumulation) which reduces state dependency. Externality costs (and benefits) are internalised with large national budgets for education. Underlying this is that without equal access to education, existing inequalities are typically perpetuated (Cornwell, 2000, p. 160).

Overview of Brazil

The World Economic Forums 2014-2015 Global Competitiveness Report reports that net percentage enrolment for primary education in Brazil is 98.5% (Schwab, 2014, pp. 134-135); Brazil is considered to have successfully achieved the MDG of universal primary education. The greater objective of the Brazilian Education System, with over 56 million people enrolled in it, is "Education for All" (The Federative Republic of Brazil, 2014). In the following section, the key strategies adopted by Brazil are considered. These strategies provide an analytical framework for section "Key Strategies of South Africa", when South Africa is considered.

Key Strategies of Brazil

The key strategies adopted by Brazil included the creation of a legal framework, proper planning, financing, better resource utilisation, monitoring and evaluation of the system, policies, and inclusive participation and mobilisation of civil society (The Federative Republic of Brazil, 2014). In Appendix Table 1 is linking the targets of the SDG to each section.

Legal Framework and Planning

Education is a universal right in Brazil, with a compulsory nine-year primary education (Stanek, 2013, p. 2). Public education is free (The Federative Republic of Brazil, 1988). Brazil employs fiscal rules in order to achieve this. These rules stabilise the amount of money available for education. For example, the Constitution of Brazil communiqués that states and municipalities must invest at least 25% of tax revenue in education, and the Federal Administration must invest a minimum of 18% of tax revenue in education (de Castro, 2002, p. 7). The National Education Guidelines and Framework Law (LBD) standardised education across Brazil.

The Fund for the Development of Basic Education and Appreciation of the Teaching Profession (FUNDEB) is a Constitutional Amendment, aimed at ensuring that the Federal taxes are distributed based on the number of students in municipalities and states (The Federal Republic of Brazil, 2014, p. 69). FUNDEB reduces inequality and promotes social inclusivity amongst students.

Brazil's public administration is committed to social welfare programmes (Green, 2013). Specifically, *Bolsa Família (BF)* (introduced in 2002) targeting school attendance and *Fome Zero (FZ)* (introduced in 2003), tackling hunger and extreme poverty have lowered inequality in Brazil (Rapoza, 2013b).

Financing

Legislation dictates funding policies in Brazil. Between 2000 and 2009 there was a steady increase in the percentage of GDP invested in education (Kubacka, 2012, p. 1). Public expenditure as a percentage of GDP was 6.2% in 2015 (The

World Bank, 2020). Schooling has received a stronger budgetary focus – expanding 94% per pupil (Ferreira de Souza, 2012, p. 9).

In 2019, when facing fiscal constraints, budgets froze with regards to federally funded universities (Guerra, 2019). New grants and fellowships for masters and doctoral students were also suspended. The government also reduced funding for scientific. In other words, in a situation of limited resources, the trend of resource distribution favours and affirms the priority of primary education over higher education.

Resources

The National Foundation of Educational Development, budget increased from R$5.1 billion (2000) to R$49.5 billion (2013). It is independent to the Ministry of Education and manages the resources of federal education programmes such as the National Programmes for: textbooks; lunches in school; school transportation; further resources for school maintenance; and continuous education of school teachers (The Federative Republic of Brazil, 2014, p. 76).

Monitoring and Evaluation

Improved results lead to increased government subsidies (The Federative Republic of Brazil, 2014, p. 76), policies must compete for limited resources, and they are therefore evaluated and monitored for efficacy. Monitoring is an ongoing activity focused on collecting information. Evaluation facilitates comparisons and the identification of realistic and appropriate interventions. This provides policymakers with useful insights, and thus helps guide decision-making. This process leads to greater accountability in the system.

The National Assessment of Basic Education (SAEB) is used to access quality, equity and efficiency of teaching and learning (The Federative Republic of Brazil, 2014, p. 59). SAEB includes components to access levels of reading, writing and numeracy; evaluation of the results indicates improving average performances, in the early grades of primary education (The Federative Republic of Brazil, 2014, p. 59).

Participation and Mobilisation

The Ministry of Education enhances education by channelling the interests of Brazilian civil society through meetings and public debate (The Federative Republic of Brazil, 2014, pp. 77-79).

Policies and Programmes

Policies and programmes are actions implemented to achieve goals. The ultimate goal of any welfare programme is for its success to render it redundant (Wetzel, 2013). Various policies and programmes have been mentioned already; more are listed, detailed and analysed below. Programmes, such as BF and FZ are

implemented by the broader government, and are not strategies of the Ministry of Education.

Bolsa Família. BF led to almost universal admission to primary education (Patel, 2012). BF is a conditional cash transfer programme, for families with per-capita income below the poverty-line and is aimed at breaking the poverty cycle (Ferreira de Souza, 2012, p. 14) and increasing social inclusivity. The conditions *inter alia* are linked to school attendance, and health care factors significantly impacting school attendance. 12.8 million Families were on the programme in 2010 (Ferreira de Souza, 2012, p. 15).

Conditional cash transfers, decrease the opportunity cost of staying in school, therefore children forego leaving school to join the labour force. The cash transfers also create the incentive for families to ensure that their children remain in school.

Since BF's implementation, national attendance rates have risen (from an average of 77.7% (1995) to 91.4% (2009)) and illiteracy rates have fallen (from an average of 11.3% (1995) to 5.8% (2009)) (Ferreira de Souza, 2012, p. 9); the mean number of schooling years and all levels of educational attainment of the economically active population has increased (Ferreira de Souza, 2012, pp. 9-10).

Brasil Sem Miséria. The *Brasil Sem Miséria (BSM)* programme (introduced in 2011), is an extension of BF, and adds further benefits for poor families with children of pre-school age; helping to provide vocational training, micro-credit and jobs (Gomez, 2012).

Fome Zero. FZ is another conditional transfer programme, and its goals are to eradicate hunger and poverty. People living in poverty prioritise survival over education. Without nutrition; children cannot concentrate to learn at school. Hunger increases costs: due to increased incidence and severity of diseases and therefore leads to lower educational attainment (The Perryman Group, 2014, p. 1).

FZ predecessor *Bolsa Escola* significantly increased school attendance (Bourguignon, Ferreira, & Leite, 2002, p. 1) and therefore FZ is assumed to have improved education too.

Additional Policy Measures and Programmes.

Illiteracy. An additional fiscal rule is that, 30% of the minimum 18% of the Federal Administrations tax revenue is earmarked towards eradicating illiteracy and developing primary education (de Castro, 2002, p. 7). The literacy rate for people 15 years and older is 93.23% (United Nations, 2020a).

Infrastructure. Improved school infrastructure improves reading scores in Latin America (Duarte, Gargiulo, & Moreno, 2011, pp. 28-29). The number of Brazilian schools decreased from 2012 to 2014 (Arnold, Murakami, Bueno, & Araújo, 2015, p. 48). This led to a relative increase in demand for existing schools. However, the Brazilian government had a solution for this: With increased demand for schooling, the supply of classrooms, is inefficient, and has necessitated more daily shifts – to keep average number of hours spent in school stable and mitigate the impact on the quality of education (Arnold, Murakami, Bueno, & Araújo, 2015, p. 35).

Quality and Supply of Teachers. The number of Brazilian teachers at all levels has increased by 3.6%, between 2010 and 2013 (Organisation for Economic Co-operation and Development, 2016). To improve the quality of education, *Parfor* was implemented, to train teachers who are working without licentiate degrees (The Federative Republic of Brazil, 2014, p. 102).

Brazil has piloted performance-based pay for teachers and principals (Arnold, 2015, p. 36), with the aim of motivating staff; and in-service teacher training (Arnold, 2015, p. 36), which would improve the quality of teaching. The average salary for teachers in Brazil is $12 993 (PPP) (BusinessTech, 2018).

FUNDEF (Fund for Maintenance and Development of the Fundamental Education and Valorisation of Teaching) (introduced in 2006) allocates 60% of its resources to train lay teachers (De Mello & Hoppe, 2005, p. 4).

Early Childhood Development and Education. Early childhood education (ECE) has expanded by 37% though municipal policies (Arnold, Murakami, Bueno, & Araújo, 2015, pp. 35, 48). Long-term benefits of ECE include an increased likelihood of completing secondary school, and decreased likelihood of repeating grades (National Education Association, 2016).

Tertiary Education. Public institutions are state funded. Policies such as this have caused the number of students to double between 2002 and 2012 (Jackson, 2015). Private for-profit institutions also exist in the Brazilian system. These also contribute towards increases in the total number of students in the tertiary sector.

Scholarships. Institutional Programme of Teacher Initiation Scholarships provides scholarships to students pursuing careers as teachers (The Federative Republic of Brazil, 2014, p. 105). For example, the Scientific Mobility Program grants 100,000 scholarships to Brazilian students to study abroad (Stanek, 2013, p. 2).

Gender and Race Disparities. Without equal access to education, existing inequalities are perpetuated (Cornwell, 2000, p. 160). Educational attainment levels are higher for whites and females in Brazil; but the race and gender gap narrowed from 5.6% in 1993 to 2.5% in 2003 (Souza, 2005, p. 18). Education further reduces gender disparities in Brazilian employment levels (Kubacke, 2012, p. 4). The Woman and Science Programme aims to achieve gender parity and equality in male-dominated fields (The Federative Republic of Brazil, 2014, p. 100). In terms of gender, enrolment in: primary education is marginally higher for males; secondary education is marginally higher for females; and tertiary is significantly higher for females (United Nations, 2020a).

Access to Technical, Vocational and Tertiary Education. LBD allowed for the integration of vocational education, special and indigenous education, into the national education structure (Stanek, 2013, p. 2). *Pronatec* (National Programme of Access to Technical Learning and Employment) (launched in 2011) aims to create 200 new schools and generate eight million opportunities for professional

training (Pereira, 2013); and provides technical skills and increases the employability of individuals.

Knowledge and Skills Needed to Promote Sustainable Development. The years 2005 to 2014 was the UN Decade of Education for Sustainable Development. The United Nations created the Education for Sustainable Development (ESD) Section to run the programme globally and in Brazil (United Nations, 2016).

The US-Brazil Sustainability Consortium (USBSC) is an international exchange of students, educating students on the triple bottom line of sustainability – environmental responsibility, social justice and economic vitality (Motloch & Casagrande, 2010, p. 1). Brazil therefore through various avenues does promote the knowledge and skills needed for sustainable development. Brazil's teaching and learning system endorses behaviours that are sustainable.

Wider Benefits Derived from Education Policies

During the years 1995 to 2008, increased school attendance delayed young people's entrance to the labour market (therefore causing the labour market to tighten) – causing Brazilian unemployment to fall (Rapoza, 2013a). Decreased unemployment has positive externalities for society. Brazil achieved this drop through educational policies (De Holanda Barbosa Filho, 2011, p. 16). The unemployment drop did not favour any particular demographic (De Holanda Barbosa Filho, 2011, p. 16).

Education produces positive externalities for society (Black, Calitz, & Steenekamp, 2015, p. 151); including increased capacity for: productivity (and therefore increased income and capital accumulation) and civic duty; furthermore, it facilitates distribution, creating a more equal society and reduced state dependency. Education is therefore, a social investment. Policies promoting education are advancing Brazilian economic development and social inclusivity.

Further Plans

Brazil is currently working towards improving the quality and outcomes of the education system (The World Bank, 2016a). Even more developed nations have noted their success. Future goals include achieving enrolment rates of 85% for secondary education, and 33% for university (Commonwealth of Australia, 2016). The National Plan for Education 2014-2024 commits to increasing investment in education to 7% of GDP by 2018 and 10% by 2020 (Commonwealth of Australia, 2016).

Conclusions Concerning Brazil

Education moves the country forward in terms of building equality. Brazil follows a comprehensive approach addressing each aspect of the SDG. This is summarised in the Appendix. Policy designers in Brazil operate as if they are trying to maximise equality. For instance, even when facing constraints,

policymakers are mindful on the manner in which they cut spending. Policies that decrease inequality are typically given preference over other policies.

Key Strategies of South Africa

In this section, the comparable key strategies applied by Brazil are identified for South Africa. This is done in order to identify where policies in the two countries diverge. These differences could perhaps explain why education policies are successful at reducing inequality in Brazil. In other words, they could suggest what South Africa is not doing right.

Overview

The World Economic Forums of 2014-2015 Global Competitiveness Report reports that net percentage enrolment for primary education in South Africa is 85.0% (Schwab, 2014, p. 341). The same report states that an inadequately educated workforce is the second most problematic factor for doing business (Schwab, 2014, p. 340). As a percentage of GDP, SA spends more than other BRICS nations on education, but ranks below its peers in terms of overall quality of the education system. This is further highlighted by the extent of staff training: implying that education does not prepare South Africans to participate in the economy.

In terms of enrolment, South Africa has also achieved the MDG of universal primary education. In the following subsections we draw comparisons between Brazil and South Africa consider the same framework of key strategies identified as being the source of Brazil's success in reducing inequality through education.

Legal Framework and Planning

The South African constitution lists basic education as a fundamental right for everyone (Republic of South Africa, 1996). However, the South African education system is characterised by high-costs and low performance. Therefore, the full realisation of a child's right to a basic education is not satisfactorily adhered to in terms of the constitution (Chürr, 2015, p. 2442).

Financing

Like Brazil, legislation dictates funding policies in South Africa. South Africa spends almost 20% of its national budget on education (our economic peer China only spends 15% (Lin, 2014, p. 35). Most of the education budget is spent on basic education.

Public expenditure as a percentage of GDP between 2000 and 2018 averages 5.32% (The Global Economy, Author's calculations, 2020). The United Nations (2019, p. 2) however notes that the basic education is stagnant or decreasing. Over the medium term, allocations towards tertiary education are growing at a more

rapid rate (Republic of South Africa, 2020, p. 55). The concern with increased spending toward tertiary education is that tertiary education increases inequality. This is in stark contrast relative to health care, another social expenditure which has steadily increased.

Resources

To prioritise expenditure to the poorest people, government separated all public schools into quintiles – where the three lowest quintiles are no-fee schools. The lowest quintiles are typically also part of feeding schemes. Government directs more spending towards these schools. Some public schools, in quintile 5, charge high fees and are in a sense semi-privatised; where the school-governing-body (SGB) often employs additional staff, and provides better facilities. SGBs also improve performance of schools by utilising the community's expertise. In South Africa the expertise are functions of wealth. The system creates and perpetuates inequalities among schools. Typically, urban regions have more and better schools than rural regions. Additionally, due to low proximity to schools and lack of competing modes of transport, transport costs are greater in rural areas.

Monitoring and Evaluation

The South African Department of Basic Education (DBE) commissioned national surveys in 2011/2012 and 2017/2018 to measure public ordinary schools' progress towards achieving the key goals. The surveys dealt with the progress made in terms of service delivery, and identify areas needing further support. This monitoring and evaluation essentially allows government to step into the role that SGBs play at wealthier schools. The main findings are that there is an increasing trend of centralisation of school management practices. In general, the situation is improving in terms of up skilling teachers, and improving service delivery and school infrastructure, albeit at a slow pace.

Participation and Mobilisation

As mentioned in other sections, civil society is involved with education in South Africa. This participation is however more prevalent at wealthier schools, which highlights the dualistic nature of the school system. The lack of resources at poorer schools, results in many instances of civil action where parents have resorted to protesting at schools.

Policies and Programmes

South Africa does cash transfers, in contrast to Brazil, these are unconditional. Since the end of apartheid, coverage has increasingly expanded and currently covers over a quarter of the total population. The unconditional nature is assumed to be due to the scale of transfers. Finally, the cost associated with imposition of

behavioural conditions is likely to be high in the South African context (Woolard and Leibrandt, 2010, p. 28).

Similar to FZ, the national school nutrition programme grant aims to improve the nutrition of poor school children, enhance their capacity to learn and increase their attendance at school (Republic of South Africa, 2020, p. 28). This intervention is targeted at the poorest quintiles of schools, and budget allocations generally grow at rates above inflation.

Additional Policy Measures and Programmes

In this section, further policies aimed at the achievement of the SDG are considered.

Illiteracy. The total literacy rate for people 15 years and older in South Africa is 87% (United Nations, 2020b). However, 78% of South African children in grade 3 cannot read for meaning (Davids, 2019). This is attributed to the initial emphasis on learning in a mother tongue (not English for the majority) and then only switching to English in grade 4. In a sense, this means many pupils start their education journey on the back foot. This situation is further exacerbated by a lack of reading resources in poorer schools and communities; this means a culture of reading is not developed. Richer communities have reading resources, and this is evident in the fact that most of the learners in the wealthiest schools are "advanced" in their literacy (Farber, 2017).

Infrastructure. The Minister for Basic Education has published legally binding Norms and Standards for School Infrastructure. Without adequate infrastructure (along with teachers, books and stationery) learners are unable to receive quality education. Over the medium term, the 2020 National Budget targets infrastructure backlogs to replace unsafe and inappropriate school structures as well as to provide water, and sanitation. The poorest schools (quintiles 1, 2 and 3) are reliant on the government to provide this infrastructure, whereas quintile 5 schools can make their own provisions. Finally, repeating students contribute toward excess enrolments, and this necessitates additional facilities.

Quality and Supply of Teachers. The education school children receive is based on the educational thinking and practice their teachers received. Current policies regarding the quality and supply of teachers are aligned to the SDG. This has been uneven and inconsistent historically, due to Apartheid's Christian Nationalist Education and Bantu Education, sporadic workshops (on curriculum changes), shortened school days and a breakdown of teaching and learning in historically disadvantaged schools (Modisaotsile, 2012). Research conducted on the efficacy of continued professional development workshops has highlighted that teachers from low quintile schools are more likely to be redeployed than those from higher quintile schools. This results in learners from schools in better socio-economic areas benefiting from upskilling. This also means that inequalities in terms of quality of teachers prevails (De Villiers, 2016).

In determining the learning outcomes of pupils, teacher quality and supply is important. However, the quality in South Africa is not adequate. Regarding the quality, tests on grade 6 mathematics teachers reveal that many South African teachers "have below-basic levels of content knowledge, with high proportions of teachers being unable to answer questions aimed at their pupils" (Spaull, 2013, p. 5). The same tests reveal that teachers at higher quintiles achieve superior results. In fact, the ruling political party's 2019 election manifesto's key point regarding education focused on improving the quality of education (Ramaphosa, 2019). Therefore, quality of teachers should be on the radar of policymakers.

Moreover, several factors affect the supply of teachers in South Africa. Overcrowded classrooms and low salaries lead to poor teacher motivation. Teachers are frequently absent due to extra jobs (in order to supplement their income) (Cornwell, 2000, p. 165). Ijumba (2011) says absenteeism and mortality, due to HIV/AIDS, disrupts the teaching programme and affects both the supply and demand of education.

The average salary for teachers in South Africa is $30 921 (PPP) (BusinessTech, 2018). Teacher salaries comprise approximately 80% of the education budget (Republic of South Africa, 2019). In other words, the budget is allocated towards addressing supply.

Early Childhood Development and Education. As of 2020, Early Childhood Education (ECE) falls under the ambit of the Department of Social Development, not the Department of Basic Education, in South Africa. Fundamentally, this implies that the first rung in the education ladder is misplaced. Thus, there is a disconnect in the system. Opportunities and access for ECE are typically less available to children from poorer backgrounds in South Africa. This leads to a situation where children are not effectively prepared for school entry. This educational deficit limits future educational attainment. Social inequities mean that wealthier families can of course access quality ECE. The latest policy proposals do aim to address this issue.

Tertiary Education. In recent years, higher education has received a greater share of the education budget, as compared to basic education. As mentioned before, the budget allocation for basic education has remained stagnant. A subsidy for higher levels of education cost more, and typically redistributes income towards the rich. In other words, perpetuating and causing inequality.

Scholarships. To promote teaching as a profession, the South African government has the Funza Lushaka Bursary Programme. This is a conditional bursary. Recipients are required to teach at a public school for an equal number of years for which they received the bursary. The bursary is administered by the National Student Financial Aid Scheme (NSFAS). NSFAS aims to be "an efficient and effective provider of financial aid to students from poor and working class families in a sustainable manner that promotes access to, and success in, higher and further education and training, in pursuit of South Africa's national and human resource

development goals" (National Student Financial Aid Scheme, 2020). This organisation provides funding for tertiary education in South Africa.

Gender and Race Disparities. Due to the socio-economic history in South Africa, race is a proxy for income and wealth. As we have alluded to in previous sections, income is a major determinant of quality and quantity of education in South Africa. There are thus racial disparities. However, spending patterns are aimed at addressing this. More public resources are allocated towards poorer pupils. Notwithstanding this, the total amount pales in comparison to private resources. In terms of gender, enrolment in primary education is marginally higher for males, while secondary education is marginally higher for females; and tertiary is significantly higher for females (United Nations, 2020b). Various public universities employ redress policies in order to increase access to disadvantaged people.

Access to Technical Vocational and Tertiary Education (Tvet). TVET colleges aim to improve work opportunities by providing knowledge and skills for employment. To this aim, there are 50 TVET Colleges, with over a million students, in South Africa, and these are subsided by the state. These colleges fall under the ambit of the Department of Higher Education and Training. There are plans to increase the number of these colleges and the total enrolment in these colleges.

Knowledge and Skills Needed to Promote Sustainable Development. As a member of the United Nations, South Africa has adopted the Sustainable Development (SDG) Goal. The wording "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" is embedded in the text of the basic education and further education and training school curriculum documents (DoE, 2010; DoE, 2011).

The goal can also be found in the South African Qualifications Authority (SAQA), graduate attributes which influence tertiary education curricula. These attributes focus on the employability of graduates and are influenced by four broad interrelated components. These are: (1) skilful practices (communication skills, time management; self-management and resource management, problem-solving and lifelong learning); (2) deep understanding rooted in a discipline (specialised expertise in a field of knowledge); (3) realistic understanding about personal identity and self-worth and; (4) metacognition (self-awareness and the capacity for reflection) (Yorke & Knight, 2006, p. 5, as cited by Griesel & Parker, 2009, p. 5).

The wording of these attributes imply *inter alia* that graduates need to be employable, be able to create employment opportunities and be lifelong learners. To be a lifelong learner implies that graduates need to be able to adapt to changing conditions in the job market. To accommodate this, courses at South African universities are modularised.

Conclusions Concerning South Africa

Education moves the country forward in terms of building equality. South Africa like Brazil follows a comprehensive approach addressing each aspect of the SDG. This is summarised in the Appendix. Policy designers in South Africa aim

to maximise education, without being mindful of the consequences of these actions. It is the unintended consequences of these policies that contribute towards perpetuating inequality in South Africa.

Concluding Remarks and Policy Recommendations

The aim of this article is to compare the policies of Brazil and South Africa in terms of the possibility of achieving the goals of sustainable development. To this end, we reviewed and compared the education policies in context of SDG 4, concerning quality education within these two similar countries. This comparison enabled us to characterise how there has been a divergence in the GINI coefficient between these countries even though they are pursuing an identical goal. The findings of the comparative analysis, between two BRICS countries, with histories of inequality and unequal education opportunities, has revealed several findings, which are presented, following.

Education contributes to economic development. To this end, both countries apply policy measures. Post-1994, as measured by the GINI coefficient, Brazil is more successful than South Africa. Addressing the challenges facing educational attainment will enable South Africa to reap the benefits of a more educated society. Regarding education expenditure in South Africa, although high compared to peer countries, the return on investment does not fully equate and falls short of the promised economic returns.

One of the main challenges that South Africa has, is not so much of identifying issues; it is in finding and enacting solutions to issues as well as ensuring accountability. In contrast, Brazil was more successful in finding solutions that led to desired outcomes.

While South Africa has legislation and funding that seeks to improve education, it falls short on many fronts. In South Africa, the literacy rate is lower than that of Brazil. Teacher training does not lead to improved learning and teaching because teachers are redeployed. There is no monetary incentive for principals and teachers to ensure that expertise is retained. If skilled teachers could be retained the content knowledge gap between quintile 1 and 5 schools could be decreased.

In terms of average salaries (in PPP terms) South African teachers earn more than double what Brazilian teachers earn. This is consistent with the notion that South Africa does devote resources to education. Perhaps it is not a question of sufficiency, but rather efficiency – how and for what resources are allocated that is not optimal. In Brazil, they have performance-based pay models, for both principals and teachers. This incentivises them to be accountable and to ensure that policy objectives are met.

In South Africa, the historical disparities of the past have not been adequately addressed, so that there are huge differences among quintile 1, 2 3 and quintile 4 and 5 schools. We in fact have two different public schooling systems. The lack of accountability due to a lack of monitoring and evaluation has also contributed to unequal schooling and an unequal society. The inequalities of educational

opportunities in South Africa are both a symptom and cause of economic inequalities prevalent in South African society. What exacerbates matters is that the current design of this system coupled with some well-meaning education policies perpetuates inequalities. It is noted that spending patterns are based on context. However, spending should be effected in a sustainable way, specifically for education, but also with the underlying mandate of reducing inequality.

In contrast to South Africa, Brazil is on course to achieve the SDG of *ensuring inclusive and equitable quality education and promote lifelong learning opportunities for all*. Brazil has achieved the previous MDG of universal primary education. The key strategies of this success were through a legal framework, good planning, financing, and better use of resources, with monitoring and evaluation, and inclusive participation and mobilisation of civil society. These clearly provide insights as to how an effective government administration can reduce inequality, advance economic development and social inclusivity through policies and programmes for education.

The Brazilian government's social investment policies have been successful at reducing inequality and improving human development. The South African education system could learn lessons from Brazil. The South African government can strategically intervene with the knowledge that better education will increase employment, increase productivity, improve living standards and decrease inequality.

Further examples indicate that, in terms of financing education, Brazil sets up separate funds for teacher development in order to avoid encroaching on funds for pupil. South Africa draws money from the same proverbial pot. Moreover, the subtle differences of making cash transfers conditional in Brazil mean that certain behaviours are incentivised. In other words, incentives align the interests of people with that of the government. An example is where infrastructure constraints in Brazil, led to more efficient utilisation of resources, whereas in South Africa, the answer was to build more resources, which in turn require maintenance. However, the backlog in South Africa is so large that this leaves some learners with infrastructure and others without.

To address inequality in the South African context, it is important that policies are aimed at promoting equal and universal access. This access can potentially lead to reductions in inequality. Perhaps the key finding of this study is that education policies contribute to inequality in South Africa, whereas education policies contribute to equality in Brazil. In other words, the South African system is on a path of perpetuating inequality.

This study sought to discover why there is a divergence in the trends of inequality between South Africa and Brazil. This study provides an outline of the education policy and suggests how South Africa can reduce inequality through the strategic lever of education. Future research can examine which interventions and strategies will have the most impact to structurally change education policy. Ultimately the lesson learned is that well-meaning policies can have unintended consequences.

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Appendix

Table 1. Sustainable Development Goals Checklist

	Sustainable Development targets	Section(s)	
		Brazil	South Africa
4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	2.4.1	3.1.1
4.2	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	2.4.6.2 2.4.6.4.4	3.1.6 3.1.7.4
4.3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	2.4.6.4.5 2.4.6.4.6 2.4.6.4.7	3.1.7.5 3.1.7.6 3.1.7.7
4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	2.4.6.4.8 2.5	3.1.7.7
4.5	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	2.4.6.2 2.4.6.4.4	3.1.7.6
4.6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	2.4.6.4.1 2.4.4	3.1.7.1
4.7	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	2.4.6.4.9	3.1.7.6 3.1.7.9
4a	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	2.4.6.4.2	3.1.7.2
4b	By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing states and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	2.4.6.4.6	3.1.7.5
4c	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states	2.4.6.4.3 2.4.6.4.6	3.1.7.5 3.1.7.3

Source: United Nations, 2015.