Grappling with change: case studies from the rural education project

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Abstract

This article reports on research in progress as part of the Rural Education Project (REP), a partnership initiative of the University of Cape Town and the Western Cape Education Department (WCED). The project employs a range of intervention strategies to strengthen literacy and numeracy in 38 rural schools. A major feature of the policy context in which this development work is undertaken is the WCED's strategy to assess learner performance in literacy and numeracy in all primary schools in Grade 3 and 6 in alternate years. This Diagnostic Assessment strategy, which was introduced in 2002, is a source of significant accountability pressure on schools and educators throughout the system.

Using a case study methodology, the article describes and explores the responses and practices of schools and teachers associated with significant improvements in learners' results, and with stagnant or declining levels of learner performance, as measured on the WCED Diagnostic Tests. The data and analysis covers teachers' classroom practices, curriculum management in the schools and external sources of support available to educators in rural contexts that are characterised by geographic isolation and the many social problems typically associated with poverty.

Introduction

In recent years several international assessments and the Department of Education's Systemic Evaluation have shown that the majority of learners in South Africa's public primary schools fail to attain basic literacy and numeracy competencies, especially in rural and disadvantaged areas. These studies demonstrate low achievement levels in, *inter alia,* Language, Mathematics and Science (Soudien, 2007; Christie, 2008) and indicate that, on average, learners leaving primary school lag three grade levels behind their peers in other countries. Only about a third of learners can read independently in the language of learning and teaching (LOLT) and fewer attain required grade level in Mathematics. Several African countries perform better than South Africa in Language and Mathematics, despite spending less on their education systems (Van der Berg, 2005). These studies have also confirmed that learners in urban schools, particularly those serving middle and upper

class communities, perform better than those in schools that serve poor and/or rural communities.

The DoE and provincial education departments have introduced several policy initiatives to improve curriculum delivery in the public school system. These include support for teachers with implementing the National Curriculum Statement (Department of Education, 2002a), the Whole-School Evaluation component of the Integrated Quality Management System (Department of Education, 2002b) and the Foundations for Learning Campaign (Department of Education, 2008).

In 2002 the Western Cape Education Department (WCED) introduced diagnostic testing to monitor learner performance in primary schools, and to assist schools to identify and thereafter address their areas of weakness. Grade 3 and 6 learners in public primary schools write standardised literacy and numeracy tests in alternate years. The schools receive the results in the first half of the following year. These comprise tables that detail the learners' performance in relation to the provincial, district and circuit averages, and breakdowns by grade level, learning outcomes and literacy and numeracy skills. The Diagnostic Test results place significant accountability pressure on schools, teachers and officials in the Western Cape.

This paper explores practices associated with improvement or deterioration in the results of the WCED Diagnostic Tests at two rural schools. It forms part of the Rural Education Project (REP),[1] which aims to identify factors that impact on literacy and numeracy, and develop intervention strategies in 38 rural schools. The overall aim of REP is to contribute to systemic reform, while supporting rural schools to implement education policies.

Research method

We used a case study approach because it allowed us to examine "a wide sweep of contexts: temporal and spatial, historical, political, economic, cultural, social and personal" (Stake, 1995, p.43). This breadth of scope, and the freedom to combine different methodologies, resonates with REP's

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[1]   REP is a collaborative research and development project involving the University of Cape Town's Schools Development Unit (School of Education), the WCED and donors (the Claude Leon Foundation and the Foschini Group).

holistic approach to school and teacher development. Specialists in research methods remind us that qualitative research should aim at transferability rather than generalisability of findings (Babbie and Mouton, 2006; Guba and Lincoln, 1994; Tellis, 1997). Whereas quantitative research allows for generalisation from samples to populations, qualitative research findings serve to inform theory. This places the onus on the reader to decide whether or not the results are applicable in other similar contexts, through their own evaluation of similarities and differences in contexts.

We employed two strategies to promote the transferability of the findings of this study. The first is 'thick description' of the contexts and teachers' responses to national and provincial policy directives at the two schools. The second is purposive sampling. The two schools in this study were selected because they demonstrated different responses to policy directives. They also have different contexts, despite the fact that they are both rural schools that serve poor communities.

Triangulation was used to boost the credibility and dependability of the research. We used multiple data sources, including internal and external researchers' records and interpretations of the schools' work in numeracy and literacy, observations, interviews and questionnaires (direct self-reporting by schools). The data was collected over two years, which allowed for the collection of sufficient data, the clarification of any issues that were unclear and resolution of any apparent contradictions in the data. To ensure respondent validation, the schools were afforded the opportunity to comment on and adjust where necessary, draft research reports.

The case studies are exploratory in nature. Although we interpret and analyse the data collected in the two schools, the aim is not to determine cause-and-effect relationships between variables. We mostly used content analysis to identify and interpret patterns and/or categories in the data that relate to teachers' actions, and their perceptions of their own practice and broader policy context.

Conceptual framework

To guide our thinking about the ways in which two schools are grappling with external pressure to improve learners' academic performance, we drew on theoretical and conceptual work in the fields of school effectiveness and

school improvement from the United States of America and developing countries, including South Africa (Fuller, 1991; Harber and Davies, 2003; Soudien, 2007; Christie, 2008).

Schools as bureaucratic facades

Soudien (2007) argues that many South African schools "are schools in form only, but not so in substance" (p.191). This point derives from Harber and Davies' (2002), and ultimately from Fuller's (1991) theory of 'fragile states', which he defines as states that have limited legitimacy, and limited institutional capacity to ensure effective service delivery and implementation of policies.

To achieve legitimacy, fragile states need to convince their population that they are progressing towards modernity and better standards of living for all, but because their economies of these countries are typically underdeveloped, employment is often high. This creates a dilemma for schools. Despite being the State's main vehicles to demonstrate development and progress, they must not graduate too many learners. Thus, inefficiency in the school system is not only tolerated but also encouraged. Typically, schools in fragile states present a bureaucratic façade as efficient, modern institutions but in reality they largely fail to fulfil their core functions of establishing numeracy and literacy and preparing learners for the world of work. Harber and Davies (2003) suggest that such failure is often deliberate, as the *status quo* serves some role-players' interests. For example, teachers who moonlight or run their own businesses may resist measures to make their schools more effective because this would entail greater demands on their time. Thus, it is unlikely that managerial interventions and increased external accountability will resolve the complex set of interacting variables that render black schools ineffective (Soudien, 2007). Soudien (2007, p.191) argues there are "deep syndromes of disaffection" among teachers, which he ascribes to the legacy of apartheid, where black teachers were systematically under prepared and underpaid. Furthermore the struggle against apartheid bred "anti-authority and anti-regulation habits" which became entrenched in school cultures.

Schools as authoritarian bureaucracies

Harber and Davies (2002) argue that many schools in developing countries are inefficient 'authoritarian bureaucracies'. They point out that mass schooling originated in industrialised countries during a time when bureaucracy was the prevailing form of socio-political organisation. Weber (1922) observed that bureaucracy is inherently hierarchical and authoritarian. Harber and Davies (2002) comment that authoritarianism inherent in bureaucracy is predominant when schools struggle to cope with socio-political and educational demands; schools in developing countries strive to achieve the efficiency that bureaucratic organisation promises, but often with limited success. The common tendency is for schools to compensate for their inefficiency by becoming authoritarian. In such situations principals and officials emphasise control and order, in an attempt to enforce minimum standards of curriculum delivery, or simply to present the image of an orderly learning environment. Teachers and learners receive imperatives from 'above' and are expected to act upon these unquestioningly. According to Harber and Davies (2002), learners and teachers are discouraged from taking the initiative, and because teachers are excluded from management decisions, divisions develop between school managers and teachers, which results in resistance to initiatives by management to improve the school.

Powerful teaching

Christie (2008) and Soudien (2007) argue that interventions to improve the quality of education in schools that serve poor communities should be informed by an understanding of the social context and policies that frame learners' and teachers' work. Soudien places the emphasis on sociological analysis and understanding the culture of schools, whereas Christie directs our attention back to the central task of schools – teaching and learning. Christie argues that 'powerful teaching' should lie at the heart of efforts to improve quality and make schooling in South Africa more equitable. She suggests that 'powerful teaching' could encompass a range of pedagogical practices, including direct instruction and activity- or discovery-based methods. The point is that teachers should select curriculum content and teach in ways that ensure the material and learning experiences are *meaningful* to all learners. Christie acknowledges that this requires a great deal from teachers, especially in terms of their subject knowledge and pedagogical skills.

Stable and functioning schools

Christie (2008) points out that powerful classroom practices can only be sustained in "stable and functioning schools", which "provide the conditions under which teachers can be motivated to do their work well, and be held accountable for doing so" (p.203). Such schools have adequate resources and learning materials, and provide safe and secure learning environments and predictable routines of learning. They also have effective management and leadership, structures to ensure time on task, good governance and relationships with outside agencies who can contribute additional resources and influences.

Case studies of two schools

School A

This intermediate school is located in a sub-economic settlement 12 kilometres from a minor rural town. It occupies a modern brick building which is well maintained and in a good condition. REP education specialists comment on the school's impressive foyer with striking paintings and photos of learners' past achievements against the walls. The principal has a spacious, well-equipped office and the school administration appears very well organised. Trees surround the front of the school grounds and there is a well-kept flower garden. The grounds are spacious and there is ample space for learners to play. The school has a fully resourced Khanya laboratory,[2] which is used to teach learners computer literacy. The principal reports that some of the school's teachers have written an international computer examination. Teachers have also established an e-mail communication link between learners of their school and a school in the Netherlands.

All the teachers commute daily from various towns in the region, some as far as 50 kilometres away. REP education specialists observe that the principal is very dedicated and with hard work he has gained the confidence of the community and most of the teachers. They also mention that there is some evidence of past conflict among staff and teachers still do not appear to cooperate fully as a team.

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[2]   Khanya is the WCED's programme to equip schools with computer laboratories and support their use in curriculum delivery.

According to the principal, 95 per cent of the school's learners come from 65 farms in the area. The WCED subsidises bus transport for those who live more than five kilometres away. Parents who are employed work as farm labourers and seasonal labourers. According to teachers seasonal migration affects a considerable number of learners. Some learners who leave the school between harvest seasons return after a time; others drop out of the school system. Those who return have to 'catch up' because of individual school differences. The principal reports that socio-economic conditions are poor on most farms and only a handful of farmers take an interest in uplifting the conditions of their workers. Housing is a huge problem as people do not own their homes and once they leave the farms to work elsewhere, or if they fall ill and cannot work, they lose their homes. The principal claims that unfair dismissals from work and unfair evictions from homes occur regularly. He works with a trust that aims to provide housing to farm workers, which they can own, so that they would not be solely dependent on the farmers.

Table 1:   General information about School A

Distance from Cape Town	130 km
Distance from nearest town	12 km
Distance from district office	64 km
Distance from other schools in cluster	12–78 km
Facilities in vicinity	Municipal library x
	Clinic x
	Crèche x
	Sports grounds x
Enrolment, 2008	780
Grades offered	Grade R – 9
Learners' home languages	Afrikaans (90%) Xhosa (10%)
Language of learning and teaching	Afrikaans
Community poverty ranking	0.83, poorest quintile
Article 21	Yes
School fees	No-fee school
Total number of teachers	22
School Governing Body posts	2
Number of instruction rooms	35
School library	Yes

Teachers point out that parents are dispersed across various farms in the area, so the school is not located in an immediate community. This makes interaction between people difficult and parental participation is poor. The governing body exists, but according to the principal it does not function properly because most members lack the necessary skills and confidence to participate in meetings. He reports that he mostly has to take the lead, and many decisions are left up to the teachers. Teachers comment that alcohol and drug abuse is common in the community and influences the lives of the learners negatively. The school hosts an Adult Basic Education and Training service provider who offers classes two evenings per week to develop parents' literacy levels.

In 2007 the school became a no-fee school. The principal reports that special events such as concerts, song evenings, sports days, dances and barbecues are also organised to raise funds. He complains that support from farmers and a local business is limited. Sports like rugby, netball and mini-cricket are played at the school.

Curriculum implementation

According to teachers and the School Management Team (SMT), the school has adequate teaching and learning resources. However SMT members note that teachers are not making optimal use of the resources they have available, while requesting new resources. There is sufficient Afrikaans resource material for all the learners and they have a school library. SMT members mention that the school would like to acquire more enrichment programmes and additional resources, but these are mostly available in English.

One post-level 1 teacher has been nominated as co-ordinator for each phase to assist the SMT in co-ordinating specific curriculum aspects. The principal mentioned that he has been advocating the establishment of an Agri-village in the area, so that agriculture can become part of the school curriculum. REP education specialists report that the Foundation Phase teachers make an effort to ensure their classes are conducive for learning, with teaching and learning resources and learners' work on display. They observe that classrooms are spacious and neat and there is enough storage space. They also report that various apparatus and learning materials are available for both Mathematics and literacy.

The school does not have a strategy to deal with Xhosa mother tongue learners who are not conversant with Afrikaans, the language of learning and teaching at the school. Teachers attempt to deal with this issue by matching an Afrikaans-speaking learner with a Xhosa-speaking learner to assist with translations in the classroom. The learning support teacher and the Teaching Support Team assist learners in all the learning areas and two teachers at the school who are conversant in Xhosa are able to help teachers, where necessary.

When new learners are admitted to the school they undergo a baseline assessment to establish their literacy and numeracy abilities. Learners are generally asked to read a text, which enables the teacher to assess their reading levels for the grade they enter. When new learners are admitted in the Senior Phase and they do not understand Afrikaans they are assessed in English. The school does not have any other diagnostic method or instrument to assess the language and mathematical proficiency of learners.

Teachers complain that the school has many policies and strategies 'on paper', which are not implemented because the principal only monitors curriculum implementation before a visit by the Circuit Support Team or when there is a serious complaint from parents.

According to teachers the school receives reasonable support from the district, but more sustained support and guidance would be welcome for curriculum implementation for the Intermediate and Senior phases. Curriculum advisors normally visit the school twice a year in connection with the Integrated Quality Management System and learner progressions. One curriculum advisor has offered extra assistance with planning learning programmes. He also motivates teachers to exchange ideas about lesson planning.

REP support

When REP education specialists started to work with the school in 2006, teachers acknowledged that the school's Diagnostic Test results are very poor and that a serious effort is required to improve literacy and numeracy, so the Foundation Phase teachers had started to work more closely with well-performing schools in nearby towns.

REP's intervention strategy at this school has focused on supporting curriculum management as part of whole school improvement. The principal

and SMT introduced a curriculum monitoring programme in 2006, which consists of a quarterly feedback system. Teachers have to apply a self-monitoring instrument, which the phase Head of Department (HOD) monitors. The phase HOD then reports to the SMT. But according to teachers the curriculum monitoring programme 'only exists on paper' and has not been implemented due to insufficient planning and follow-up. Dates were set during 2006 for the quarterly monitoring system, which were not honoured. Another difficulty was that the national assessment criteria were not used in the monitoring of assessment tasks, which further complicated the system. Now, they say, there is more direction, but the SMT does not monitor all learners' assessment tasks and learner performance. SMT members report, however, that they help teachers to reflect on learner achievement by leading a process at the end of every examination (in June and November) where the results are put on a spreadsheet and discussed.

The REP education specialists conduct training and mentoring sessions for the SMT members to assist them with managing and supporting their various subject departments. The curriculum coordinator is responsible for curriculum management at the grade and phase levels, and teachers complete quarterly curriculum plans and hand in daily planning schedules every Friday.

The specific focus of the school's literacy and numeracy strategy is to ensure that teachers use the daily literacy half-hour optimally. The SMT claims to be monitoring this aspect, with the support of the REP education specialist. The teachers say that they have not received any support from the SMT in the teaching of numeracy and literacy. REP education specialists offered demonstration lessons to introduce teachers to new techniques, for example new ways to teach the alphabet, using colours to teach adjectives and encouraging learners to use the dictionary to check their spelling. Teachers were also shown how to use group work more effectively. They report that they are more aware of their practice and the role they play in literacy and numeracy.

In Mathematics REP has provided a greater variety of teaching resources, which teachers say they do not have the time to implement, such as games to teach Mathematics. In the school-focused support programme that accompanies the ACE, teachers were assisted with developing learning programmes and were given examples on how to use teaching and learning resources in the learning programme. But teachers complain that key teachers (ACE students) have not shared this with other staff members. The two key teachers welcomed the resources and examples of worksheets that they were

given, but say they would have wanted more resources and completed learning programmes.

Nineteen of the school's 22 teachers attended two of the four REP cluster meetings in 2007 and two of the three cluster meetings that have been held so far in 2008. Teachers and SMT members complain that the long distances they have to travel after school to attend cluster meetings is demotivating. But they acknowledge that the cluster meetings do offer opportunities for teachers to share ideas with other schools.

The school's response to the 2007 Grade 6 diagnostic test results

Figure 1 shows the pass rates that School A's learners attained in the six rounds of WCED Diagnostic Tests, compared to those of the province. In 2007 the school won the Foschini award (a jungle gym) for the REP school in the district whose Grade 3 results showed the greatest improvement in the 2006 round of Diagnostic Tests. By comparison the 2007 Grade 6 results were disappointing. The principal ascribes the school's poor performance in the Intermediate Phase to the following factors:

Teachers are still not utilising the literacy half-hour effectively;

- Insufficient monitoring by phase heads, HODs and the curriculum co-ordinator;

- Low morale and poor work ethic of teachers;

- Irregular application of different assessment techniques;

- Lack of parental involvement to support learners' school work; and

- Lack of sustained support from curriculum advisors.

Looking to the future

To help the school address its challenges, teachers have asked for REP to provide continued support with diagnosing learners' literacy and numeracy levels and additional teaching resources. The two key teachers have also asked for guidance on ways to disseminate the knowledge they have acquired on the ACE programme in order to support the SMT's efforts to improve curriculum delivery. Teachers also mentioned that they need support in all the learning areas, not only literacy and numeracy.

Figure 1:   Diagnostic test results of School A, 2002–2007
Percentage of learners performing on required grade level

DIAGNOSTIC TEST RESULTS OF SCHOOL A, 2002 - 2007
Percentage of learners performing on required grade level
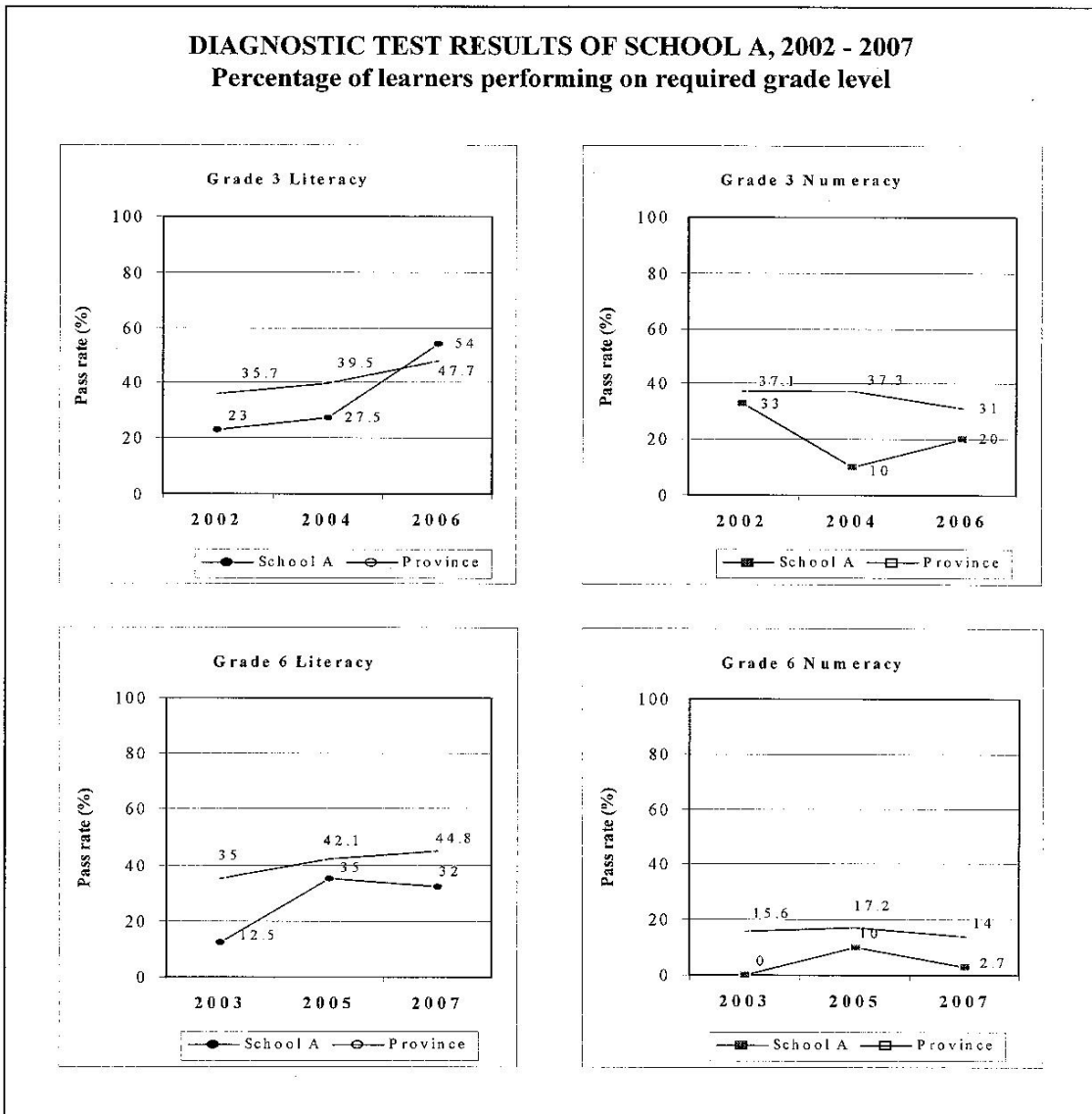
School B

This small school is located in a remote settlement, 27 kilometres from a small rural town. Missionaries established the school 123 years ago. The historic town is a big tourist attraction and boasts an impressive rugby stadium that was built by the Department of Sports. The school consists of a wooden building, three pre-fabricated classrooms and two brick buildings. Built-in cupboards were installed in classrooms and the principal's office at the school's own expense. One room was divided to accommodate the principal's office and the computer laboratory. There is also a fully equipped kitchen. The school grounds include a rugby field, a beautiful flower garden and a large vegetable plot.

Table 1:   General information about School B

Distance from Cape Town	450 km
Distance from nearest town	27 km
Distance from district office	50 km
Distance from other schools in cluster	47–67 km
Facilities in vicinity	Municipal library x
	Clinic x
	Crèche ✓
	Sports grounds ✓
Enrolment, 2008	159
Grades offered	Grade R – 7
Learners' home language	Afrikaans (90%)
Language of learning and teaching	Afrikaans
Community poverty ranking	0.94, poorest quintile
Article 21	No
School fees	No-fee school
Total number of teachers	5
School Governing Body posts	0
Number of instruction rooms	9
School library	No

Although there is no library in the vicinity and the school does not have a library, each class has a bookshelf with books. The WCED's Khanya project installed a fully equipped computer laboratory at the school in 2007.

Because the staff is so small, there is no SMT. The principal started teaching at the school in 1997 and he was appointed in his current position in 2005. He was formerly a learner at the school, as were the other teachers. All the teachers live in the local community. According to the principal teachers are fully involved in decision-making, although he regards himself as the manager. Teachers emphasise that there is no place for gossiping or discord among staff members; because they are so few they have to work together. They also report that they do not experience disciplinary problems amongst learners.

The learners' parents are bricklayers, municipality workers and homemakers. Educators report that about 10 per cent of the learners live on farms around the town and have to walk distances of at least 2½ km to school. During the rainy season these learners are often absent. The community has an average standard of living, however, there is alcohol abuse and several shebeens exist in the town. High school learners abuse alcohol and drugs. Teenage pregnancy occurs often and many learners are from single parent homes. This is a no-fee school. Fundraising functions include sports days, music evenings, bazaars, braais and weekly food sales. Learners participate in rugby, netball, athletics and mini-cricket.

According to educators the community is very close-knit and there are about 20 parent volunteers upon whom the school can call when the need arises, including a retired teacher. The school organises a formal thanksgiving lunch once a term for the parents who assist with functions and supervising classes. Teachers prepare the lunch and the venue is prepared in the style of a formal restaurant.

Curriculum implementation

REP education specialists observe that the school's classrooms are spacious with old desks arranged in groups. Teaching and learning aids are displayed on the walls and learning resources and apparatus that have been supplied by the WCED are very much in evidence. The classrooms reflect a learner-friendly atmosphere, conducive to teaching and learning.

One of the school's teachers has not been trained in the National Curriculum Statement, but teachers have attended literacy and numeracy courses at the Cape Teaching and Leadership Institute to update their subject knowledge and

teaching methods. Some teachers say curriculum planning is being done per phase, but others disagree and say teachers plan only for individual grades.

This school participated in the Multi-grade Initiative of the WCED, which ended in 2006. Grades 4 and 5 and Grades 6 and 7 are taught in combined classes. The general view among teachers is that it is not desirable to have multi-grade classes in the Foundation Phase. They explain that it is very difficult to combine Grades 1 and 2. To boost the school's performance in the Diagnostic Tests they have also decided to keep Grade 3 as a mono-grade class.

In the middle of 2008 one teacher, who used to commute daily from the nearest large town 67 kilometres away, transferred to a school in town. The principal negotiated with the experienced Grade 4 and 5 teacher to move to the Foundation Phase and recruited a teacher from the local community to fill the vacant post. The new teacher reported to REP that the previous teacher passed her planning documents and other materials on to him, so he was able to continue teaching the class where she had left off with minimal disruption. But the former Grade 4 and 5 teacher subsequently reported to REP that the new teacher discarded all her planning documents, because he teaches from a set of commercially produced curriculum materials that covers all learning areas.

The principal asserts that the school receives good support from the district. The advisor responsible for specialised learner and educator support visited the school regularly to assist teachers with aspects such as curriculum planning.[3] She also participated in REP meetings with the staff, as well as cluster meetings. Interviews with district officials confirmed that the school's teachers regularly attend district training sessions and workshops in a cluster of schools. The school also collaborates with three other primary schools in the region. Teachers report that they receive ongoing support from a psychologist who retired from the district office in 2006. He assists with the implementation of diagnostic and remedial strategies to improve literacy and numeracy.

REP education specialists note that the following priorities are addressed in the school's literacy and numeracy strategies:

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[3]   As a consequence of restructuring district offices, this advisor was redeployed to another circuit in the third quarter of 2008.

● Before and after school hours, teachers offer remedial support to learners who struggle with reading barriers.

● Teachers teach and reinforce the most commonly used 1000 words in all grades.

● Learners also have a daily mental maths period, which was introduced as part of the Multi-grade Initiative.

● Another component of the Multi-grade Initiative that teachers still use is a commercial programme to help learners master early reading skills by developing their micro- and macro-motor skills.

● The Foundation Phase key teachers report that they are experimenting with mediative teaching strategies to promote effective learner involvement and independent thinking and reasoning.

The principal and teachers admit that they use informal systems to monitor curriculum delivery. They don't use the Computer-Assisted Mathematics Instruction software supplied by the Department for diagnostic purposes. The teacher who left in the middle of 2008 reportedly had some expertise in this area, but did not pass this knowledge on to her colleagues. All teachers use the software to capture learners' scores on assessment tasks, but they don't use it further to discuss and analyse the results.

REP support

When REP started to work with the school in 2006, the teachers indicated that they would like to expose learners to more number work, and boost the development of number concept, reading, spelling, vocabulary extension and creative writing skills. REP education specialists report that this is the only school out of the 38 project schools that are participating in the project, where teachers expressed a need to address learners' risk taking and problem solving skills.

Teachers claim that they discuss the Diagnostic Test results every year, compare them with previous results and design programmes to address the weaknesses. They have discovered that most of the Grade 6 learners cannot read. But they had not engaged systematically with the analytical feedback provided by the WCED and they were not satisfied that their analysis and understanding of the test results was thorough enough, so at the beginning of

the project they asked the REP education specialists to help them 'unpack the results'.

The main focus of REP's intervention at this school has been to develop the principal's and two key teachers' instructional leadership skills within a whole school development context in order to promote shared responsibility for curriculum management in the school. REP education specialists provide training, coaching and mentoring support to individual teachers and to the whole teaching staff as a group. REP and the school agreed that the intervention would initially focus on numeracy and mathematics, in order to present a demonstration model for effective implementation of the curriculum that can then be replicated in language and other learning areas. In 2007 the REP education specialist and the retired psychologist visited all classrooms together and administered one-minute mental numeracy assessment tasks to identify general problem areas and develop materials to address learner errors and misconceptions. In 2007 teachers asked REP to assist the school in the process of developing a school improvement plan. Education specialists facilitated a school self-evaluation exercise in 2008 and teachers have reflected together and assessed their school's performance in the nine whole-school evaluation focus areas.

All the school's teachers attended the four REP cluster meetings in 2007 and the three cluster meetings that have been held so far in 2008. Teachers report that they value the opportunities that these meetings provide for teachers from different schools to share knowledge and teaching resources such as test items that they have developed for the cluster's item bank.

The school's response to the 2007 Grade 6 Diagnostic Test results

During the third quarter of 2008 the REP education specialist worked through the 2007 Diagnostic Test results with the teachers. Teachers express great appreciation for this assistance and report that the analysis revealed or confirmed aspects of the curriculum that they had neglected in the past. "The WCED just tells us 'You are weak' and the district office never did this [in-depth analysis of the Diagnostic Test results] with us".

Figure 2 shows the pass rates that School B's learners attained in five rounds of WCED Diagnostic Tests,[4] compared to those of the province. The results suggest a steady increase in learner performance. In 2007 the school won the Foschini award (a jungle gym) for the REP school in the district whose Grade 3 results showed the greatest improvement in the 2006 round of WCED Diagnostic Tests. In 2008 the school again received special recognition as the REP school in the district whose Grade 6 results showed the greatest improvement in the 2007 tests. Teachers ascribe the improvements in learner results to REP's support,[5] as well as the following factors:

- Teachers 'putting in extra work' especially to do regular internal diagnostic assessment and to plan differentiated lessons, based on the results that learners achieve;

- Giving learners more frequent formal assessment tasks;

- Placing particular emphasis on reading with comprehension and requiring learners to interpret questions and instructions in formal assessment tasks;

- Drilling the key words and phrases commonly found in test items;

- Improved classroom management to facilitate purposive grouping of learners; and

- Using more 'fun' activities like games (e.g. Bingo and Dominos) to teach curriculum content.


Looking to the future

The school's most experienced Foundation Phase teacher, who had been a key teacher in the WCED's Multi-grade Initiative, retired in the third quarter of 2008, due to serous illness. Teachers report that they have great respect for her work and her departure has been a great loss to the school. They realise they

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[4]   The school's Grade 3 learners were not tested in the first round of Diagnostic Tests (2002); only schools with 40 or more Grade 3 learners were included.

[5]   Teachers' claim that REP's support has contributed to the higher pass rates that their school's learners achieved in the last round of Diagnostic Tests is not supported by the facts. The grade 6 learners were tested in November 2007, when REP had been working with the school for only one year. It was probably too early for the project's intervention to have had a noticeable impact on curriculum delivery at the school.

will have to take special steps next year to ensure continuity and maintain the school's good standard of curriculum delivery. In the school self-evaluation and SIP processes teachers mentioned several aspects for which they are going to seek greater parent and community involvement to make the school's task easier.

Figure 2: Diagnostic test results of School B, 2002 – 2007
**   Percentage of learners performing on required grade level**

DIAGNOSTIC TEST RESULTS OF SCHOOL B, 2002 - 2007
Percentage of learners performing on required grade level
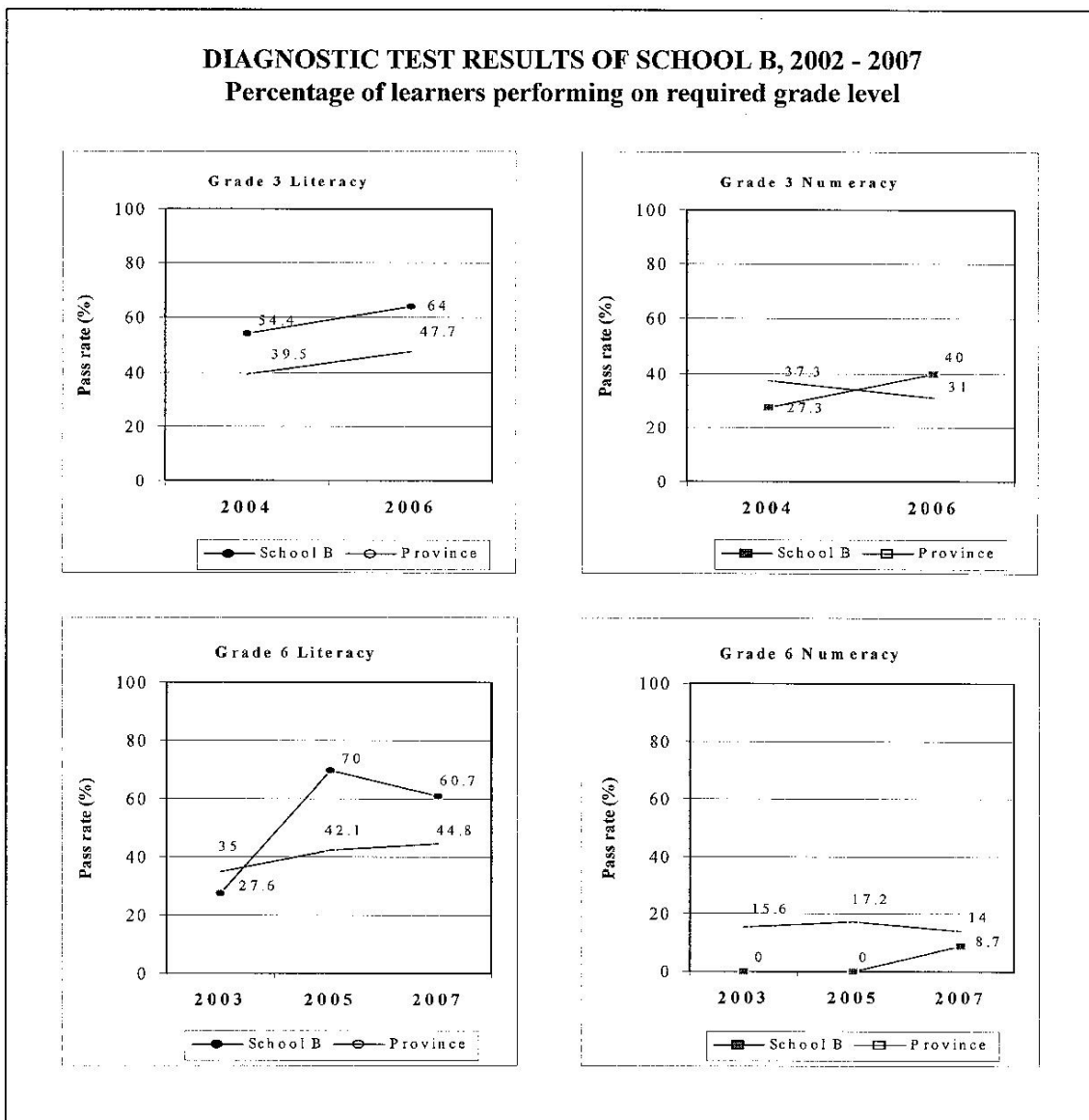
Discussion

In this section we put forward our interpretation of the descriptive data presented in the previous section, applying the analytic constructs that provide the conceptual framework that was outlined earlier. This framework assisted us to recognise patterns in the descriptive data regarding schools' use of diagnostic assessment and how teachers were thinking about differentiated lessons, i.e. lessons that are organised to address the learning needs of learners who are in the same grade, but performing at different levels.

Schools as bureaucratic façades

The two case studies illustrate different ways in which schools are grappling with change in the context of a fragile state that aspires to a higher level of development. In terms of Soudien's form/substance distinction, we see School A as placing the emphasis on 'form' issues such as record keeping and various monitoring systems. For example, when REP started working with the school the main step that the SMT took to support and encourage teachers to participate in the project, was to supply each teacher with a file in which he/she could keep all documents related to the project. This suggests that the SMT relies on administrative and managerial measures to bring about development, rather than processes and expanded opportunities for teachers to identify and address specific aspects of their education practice that need to be strengthened. The principal and SMT have also introduced a number of internal monitoring systems in an effort to make teachers more accountable for curriculum delivery. In addition to the system of quarterly reports to monitor curriculum implementation, and weekly checking of teachers' lesson preparation, the literacy half-hour is being monitored specifically. But the principal acknowledges that the decline in the 2007 Diagnostic Test results suggests that monitoring in general and of the literacy half-hour in particular, has so far not resulted in improved teaching practice.

To us, some of the issues that School A's teachers have been involved in appear peripheral, given the evidence that the school is performing poorly in terms of delivering the basics of the curriculum, particularly in the Intermediate Phase. We would argue that something like the e-mail link with a school in the Netherlands is a superfluous activity, given the challenges facing the school in fulfilling its core function. Similarly, it seems of secondary importance that some of the teachers obtained an international qualification in

computer literacy. It appears inappropriate that the school's Khanya laboratory is used only for computer literacy, not to support literacy and numeracy or other areas of mainstream curriculum delivery. We would question the value of teaching learners computer literacy if the majority of them are not attaining basic literacy and numeracy, which are prerequisites for high school study and most skilled and semi-skilled work opportunities. We would characterise these as examples of the school's effort to portray a façade of modernity to mask its poor academic performance.

The evidence suggests that teachers at School B have been focusing more on substantive issues pertaining to literacy and numeracy. This school's literacy and numeracy strategy has several strands, compared to the literacy strategy of School A, which focuses mainly on exhorting teachers to use the literacy half-hour optimally and monitoring its implementation. Whereas School A seems to rely almost entirely on REP's support and input to improve literacy and numeracy, School B's strategy combines elements obtained from several external sources of support – the Multi-grade Initiative, REP, the retired psychologist who assists the school and district officials such as the previous specialised learner and educator support advisor.

The different ways in which the two schools are addressing curriculum delivery are partly due to their own interpretation of their challenges and the strategic direction they wanted to take, and partly due to the momentum of the subsequent REP intervention. Both are whole-school approaches, but School A's approach takes a hierarchical management structure as given, and is more concerned with formal issues such as monitoring and management systems. There seems to be a misinterpretation of the school's core function – learning and teaching. School B's priority has not been management issues *per se*, but aspects of curriculum delivery such as teachers' subject content knowledge and pedagogy within and across the grades.

But circumstantial features of each school's situation could possibly account for differences between the two schools. School A is a larger school and teachers don't live locally; they all commute to and from school every day. This places limitations on the time teachers have available, or are willing to devote to collective planning and professional development. School B is located in a fairly homogenous community and all teachers live in the community. The school is much smaller than School A, so management is less of an issue and the teachers and principal work together as a team.

Schools as authoritarian bureaucracies

Part of School A's preoccupation with formal aspects of school and curriculum management is a great deal of emphasis on mechanisms and systems of control. The concern with monitoring is the most obvious example. Implementation of the school's various monitoring systems seems to reinforce the hierarchical management culture. For example, teachers are required to monitor their own curriculum delivery, which is in turn monitored by phase HODs who report to the SMT and the curriculum co-ordinator.

The situation at School B is more relaxed and collegial. The school has no SMT and although the principal says he regards himself as the manager, the five teachers generally work as a team. The principal acknowledges that the school's curriculum management systems are inadequate. For example, they use mostly informal methods to monitor curriculum delivery. But efficient management systems and procedures have not been their priority. In addressing the school's challenge to improve numeracy and literacy, the starting point has not been management, but the core task of teachers to mediate curriculum content to learners, which requires them to strengthen their own pedagogic content knowledge, to do regular diagnostic testing, and to devote more time to planning differentiated lessons.

It can be argued that the ways in which the WCED head office and district offices have communicated with schools about the Diagnostic Test results have contributed to perceptions of this policy instrument as a managerial (accountability) mechanism, as opposed to a developmental tool for teachers to use. Prior to REP's involvement with these schools, teachers had not engaged with the analytical feedback that the WCED provides with each set of Diagnostic Test results. Teachers at both schools experienced the testing only as a high-pressure accountability measure exercised by the Department. They seem to have been unaware of its diagnostic and remedial potential and were unable to use the feedback that the Department provides as a diagnostic tool. Apart from a discussion with Foundation Phase teachers at School A, neither school had received substantial or systematic support from the district offices to interpret and analyse the test results. Teachers at School B claim that they discuss the Diagnostic Test results every year, compare them with previous results, and design programmes to address the weaknesses. They have discovered that most of the Grade 6 learners cannot read. But they were not satisfied that their analysis and understanding of the test results was thorough

enough, so at the beginning of the project they asked the REP education specialists to help them 'unpack the results'.

Powerful teaching

The central feature of this construct put forward by Christie (2008) is that teachers should create *meaningful* learning opportunities for learners. The data set that was used for this study does not include any evidence from classrooms or examples of teachers' and learners' work. We therefore offer a tentative interpretation of the two schools' situations with regard to powerful teaching practice. We find some evidence that teachers at School B are concerned with ways to provide learners with meaningful learning experiences. A number of examples were mentioned in interviews. With the assistance of REP and the retired psychologist who helps them, teachers have been using internal diagnostic tests regularly to determine learners' needs and plan their lessons accordingly. Teachers are also placing a great deal of emphasis on developing learners' ability to read with comprehension, and in Mathematics learners are encouraged to use a range of methods for solving problems and executing operations, and they must explain how they arrived at their answers. This enables teachers to facilitate the transition from informal methods to more efficient methods of calculating. Teachers have also introduced games into their lessons 'to bring the fun back into learning'.

Compared to School B, there is limited evidence that School A's teachers have been making an effort to develop 'powerful classroom practices'. They have relied mainly on new ideas and methods introduced by the REP education specialist, such as fun ways to teach the alphabet and how to organise group work more effectively. The school has requested REP to provide teachers with information about ways to diagnose learners' performance levels. This suggests that some teachers at the school are concerned about their ability to tailor their lessons to learners' specific needs.

Stable and functioning schools

On the face of things both schools conform to Christie's (2008) characterization of stable and functioning schools. Both schools offer orderly learning environments and efficient management systems and procedures appear to be in place, which seem to ensure time on task. Teachers at both schools also report that they have adequate resources and learning materials.

But some differences are evident in teachers' motivation and accountability for curriculum delivery at the two schools. According to REP some vestiges of past conflicts and divisions among staff persist at School A. In an interview late in 2007 with REP's evaluators, teachers voiced some criticisms of the SMT. They complained that the SMT has not supported them in teaching literacy and numeracy and the quarterly monitoring system has not been implemented in a consistent manner, according to plan. In a questionnaire the principal mentions teachers' low morale, lack of accountability, limited use of assessment techniques and inadequate monitoring by SMT members as factors that possibly contributed to learners' disappointing performance in the 2007 Grade 6 Diagnostic Tests. At School B there is evidence that teachers accept collective responsibility for learner achievement and no one is blamed for instances where the results have been disappointing. Teachers have been building on successes they have achieved in previous rounds of the Diagnostic Tests by identifying areas of weakness and taking specific steps to correct those.

The experience of School A suggests that school improvement strategies that consist mainly of managerial interventions do not necessarily bring about improvements in learner achievement. Teachers acknowledge that the school's Grade 6 Diagnostic Test results have been disappointing, particularly compared to the significant improvement in the Grade 3 results in both literacy and numeracy. The test results suggest that the Foundation Phase teachers are increasingly 'getting things right', but it appears that learners lose considerable ground in literacy as well as numeracy in the Intermediate Phase.

School B's Diagnostic Test results don't reflect a consistent pattern of improvement, but it is worth noting that the Grade 6 learners achieved a pass rate in 2007 that is significantly higher than the provincial pass rate. While the increase in the numeracy pass rate cannot be regarded as statistically significant, it was encouraging, given that no learners passed the numeracy tests in the two previous rounds of testing.

Conclusion

We can tentatively point to the following lessons that stand out from our analysis of these two schools' experiences as they grapple with internal and external pressures to change:

- If a school is able to combine and integrate its own resources with inputs from external support agencies, including the Department, the whole can amount to more than the sum of the parts and efforts to change can gain extra momentum.

- Teachers are more likely to use external inputs like the WCED's breakdown of the Diagnostic Test results, if this process is mediated and facilitated.

- Collective reflection and collegial engagement in development processes are more likely to motivate teachers to take action than managerial and administrative measure that emphasise compliance.

- Such change processes can take time and they require agency, collective engagement and extra effort. Teachers, especially school managers, might be tempted to opt rather for 'formal' bureaucratic (managerial or administrative) mechanisms that hold the promise of quick solutions.

- Due to the hierarchical nature of bureaucracy, and its inherent authoritarianism, such managerial measures are often designed to strengthen managers' control, rather than provide practical or technical support for teachers.

- Teachers who commute to school appear less willing to spend time in the afternoons, after lessons on planning and lesson preparation than teachers who live in the community served by the school.

Christie (2008) remarks that it is difficult to change school and classroom factors that impact on learner performance, even if it is relatively easy to predict what they are. The small shifts in the WCED literacy and numeracy results over the six years of Diagnostic Testing seem to bear out policy researchers' caution that it is very difficult to translate policy into action in large education systems, and that it can take years for policy to have an impact on education processes and outcomes. Our research in these two rural schools illustrates the complex interplay of factors that can boost or impede school improvement. School A's experience suggests that managerial measures such as monitoring systems or provision of additional learning resources are not sufficient to improve standards of teaching and learning if teachers are not motivated to improve their practice, or if shortcomings in their subject content knowledge are not addressed. School B has been able to demonstrate incremental improvement in learners' performance, which seems to be associated with a collective effort among educators to strengthen and coordinate various aspects of curriculum delivery at all levels.

References

Babbie, E. and Mouton, J. 2006. *The practice of social research.* 6th impression. Cape Town: Oxford University Press.

Christie, P. 2008. *Opening the doors of learning: changing schools in South Africa.* Johannnesburg: Heinemann.

Cohen, L., Manion, L. and Morrison, K. 2000. *Research methods in education.* 5th edition. London and New York: Routledge/Falmer.

Department of Education, Republic of South Africa, 2002a. *National curriculum statement.* Pretoria: Department of Education.

Department of Education, Republic of South Africa, 2002b. *National policy on whole school evaluation.* Pretoria: Department of Education.

Department of Education, Republic of South Africa, 2008. Foundations for learning campaign. Government notice No.306, *Government Gazette* No. 30880

Fuller, B. 1991. G*rowing up modern: the western state builds third world schools.* New York: Routledge.

Guba, E.G. and Lincoln, Y. S. 1994. Competing paradigms in qualitative research. In Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of qualitative research.* Thousand Oaks: Sage, pp.105–117.

Harber, C. and Davies, L. 2002. *School management and effectiveness in developing countries.* 2nd impression. London: Continuum.

Soudien, C. 2007. The 'A' factor: coming to terms with the question of legacy in South African education. *International Journal of Educational Development*, 27(2): pp.182–193.

Stake, R. E. 1995. *The art of case study research.* Thousand Oaks: Sage.

Tellis, W. 1997. Introduction to case study. *The qualitative report* [on-line serial] vol. 3 no. 2. http://www.nova.edu/ssss/QR/QR3-2/tellis1.html.

Van der Berg, S. 2005. How effective are poor schools? Poverty and educational outcomes in South Africa. Paper presented at the international invitational educational policy research conference. Paris, France. 28 September–2 October.

Weber, M. 1922. Economy and society. In Gierth, H.H. and Mills, C.W. (Eds) 1948. *From Max Weber: essays in sociology*. London: Routlege & Kegan Paul Ltd, pp.196–244.

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