

# Are we country of cognitive genocide?

When the late Black Consciousness leader Steve Biko wrote his seminal book, "*I write what I like*" in 1978 it was not about individual self-expression or even self-indulgence. It was a political statement with its origins in the work of Brazilian adult literacy activist Paulo Freire.

Freire identified the profound connection between reading the text and reading the world – so that one could understand it, write it, change it. Half a century after Biko was murdered by the apartheid state we are no nearer being able to do this.

Instead, many of the country's children are struggling to read at all. That's according to the results of the international PIRLS 2016 literacy tests on nearly 13 000 South African school children. These showed that 78 per cent of grade 4 children **cannot read for meaning in any language**. South Africa scored last of the 50 countries tested. Also worrying was that there were no signs of improvement over the last five years. In fact, in the case of the boys who were tested, the situation may have worsened.

A few weeks before these results were released, another study, the South African Demographic and Health Survey, had found that 27 per cent of children under five in the country suffer from stunting and that their brains are not developing as they should. Damage like this is largely irreversible. It leads to low school achievement and work productivity – and so to ongoing poverty. It was estimated that cost of eliminating this stunting caused by lack of nutritious food would be recovered many times over as a result of increased productivity and the GDP would increase by about R80 billion a year.

These truly disadvantaged children are those of the poor – Statistics South Africa's 2017 report on *Poverty trends in South Africa* found that some 25 per cent of the population lived in extreme poverty – below the Food Poverty Line of R441 per month.

It may be therefore understandable that 25 per cent of children might not succeed in learning to read. But 78 per cent? There has to be another explanation for that.

There are indeed reasons. They range from the absence of a reading culture among adult South Africans to the dearth of school libraries allied to the high cost of books and lastly to the low quality of training for teachers of reading.

Dry statistics on literacy levels using mainly census and household surveys do not really help us get to grips with the real reading gap – that perhaps the majority of adults in South Africa are not fluent readers (in any language). We have a catastrophe in the teaching of reading to children and the majority of parents do not read to their children (many because they cannot and there are no cheap books in African languages for children). Until the Education departments see that every school has a simple library, South Africa is not serious about the teaching of reading. Unless every child can have access to cheap suitable books to read in their own mother-tongue, we are not serious about reading. Naspers, with multi-billionaire owners, shut down the only newspaper supplement dedicated to literacy and adult basic education because it cost a couple of thousand rands a week to print.

If we were serious we would be demanding of our education authorities most of our children are reading at least 45 words correct per minute on average by the end of grade 2 and at least 90 words correct per minute with at least 80 per cent comprehension by the end of primary schooling.

That we are not attaining such goals is not explained by poverty alone, although the majority of South Africans cannot afford books or to send their children to ex-Model C schools. Even the non-poor do not prioritize expenditure on reading nor do they demand better service delivery from schoolteachers. We spend twice as much on chocolate a year in South Africa as we do on books. Our books are overpriced, a function of our local publishers (not that we have many left as most significant South African publishers are now mere segments of huge multi-national publishing for profit empires).

Yes, part of our reading catastrophe is cultural. This is not just a problem of previously non-literate traditional communities not have fully taken to a literate society. It occurs at the highest levels of middle class society and the new elite. We treat reading as a lower order activity that is uncool, nerdy and unpopular. All our best schools, private and public, lionise the sportsmen (and now too sportswomen) as the aspirational models and our media publicise the so-called celebrities whose highest form of writing the word is to Twitter. We engage in consistent propaganda against serious reading – remember that former President Jacob Zuma disliked “clever blacks”.

Another unintended own goal was the closure of teacher training colleges, ostensibly to improve the quality of teacher education by making it the sole responsibility of universities. The inevitable result was that universities, who had previously mainly taught high school teachers now had to train Foundation level teachers – about which area they knew nothing and they also inevitably incorporated only those college educators who had postgraduate degrees, that is, generally those who had no great interest in the grunt work of teaching little children to read but rather aspired to the academic heights and getting their doctorates so that the universities could balance their budgets with the increased subsidy.

In spite of the dawning recognition that South African children couldn't read or count (most teachers cannot do the latter either) and that reading was important after all and that we needed to recruit people willing to train as Foundation level teachers, Foundation level teacher training at the universities is a disaster (made worse by the fact that many universities have closed down African language departments because of pitifully low student interest).

The situation gets worse. Most teaching about reading instruction in our universities is outdated. Many of our university faculties of education have hardly bothered to do anything about developing expertise in training teachers of reading or in paying any attention to the modern scientific advances in understanding how reading happens. [There's been some attempt to address this bungle. The latest of them is the Department of Higher Education and Training's Primary Teacher Education project.]

The failure to teach children to read leads to another type of stunting.

Over the last three decades cognitive neuroscience has clarified and resolved a number of debates about reading. This has been done with the help of a series of extremely elegant experiments, backed up by the marvellous resource of Functional Magnetic Resonance Imaging brain scanners. It has been proven beyond doubt that reading – becoming literate – alters the brain. (And for those of us now irretrievably readers it is very, very hard to comprehend what it is to be illiterate or semi-literate).

Learning the visual representation of language and the rules for matching sounds and letters, develops new language processing possibilities. It reinforces and modifies certain fundamental abilities, such as verbal and visual memory, phonological awareness, and visuo-spatial and visuo-motor skills. It influences the pathways used by the brain for problem-solving.

It is best to learn to read early (adults have a harder task to become automatic readers and seem to have to use alternative brain paths to do so). Reading is a thoroughly unnatural activity in which we piggy-back on brain functions intended for other purposes (letter recognition uses our brain's innate ability to recognise facial features from every angle (which explains why we can in fact decipher huge variants in cursive handwriting)).

Failing to learn to read is bad for the cognition necessary to function effectively in a modern society – if people are to use their brains effectively in an increasingly complex society with a growing knowledge economy.

The inability of South Africa to teach children to read, then, leads to another type of stunting: one that is as drastic as its physical counterpart. We now have generations who have been cognitively stunted because of a massive failure in our culture and our educational provision. It is a kind of cognitive genocide of the bulk of our population. And we are all implicated if we do not do our utmost to help South Africa learn to read. And we will certainly not see a South Africa written by all its people unless we do so.

And even if appeals to reason don't move us, maybe the effect on our pockets should. In 2010 a group of economists at the University of Stellenbosch estimated that if the quality of schooling in South Africa were where it should be (at a level befitting a middle income country), our GDP would be R550 billion higher than it currently is. It is illiteracy that may well be the largest barrier to South Africa's growth and development.

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The longer version of an article, *South Africa's reading crisis is a cognitive catastrophe*, published in ***The Conversation*** on 26 February 2018