

CONFERENCE

WHAT WORKS IN SCHOOL DEVELOPMENT?

Held at Birchwood Conference Centre, Boksburg
on 28 and 29 February 2008

SUMMARY OF PAPERS PRESENTED

Day 1

Cadwell Macama from Murray & Roberts welcomed the delegates with the hope that if we pool our knowledge our impact will be greater. Next Nick Taylor from JET gave a paper contextualising the issues of school development. This was followed by six papers which presented various models of school development interventions both by the private sector and by the Department of Education. The day ended with a general discussion, chaired by Professor Mary Metcalfe from Wits University.

Paper 1- *Differentiating our effort: current interventions in school development in South Africa*. Nick Taylor, CEO Joint Education Trust (JET) Education Services

This paper set off with statistics showing how poorly South African education fares in terms of quality and equity. Worth mentioning are the following:

- Testing in 14 Southern and Eastern African countries showed that in 2007 South Africa scored 9th in Grade 6 maths and literacy tests, with countries poorer than ourselves outperforming us.
- 66% of Maths Higher Grade passes are located in 7% of our schools while 80% of schools are poorly performing.

Programmes which have sought to address these poor results have identified that the biggest problem is that teachers are not covering the curriculum. Added to this is poor teacher knowledge of the content of what they are teaching. This is compounded by a move away from using textbooks in the classroom and for preparation.

The solutions to these problems are linked. The lack of *curriculum coverage* due to poor time management, teacher attitudes and absenteeism, needs to be addressed through organisational development. Teachers also need to spend less time on filling in elaborate and extensive schedules and fulfilling bureaucratic demands. Instead, their work needs to be judged by learner output. In the past, the lack of *teacher knowledge* was addressed through short afternoon workshops. These have shown themselves to be ineffective. Instead, what is needed is intensive residential training which focuses on disciplinary knowledge. In addition, teachers need to be given *textbooks* and encouraged to acquire the knowledge themselves. This will help to move teachers away from a culture of dependency and make them more self-reliant.

In terms of school development there is a growing trend for donors to pull out of poorly performing schools and work more in the moderately to well performing schools. Even the state's Dinaledi programme has shifted its focus towards working directly with schools that have a certain level of functionality. However, these are short-term solutions. In the long term what needs to happen is that interventions are differentiated. Where the poorest performing schools need to get time management right and get the teachers into school and into the classrooms, the moderate and well

performing schools need to work more with curricular interventions. Real change takes strategic interventions and time.

Paper 2 - *Excellence Serving the Poor: the Dinaledi intervention*. Edward Mosuwe, National Department of Education, Dinaledi Project

This paper shared the experience of the state's Dinaledi programme. It was established in 2001 to increase the participation and performance of the historically disadvantaged learners in mathematics and physical science and is part of the state's maths and science strategy. Dinaledi schools were chosen according to whether they offered mathematics and science, and have to have a minimum of 35 HG and SG maths learners. They also need to display a basic level of functionality.

These schools are given the following support:

- Learner Support Materials, textbooks and calculators.
- A 100-hour teacher-training programme focussing on content knowledge of maths and science and enhancing learner performance.
- A mentor teacher assistance programme and school visits.

By the beginning of 2008, 400 schools are participating in this state driven initiative. However, the success of the project has been mixed. While the results show that the number of HG maths passes in Dinaledi schools has declined by 188 from 2006 to 2007, the number of SG mathematics passes has increased by 3119.

The lessons learnt were summarised as follows:

- Participating schools have increased their understanding of the importance of maths and science.
- School development approaches needs to be differentiated.
- It is important to recognise and reward performance.
- School development requires the effective participation of school, district and province.

Next the conference looked at two programmes – one funded by the private sector, the other an initiative of the Independent Schools Association of South Africa (ISASA).

Paper 3 *The Zenex Systemic Programme*, Gail Campbell, CEO of the Zenex Foundation

The Zenex Systemic Programme is run by the Zenex Foundation - an independent private foundation, operating since 1995, which has a strong focus on research and evaluation. Over the last ten years it has commissioned over 40 impact evaluations. While the Systemic Programme is only in its first year of operation it has drawn on this rich research into the effectiveness of school development models and extracted the following lessons:

- Zenex has moved from being a grant maker to becoming a development agency. Instead of reacting to programme proposals they decide themselves what needs to be done.

- Instead of working on NGO programmes it has shifted towards working directly with the Department of Education.
- Their approach has become more focussed and they work with clusters and district offices. This also means that they do not work with more than 25 schools in an area and look for schools that are within a 30km radius of each other.
- Schools are selected according to their potential. Qualitative criteria, such as the motivation of a principal and teachers, are also applied. Schools are also selected together with the department.
- The Programme works with all the teachers in a school.
- The focus of the work is on content knowledge rather than on OBE. They also focus on structured and scripted programs that fit in with mainstream.

Paper 4 - *Getting the talented poor to good schools*, Jane Hofmeyer, Executive Director of the Independent Schools Association of South Africa (ISASA).

Since 2007 the ISASA has been running a Maths and English programme which aims to identify talented poor Grade 9 learners with a potential to succeed in Maths and English, to obtain donor-funded bursaries and to place these learners into ISASA member schools in order to help them obtain university entrance passes in maths and English and the competencies to succeed in tertiary education. The programme uses teachers who are qualified and have experienced success in working with disadvantaged youth.

Two types of schools are involved in the programme. Firstly, there are hub schools which are specialised bridging schools who can help host schools. Secondly, host schools are selected from low-fee to high-fee schools. They have to have good Maths and English results, be committed and have space to enrol at least five more black learners for Grades 10-12.

The first phase of the programme consists of selecting host schools. At the same time, the programme advertises for, screens and tests learners who are then interviewed and placed. In the second phase, learners are assigned mentors and taken on camps where they are given academic and life skills. They are also given any additional tuition and support they may need.

Paper 5: *Working at the top end: Maximising business investment in schooling*, Margie Keeton, Executive Director of Tshikululu Social Investments

Tshikululu Social Investments looked at the major research around school development and came up with the following learnings. Firstly, that much of private sector intervention is well meaning but ineffectual because it lacks focus and strategic purpose. Too many interventions have limited impact *inside* the system and have not been taken over by the system. The research also found that there are gaps at so many levels that the ability of the system to maximise benefits is constrained.

South Africa is not producing enough maths Higher Grade students to provide the economy with the skills that the country so desperately needs. In response to this and

the above findings by Tshikululu, Optima and Epoch Trust decided to invest in schools that are already producing maths graduates. It was discovered that many of these schools are under severe strain and managed to produce maths Higher Grade students through incredible dedication and commitment. The thinking was that there is a need to shore up these institutions who are delivering so that they can hold the line and then to expand beyond that.

158 schools were identified and invited to apply to become part of the programme. These schools consisted of black top performing schools, black schools that are pushing numbers, transforming ex Model-C schools and the top performing historically Coloured and Indian schools. Of these schools 45 were then selected in 2007. Schools are given funding which they manage themselves. Many schools seem to be spending the money on employing extra maths teachers.

Even though the programme was only started in 2007, there is already a noticeable difference in commitment. It seems as if the programme is addressing real needs and empowering schools.

Paper 6: *Improving literacy and mathematics in the primary school: the country's most important priority*, Brian Schreuder, Deputy Director-General of the Department of Education in the Western Cape.

The Western Cape Education Department has taken a strategic decision to focus on literacy and numeracy in their primary schools. The reasoning is that if learners cannot read, write and comprehend then they cannot learn. If they cannot do mathematics they cannot think systematically, analytically and critically. Thus, unless the foundations are entrenched in the learners they will not be able to learn at high school.

The result has been the WCED Literacy and Numeracy strategy 2006 – 2016. While at the centre of the strategy is the teacher's ability to teach there are eight key programmes that are part of the strategy:

1. A pre-school programme
2. Strengthening of and changes to classroom practice
3. Teacher training and development (a Cape Teaching College has been established)
4. Learning and teaching support material
5. Research
6. Monitoring and support driven by primary school advisers.
7. Co-ordination and sustainability.
8. Advocacy, community and public awareness and family literacy, it's a long-term strategy.

So far the strategy has seen shifting literacy figures, while maths figures have not moved. One of the responses is to give teachers short-term crutches for maths teaching such as developing a lesson-by-lesson instruction guide.

However, it is important that the programme has the political backing to allow it to be sustained over time.

Paper 7 - *The Khanyisa School Transformation Programme.* Dr Aaron Motswaledi, MEC for Education, Limpopo Province and Godwin Khosa, Programme Director, JET Education Services

The Khanyisa School Transformation Programme is a seven-year education change programme of the Limpopo Department of Education. It was started in 2003 and works in the development of education systems, FET and school transformation. While the programme is a late comer to large-scale school improvement programmes, it has had the advantage of being able to learn from other large-scale programmes. Also, right from its inception the thinking was around how to go to scale and the sustainability of the programme.

Schools receive cluster workshops and in-school professional sessions. They are also given access to assessment banks and structured learner workbooks. Common work schedules and tests are developed and each school has implemented a daily maths and literacy hour.

Districts and circuits are being restructured and resourced to provide better professional support to schools. In some areas model circuits are being built. These circuits have facilities such as computer labs, science laboratories, libraries, home-economics centres.

Day 2

The morning of the second day of the conference focussed on what makes successful school systems and on achieving significant impact on numeracy and literacy. The second session focussed on the relationship between funders and the state. The conference closed with an address given by the Deputy Minister of Education, The Honourable Enver Surty.

Paper 8 - *Teachers, teachers, teachers – the key to successful school systems,* Mona Mourshed, partner in the Middle East office of McKinsey & Company

This paper shared some insights from a report that was co-authored by the speaker on how the world's best performing school systems come out on top. The first finding was that some of the most popular school reforms - such as reducing class size, giving schools more autonomy and spending more on education - have not influenced outputs.

To find out what does work, the researchers looked at the 10 top performing school systems across the world as well as at systems that are improving rapidly. They came up with four clear lessons:

Lesson 1 - The quality of an education system cannot exceed the quality of its teachers.

The finding is that teacher quality is the most important lever for improving student outcomes. This is because what happens in education is what happens between

teachers and their students. It seems that great school systems are able to attract great people into teaching. While in poorly performing systems, teachers are taken from the bottom percentage of students, in successful systems, those who enter the teaching profession come from the top percent of their class.

Top performing systems also make it difficult to become a teacher. Teachers are screened before being accepted into pre-service *and* on entry into the school. Through interviews and through monitoring at the university they are checked for minimum qualifications, skills, attitudes, aptitude and personality. Teachers are also paid good salaries, with their starting salaries benchmarked against other professions. In other words in highly performing systems, professionalism is brought back into teaching.

Lesson 2 - The only way to improve outcomes is to improve instruction.

Teacher training, in a very targeted way, can have a positive impact on teacher quality.

In addition, three tactics of professional development were observed; all of them are done inside the classroom. The first one is *peer observation*, where teachers are given the opportunity to see what great teaching looks like so that they can emulate it. The second is *lesson studies*, where teachers develop model lessons together. This encourages them to reflect on and debate what makes good teaching. The third is *demonstration lessons*, where teachers are brought together to observe a mock lesson.

Lesson 3 - High performance requires every child to succeed.

For every child to be helped to succeed it is important to have data. In Finland learners who fall behind are given extra one-on-one or small group tuition which is mostly focussed on mathematics and Finnish language. In a year 30% of all learners in a school attend. If a stigma develops, high performing children are taken out as well and extended.

Lesson 4 – Every school needs a great leader.

It is impossible to have a great school with out a great principal who is walking the corridors. Being a great principal is about having skills of leadership and management. Top performing systems give their principals from six months to a year's training in management and leadership issues. Candidates work in teams, and are sometimes placed for two weeks in a major corporation to shadow top private-sector executives.

However, to truly cause transformation it is necessary to work on all four aspects.

Paper 9 - *How we can achieve significant impact on the teaching of mathematics in South Africa.* Eric Schollar, of the independent research agency Eric Schollar & Associates

Despite the introduction of OBE and the increased allocation of resources to the education system, mathematics education outcomes have been persistently poor in South Africa. This can be seen by the fact that of the 1995 Grade Ones only 1.5% achieved HG pass in the 2006 matric exams. The level of wastage against what has

been spent seems unacceptable. In direct response to this situation the Primary Mathematics Research Project was established.

During Phase 1, an empirical investigation was carried out into the outcomes of mathematics education in primary schools. The findings did confirm the poor levels of learner performance that were measured in other studies. In addition, the fundamental causes of poor performance were identified as a failure to extend the ability of learners from counting to basic calculations and seeing numeric relationships.

This problem is caused by ineffective learning practices in classrooms that result in the virtual disappearance of memorization, consistent drill and regular extensive practice of learned content. Learners are not given the opportunity to develop the neural pathways and structures required for the development of higher order cognitive competencies in mathematics. Closely associated with these causes has been the virtual abolition of a national or provincial syllabus of study, combined with textbooks designed to give effect to this syllabus. As a result, the quality of outcomes has varied wildly from school to school as the completeness and complexity of content to which learners are exposed depends on individual teachers.

In Phase II a set of teacher and learner materials, based on the findings above, were developed. The materials are based on an approach which emphasises direct instruction by teachers, combined with the use of memorisation, drill and extensive regular applied practice for learners - before extensions into more complex 'learner-centred' activities are attempted. Each teacher is asked to keep a research diary, helping her/him to think about their work. These materials were field-tested in 20 project schools and 20 control schools in Limpopo.

The study has provided strong and reliable empirical evidence that the theoretical and methodological approach embodied in the materials has resulted in rapid and significant improvements in learner performance.

Paper 10 - *How we can achieve significant impact on the teaching of reading in South Africa.* Marlene Rousseau, Bitou 10 Project

The Bitou 10 project was started in 2001 when the Nelson Mandela Foundation was persuaded, instead of building a new school, to take on a cluster of eight schools from the Plettenberg Bay area and try to turn them around.

Before work was done on improving learner performance, each school was asked to look at their physical environment and draw up a wish list of what they really want to change the school. Money was given and for the first one and a half years the school environments were improved. This had the effect of establishing strong relationships with each school. The next step was to provide schools with thousands of textbooks and readers.

The curriculum leg of the programme was started in 2004. The main focus of the programme is a writing-to-read approach to literacy. Children are encouraged to talk, think and read through writing. From day one already, Grade 1 children are

encouraged to 'write' stories'. These are transcribed on the board by the teacher and then read aloud. In addition, classroom assistants or Big Moms work in the classrooms to kick-start literacy.

The schools were tested in 2006 and the results show a marked improvement in literacy. The mean score for all 8 primary schools increased by 28.1 percentage points, which represents an 88.5% increase on the 2002 mean. From a starting point of 4.5 percentage points *behind* the provincial mean, in 2006 the mean score for all Bitou schools stood a full 14.8 percentage points *ahead* of the provincial mean.

Factors found to be contributing to the 2006 reading results:

- Teachers are determined to improve the children's reading and writing.
- Teachers plan together, share resources, discuss problems and problem-solve together.
- Children are exposed to the test genre - they play and practice writing tests.
- Children do a lot of interesting reading and writing and methods are used that empower.
- Service providers work and support teachers in their classrooms. They teach and model ways of working in classrooms.

Paper 11 - *Business investment in schooling – coordination or cacophony?* Nomsa Masuku, Head of Corporate Social Investment at the Standard Bank.

The relationship between business and society is, of necessity, a symbiotic one. Successful corporations need a healthy society with a functional and effective education and health care system, while at the same time a healthy society needs successful businesses to create jobs, wealth and allow for innovations. To build effective partnerships between the state and business, both need to come to the partnership with a firm understanding of who they are, what they need and what it takes to make them function optimally.

The South African state puts a high percentage of its national budget towards education, it also has developed a large number of strategies, plans, projects, initiatives and policies for its improvement. On the side of private companies and NGOs, there is no shortage of great ideas, well-designed models, committed organizations and people. What is of concern, however, is that all these brilliant ideas do not roll back up to the national agenda. It is therefore important that all these parties learn from each other and that this is done under strong leadership from government. In other words, the Department of Education (DoE) needs to facilitate collaborative initiatives and take responsibility for co-ordinating and channelling efforts in a systematic fashion. This would allow business and NGOs to be clear when they are rallying around a goal or using their own initiatives to enhance and explore alternatives.

Address by the Deputy Minister of Education, the Hon Enver Surty

The minister commended the conference for taking up the recommendation of the 52nd ANC Congress that '*education must be elevated from being a departmental*

issue, or even a government issue, to a societal issue – one that occupies the attention and energy of all our people.’

He hoped that the wealth of information that emerged from this conference, on how to sharpen approaches to the accelerated achievement of quality education, would be shared.

When the Minister of Education commissioned a study to see what happens in schools that persistently achieve good Senior Certificate results, the outcomes showed that there are three critical success factors:

- Teacher knowledge of subject content.
- Texts as a resource through which to deliver the curriculum.
- Time on task and the careful use of time.

The main challenge is to find a balance between the issue of quality and access to education. For this it is important to take the social context into account that influences a school’s effectiveness and the quality of education it provides.

The challenge to provide access to quality education for all our people is huge. However with a collective and co-ordinated approach it is possible to find systematic solutions.