



1 March 2016

Analysis of Basic Education's Report on the Provision of Information and Communication Technology (ICT) and e-Education with a Focus on Connectivity

1. Background

President Jacob Zuma in August 2013, undertook a State Visit to Malaysia, and there, he was introduced to the 'Big Fast Results Methodology' through which the Malaysian government achieved significant government and economic transformation within a very short space of time. Using this approach, Malaysia addressed national key priority areas such as poverty, crime and unemployment.

With the support of the Malaysian government, the 'Big Fast Results Approach' was adapted to the South African context. To highlight the urgency of delivery, the approach was renamed to Operation Phakisa¹ ("phakisa" meaning "hurry up" in Sesotho).

1.1 About Operation Phakisa

Operation Phakisa is a results-driven approach, involving setting clear plans and targets, on-going monitoring of progress and making these results public.

The methodology consists of eight sequential steps. It focusses on bringing key stakeholders from the public and private sectors, academia as well as civil society organisations together, to collaborate in²:

- detailed problem analysis;
- priority setting;
- intervention planning; and
- delivery

These collaboration sessions are called laboratories (labs). The results of the labs are detailed plans with ambitious targets as well as public commitment on the implementation of the plans by all stakeholders³.

The implementation of the plans is rigorously monitored and reported on regularly. Implementation challenges are actively managed against effective and efficient resolution. Operation Phakisa was initially implemented in two sectors, the Ocean Economy and Health.

It was due to its ability to expedite progress in policy implementation, that the model was then adopted by Basic Education Sector in the provision of ICT.

This brief seeks to provide an analysis on the DBE provision of ICT using Operation Phakisa with the aim of creating opportunities for engagements between PC Members and the related Entities.

¹ DBE (2014) Operation Phakisa – Concept Document

² Ibid

³ Ibid



2. Initiatives taken by the DBE (Milestones) on e-Education and ICT

The DBE has always been on a trajectory seeking to do something in line with promoting e-Education as guided by the National Development Plan and the Medium Term Strategic Framework. The following is a record amongst others, of initiatives undertaken by the DBE⁴:

2.1 Publication of White Paper on e-Education in Sep 2004⁵

The White Paper on e-Education was published in 2004, its purpose is to guide the Department of Education's approach to e-education and the integration of information and communication technologies (ICT) into teaching and learning. Furthermore, ICT is expected to be used to promote and create greater access to learning opportunities, redress inequalities, improve the quality of teaching and learning, and provide personalised learning experiences.

2.2 Development of Guideline in 2007: *Teacher Training and Professional Development in ICT*⁶

Recognising that all teachers require knowledge, skills, values and attitudes, as well as the necessary support, to integrate ICT into teaching and learning, and to support them in their various roles as mediators of learning, interpreters and designers of learning programmes, leaders, administrators, scholars, assessors and subject specialists, the DBE developed the guideline that sets out the ICT knowledge, skills, values and attitudes needed by teachers to implement the National Curriculum Statement effectively.

2.3 Conducting Feasibility Study in 2009⁷

KPMG undertook a study on behalf of the DBE, to determine whether the e-Education initiative was in the best interest of schools. The approach and methodology of the stages in the study (needs analysis, option analysis, due diligence, value assessment, economic valuation, and procurement plan) were described. The study confirmed a need and maintained that implementation of e-Education is feasible.

⁴ DBE (2014) Audit of e-Education Initiatives or Interventions in the Past 10 Years, 2013/14:

⁵ Ibid

⁶ Ibid

⁷ Ibid



2.4 Developing a Guide for School Principals: Managing ICTs in South African Schools⁸

The DBE, realising the importance of the School Management Team in managing the processes towards the implementation of ICT by schools, developed a guide for School Principals. The purpose of the guide is to give principals and senior school management information on using and managing ICT resources so that they can provide the necessary leadership. The guide also considers some implications on the use of the computer and related resources for teaching and learning.

2.5 Developing Guidelines for Schools in 2012: ICT Hardware Specifications⁹

It became apparent that all teachers require the knowledge, skills, values and attitudes, as well as the necessary support, to integrate ICT into teaching and learning. This initiative was conceptualised with the view to assisting teachers in their various roles as mediators of learning, interpreters and designers of learning programmes, leaders, administrators, scholars, assessors and subject specialists. The document sets out the ICT knowledge, skills, values and attitudes needed by teachers to implement the National Curriculum Statement effectively.

3. Achievements due to collaboration between Department of Basic Education (DBE), Department of Telecommunications and Postal Services (DTPS), Independent Communications Authority of South Africa (ICASA), Universal Service and Access Agency of South Africa (USSASA) and Network Operators.

The following progress is reported to have been made:

- Revised Integrated Approach to School Connectivity, including the school connectivity value chain, has been drafted and agreed upon¹⁰.

Questions to be raised:

- What is the status of the document in terms of its implementation?
- Has the document been mediated so that all affected are aware of their roles and responsibilities?
- To what extent has the document impacted on the school connectivity?

⁸ DBE (2014) Audit of e-Education Initiatives or Interventions in the Past 10 Years, 2013/14

⁹ Ibid

¹⁰ DBE (2016) Status of e-education, particularly school connectivity

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- Management structures such as Deputy Ministers' e-Connectivity Forum, School Connectivity Steering Committee, DBE – DTPS task team, and Monthly Provincial School Connectivity Steering Committee, have been strengthened¹¹.

Questions to be raised:

- What form of evidence is available to substantiate the claim?
- How many meetings have been held since 12 September 2014?
- What is the impact of these meetings in ensuring connectivity of schools?

- ICASA has strengthened monitoring of the compliance of Government Gazette No 37718 of June 4, 2014 by developing¹²:
 - Guidelines and specifications: Hardware & software, connectivity (bandwidth) and Training
 - Guidelines with regard to stakeholders' responsibility in terms of training, maintenance and payment of connectivity recurring cost.

Questions to be raised:

- How were these documents mediated?
- Are all other entities aware about these documents and their implications?

- Officials from DBE, DTPS, Network operators, and respective Provincial officials are permanent members of all Provincial Monthly Steering Committees¹³.

Questions to be raised:

- Who is feeding the bill for the costs emanating from activities of the forum?
- Who is the host? Where are these meetings normally held? Is there some form of rotation?
- At what level of accountability are Officials nominated to serve on the steering committee?

- On Monthly basis, each Provincial USAO Steering Committee does the following¹⁴:
 - Plans the Provincial Monthly rollout;
 - Monitors the implementation;
 - Scrutinizes the monthly report by the service providers.
 - Identifies challenges and devise mitigation plan;
 - Conduct random visits to schools to ascertain to the appropriateness of the rollout against the specifications.

¹¹ Ibid

¹² DBE (2016) Status of e-education, particularly school connectivity

¹³ Ibid

¹⁴ Ibid



Questions to be raised:

- Is there evidence or indicators that could be used to substantiate what is reported?
 - Matters covered based reports stating work done on monthly basis are likely to impact positively on the implementation processes. What is the progress to date on connectivity country wide?
- A 'mobile system' requiring minimum security and the used of strong room has been adopted¹⁵.

Questions to be raised:

- How effective are these options? What have other countries with similar circumstances opted for?
 - Are there already good reports about these options?
 - How are communities mobilised to develop ownership and protect the initiative?
- Provinces assist with the vetting process of all nominated schools. This includes checking whether the school (a) has access to electricity, (b) has at least a strong room to secure the mobile trolley¹⁶.

Questions to be raised:

- Is this vetting process not going to contribute to the exclusion of the majority of needy schools? How is the discrimination or bias based on social background avoided?
 - To what extent are schools assisted to ensure that they have those listed amenities?
- Government Gazette No 37718 of June 4, 2014 obliges Network Operators to provide support and maintenance for a period of three months after installation¹⁷.

Questions to be raised:

- How is that support provided? Is there some form of training done?
 - Does the maintenance consider the Asset Life Cycle? To what extent are schools assisted to ensure that their choice of technology has reasonable warranty?
- Post 3 month period, USAASA takes responsibility. All equipment carries a 3year OEM warranty¹⁸.

Questions to be raised

- Is there a prescribed material that schools can order?
- What informs the warranty period?

¹⁵ DBE (2016) Status of e-education, particularly school connectivity

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Ibid



- USAASA has not started this function, as such, the Provincial steering committees decided that the Network Operators transfer knowledge to District IT Technicians who are currently assisting in this regard¹⁹.

Questions to be raised:

- Why has USASSA not started with the function as reported?
- The District IT Technicians, What level of competency and expertise do they have, or should they require?

It must be noted that a Framework for ICT implementation in Education for the period, 2016 – 2020, has been developed²⁰. The document is informed by the recommendations of Operation Phakisa ICT in education Lab held. Furthermore, the DBE has developed a School Connectivity Management Information System that captures all school connectivity initiatives.

Table 1 Current Status of Connected Schools²¹

Province	Connect through the Initiative	Connected through USAO	Total
Eastern Cape	2 421	278	2 699
Free State	752	260	1 012
Gauteng	2 134	0	2 134
KwaZulu-Natal	1 640	209	1 669
Limpopo	965	141	1 106
Mpumalanga	718	2	720
Northern Cape	438	99	537
North West	1 029	67	1 096
Western Cape	1 611	51	1 662
Total	11 528	1 107	12 635

Sourced: Presentation Report by DTSPS and DBE - Modified

The table above, reflect that much is needed to be done in provinces with high number of schools like KwaZulu-Natal, Limpopo and the Eastern Cape.

To date only 12 365 schools have been connected and this constitute only 51 per cent of the total number of schools country wide.

Questions to be raised:

- In terms of the vetting requirement of schools, it appears that most of the schools in KwaZulu-Natal will not meet the requirement due to rural nature and the fact that they may not have electricity. What is the plan to ensure that these schools are also included in the near future?

¹⁹ DBE (2016) Status of e-education, particularly school connectivity

²⁰ Ibid

²¹ Ibid



- o Considering the effectiveness of SA SAMS in the Free State, only 1 012 schools were connected? Why this small number of schools, when the province appears to be established in data management compared to other provinces?

Table 2: Status of Connectivity in Teacher Centres²²

Province	No of Centres	Centres with ICT Labs	Connectivity	Teacher Centres with Programmes	Access to Emails	Functional	Total Number of Districts
Eastern Cape	16	14	14	12	16	6	23
Free State	5	6	6	4	5	4	5
Gauteng	21	11	11	17	21	1	15
KwaZulu-Natal	49	35	15	38	47	28	12
Limpopo	9	8	8	9	8	8	5
Mpumalanga	17	12	10	16	17	10	4
Northern Cape	5	5	5	5	5	5	5
North West	24	16	7	14	23	7	4
Western Cape	3	3	3	3	3	3	8
TOTAL	147	110	79	118	145	79	81

Sourced: DBE Report on Teacher Centres – modified

In terms of the table above, there seem to be no correlation between the number of districts and the number of connected Teacher Centres. The total number of Teacher Centres with ICT labs is in some instance less than the total number of districts in a province. The challenge is, which Districts are without Teacher Centres?

Questions to be raised:

- o How is the distribution of the Teacher Centres in each of the province?
- o Does that mean that these Teacher Centres are equitably distributed per district?
- o What criteria was used to select these Teacher Centres?

²² DBE (2016) Status of e-education, particularly school connectivity



- What remain to be tested though is, how Teachers are benefiting from these centres in terms of Teacher Development. To what extent is reporting done on the impact of these centres on the performance of learners in Annual National Assessment (ANA) and National Senior Certificate (NSC)?

4. Current status on Teachers Centres

- About 26% of teachers have Basic skills in ICT, while only 7% possess Intermediate skills in the use of ICT for teaching and learning²³.

Questions to be raised:

- How is the DBE planning to up skill the remaining number of teacher without ICT skills?
 - The percentage is very low compared to challenges posed by technological advances. How are these teachers assisting learners in facilitating ICT classroom programmes?
 - The DBE is expected to speed up the process of assisting these teachers. Does the DBE have a programme to deal with such a huge challenge (Eradicating ICT illiteracy amongst teachers)?
- The majority of teachers with ICT skills are in Western Cape, followed by Gauteng then Free State²⁴.

Questions to be raised:

- The statement suggest that schools in urban areas are more advantaged compared to those in rural areas. What is the plan of the DBE to attract teachers with ICT skills even in rural provinces?
 - The imbalances of the past cannot be left unabated. How is the department allocating resources to address these imbalance?
- A plan to accelerate teachers ICT training and train all teachers by 2019 is contained in the ICT in education draft sector plan²⁵.

Question to be raised:

- How realistic is the target set given the massiveness of the challenge?
- Was the plan ever costed?

²³ DBE (2016) Status of e-education, particularly school connectivity

²⁴ Ibid

²⁵ DBE (2016) Status of e-education, particularly school connectivity



5. Reference

DBE (2016) Status of e-education, particularly school connectivity. Pretoria

DBE (2014) Audit of e-Education Initiatives or Interventions in the Past 10 Years, 2013/14: Pretoria

DBE (2014) Operation Phakisa – Concept Document. Pretoria

