Inclusive Quality of Education

Paul Harding, South Africa, email exec@saqi.co.za

Anil Sachdev, India, email anil@tqmi.com

Pedro Saraiva, Portugal, email pas@eq.uc.pt

Elizabeth Cudney, USA, email cudney@mst.edu

The purpose of this white paper is to outline the meaning, scope, major concerns, and perspectives around "Inclusive Quality of Education". It is the second paper in a series of thoughts collected, organized, and promoted by the Quality in Education Think Tank (QiETT) of the International Academy for Quality (IAQ). The first paper addressed a broader scope of topics and put into perspective the overall field of "Quality in Education", which set a common ground for further reflection and guidance of QiETT activities. The forthcoming papers, such as this one, focus around more specific subjects and delve deeper into particular topics based upon the collection of international inputs from quality and education experts. The collected thoughts compiled in this paper are presented in the following pages, according to headings that correspond to clusters of contributions received from the authors. Each author has a different background and is from distinct continents, but all share in common, as core QiETT members, a passion to promote Quality in Education.

To date, the collection of white papers comprises the following titles:

"Quality in Education: Perspectives from the QiETT of IAQ"

"Large Scale Training of Quality Professionals"

"Inclusive Quality of Education"

ABSTRACT

Human capital quality is recognized and widely accepted as one of the key drivers for successful organizations and territories. That being the case, one can thus easily understand why "Quality Education" has been recognized by the United Nations (UN) as one of the 17 goals needed to transform our world, under the aimed Sustainable Development paradigm. In order to build a cohesive sustainable world, at multiple scales of analysis, it is more critical than ever to assure that Inclusive Quality of Education is a major focus to ensure that not only good average quality of education is obtained, but also to ensure societies are able to concurrently provide high quality education with a small standard deviation. This paper, based mostly real life experiences in this area from South Africa and India, does address exactly this topic.

In 1990, a global initiative was launched to focus on Education for All at a conference in Jomtien, Thailand. In 1994, South Africa saw its first democratically elected government and the end of the apartheid system. The South African government embraced the concept of education for all and has since the inception of democracy attempted to follow the six "Education for All" goals agreed to at a subsequent education conference in 2000 in Dakar, Senegal. There were great expectations in the new democracy to close the gap between the rich and the poor with an emphasis on improving the education system to be inclusive across all racial and social barriers both in basic and higher education. Other emerging economies also faced similar challenges of closing the gap between previously advantaged and current disadvantaged communities, including persons with disabilities when educating its population.

Twenty three years after introducing a democratic government the question is - has South Africa improved its education system? The headline in the *Economist* on the 7th January 2017 reads "South Africa has one of the world's worst education systems". Is this a true reflection of South African education? South African Government schools produce some of the top achievers in the world, Elon Musk being a prime example. Many South Africans are at Oxford and Harvard. Therefore, the challenge is to normalize the current skewed distribution curve and have good, consistent education for all. The South African Quality Institute (SAQI) is trying to address this concern through its "Quality in schools" program, but it is only scratching the surface with its limited resources.

This paper addresses some of the work being done towards these goals and the current challenges found in the South African education system and other education initiatives in India, also related to Inclusive Quality of Education.

Keywords: Inclusive Education, Quality Education, Disadvantaged Communities

1. Introduction

Education for All (EFA) is a global initiative that was launched at the 1990 World Conference on Education for All in Jomtien, Thailand. The initiative is strongly connected with Inclusive Quality of Education. It is led by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), in partnership with numerous governments and other agencies.

At the 1990 World Conference, a total of 155 countries, as well as representatives of some 150 organizations agreed to universalize primary education and massively reduce illiteracy by the end of the decade.

Six goals, global in nature, were later agreed to at the World Education Forum held in 2000 in Dakar, Senegal. Via a process of consultation with stakeholders, and with assistance of the wider international community as well as EFA follow-up mechanisms, countries were expected to set their own goals, immediate targets, and timelines within new national education plans (UNESCO, 2000).

The six mentioned EFA goals are as follows:

Goal 1: Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.

Goal 2: Ensuring that by 2015, all children, particularly females, children in difficult circumstances and those belonging to ethnic minorities, have access to a completely free and compulsory primary education of good quality.

Goal 3: Ensuring that the learning needs of all young people and adults are met via equitable access to appropriate learning and life skills programs.

Goal 4: Achieving a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.

Goal 5: Eliminating gender disparities in primary and secondary education by 2015, and achieving gender equality in education by 2015, with the focus on ensuring females' full and equal access to, and achievement in, basic education of good quality.

Goal 6: Improving all aspects of the quality of education and ensuring excellence for all, so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

More recently, the United Nations, under its 2030 Agenda for Sustainable Growth, assumed Quality Education to be one of the 17 goals needed to transform our world. The targets connected with this particular goal are strongly connected with Inclusive Quality of Education, since they correspond to the following deployment for the overall fourth goal of ensuring inclusive and quality education for all and promote lifelong learning:

- By 2030, ensure that all girls and boys complete free, equitable, and quality primary and secondary education leading to relevant and Goal 4 effective learning outcomes.
- By 2030, ensure that all girls and boys have access to quality early childhood development, care, and preprimary education so that they are ready for primary education.
- By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
- 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.
- 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.
- By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.
- 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.
- Build and upgrade education facilities that are child, disability, and gender sensitive and provide safe, nonviolent, inclusive, and effective learning environments for all.

- 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 enrollment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries.
- 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.

These targets support how important it is to address the topic on Inclusive Quality of Education, a major societal need well recognized and accepted as being critical for the world in this century. In the forthcoming sections this issue will be discussed by describing and discussing important developments and challenges in this regard that are being faced in South Africa and India. In particular, important insights and learnings will be extracted and useful for many other contexts where Inclusive Quality of Education is an area of concern.

2. Inclusive Quality of Education in South Africa

South Africa has eleven official languages. Its people are a mixture of many cultures, languages, races, and religions. That diversity is often reflected in the schools and also the universities. How does one create schools where different home backgrounds are accepted and celebrated? How does one create a climate of goodwill? How can a high average quality of education together with a small standard deviation in such a societal environment be assured?

One answer is to apply basic quality principles and the mutual acceptance of common values. Learners, parents, and staff need to respect one another. They need to accept that there are values that unite them. The quality school needs to work hard at being a place of courtesy, honesty, friendliness, kindness, and respect. Further, strong local, regional, and national initiatives need to be designed and implemented, which take into account the specificities of each particular situation and learning context.

Extremes and Examples of Schools
The South African school system is full of extremes. A small number of schools are world-class. There are even British parents who send their children to be educated in South African private schools. Their children are flown out each term to boarding schools, namely in Kwa-Zulu Natal, one of the nine provinces of South Africa.

Sadly, at the other extreme, are those South African schools where children still have lessons given under trees and dark pit toilets are still used. Most government schools have neither libraries nor science labs. Estimates are that 80% of schools are dysfunctional. Those schools have poorly trained teachers where their learners get weak results in standardized tests and public examinations.

In order to improve the situation and try to reduce such large differences, the South African government introduced an outcomes based curriculum in 2005, which is to be followed by all schools. However, this proved to be difficult to implement and was subsequently replaced by various revisions, including the National Curriculum Statement Grade R–12 and the Curriculum and Assessment Policy Statements (CAPS), between 2011 and 2014. The South African Department of Basic Education reported in 2014 that the generally poor results provide an indication of the extent of the remaining challenges to improving literacy and numeracy

levels among learners. They did notice as well that the system appears to be starting to improve in grades three and six.

In the South African cities and towns, there is a stark contrast amongst schools. In Johannesburg, for example, there are two communities that are approximately five kilometers apart from each other. One is called Dainfern. The Dainfern families live in a fenced off community with 24-hour security. It has first-class facilities and beautifully maintained tarred roads. On the other hand, neighboring Diepsloot is another world. About a million people live in this ever-growing informal settlement. There's no controlled access into Diepsloot and driving along its pot-holed roads is best done in a 4 x 4 vehicle.

What are the schools that the children of Dainfern and Diepsloot attend? Most of the Dainfern children attend private schools. The education provided there is of high quality, and the sporting and teaching resources are outstanding. The average teacher to student ratio is 1:24. School fees run into thousands of Rands (R) per month. A typical 2013 school fee for a grade 7 learner is about R60,000 per year. Parents expect that their children will go on to tertiary education, once high school is complete (Hayward 2015).

Not very far from Dainfern, the Diepsloot schools struggle. There are very limited teaching and sporting resources. It's not uncommon in a primary school to have a teacher to student ratio of 1:50. Most learners are given a free meal every day and there are no school fees; however, if the family can afford it, a donation of R120 per year is much appreciated.

Yet, there's one school in Diepsloot that deserves special mention, which is the Diepsloot Combined School. It goes from pre-primary school to grade 12. In 2012, it had 1,420 learners and 43 teachers. Overall, there are here 33 classrooms, of which five correspond to metal containers. Yet its dedicated staff strives to give their students quality of education ... and they succeed. In this particular school, there was a 96% pass rate in the 2012 for grade 12 examinations, which is in contrast to the 73.9% national average. One particular student obtained five national distinctions. For the class of 2012, 35% of students obtained university entrance passes. Staff work hard at getting bursaries for their academically promising learners. The seed for life-long learning has been sown and is being nurtured at the Diepsloot Combined School. Noel Maringa, the principal, together with his teaching team, are giving their students quality of education ... no matter how challenging the situation and surrounding environment happens to be. Examples such as this one show that quality of education can be achieved almost anywhere, and best practices should be shared in order to leverage and scale up what has already been done and achieved, especially under difficult circumstances.

There is the claim that quality of education always costs a great deal of money. Of course available money makes it easier to achieve certain goals. People point to the wealthy schools, and their accomplishments. Yet, the Diepsloot Combined School, as many other ones, do prove another point: excellence and quality of education can be reached without large financial resources. Superb quality schools with few resources can be found in South Africa and world-wide. Quality of education is not guaranteed by the most modern teaching resources and sport facilities available. At least as important are the dedicated and passionate teachers, as well as leadership. Such teachers are able to inspire their students to be enthusiastic, motivated, and passionate, even when they come from difficult family or community environments. When dealing with inclusive quality of education, one must keep this message always present and at the heart of any efforts or improvement initiatives being conducted.

A Common Conceptual Model to Promote Quality of Education
Given the diversity of situations found among schools in South Africa, as was just illustrated, and the corresponding need for assuming inclusive quality of education as a top national priority, the South African Quality Institute (SAQI) launched its Quality in Schools program in 2006. For that purpose, SAQI seconded the assistance of a retired school Head, who had successfully introduced a quality program into his school in Johannesburg. Although such a program did not interfere with the school curriculum, it spelled out the basic quality principles that successful organizations around the world implement. A Quality in Education model was therefore developed, based on five key pillars (Figure 1), that will be briefly summarized next.
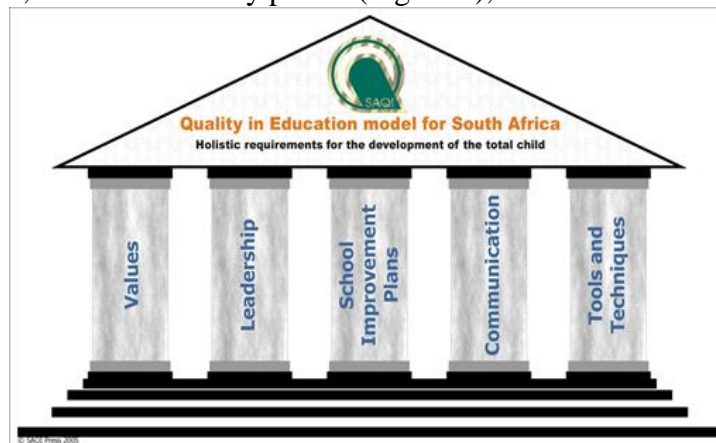

Figure 1. Quality in Education conceptual model

1) Values – the first pillar
Values are at the heart of a good school. They are the 'rules of the game' by which people live their lives and interact with others. When decisions have to be made, they are made on the basis of core values. Values give focus and direction. Typical values to be found in the quality school are: compassion, honesty, kindness, perseverance, and respect.

Who decides on the values? Everyone. School vision and mission statements reflect values as do class and school rules. Rules that are agreed on are the end results of discussion and consensus (most of the time) amongst learners and teachers.

2) Leadership – the second pillar
Leadership does not exist only in the principal's office. The quality school respects the leadership potential of everyone. Different situations require different leaders. The school could, for example, have one teacher in charge of a sports day function and another chairing end-of-year promotion meetings. The principal's role would often be that of observation and, if necessary, 'light touch' intervention.

Learners at every grade in the school also have leadership roles to be played. The grade one student can be given simple leadership duties such as taking a written message to the office. Learners take on leadership roles when they are selected as class and sport team captains. Prospective families to the school can be taken on guided tours by student leaders.

Parents can also lead fundraisers for school projects and get involved as much as possible in the school activities. They take on leadership roles by serving on the Parent-Teacher Association (PTA) and as School Governing Body (SGB) members.

The teacher is a classroom leader. Outside the classroom the teacher is a leader in roles such as a sports coach or in charge of other types of extramural activities. Every staff member – administrative, maintenance, and professional – needs to be encouraged to lead others in his or her field of expertise.

The quality school gives opportunities and nurtures the leadership potential of everyone – irrespective of age and 'official' position in the school hierarchy.

3) Improvement plans – the third pillar
Have no goals and you will be goalless. The good school is in a state of never-ending improvement. Improvement plans identify the goals and outlines the route to achieve them.

Plans need to include every aspect of the school. Too often, plans focus too narrowly on one or two areas. For example, a school can unwittingly give priority to one capital works project such as building more classrooms or an information technology center. What about projects such as the professional development of every staff member? What about dealing with bullying – a reality in every school – amongst and between learners as well as staff? Intangibles need as much planning as the very visible capital works projects. Further, quality plans must also deal with what happens inside the classrooms, rather than considering this to be a sacred place where each teacher does whatever he/she feels to be good learning choices.

Improvement planning invites inputs and insights from everyone. When everyone has inputs to give, everyone has 'buy in' and will be also in charge of implementation. Plans move from being other people's ideas to also being your own ideas. Commitment levels soar. There is a spirit of perseverance when hiccups happen on the road to achievement. Not forgetting that more and more quality schools are open to the communities, higher level schools or employers, such that inputs from outside the schools can also be considered, together with the involvement of these partners in the implementation of quality improvement initiatives.

4) Communication – the fourth pillar
Excellent communication is a core aspect of the quality school. Everyone who needs to know about something ideally gets the message accurately and on time (in the real world of school life that doesn't always happen). Communication is a two-way process. It is not only giving out the information. It is also the receiving of information. With good communication, both parties not only speak, but they also listen to each other. It is a sharing process that results in win-win situations, stronger participation, and commitment.

There are many ways to ensure good communication. Face-to-face meetings get the message across. There are also the usual meetings including staff, senior management, learning areas, PTA, and SGB. Other types of meetings are circle time, Children's Council and meetings with often forgotten groups, such as the maintenance staff. Making these meetings productive and focused around quality improvement is also an important goal to be kept in mind.

Written communication is also very important. The weekly newsletter edited by the principal and staff members, and other written forms, such as the minutes of meetings, prospectus, annual magazines, SMS messages, emails, and websites, are part of this effort. The same applies to the smart application of social media and networks, whenever appropriate. Not forgetting that the most appropriate communication channels should be chosen depending upon the corresponding communication goals and targets.

The tone of the written communication must also reflect the overall school 'vibe'. By reading, for example, the principal's weekly newsletter, one can get a feel of the school and its culture. The tone can be for instance warm, friendly, and invitational. In contrast, the tone could also be aloof, cold, and distant. Even the management style comes through. Note, for example, the number of times a word such as 'must' is used. The more learners, parents, and staff 'must do this' and 'mustn't do that', the less likely it is that a democratic leadership style is in place.

Communication though is not all about 'sweetness and light'. Conflict happens in every school: a teacher clashes with a student, a learner with another learner, a parent with a teacher and so on. Therefore, conflict resolution skills need to be available. With these skills, a person is more able to resolve most of the mini-tensions of school life amicably.

5) Techniques and tools – the fifth pillar
If one is not careful, the word 'Quality' can be reduced to something rather fuzzy, warm, and meaningless for some schools. 'Quality' does not simply happen. Hard work precedes achievements. Techniques and tools help improve quality of education. Certain tools benefit through the use of someone with statistical skills. Yet most quality tools can be used (and have been) by primary school learners as well.

These five pillars, combined all together in a consistent and integrated way, provide a good starting point for discussing and building quality of education, and in doing so under a variety of contexts, actively promote inclusive quality of education, as the SAQI experience has shown in the case of South Africa. This also allows the identification of a number of common features that are typically related with what one might call as being a "Quality School". These features are discussed next.

Characteristics of a Quality School and their Impacts
From the experiences obtained by SAQI and across a variety of schools in South Africa, it is clear that quality schools have many similarities. They are also very distinct from other schools. An eleven-point checklist, drawn from real life situations, which can be used to portray what differentiates quality schools from other schools is provided in Table 1.

Table 1. A summary of key features connected with Quality Schools

Quality School	Ordinary School
1. Focus on the student's needs	Focus on the teacher's expectations of the student
2. Invests in people	Has no systematic staff development programs
3. Minimal barriers separating departments in the school	Clearly demarcated divisions of different departments
4. Treats complaints as a chance to learn	Treats complaints as a nuisance
5. Senior management practices inspiring leadership	Senior management viewed as bosses to be served by junior staff
6. Creativity and aligned individuality encouraged	Procedures and rules are all-important and blindly followed
7. Everyone has opportunities to have and play leadership roles	Leadership resides mainly within senior management teams or a single person
8. Fear is virtually non-existent	Fear is used to manage performance
9. Has clear evaluation strategies	Has no systematic evaluation strategies

| 10. School is in a state of continuous improvement | Maintains that there is no need to make changes in the school |
| 11. Teaching methods use experiential learning with practical applications and lab work | Teaching is limited to traditional class room methods and lectures |

By adopting quality philosophies as illustrated in the left column, schools can achieve more and more inclusive quality of education, especially if more and more quality schools appear in less favored social or cultural environments.

Schools have undoubtedly benefited by using Total Quality Education and following the approaches and programs developed by SAQI and other entities in South Africa. The adoption of such standards or quality principles in teaching and learning have improved quality of education in thousands of schools, both in South Africa and world-wide. These changes are being seen in an ever-growing number of South African schools, where levels of commitment and enthusiasm towards the school have gone up. Results in annual national assessment tests and grade 12 examinations have also shown steady upward trends. School days have become more stimulating and yes, even more fun.
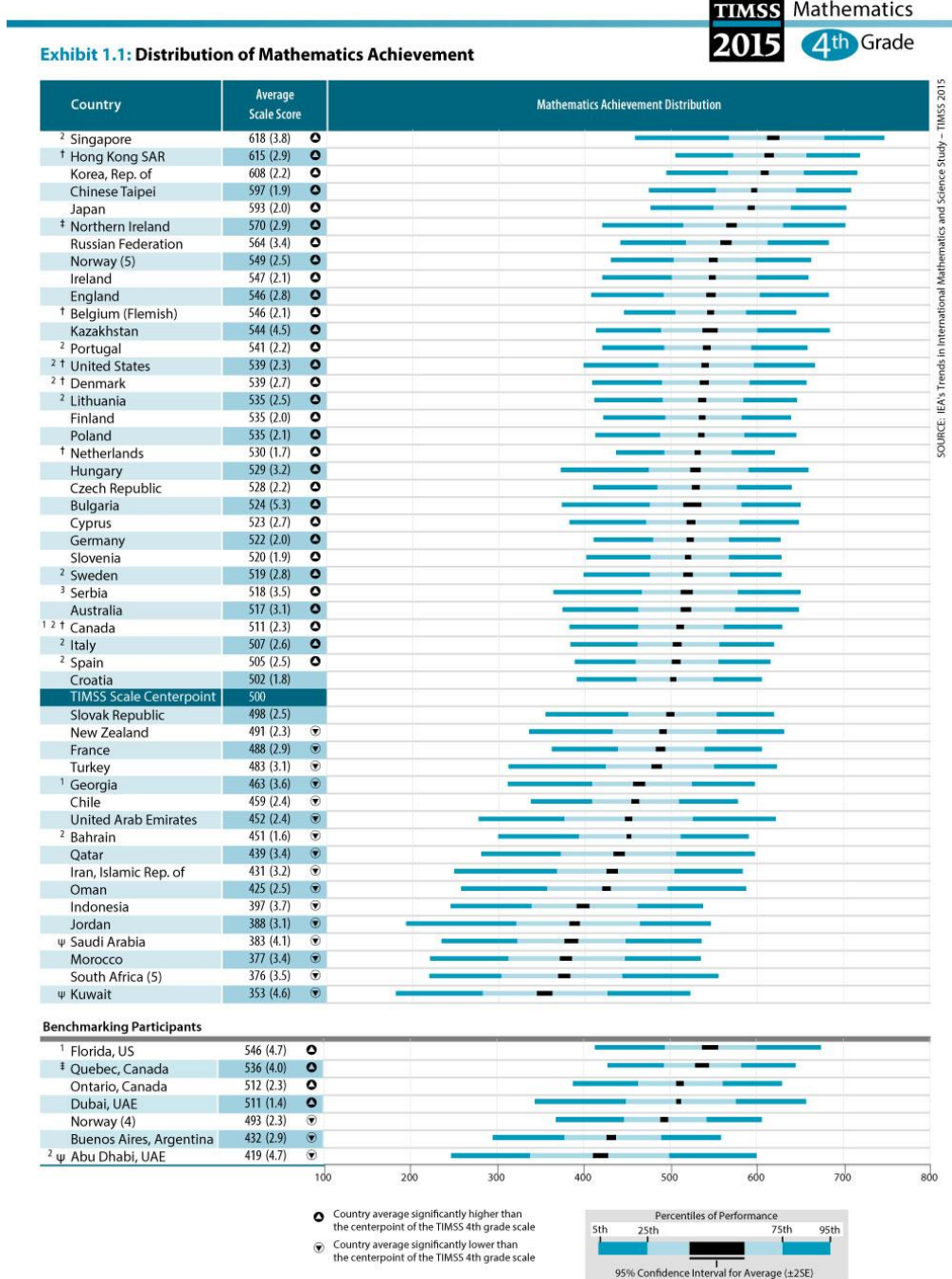
The South African government also introduced a requirement in 2016, according to which all teachers must attend ongoing training and accumulate continuous professional development (CPD) points. Thousands of teachers have now gone through training modules endorsed by SAQI and the South African Council of Educators, that include exposure to basic quality principles, methodologies, and tools. It is expected that this will translate into quite relevant impact with regards to further improvements of inclusive quality of education in South Africa. In spite of all the progress made in the past years, there is still a large number of challenges and barriers that need to be overcome in the future in order to achieve further gains of inclusive quality of education. These will be discussed next.

Some Challenges Ahead
After half an hour of pencil-chewing, Lizeka Rantsan's class lines up at her desk to hand in its maths tests. The teacher at Oranjekloof primary school in Cape Town thanks the 11- and 12-year-olds and flicks through the papers. Ms. Rantsan sighs, unimpressed. Pulling one sheet of errant scribbles from the pile she asks: "How are we supposed to help these children?"

Despite SAQI's and other initiatives, this is a question that South Africa broadly is still failing to answer. In a league table of education systems drawn up in 2015 by OECD, South Africa ranks 75th out of 76. In November 2016, the latest Trends in International Mathematics and Science Study (TIMSS), a quadrennial test applied to 580,000 pupils in 57 countries, shows that South Africa is still at or near the bottom of its various rankings, though South Africa scores have improved since 2011 (Figure 2). Furthermore, the OECD PISA results, related with the performances achieved by students who are 15 years of age in a large set of countries, show that the best performing countries or regions are mostly Asian, and no longer European. This clearly shows that regardless of absolute improvements in any given country, many societies are leading ambitious efforts to further reinforce quality of education and inclusive quality of education. Making it even harder in terms of relative comparisons, so that only with very consistent and ambitious efforts is it possible to gain positions when compared with other countries that have also realized how critical it is to achieve well-being and societal successes.

Figure 2. Summary of the latest available OECD TIMSS results.

TIMSS Mathematics 2015 4th Grade

Exhibit 1.1: Distribution of Mathematics Achievement

Country	Average Scale Score		Mathematics Achievement Distribution
² Singapore	618 (3.8)	⊘	
† Hong Kong SAR	615 (2.9)	⊘	
Korea, Rep. of	608 (2.2)	⊘	
Chinese Taipei	597 (1.9)	⊘	
Japan	593 (2.0)	⊘	
‡ Northern Ireland	570 (2.9)	⊘	
Russian Federation	564 (3.4)	⊘	
Norway (5)	549 (2.5)	⊘	
Ireland	547 (2.1)	⊘	
England	546 (2.8)	⊘	
† Belgium (Flemish)	546 (2.1)	⊘	
Kazakhstan	544 (4.5)	⊘	
² Portugal	541 (2.2)	⊘	
² † United States	539 (2.3)	⊘	
² † Denmark	539 (2.7)	⊘	
² Lithuania	535 (2.5)	⊘	
Finland	535 (2.0)	⊘	
Poland	535 (2.1)	⊘	
† Netherlands	530 (1.7)	⊘	
Hungary	529 (3.2)	⊘	
Czech Republic	528 (2.2)	⊘	
Bulgaria	524 (5.3)	⊘	
Cyprus	523 (2.7)	⊘	
Germany	522 (2.0)	⊘	
Slovenia	520 (1.9)	⊘	
² Sweden	519 (2.8)	⊘	
³ Serbia	518 (3.5)	⊘	
Australia	517 (3.1)	⊘	
¹ ² † Canada	511 (2.3)	⊘	
² Italy	507 (2.6)	⊘	
² Spain	505 (2.5)	⊘	
Croatia	502 (1.8)		
TIMSS Scale Centerpoint	500		
Slovak Republic	498 (2.5)		
New Zealand	491 (2.3)	▾	
France	488 (2.9)	▾	
Turkey	483 (3.1)	▾	
¹ Georgia	463 (3.6)	▾	
Chile	459 (2.4)	▾	
United Arab Emirates	452 (2.4)	▾	
² Bahrain	451 (1.6)	▾	
Qatar	439 (3.4)	▾	
Iran, Islamic Rep. of	431 (3.2)	▾	
Oman	425 (2.5)	▾	
Indonesia	397 (3.7)	▾	
Jordan	388 (3.1)	▾	
Ψ Saudi Arabia	383 (4.1)	▾	
Morocco	377 (3.4)	▾	
South Africa (5)	376 (3.5)	▾	
Ψ Kuwait	353 (4.6)	▾	

Benchmarking Participants

Country	Average Scale Score		Mathematics Achievement Distribution
¹ Florida, US	546 (4.7)	⊘	
‡ Quebec, Canada	536 (4.0)	⊘	
Ontario, Canada	512 (2.3)	⊘	
Dubai, UAE	511 (1.4)	⊘	
Norway (4)	493 (2.3)	▾	
Buenos Aires, Argentina	432 (2.9)	▾	
² Ψ Abu Dhabi, UAE	419 (4.7)	▾	

100   200   300   400   500   600   700   800

⊘ Country average significantly higher than the centerpoint of the TIMSS 4th grade scale

▾ Country average significantly lower than the centerpoint of the TIMSS 4th grade scale

Percentiles of Performance
5th 25th 75th 95th
95% Confidence Interval for Average (±2SE)

Note: Seven countries and 1 benchmarking entity participated in the TIMSS Numeracy assessment: Bahrain, Indonesia, Iran, Jordan, Kuwait, Morocco, and South Africa as well as Buenos Aires. Except for Jordan and South Africa, they also participated in the TIMSS fourth grade assessment and their mathematics achievement results are based on an average of both assessments.

The TIMSS achievement scale was established in 1995 based on the combined achievement distribution of all countries that participated in TIMSS 1995. To provide a point of reference for country comparisons, the scale centerpoint of 500 was located at the mean of the combined achievement distribution. The units of the scale were chosen so that 100 scale score points corresponded to the standard deviation of the distribution.

Ψ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 15% but does not exceed 25%.
See Appendix C.1 for target population coverage notes 1, 2, and 3. See Appendix C.7 for sampling guidelines and sampling participation notes †, ‡, and ‡.

( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

IEA TIMSS & PIRLS International Study Center Lynch School of Education, Boston College

These results show that South African children have performances that lie behind those corresponding to poorer parts of the African continent. A shocking 27% of pupils, who have attended school for six years, cannot read compared to 4% in Tanzania and 19% in Zimbabwe. After five years of school about half cannot work out that 24 divided by three is eight. Only

37% of children starting school go on to pass the matriculation exam, and just 4% end up earning a degree.

South Africa does also have what is considered to be the most unequal school system in the world (Spaull, 2011). The gap in test scores between the top 20% of schools and the rest is wider than in almost every other country. Of 200 black pupils who start school just one can expect to do well enough to study engineering, while ten white kids can expect to achieve the same outcome. Many of these problems regarding inclusive quality of education do have their roots in apartheid. After Nelson Mandela became president of South Africa in 1994, his government expanded access to schooling. It also replaced a school system segregated by race with one that is fairly divided by wealth. Schools in poorer areas receive more state funding. However, schools in richer areas can charge fees on top of any public funding that they may receive. Therefore, as mentioned previously, although very interesting examples are available for inclusive quality of education, a lot remains to be done and achieved in South Africa regarding this issue.

In theory, private schools must admit pupils even if their parents cannot afford their fees, but in practice they are fortresses of privilege. On the other hand, there are still about 500 schools built from mud, mainly in the Eastern Cape region. By way of contrast, the Western Cape region has some of the largest campuses in the southern hemisphere, with cricket pitches as smooth as croquet lawns. And yet money is not the reason for this malaise or lack of inclusive quality of education still found in South Africa. Indeed, few countries spend as much as South Africa, with some results not being achieved so far. In South Africa public spending on education is 6.4% of GDP, whereas the average share in European Union countries is 4.8%. More important than money are a lack of accountability and the abysmal quality of most teachers. To overcome some of these challenges, one needs possibly to account for the key role played by teachers, and in the case of South Africa, for doing so one also needs to take into account the role played by the South African Democratic Teachers Union (SADTU), which is allied to the ruling African National Congress (ANC), which is discussed next.

Teachers and Teachers Trade Union Influences
In a report commissioned by the South African Department of Basic Education (Volmink, 2015), widespread corruption and abuse was found to be present in the South African educational system. Since the report was issued, the South African government and its society has made little progress in response to this reality. The teacher's union (SADTU) influence within government belies its claim that officials are to blame for woeful schools. In 2016, SADTU successfully lobbied for the cancellation of standardized tests. It has also ensured that inspectors must give schools a year's notice before showing up (less than 24 hours is the norm in England). Although parent-led school governing bodies are meant to hold teachers accountable for quality of education and inclusive quality of education, they are more often controlled by the union as well.

But even if there were better oversights, most teachers would still struggle to improve. In one study conducted in 2007, math teachers of 11- and 12-year-old students were exposed to tests similar to those taken by their class. Questions included simple calculations of fractions and ratios. 79% of teachers scored below the level expected of the pupils. And the average 14-year-old student in Singapore and South Korea performs much better than this sample of South African teachers.

Therefore, both in South Africa and elsewhere, one must never underestimate that quality of education and inclusive quality of education to be properly addressed need to be strongly supported by the professional development of high quality teachers. Further, in some societies this should also be done by trying to involve the teachers unions in quality improvement efforts, programs, and initiatives.

Some Outstanding Performances
Although one needs to take properly into account the bottlenecks, barriers, and challenges that lie ahead, in terms of further quality of education and inclusive quality of education progress in South Africa, additional examples can inspire other South African schools in their ambitions and plans to become also quality schools. Sometimes very interesting outcomes can be obtained under quite limited resources. This is something that needs to be accounted for even more so if our main goal is to increase inclusive quality of education.

As a nice example of what can be achieved, it is worthwhile to look at the Spark School Bramley in Johannesburg, which is a low-cost private school that spends roughly as much per pupil as the average state school. It is everything that many state schools are not. Its 360 pupils begin learning at 7:30am and end around 3pm to 4pm, while most state schools close at 1:30pm. At the start of the day pupils gather for mindfulness exercises, maths questions, and pledges to work hard. "We have an emotional curriculum as well as an academic one," says Bailey Thomson, a Spark director. There, students attend maths lessons based on Singapore's curriculum, while literacy classes draw on how England teaches phonics. Their teachers are not members of SADTU, but they receive 250 hours of professional development per year, about as much as the average state-school teacher gets in a decade. Early results show that its pupils are on average a year ahead of their peers coming from other schools. Spark runs eight schools and plans to have 20 by 2019. Other operators, such as Future Nation, co-founded by Sizwe Nxasana, a former banker, are also expanding, and may help in the reinforcement of quality of education and inclusive quality of education in South Africa.

Another promising scheme is the "collaboration schools" pilot project being run in the Western Cape region, based on academies in England and charter schools in the USA, as models. The five collaboration schools are funded by the state but run by independent operators. In what Helen Zille, the premier of the Western Cape, calls "a seminal moment", the parents of Oranjekloof pupils petitioned to keep the school in this collaboration program, even when unions tried to oppose it.

Spark and the collaboration schools suggest that South African education should not be doomed. But together they account for a tiny fraction of the country's more than 25,000 schools. Widespread improvement will require further involvement of teachers and SADTU. Furthermore, a never ending effort needs to be pursued such that citizens, communities, and voters assure that quality of education and inclusive quality education are seen as critical societal priorities, and are properly addressed by public policies that support quick scaling up processes to increase the number of quality schools and reduce disparities between different schools and students. "The desire to learn has been eroded," says Angus Duffett, the head of Silikamva High, a collaboration school, and this situation needs to be quickly reversed, so that stronger and stronger quality of education and inclusive quality of education performances can be indeed achieved in the future to support a better future for South Africa and its citizens.

After addressing some of the critical factors, realities, and bottlenecks and providing inspiring examples of quality schools mostly related with non-higher education in South Africa, we will conclude with some additional thoughts focused around tertiary education and training.

Higher Education and Quality Professionals Training
In 2012 the government of South Africa announced a National Infrastructure Plan that proposed to industrialize the country and generate skills to boost job creation. To support this move a plan was developed to establish skills needed for infrastructure projects, known as the Strategic Integrated Projects (SIPS). Sector Education and Training Authorities (SETAs) were engaged to help implement training and skills development programs. A report was published on what was needed in terms of education, training, and skills development to support this program (Skills for and Through SIPS, 2014).

The same report called for a restructuring of skills covering many professions, including the requirements for education and training in the quality profession. Three years after this publication was issued, there has been little progress in terms of the recommendations made being actually implemented through the official government agencies. However, the South African Quality Institute has developed its own program of training and development to satisfy this need for quality professionals in the various sectors of the South African economy. This program is now in its second year and aims at bridging the gap between basic and higher education levels in satisfying the need for the various occupations that are associated with the quality profession. More and more quality professionals of high quality are of key importance to promote quality of education and inclusive quality of education.

The 20th anniversary of South Africa's achievement of the national liberation of black South Africans and democracy was in 2014. On the eve of democracy the total enrollment in higher education as a proportion of the 20-24 age group was 17%. In 1993, while African, Coloured, and Indian South Africans comprised 89% of the population they constituted only 52% of a total of 473,000 higher education students while white students constituted 48% of enrollment. By 2011, black students comprised 81% of the total student body of 938,200 and women students reached a total of 58% (CHE, 2013). This shows that quite quickly inclusive quality of education progress was made in South African higher education.

A number of mechanisms have supported this evolution towards greater equity in higher education by the outlawing racial and sex discrimination. Alternative admission tests to complement the national final secondary school examination have also been introduced. The recognition of prior learning has been accepted to facilitate access for mature students. Extended curriculum programs have also been introduced for students that show interesting learning potential and talent.

A state funded national student financial aid scheme was also introduced. However, in late 2015 most South African universities were severely disrupted when a national "Fees must Fall" campaign was launched. The new demands were that all students, regardless of race or social standing, should receive free university education, as is the case of several other countries. However, according to the South African government, this demand cannot be supported due to public budget constraints that the country is facing. Yet, it is critical to keep ongoing and additional efforts to assure that more and more inclusive quality of education is also reached at the tertiary level.

Especially since throughput, drop-out undergraduate success, and graduation rates all make clear that a substantial improvement in equity, opportunity, and outcomes for black students still needs to be achieved. Throughput and drop-out rates for a three-year degree course at a contact university are a matter of concern: 16% of African students that began studies in 2005 graduated in a minimum of three years, 41% graduated after six years, and 59% had dropped out. In the case of white students, the comparative figures were 44% of students that graduated in the minimum number of three years, 65% graduated after six years, and 35% had dropped out (CHE, 2012:51). The figures for three-year diplomas at several contact institutions are even worse: after six years 63% of African students had dropped out as had 45% of white students (CHE, 2012:50). A recent CHE study notes that "only about one in four students in contact institutions graduate in regulation time".

At the same time that some South African universities are becoming known by their quality achievements, recognized as such namely by the positions that they already have in some of the most well know rankings. Tremendous efforts need to be kept being made and reinforced to assure that this progress happens while at the same time inclusive quality of higher education in South Africa is also achieved and increased.

Final Thought
Although many good examples and initiatives must be recognized as being important drivers for building quality of education together with inclusive quality of education in South Africa, much remains to be done and accomplished.

There is recognition of the need to hold firmly together the goals of access and equity and high-level excellence, namely through a number of approaches that have been well described by green and white papers in the strive for inclusive quality of education in South Africa. However, like many other South African policy documents, they are expansive in vision but short on details and application. Building on the progresses made in the past decades, as well as a number of successful examples and quality schools, further evolution and larger scale implementation of quality driven initiatives are essential for South Africa to keep improving both quality of education and its inclusive quality of education performances.

3. Inclusive Quality of Education in the Indian Context
The challenges to inclusive quality of education are of course not exclusively found in South Africa. As a second example, several quite similar concerns being face by India are now discussed. In India, some key issues strongly connected with inclusive quality of education are the following: 1) high level of diversity, with 14 languages and more than 500 dialects being used; 2) disparity of incomes, linked to the existence of two basic types of educational system components (private schools for the rich and Government run schools for the poor); 3) low budget allocation to education and schools; 4) lack of priority given to education as a sector for allocating public budget resources.

At a more detailed level, here are some areas of particular concerns regarding inclusive quality of education progress in India:
- Inadequate funds and their balanced distribution. In India about one third of education resources are allocated to higher education. As such, primary education suffers with significant lack of funding. This situation is changing, since in more recent times less subsidies have been provided to higher education, but still much more needs to be done to improve primary education quality of education and inclusive quality of education;

- Lack of teachers, both in primary, secondary and even tertiary education. This leads to high student to teacher ratios. One example, coming from a teacher in a Government run secondary school, states that sometimes there were 80 students attending a single science class. Student to teacher ratios of 50:1 is very common. In addition, many teachers have not received enough training. State Governments are now spending time and money to retrain the teachers, so that they can use and adapt more practical and interesting teaching methods, rather than just following the traditional class room lecture formats. These efforts have just begun, and a lot of ground needs to be covered as soon as possible, to further achieve quality of education and inclusive quality of education;
- Unstable changes of educational public policies and measures. Since the political parties in power have a strong tendency to run their own agendas, reverse measures inherited from previous Governments can introduce unnecessary disturbances and perturbations, such as curriculum changes. This creates an environment of increased variability, with constant changes being added without even having had the chance to evaluate their real impacts, since education outcomes are quite often only achieved after a number of years. Therefore, no short term measurements can evaluate such outcomes;
- High drop-out rates after primary education are still quite predominant, and even more so in certain zones of India and over some given socio-economical communities;
- Inexistence of effective supervising bodies, able to promote and assure both quality of education and inclusive quality of education. Quality of education supervision in India is mainly based on reviews of records and rarely conducted through actual supervision or observations made in field, while running a class or by visits made to schools;
- Lack of societal priorities given to quality of education, especially in the rural areas; therefore, raising gaps is not just about quality of education but also about inclusive quality of education. This situation has improved in the last decade, but still needs more attention and further efforts to be done. New schools are indeed opening in rural areas, but availability of quality teachers is still a major concern, even more so in such areas;
- Large differences in standards and quality of education between Government and private schools. The corresponding fee differences can be on the order of 20-100 times. Most private schools teach in English while Government schools use Hindi (the National language) or state specific local languages. This translates also in quite significant inclusive quality of education problems, according to this very pronounced dual education system;
- Large differences can also be found between higher education quality levels achieved, with some universities in India achieving outstanding performances, even if looked at by the lenses of important international rankings, such as happens to be the case for a number of Indian Institutes of Technology. Also, a large number of them are still lagging behind in terms of overall quality achievements and recognitions. Therefore, high variability found at the other levels of education is also strongly present when one looks to higher education in India, where inclusive quality of education is also a major issue that needs to be faced;
- Less focus is being placed on vocational education and training, this leading to lower employability levels of many students, after they complete their formal education trajectories. Employability of many educated youngsters remains low and there is usually a struggle to get a good job afterwards. This is even more so in certain parts of India, as well as for given types of degrees obtained. That being the case, dealing with inclusive quality of education in India includes also challenges on the evolution of its vocational education and training system, schools, teachers, and students.

Although many of the above challenges and bottlenecks are common with many other countries, in terms of inclusive quality of education, in India one has also to take into account that large scale efforts are needed to define and implement initiatives with a significant impact, since we are talking about a country with over 1.3 billion people and almost 3.3 million km² of area. This corresponds to about one fifth of the world population and over two thousand ethnic groups. Further, more than 50% of its population is below the age of 25. To make an impact under such an environment, ambition combined with large scale deployment of initiatives are essential for the promotion of inclusive of quality of education. To do so, it is important to take into account a number of important statistics, but also the important messages conveyed by voices of citizens, such as the ones that follow (Indumathi Rao, 2003):

"Mohan, who is 6 years old and lives in Chennai, in India, went with his parents for admission into a school. The general school refused to give him such an admission because he could not see fully. He went then to a special school for admission. They also refused admission because he could see partly!!"

(A principal sharing his experience in the national seminar on Inclusive Education)

"When good inclusion is in place, the child who needs the inclusion does not stand out. The inclusive curriculum includes strong parental involvement, students making choices, and a lot of hands-on and heads-on involvement."

(Dr. Melissa Heston, Associate Professor of Education, University of Northern Iowa)

"After my son is out of public school, he'll be living and working with a diverse population of people. I want him to be accepted after he's out of school as much as when he's in school. For me, that's why inclusion is a key while he's in school."

(Parent of child with disability)

India is a signatory to or participated in a number of relevant international agreements, including the United Nations Rights of the Child, United Nations Standard Rules on the Equalization of Opportunities, the Jomtien Declaration on Education for All, and the Salamanca Statement and Framework for Action. It is therefore important to obtain further inspiration and guidance from such frameworks, whenever one plans to improve inclusive quality of education, and even more to achieving this in a country like India. That being the case, we will conclude by reproducing here some of such principles and statements:
"... Schools should accommodate all children regardless of their physical, intellectual, emotional, social, linguistic or other conditions."

(Article 3, Salamanca Framework for Action)

"Regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system."

(Article 2, Salamanca Statement)

On its own hand, this framework stems from the messages of the Jomtien World Declaration on Education for All (1990), which were reaffirmed in the Dakar Framework for Action (2000):
"… In order to attract and retain children from marginalized and excluded groups, education systems should respond flexibly… Education systems must be inclusive, actively seeking out

children who are not enrolled, and responding flexibly to the circumstances and needs of all learners…"

(Education for All: Meeting our Collective Commitments. Expanded Commentary on the Dakar Framework for Action, Paragraph 33)

Last, but not least, Rule 6 of the UN Standard Rules for Persons with Disabilities states that: "States should recognize the principle of equal primary, secondary and tertiary educational opportunities for children, youth and adults with disabilities in integrated settings. They should ensure that the education of persons with disabilities is an integral part of the educational system. General education authorities are responsible for the education of persons with disabilities in integrated settings. Education for persons with disabilities should form an integral part of national educational planning, curriculum development and school organization."

At the national level, the Indian "Equal Opportunities and Rights of Persons with Disabilities ACT 1995, rule 26", states that the "education of children with disabilities up to the age of 18 years in an appropriate environment".

We hope that by providing these additional insights it becomes even clearer how critical it is for India to reinforce integrated educational approaches and increase inclusive quality of education, as this is clearly a strategic driver for the present and future sustainable development of the country.

4.   Conclusions

Quality of education is a major issue facing our societies and the planet, with inclusive quality of education being one its major components and challenges. Only smaller differences and standard deviations of quality of education across people and territories, at several levels, will we be able to achieve sustainable development, as recognized namely by the United Nations.

In particular, and drawing on the real life experiences coming from the authors, this white paper addresses this important topic taking into account as illustrative examples South Africa and India, with regards to initiatives, present realities, and future challenges ahead in terms of inclusive quality of education.

Both South Africa and India have made some progress towards achieving the Education for All goals as found in the Dakar 2000 Framework. Regulations and policies have been introduced to ensure that children, youth, adults, and differently abled persons have access to some form of educational institution and skills development programs. South Africa has achieved universal primary education and India is making significant progress in that direction. In 2013, 99% of primary school learners were attending educational institutions in South Africa. The number of secondary students increased and the number of 14 to 18 year olds attending educational institutions reached 90% in 2013. Progress has also been made in increasing access to schools for children with disabilities, although in this regard less than 40% of children with disabilities are accessing formal education. Given the range of challenges and tasks involved, the approach to teaching and learning that is required cannot focus merely on the improvement of skills or tips for better teaching, or even just the continuous education for teachers, since as much as deep reflection on contextual realities must be duly taken into account. There is broad knowledge, expertise, and experience, namely at some universities, which is can be used for enhancing the learning and teaching capabilities, at the tertiary as well

as other levels of education, taking into account the specific requirements of inclusive quality of education.

We hope that what is shared here, regarding a generic discussion of inclusive quality of education, together with practices and findings coming from South Africa and India, where this topic is particularly relevant, can provide a sound basis for promoting further discussions on initiatives, including national and international sharing of good practices. All are needed for increasing inclusive quality of education, either at the local, regional, national, or international level, since the planet will benefit significantly from all kinds of contributions and efforts aimed at reinforcing inclusive quality of education.

References

Article from The Economist dated January 7th 2017

Council on Higher Education (2013) Higher Education Participation 2011. Pretoria. http://www.che.ac.za/sites/default/files/publications/Higher%20Education%20Participation%202011.pdf

Council on Higher Education (2012) VitalStats: Public Higher Education 2010. Pretoria

Education for All SA Department of Basic Education ISBN:978-1-43125-2042-8

HESA presentation to the SA Governments Portfolio Committee on Higher Education and Training. Cape Town 5 March 2014.

Improving Education Quality in South Africa S van der Berg, S Taylor, M Gustafsson, N Spaull, P Armstrong. Dept. Economics, University of Stellenbosch September 2011

Indumathi Rao, Regional Coordinator, CBR NETWORK (South Asia) Paper prepared for the presentation in the meeting on inclusive education organised by NCERT, 16-17 September 2003, New Delhi.

Making Quality Education Happen. Richard Hayward Book published by Caxton Press 2015

Skills for and through SIPS Department Higher Education and Training Pretoria, South Africa September 2014.

UNESCO (2000). EFA Global Monitoring Report: Literacy for Life. UNESCO Publishing.

Volmink J Report of Ministerial Task Team June 2015 Dept Basic Education South Africa