strategic paper that would highlight the need to overhaul the HET or FET programmes where appropriate, and to develop new HET and FET programmes that will meet the demands of the communities they serve

- Colleges will need assistance in developing their learning programmes at both HET and FET levels

- Colleges need assistance in implementing RPL for farmers and farm workers who have extensive experience in their field of work.

Phase Two

Planning for Phase Two, involving the Dutch Consortium, the college principals, project managers and JET, was completed during August for implementation to begin in September 2006. As well as providing advice and guidance during the planning and implementation stages, JET will facilitate workshops and training to assist the colleges to meet their training needs. This phase will be evaluated in preparation for the planning of Phase Three.

Due to its experience in the education sector, JET has been able to share its insights into the current education and training system with the colleges and the Dutch Consortium. In addition, JET has gained valuable information and understanding of the agricultural sector, management processes and other planning, facilitation and report-back techniques from the colleges and the Dutch Consortium. Thus far, the project partnership has made good progress and JET is looking forward to the further phases of implementation.

NEWS

NEW APPOINTMENTS AT JET

We are pleased to welcome a number of new staff members to JET.

Selby Xinwa has been appointed Project Manager in the School Development Division, starting July 2006.

Phumzile Dhludhlu was appointed Senior Administrator. She also joined JET in July 2006

Peter Verbeek takes on the role of Project Manager in the Evaluation and Research Division (ERD), from August 2006

Thabo Mabogoane has been appointed as Senior Statistician in ERD beginning in August 2006.

Ngoni Nyambuya has been appointed as a Statistician in ERD. He also joined JET in August 2006.

Congratulations to Carla Pereira who has been promoted to Divisional Manager, Evaluation and Research.

FOCUS ON: CHALLENGES ACROSS THE EDUCATION SPECTRUM

Which skills are required to build a modern state?

It is generally acknowledged that, although South Africa has made important strides in the last decade towards building economic prosperity for a broader range of its citizens than ever before, consolidation and further growth of the country's productive capacity is now inhibited by a severe shortage of skills. There is also much talk of finding ways for high schools to produce greater numbers of matriculants with maths and science, and of developing the colleges of further education in order to provide the technical skills to drive the economy. There is much sense in all of this and these things certainly need to be done, but a prosperous and peaceful society is much more than one which has a high proportion of engineers and technicians, and schools are about much more than the production of technical skills. And the elements that are less prominent in the current public debate are not merely frills to be added once the hard hats have laid the foundations, but constitute the very bedrock of a modern democracy. Schools are the crucibles in which the citizens who constitute a modern state are forged.

The first point to be made about the skills provided by schools is that maths, science and technical expertise, crucial as they are to developing a sophisticated economy, are not

SCHOOLS, SKILLS AND CITIZENSHIP[1]

Nick Taylor
CEO
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[1] To appear in Susan Brown (Editor) (2006) *2006 Transformation Audit: Money and Morality.* Cape Town: Institute for Justice and Reconciliation.

the most important elements of the curriculum. Even more important is the development of general cognitive ability, which is achieved through fostering analytical language skills, such as classifying and categorising ideas, distinguishing cause from effect, and offering counter arguments to assertions. Extensive reading and writing are key to nurturing these abilities, which, in turn, underlie virtually any complex task in fields as widely divergent as commerce and the creative arts, political leadership and policing, or legal judgment and the administration of a local government or the national lotto.

But perhaps even more important than both language and mathematical skills are the less obvious socializing effects of schools. Good schools are ordered institutions which cultivate a strong work ethic, the ability to perform under pressure, and a sense of initiative and responsibility; they teach children, both in the way they operate and in the values they espouse, that expertise and principle, not patronage and corruption, are the paths to sustainable success; they are places where future citizens learn to appreciate cultural diversity and to resolve their differences through the application of rational rules.

Without these habits of mind and knowledge skills, school leavers do not have the wherewithal to make a constructive contribution to

society: consequently, they are easy prey to a life of unemployment, crime, or corruption. South Africa's great tragedy at the present time is not poverty, high levels of crime, or rampant inefficiency in the civil service. Problematic as these issues certainly are, they are manifestations of a deeper problem underlying our society: the inability of most schools to provide young people with the attitudes and intellectual skills required to build a modern state.

A map of South African schooling

What is the extent of the problem described in the previous paragraph? An analysis of the results of the annual Senior Certificate (SC) examination reveals that close to 80% of South Africa's schools are essentially dysfunctional.

Four features of Table 1 are worth noting. First, 79% of the country's high schools fall into the poorly performing category, producing only 15% of all Higher Grade (HG) passes in mathematics. The overwhelming majority of children attending these schools are poor and African. Second, two-thirds of HG maths passes are produced by a small minority (7%) of schools. The majority of these were privileged under apartheid, although 34 of them have a history of disadvantage. Third, 600 formerly privileged schools fall into the poorly performing category. These are underperforming relative to their history of privilege. Fourth, over 600 African schools are classified as top or moderately performing. They are the country's star performers, producing excellent results despite their disadvantaged history and the fact that they continue to serve poor to very poor communities. Many schools in this group share the same socio-economic conditions as those lying in the poorly performing category. Yet, they are able to transcend their circumstances and provide good educational opportunities to poor children, hence immeasurably advancing their life chances.

Although there is no indicator comparable to the SC examination at the primary level, which is itself a problem, all indications are that the performance of South Africa's 23 000 primary schools is distributed similarly to the pattern shown in Table 1. Key questions for South African schooling are: what is it that enables the top and moderately performing schools, particularly those serving a majority of African pupils, to achieve good results, and how can these practices be generalised to the majority who are failing their pupils? The answers are surprisingly simple, yet extraordinarily difficult to implement, an issue which we discuss in some detail below. The school categories of Table 1 may be reclassified into the three groups shown in Table 2, each of which requires a quite different intervention strategy for improvement. Again, although these figures are for high schools, everything that is known about primary schools

Table 1: Distribution of high schools by performance in SC mathematics[2], 2004					
	Formerly privileged*	African	Sub-total Sub-Total	Proportion of Total	Proportion of HG maths passes
Top performing**	380	34	414	7%	66%
Moderately performing	254	573	827	14%	19%
Poor performing	600	4 277	4 877	79%	15%
Total	1 234	4 884	6 118		

* Under apartheid these schools were administered by the House of Assembly (for whites), House of Representatives ('coloured') or House of Delegates (Asian); they were relatively more privileged than those for Africans, with white schools significantly more privileged than those for any other group.

** Top performers produce at least 30 maths passes in the SC examination, with at least 20% at the higher grade (HG); moderately performing schools produce at least 30 maths passes, mostly at standard grade, while poorly performing schools fail to achieve 30 passes in maths.

[2]*Measuring quality through performance in mathematics in no way implies that the production of HG mathematics passes should constitute the main goal of schools. Mathematics is used here as a proxy for quality, based on the assumption that the kind of sustained and systematic teaching and learning required to produce high numbers of HG maths passes can only be achieved by good schools, as defined above.*

The South African government aims to transfer 30% of land to black owners by the end of 2014. The success of the transition process lies, in part, with the creation of a strong extension service coupled with appropriate training of farmers, extension staff and schoolteachers in agriculture. Accredited agricultural training and education that is responsive to the needs of emerging black farmers is essential. This, in turn, requires the Colleges of Agriculture to develop appropriate FET qualifications, to implement recognition of prior learning (RPL), and to offer short competency-based courses.

In support of this college transformation, NUFFIC, the Netherlands Organization for International Cooperation in Higher Education, has earmarked a budget of three million Euros to assist four out of the eleven South African Colleges of Agriculture to build their capacity to respond effectively to the changing agricultural environment over the next three years. The selected colleges are: Lowveld College of Agriculture in Mpumalanga, Cedara in KwaZulu Natal, Potchefstroom in North West and Madzivandhila in Limpopo.

The partners

A consortium of Dutch institutes – International Agricultural Centre, part of Wageningen University and Research, Larenstein University for Professional Education, PTC+ and MDF Training and Consultancy – invited JET as the local service provider to collaborate with them on this project. The management and staff of the four selected Colleges of Agriculture are responsible for confirming each college's training needs and priorities. JET's role in the Inception Phase was to provide expert

TRANSFORMATION IN SOUTH AFRICA'S COLLEGES OF AGRICULTURE

Aneesha Mayet
Project Manager
JET Education Services

support and advice prior to, during and immediately after conducting the Training Needs Analysis.

Overall objective

The overall objective of this project is to enable the Colleges of Agriculture to deliver education and training that is responsive to the needs of emerging farmers and the developing agricultural sector, taking account of policies and priorities such as, land redistribution programmes, poverty alleviation, food security, and black economic empowerment in agriculture (AGRIBEE).

Phase One

The first phase of the project, April to July 2006, began with a visit to all four colleges by the Dutch Consortium in

April. Preliminary needs assessments were updated and college expectations were assessed. In May and June, the principals and project managers of the colleges travelled to the Netherlands where they established a general set of project priorities:

- Development and accreditation of FET programmes

- Student bridging programmes

- Curriculum overhaul / revision of Higher Education programmes

- Tailor-made postgraduate training on didactics

- Tailor-made college management training

- Evaluation of facilities & resources

- Formal masters and PhD bursaries

- Training agricultural science secondary school teachers.

By mid-June, the Dutch Consortium together with JET and representatives of the four colleges visited the colleges and conducted the training needs analysis of each college. The data was matched with the general project priorities that had been identified.

Findings

General findings of the training needs analysis were as follows:

- All four colleges need support in building their college team capacity to respond proactively to the needs of the changing agricultural environment

- Task teams need to be established between all four colleges to develop a

phase of Dinaledi (2000-2004) focused on 102 mainly poorly functioning high schools, Dinaledi II has selected 400 moderately performing schools across the nine provinces which produce at least 35 SC maths passes amongst African candidates. This includes the majority of Dinaledi-type schools listed in Table 2. In addition, three provinces (Western Cape, Gauteng, KwaZulu-Natal) have chosen to include a number of 'formerly proviledged' schools which meet the criteria in the Dinaledi project: these are schools which we classified above as Engines of Production, and thus, to a limited extent, government is biting the hard political bullet, in the interests of both equity and efficiency. Dinaledi-type schools are undoubtedly the stars of the system, achieving good to excellent results under difficult conditions, and a tacit aim of government's Dinaledi project is to create a vortex in the wake of their success, a set of role models which inspire poorly performing schools to improve their performance, and which provide clear lessons on how to do so.

The explicit aim of Dinaledi II is to double the number of maths passes for African pupils in the next five years, and to increase the HG:SG ratio. It is intended to achieve this goal by training teachers, incentivising teachers and schools, and improving infrastructure, facilities and equipment. Government has requested assistance from the private sector in the following areas:

- Media centres, science and computer laboratories.

- District support in ICT infrastructure and connectivity.

- Computers for school administration.

- Site infrastructure to beautify schools and extend learning, eg libraries.

- Payment of assistant teachers in schools and district offices.

- Teaching/learning materials: additional textbooks, study guides, scientific calculators to Grade 11 and 12 pupils, teacher support packs, scientific dictionaries, science demonstration equipment, laptops for teachers, and audio-visual teaching equipment.

- Exposing teachers to good practice, mentoring and coaching.

- Support to pupils through career guidance, Olympiads/competitions, and bursaries for further study.

Following the lead of government, a number of school improvement initiatives supported by corporate donors are targeting both primary and secondary schools with minimum levels of productive capacity. In part, companies are teaming up with government in supporting Dinaledi II schools, and in part they are searching for non-Dinaledi moderately performing schools, or for schools at the upper end of the poorly performing category.

Government has explicitly requested corporate donors and NGOs not to undertake training interventions in Dinaledi schools. This request arises out of a mixed record of success of such training initiatives in the past, and the determination by government to investigate a more effective approach to developing teacher capacity. Before the end of apartheid rule in 1994 school improvement was pre-

eminently the domain of NGO activity, with non-government bodies setting themselves in opposition to the apartheid state and striving to counter the ruling ideology by means of teacher in-service training programmes. Pupil-centred classrooms[3] were seen as a route to democracy and liberation, and their promotion became the prime focus of NGO activity in the education sector. These programmes have a long history in South Africa and many continue to exist alongside a host of interventions which have developed in the last two decades. The training model adopted for Dinaledi II differs markedly from the majority of programmes in operation over the last two decades which have been only marginally effective in improving student performance. Whereas much in-service training to date, provided by government, universities and NGOs alike, has concentrated on the principles of child-centred pedagogy and outcomes-based education, Dinaledi II will emphasise the content knowledge required to teach specific subjects. Furthermore, teachers will receive a cash payment for attending the full 100-hour programme, and a further sum if they perform adequately in a post-training test.

Poorly performing schools: the Masses

Intervention programmes

The development of the country's poorest schools has been a prime focus of activity

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[3]Pupil-centred methods are associated with what Bernstein (1996) called competence pedagogies, which assume a universal democracy of acquisition (all children are inherently competent and there are no deficits, only differences), are based on constructivist learning theories, and insist on high levels of professional discretion in matters of curriculum and assessment on the part of the teacher.

Lesedi la Sechaba (LLS) is a non-profit organization that was formed in 1999 by an association of women who own crèches on the East Rand and West Rand of Johannesburg. Over time a range of organizations and individuals joined together, resulting in a total membership today of 175. LLS now incorporates social development, youth development and senior citizens services, as well as an arts and crafts factory project. The arts and crafts project was funded by Kellogg Foundation and started operating in February 2003.

Objectives

Lesedi la Sechaba has adopted a dual strategy, promoting economic upliftment and social development. In addition to the arts and crafts initiative, which trains unskilled people in design and production of artefacts and runs the full-time production factory, LLS manages a range of community development programmes. These include Early Childhood Development, Youth Life Skills, After-school Care and Homework Clubs, Senior Citizens programmes, HIV and AIDS programmes, and a number of agricultural projects focused on food security and poverty alleviation.

The organization's primary objectives are:

- To provide women and youths with entrepreneurial training in handcraft and business management

- To establish and manage satellite training centres in the communities to empower women with various life skills

LESEDI LA SECHABA: SKILLS AND COMMUNITY DEVELOPMENT

Cynthia Moeng
Project Officer
JET Education Services

- To facilitate the establishment and monitoring of income-generating initiatives by women trained in handcraft and business management

- To provide business to the income-generating initiatives by subcontracting procurement for the factory

- To facilitate sourcing of funding for the income-generating initiatives.

The long-term objective of LLS is to integrate these programmes to operate in a single multi-purpose centre. This will help reduce costs and maximise access for the community, as well as facilitating the exchange of support services between programmes.

JET's role

Lesedi la Sechaba assigned JET Education Services as fund holder and administrator. In addition, Workforce Development Division has been contracted to deliver a series of capacity building programmes for Lesedi la Sechaba staff. These are outlined below.

Skills Audits

- Review current skills profiles of employees

- Review staff profiles with regard to skills needed to perform defined functions

- Identify the skills gaps; process staff profile gap assessment

- Conduct a skills gap analysis

- Develop job descriptions

- Recommend implementation plan

- Assist in the development of Workplace Skills Plans.

KgateloPele: A Work Ethics and Service Delivery Workshop

WFD's work ethics and service delivery workshop is designed for SMMEs, employers and employees, career changers, and job seekers.

The workshop is designed to assist all stakeholders in the workplace in working together to improve service delivery, productivity and the general understanding of the workplace environment. The workshop will help participants to see the role that each person plays, as an individual, in the overall functioning, survival and development of businesses.

KgateloPele focuses on the following themes and activities:

- Beliefs about work and their impact

- Workplace functioning, expectations of various stakeholders and how those expectations are met

- Two components of curriculum leadership at the school level also stood out: monitoring curriculum delivery and support to teachers.

- At the classroom level significant improvements were noted in the degree of curriculum coverage completed by QLP classes, teaching to the appropriate level of cognitive demand, and the quantities of reading, writing and homework undertaken.

Path analysis modelling revealed that QLP interventions affected the functioning of the system in districts, schools and classrooms, improving indices of functionality relative to those for control schools at all three levels. These improvements, in turn, were associated with improved learner performance. Most notable was the effect of language-across-the-curriculum interventions on the SC pass rate: the implication is that good reading and writing skills are a prerequisite for good performance in all subjects and that intervening in this area can effect significant improvements in pupil performance.

The evaluation also noted that 13 of the 17 QLP districts were restructured during the life of the project, and that some of these experienced repeated restructuring events, one of them up to five times. These findings reflect a major problem inhibiting the full implementation of systemic reform initiatives in South Africa. Not only are the provincial and district level bureaucracies extremely weak – characterized by large numbers of vacant posts, poorly developed management systems and a paucity of essential resources, such as vehicles to visit schools – but many are in a more or less continuous state of instability due to frequent restructuring and personnel changes. Restructuring invariably follows a change of senior management, with the new leader ordering a reshuffling of roles and responsibilities, along new lines of patronage.

Under these circumstances, schools are essentially on their own, with virtually no support or monitoring from districts. The point is emphasized by another finding of the QLP evaluation study: no learning gains were discernible in maths at Grade 9 or 11 levels. The most likely explanation for this result, in the light of the very impressive improvements at SC level, is that, whereas intense pressure is put on schools to perform in the SC examinations, no monitoring is applied at lower levels of the system.

The first phase of the Dinaledi project, working in 102 poor high schools across the country was driven from the national Department of Education. It appears that at least some provincial departments did intervene at the school level, but by and large there seems to have been little participation by the relevant district offices. Training was provided and materials supplied to teachers and principals. Although no objective evaluation was conducted on Dinaledi I, comparison with the national results show that project schools performed very much better than the mean on most indices.

The four examples of school improvement programmes described above demonstrate that the quality of education provided by many poor primary and secondary schools can be significantly scaled up by improving school management and classroom teaching. However, there is a ceiling on what can be achieved, a point which we discuss in the following section.

Table 4: Comparison of Dinaledi 1 Senior Certificate results with the national mean, 2001-2004

	Increase 2001 - 2004												
	Passes		Exemptions		HG Maths		SG Maths		HG Science		SG Science		%Pass
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Change
Total Dinaledi	876	10.4	613	29.7	476	94.6	484	14.6	467	64.4	44	1.8	3.6
Total SA	53 511	19.3	16 797	25.6	180	0.7	25 691	26.3	-6 063	-16.6	-6 462	-7.8	9
Difference*		-8.9		4.1		93.9		-11.7		81.0		9.6	-5.4

* Computed by subtracting the percentage gains on baseline scores exhibited by the national mean over the life of the project from those exhibited by Dinaledi schools.

D istrict Offices and Education Development Officers play a crucial role in planning and delivery of education in their areas of jurisdiction.

Since 2004 JET and Copenhagen Development Consultants (CDC) have been working with the Eastern Cape Department of Education in its efforts to decentralize functions and decision-making to the district level and improve service delivery to schools. This programme, Intsika, is funded by SIDA (the Swedish International Development Agency).

The immediate goal of Intsika is to improve the performance of three districts – Grahamstown, Fort Beaufort and Dutywa – in school support and monitoring. The project also works in 50 schools in these districts. While the outcomes at the school and provincial levels are not primary goals of the project, it is expected that its impact will filter through to improved performance in schools and that lessons from the project districts will be adopted at provincial level for replication in all 24 districts in the Eastern Cape.

Intsika encompasses a range of interventions.

District Operational Planning

Support to planning in the District Offices has been high on the agenda from the start of the Intsika project. During the first year, the main input was on facilitation and support for the development of operational templates for District Offices. During 2005 the focus moved towards support for the development of clearly defined plans as part of integrated district

INTSIKA: DEVELOPMENT AND SUPPORT AT DISTRICT LEVEL

An update from the Intsika Annual Report 2005, courtesy of Eigil Rasmussen Copenhagen Development Consultants Intsika

operational plans. This work contributed to the clarification of roles and responsibilities for sections and subsections of the District Offices on an operational level.

Throughout 2005 the project was also involved in initiatives to standardise the templates for operational planning. Intsika provided support for the development of templates for performance contracts, operational plans and reports from District Offices.

As a result of this work, the planning process for 2006 started on time and the approach to planning was more consistent than before.

School Development Planning and Support Strategies

Implementation of the School Support component of the project got underway early in 2005. It was agreed that the focus should be on the School Management and Governance Teams, including the principal, one teacher representative and a representative from the school governing board. It was also agreed that support to schools should focus on the development and implementation of the School Support Strategy. It was realised that there was a need for process support rather than stand-alone inputs. Hence, as part of this strategy, School Development Teams were invited to workshops on a regular basis, with the workshops focused on providing relevant support to prepare and implement School Development Plans.

In order to provide a framework for relevant training input, a guideline for training has been developed drawing on the Imbewu

and November, pupils frequently go home after writing for an hour or two, and in the following weeks teachers will do no teaching while they sit at school and mark scripts. Choir and sports competitions, and strategic planning or training for staff are other common pretexts for no teaching. This factor has long been identified as a problem, and the latest studies indicate that it continues to exert a strong inhibiting influence on the time available for learning, and consequently on the quality of schooling. Gustafsson (2005) estimates that if all schools were brought up to the level of the best schools in this regard then overall scores on the SACMEQ[5] tests would improve by around 15% across the system, and around 20% in the weakest schools. In the poorest performing schools this factor is of such magnitude that it makes no sense to attempt to intervene in the curriculum domain before significant improvements in time management have been achieved.

Curriculum leadership
Curriculum leadership is a second school level factor associated with better than expected learning. This involves at least three distinct activities on the part of the principal and heads of departments: ensuring that all topics specified in the curriculum are addressed by teachers, quality assuring and monitoring the assessment of pupil performance, and the management of books and stationery.

In many schools teachers address no more than half of the curriculum topics during the course of any school year. The pattern of coverage shown in Figure 1, taken from

a random sample of 24 schools in two rural districts, is typical.

Even more disturbing is the common practice among South Africa's primary school teachers of not teaching reading. The extent of this problem is indicated by the issue by the Department of Education in August, through the national press, of an *Open Letter to all Primary School Principals*, in which principals were exhorted to institute the teaching of reading in their schools. Incredible as it may seem, teachers and principals

function. Ensuring that class tests set by teachers are pitched at the right level, and using the results to track the progress of both teachers and pupils is a key tool in managing effective curriculum delivery.

A third important curriculum leadership issue concerns textbooks. One of the most damaging aspects of OBE ideology in South Africa is the fallacy that, in contradistinction to practices around the world where textbooks essentially constitute the curriculum, teachers should not depend on textbooks but create their own materials from a variety of

Figure 1: Curriculum coverage for maths, rural Grade 3 teachers (Taylor and Moyana, 2005)
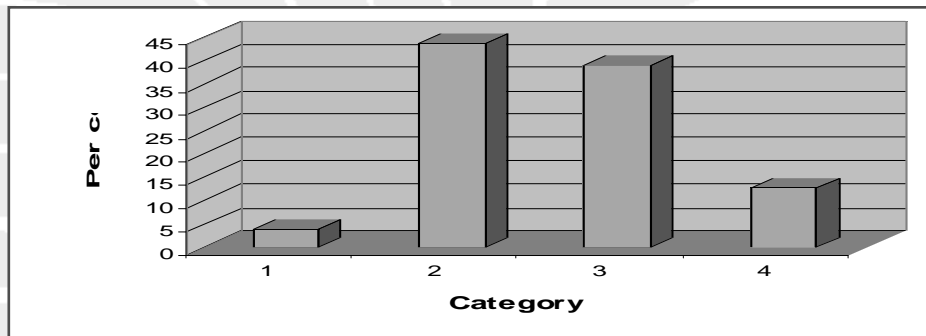
Key 4: ¾ or more curriculum topics completed during year
Key 3: ≥ ½ topics covered, but < ¾
Key 2: ≥ ¼ but < ½
Key 1: Less than ¼ covered

are so confused by the ideology surrounding OBE[6], and by the poor quality of the training on the new curriculum provided by provinces, that many are unaware, not only that reading is the most fundamental learning activity, but that they should be teaching it at all!

Co-ordinating the construction of teacher plans for curriculum coverage, and monitoring and supporting teachers in the implementation of their plans is a crucial management level

sources. This is a problem even in the best schools, where photocopiers work overtime to duplicate dozens of worksheets with which children are bombarded. The problem with this practice is that, whereas a good textbook contains a systematic development of the entire curriculum, including worked examples and graded exercises, no set of worksheets can add up to anything more than a disparate collection of activities, which, no matter how carefully they are stored, inevitably become tatty and difficult to work with. In addition, each worksheet is a free-standing entity, and the activities it contains are generally rather superficial.

Furthermore, while all provincial departments of education spend millions of rands annually on textbooks, and while schools do receive a sporadic supply, often late in the school year, these are generally not managed to best effect and in many schools may be found abandoned in some forgotten corner, or stacked in cupboards where they are hardly ever used. Not surprisingly, the good management of books is a factor which correlates significantly with enhanced learning.

Teacher knowledge
Because of their own poor education, the knowledge resources of most South African teachers are not strong. For example, the same sample of Grade 3 teachers whose curriculum practices are reflected in Figure 1 were asked how they would teach certain items taken from the maths and literacy tests administered to Grade 6 pupils. In discussing the items with the teachers, it was established that they struggled to provide the correct answers: the mean score on the literacy items was 55% and 65% on the maths items. Bearing in mind that the exercise contained items from the tests for Grade 6 pupils, it is most sobering to note the very low English language literacy skills of the language teachers, 12 of the 23 scored less than 50%, with a lowest score of 21.7%. Only one teacher scored higher than 75%. Since knowing one's subject matter content is a prerequisite for teaching it, it is evident that an urgent priority must be to improve the content knowledge of these teachers.

A second aspect of teacher knowledge concerns what has come to be called pedagogical content knowledge (PCK): this is the knowledge required to teach a subject, over and above knowing the subject content. An investigation into the pedagogical practices of

the teachers described in the previous paragraph illustrates the point. One of the aspects of classroom practice which was of interest during our observations of these teachers in action was how teachers promote reading, which we defined broadly to include any engagement by pupils with text in both language and maths classes. In 40% of language classes and 65% of maths lessons no reading of any kind was seen, even though textbooks were available in 80% of the classes in sufficient quantities for each child to have access to a copy. In many cases books were handed out but were left unopened on the children's desks throughout the lessons. Where 'reading' was observed, it generally took the form of the teacher reading three or four sentences off the blackboard, with children following in chorus. Independent reading by children occurred in less than five percent of sample classes.

These teachers clearly do not have any knowledge of effective ways of teaching reading. The ineffective to non-existent teaching of reading in the majority of the country's schools must constitute the most urgent

Key 3: Ls read individually; T interacts
Key 2: Ls read individually; little T guidance/assess
Key 1: Ls follow T /read in chorus/reading very restricted
Key 0: No reading

Figure 2: Teaching practices, rural Grade 3 teachers

crisis in the sector, yet is one of the most poorly researched areas.
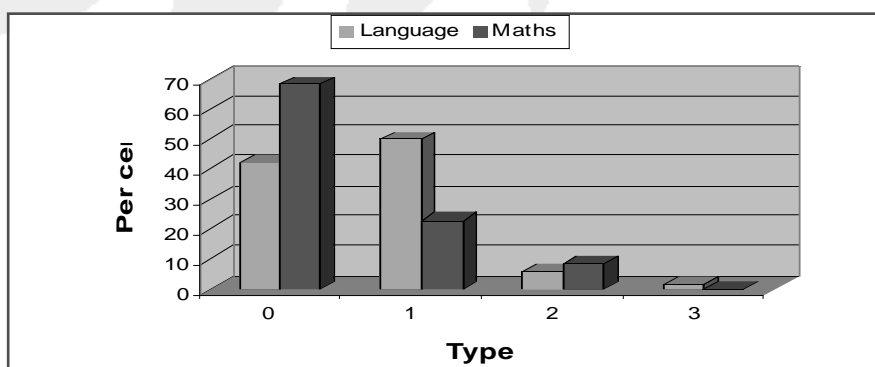
Conclusion

Middle class children, who in South Africa are steadily becoming a less racially exclusive category, not only enjoy strong support for learning at home but also attend the best schools. Thus, schools assist in the reproduction of the middle classes, something which occurs in every country. At the same time, schools are particularly important for the poor, because they hold the only hope for these children of developing the skills and attitudes required to escape poverty. The bad news in South Africa is that nearly 80% of schools provide education of such poor quality that they constitute a very significant obstacle to social and economic development, while denying the majority of poor children full citizenship.

The country's school system consists of three classes of institutions, and research information about the characteristics of the respective sectors is guiding the formulation of a differentiated set of responses to the problem of school quality. A tiny band of schools situated in the poorest communities provide some of the highest quality education. They are performing heroic

deeds under difficult conditions, and serve as role models for the rest of the system. They should be prioritised for investment: unlike the situation in poorly functional schools where resources are not used anywhere near optimally, these schools make the very best use of the limited resources at their disposal.

However, the majority of the best schools are those that were reserved exclusively for white children prior to 1994[7], but which today hold the promise of providing excellent education to the poorest children. While the demographic profiles of most of this group are changing, this is a slow process in many schools. A priority for this group, therefore, is to provide incentives for them to enrol greater numbers of poor children. A second group of schools, also mainly situated in the townships and rural areas, are on their way to excellence. Government has targeted 400 of these schools under the Dinaledi project, and requested private sector assistance in increasing their output of high level skills. Like the handful of top performing schools situated in poor communities, these schools provide high returns on low levels of resources and would also greatly benefit from additional investment in infrastructure, teaching resources and teachers.

However, in the medium to long term, the highest priority must be to develop strategies for improving quality in the poorest performing schools. Nothing that has been tried to date, by government or the non-government sector, has had any effect on most of

these schools, despite decades of effort and billions of rands spent on improvement programmes. We know what it is that better performing schools operating under the same socio-economic conditions and resource constraints do which is lacking in dysfunctional institutions. First and foremost, they have good time management practices, in contrast to the situation in dysfunctional schools where many hours each week and many days over the year are wasted. Second, curriculum leadership is better developed in functional schools, whereas little or no planning and monitoring coverage of the curriculum, quality assurance of assessment practices, or management of textbooks and stationery occurs in their poorly performing counterparts. At the classroom level it is clear that the teaching of reading and writing in the majority of schools is rudimentary in the extreme, a situation which is exacerbated by low levels of subject knowledge of teachers. This is a problem which will remain even if school management could be improved to the point where more time is available for teaching and where senior staff members monitor and support the work of teachers. The long term solution is to improve the quality of pre-service teacher education, but in the meantime a national

literacy strategy must constitute an urgent priority.

But how to improve the management of dysfunctional schools? Experience in other countries tells us that rewards and sanctions have no bite in these schools, as they are unable to help themselves: they require a high level of external intervention and support, and there should be a clear and concerted focus on a specific, limited number of factors. In many schools in this state the first thing to be done is to remove the principal, and strong mediation may be required to break situations of conflict between factions in the school. Only government has the authority to intervene here. But provincial and district offices, by and large, are incapable of doing this, certainly on the kind of scale required to turn around the large numbers of failing schools in all provinces. The problem seems insurmountable, given the very weak state of large parts of all provincial departments of education. Yet, apart from incontrovertible moral and economic reasons, social pressure, in the form of rising levels of crime and the growing incidence of other forms of social unrest, make this the most urgent priority, not only for the education sector, but for the whole country.

[7]A significan subgroup of the best schools were reserved for coloureds or Indians under apartheid and, even prior to 1994, provided excellent schooling despite being less well supplied than whites-only institutions.

Most schools are not affected by current models of school improvement

Both Dinaledi I and QLP, on average, showed impressive overall gains compared with the national mean, but at the same time a high proportion of schools in each programme benefited nothing from the respective intervention. In both cases a significant number of schools failed to produce a single pass in mathematics at the Higher Grade level after four or five years of intense intervention: such schools are impervious to the kinds of interventions applied to date by both the government and non-government sectors.

The same patterns are evident in the DDSP and LFL project schools, and all smaller programmes of this kind in which impact has been measured. Thus, the first major lesson to emerge from intensive activity over the last two decades aimed at improving teaching and learning in poorly performing schools, is that only a fraction of such schools are amenable to improvement. The remainder have a propensity to absorb all resources directed towards them, without showing any signs of the slightest improvement. If the kinds of school improvement initiatives described above were able to select only those schools which are amenable to improvement, the mean gains would be many orders of magnitude higher, and these would be achieved at a fraction of the cost. However, by far the most important policy question in the terrain of schooling revolves around finding effective ways of improving the performance of those schools which to date have not benefited from such programmes and which collectively cater for somewhere between 60% and 80% of South Africa's children.

Factors associated with better than expected learning

The good news is that research is beginning to develop a more detailed understanding of educational practices in homes, schools and classrooms. Four factors feature most prominently in distinguishing schools which perform better than expected, given their disadvantaged socio-economic situation.

Home level

Most prominent are language and home-related factors, which is not surprising given the strong association between these variables and poverty in South Africa. African children, who not only constitute the overwhelming majority but also fall predominantly into the poorest fractions of society, are largely schooled in English, which is a second or third language for almost all of them. Current government policy recommends mother-tongue instruction for at least the first three grades, but this may be overturned by the parent body of any school and there is evidence that this is frequently done. As a result many of the poorest children are schooled in an unfamiliar language, many from the first grade. The evidence from South Africa supports findings which have been well established elsewhere for some time: learning is greatly enhanced when the language of the home and that of the school coincide in the early years (Alidou et al, 2006). Furthermore, where there is a dissonance between the two, children do better at school the more their parents speak to them in the language of instruction.

Other home level practices which stand out strongly are reading and the performance of homework. In a study undertaken in the Western Cape very clear evidence was provided to show that improved learning in literacy is strongly associated with reading at home, and the more often children read the greater their advantage. Similarly, regular homework adds a smaller but still significant advantage.

Time management

Time regulation is a major problem in 85% of South African schools. Thus, a large number of teaching days throughout the year and of teaching hours during most weeks are lost through absenteeism or lack of punctuality by principals, teachers and pupils. It is very common for little or no teaching to happen after mid-morning on a Friday, the day before a public holiday or during the last week of term. During examinations in June

Management and Governance Training Modules. This is intended to guide the School Development Teams in the preparation and implementation of their Development Plans.

Links between Schools and District Offices

Development of strategies and plans in the District Offices for support to schools is a key area of work of the project.

The Education Development Officer (EDO) is the direct link between the District Office and the School. Hence, the management and governance sections of schools and districts are targeted in this intervention. However, a much wider group of staff has a role to play in school support and depends to a very high degree on the EDO's ability and willingness to serve as the link between District Office and School. This intervention provides an important opportunity to clarify the EDO's role and to develop a culture of promoting it.

Roles and Responsibilities

The key to developing an effective school support strategy is very much one of defining roles and responsibilities for the many players involved.

The key players are the EDOs and the task is to encourage them to see themselves as developers rather than inspectors. Also crucial with regard to the EDOs is to encourage them see themselves as facilitators and coordinators of interaction between schools and other sections in the District Offices. This work forms an essential part of the interaction with EDOs in preparation and implementation of the School Management and Governance Training Programme.

Intsika has contributed to refining the job descriptions for EDOs and Subject Advisors. This will lead to the development of clearly defined job descriptions for other key staff involved in service delivery in the District Offices.

Strengthening Management

The major tool in the project's toolbox is coaching, which is taking place at different levels in the District Offices. The focus has been on the Management and Governance Unit, as it is crucial to the development and implementation of School Support Strategies. Additionally, attention has been given to the development of a forum for District Office staff involved with Employee Awareness programmes, including HIV and AIDS in the workplace.

ICT Support Programme

The project has found that the major obstacle to the use of computers and electronic communication in the Districts is that there is a lack of capacity to ensure the basic maintenance of computers and related hardware. In order to address this, Intsika has assigned an advisor with technical and coaching skills to assist the Districts with ICT improvement. This is done in close cooperation with the users, advanced users and ICT Focal Points. As a result, basic capacity is being built to sustain the improvements.
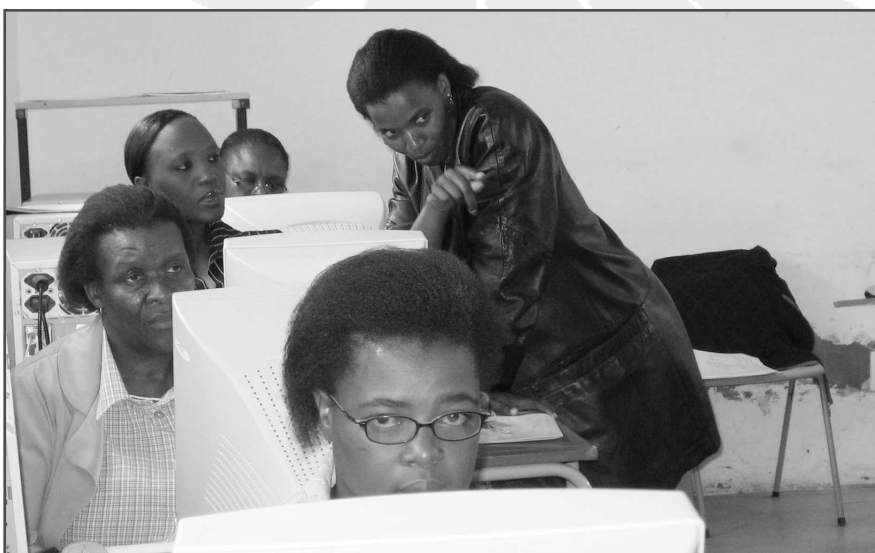
by donors, both international and local corporate, over the last two decades. It has been estimated that in the order of R1 billion per annum is spent on school improvement programmes. Prior to the turn of the millennium, these initiatives did not attempt to measure their impact through assessing improvements in pupil learning. One of the earliest programmes to show success on this measure was the District Development and Support Project (2000-2002). Working in 453 primary schools in the four poorest provinces, interventions were directed at improving the functionality of districts and schools and improving classroom teaching in language and mathematics. Tests of pupil performance in literacy and numeracy at Grade 3 level were conducted during each year of the programme, and again one year later. Significant positive changes were recorded (12.2 percentage points in numeracy and 4.6 in literacy), and these were holding steady a year after the closure of the DDSP.

An analysis of the factors responsible for these learning gains concluded that, against the backdrop of training in mathematics and literacy provided to project schools throughout the life of the project, the gains were associated with two measures adopted in 2002: increased pressure, in the form of demands that test results improve, and the introduction of targeted support measures in the form of detailed specifications of the curriculum, pupil workbooks and item banks of exercises[4].

The Learning for Living (LFL) project (2000 –2004), is a second example of a primary level intervention, working in 898 primary schools across the nine provinces and aimed at improving reading performance. The programme trained principals and teachers in the use of a cyclical set of reading and writing activities, visited classrooms to support and monitor the work of teachers, and saturated target schools with books and other reading materials. The first cohort of schools, which experienced the full five years of intervention, showed learning gains of 8.4 percentage points in reading and 5.3 points in

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[4]*In contrast to the competence approach (pupil-centred) which prevailed prior to 1994 and which lay at the heart of Curriculum 2005, these features are characteristic of what Bernstein (1996) termed performance pedagogies, which assume that learning is enhanced if teachers are allowed less autonomy with respect to curriculum matters and required to follow a common, structured programme.*

writing when compared with a set of control schools. The evaluation concluded that these gains could be attributed to the intervention with a 95% level of confidence (Schollar, 2005).

In contrast to the DDSP and LFL, which targeted primary schools, the Quality Learning Project (QLP) (2000-2004) worked in 524 high schools selected by the nine provincial departments of education. The QLP delivered training and support programmes aimed at achieving better management of districts and schools and improved classroom teaching. A longitudinal evaluation found that QLP schools achieved significantly better results in the SC examination than both the national mean and a set of comparable control schools.

QLP schools showed improvement relative to control schools in a number of areas:

- In the area of school leadership and administration, planning and financial management improved in project schools, although the general level of management remained low.

Table 3: Comparison of QLP Senior Certificate results with the national mean, 2000-04 (Kanjee and Prinsloo, 2005)									
	Increase 2000 - 2004								
	Passes		Exemptions		HG Maths		SG Maths		%Pass
	No.	%	No.	%	No.	%	No.	%	Change
Total QLP	4 167	18.3	1 182	34.8	585	152.3	8 741	137.5	14.0
Total SA	47 314	16.7	16 493	24.0	8 466	47.0	46 512	58.0	12.8
Difference*		1.6		10.8		105.3		79.5	1.2

* Computed by subtracting the percentage gains on baseline scores exhibited by the national mean over the life of the project from those exhibited by QLP schools.

- Information about legislation, policies and procedures that govern and influence the functioning of the workplace

- Importance of a vision and mission for the company and how these influence the culture of the organization

- Importance of work ethics and how these impact on the overall functioning of the company

- Skills to survive the world of work through activities on service delivery, productivity and strategic planning.

Personal Money Management

The Personal Basic Money Management Workshop is designed for school leavers, new entrants into employment, newly retrenched workers, job seekers and anyone who needs assistance in managing their finances.

This workshop is designed to help participants in examining their money management patterns and looks at the advantages and disadvantages of these patterns. It also discusses the importance of savings and financial planning as well as facilities offered by various financial institutions, budgeting and long-term financial planning. The workshop will help the participants to see the role that each individual plays in setting financial goals that can be realized.

It focuses on the following themes and activities:

- Importance of financial well being according to good financial principles

- Legal and realistic sources of income, determined by reasonable personal and family sources

- Personal needs, wants and requirements and a record of these for participants' ongoing use and reference

- Essential expenses per given period of time and developing a plan for these

- Options to borrow and lend money through formal and informal channels

- Activities that help identify the risks and pitfalls of personal loans

- Activities that assist in drafting monthly budgets to plan income and expenditure effectively.

JET will continue to offer support and monitor progress of Lesedi la Sechaba with a view to assisting in empowering the staff to develop the project further.

Table 2: Three high school types, based on 2004 Senior Certificate results		
	Formerly privileged	**African**
Top and moderately performing	**The Engines of Production** 10% of schools HG maths pass: 17 413 (75%) African/other=1:8.5	**Dinaledi-type schools** 10% of schools HG maths pass: 3 277 (14%) African/other=11.8:1
Poorly performing	**The Masses** 80% of schools HG maths pass: 2 562 (11%)	African/other=5:1

indicates that they exhibit a similar distribution.

The Engines of Production

These schools are relatively privileged in that they were administered by the Houses of Assembly (for whites), Representatives (coloureds) and Delegates (Indian) prior to 1994. Except for a significant number in the Western Cape which serve poor coloured children, these, by and large, draw their pupils from middle class families. They produce 75% of all HG maths passes, although only one of these is obtained by an African pupil for every 8.5 obtained by pupils from other race groups. The low ratio for the success of African pupils in these schools is partly explained by the very poor foundation they receive at primary level, and partly by their relatively low enrolments relative to pupils of other races.

However, on the issue of demographic profile, this is a very heterogeneous group: apart from most of the top Afrikaans-speaking schools which remain almost exclusively white (an issue complicated by the question of home language), these schools exhibit the full range of African enrolment, from a low of around 25% through to 100%. Furthermore, not only are these schools enrolling increasing proportions of Africans, but the success of African pupils is also advancing: thus the ratio of 1:8.5 for Africans achieving HG maths passes in 2004 was an increase on the 1:10.5 obtained just two years previously. Nevertheless, there is a long way to go before these schools provide parity of opportunity for poor African pupils.

Concerning the question of resources, the position of the 'Engines of Production' is complicated by three factors. First, they inherited generally excellent infrastructure, teachers and management capacity from the apartheid days. Second, they are able to demand relatively high fees although, not only is this highly variable, but the ability to collect fees is weakened to the extent that they admit increasing numbers of poor children. Third, government funding formulas, which distribute the non-personnel component of the budget in direct proportion to the poverty ranking of the school, take no account of the family means of pupils enrolled at the school. Thus, these schools are not rewarded for enrolling poor pupils; indeed, it is to their material disadvantage to do so. As a consequence, the plant and property, and cognitive (libraries, laboratories) and human resources of many of these schools are running down, and their ability to provide excellent opportunities to all pupils is eroding.

Warning bells are ringing: no country can afford to have the most productive elements of its school system run down, particularly where these provide 75% of high level skills. Yet a simple solution is at hand: if incentives were provided to these schools to increase the numbers of poor African pupils achieving the best results, then not only would the national production of skills be significantly improved, not only would the cause of equity be advanced, but the capacity of the engines of production would be strengthened. The only factor standing in the way of this obvious solution is politics: sensitivities surrounding the provision of any additional resources to schools which benefited from the inequities of apartheid render this path very difficult, at best, for any politician, despite the great danger attendant on neglecting these schools, and despite the potential they hold for increasing the life chances of poor children.

Dinaledi-type schools

In April 2006 the Minister of Education re-launched the Dinaledi project under a new design. Whereas the first