Policy Recommendations:

Improving the quality of education in KwaZulu-Natal

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Report 3 of the Provincial Treasury study on improving the quality of education in KwaZulu-Natal

PROVINCIAL TREASURY
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Abbreviations

ACE	Advanced Certificate in Education
CHE	Council on Higher Education
CPD	Continuing professional development
DHET	Department of Higher Education and Training
DUT	Durban University of Technology
ECD	Early childhood development
ELRC	Education Labour Relations Council
EMIS	Education Management Information System
FET	Further Education and Training
HEMIS	Higher Education Management Information System
HTML	HyperText Markup Language
IQMS	Integrated Quality Management System
LER	Learner-educator ratio
LOLT	Language of learning and teaching
LURITS	Learner Unit Record Information Tracking System
NDBE	National Department of Basic Education
NEIMS	National Education Infrastructure Management Systems
NQF	National Qualifications Framework
NVC	National Certificate (Vocational)
OECD	Organization for Economic Cooperation and Development
PERSAL	Personnel salary system
PMDP	Principals' management development programme
PPN	Post Provisioning Norms
RAM	Resource Allocation Model
SACE	South African Council for Educators
SA-SAMS	South African School Administration and Management System
SETA	Sector Education and Training Authority
SEM	Senior Education Manager
SGB	School governing body
SMT	School management team
UCT	University of Cape Town
UKZN	University of KwaZulu-Natal
UNIZULU	University of Zululand

Vision

An information rich, knowledge based, evidence driven, empowered KZN education system striving for sustainable quality in a developing context

Executive summary

The ten policy recommendations made here have synergy with existing and new policy movements at national or provincial level. Considering the research done on the Treasury Project, the reform initiatives of the National Department of Basic Education (NDBE) and the KZN Department of Education (KZN DoE) can be viewed very positively. Much of the reform is driven by the attempt to set minimal standards across the educational system and to ensure that these standards are adhered to. This will place tough demands on the educational system at all levels. These ten recommendations respond to, and also bolster, the ability of the KZN DoE to deal with these demands.

The focus of the recommendations moves, in order, from simple solutions to solvable problems to complex solutions to intractable problems. A common mistake made when working out how to improve quality in education is to start with the biggest obstacles to improving quality and the possible solutions to these problems. This can result in a massive waste of energy and resources as often these big problems are poorly understood and do not have simple solutions. The Treasury recommendations avoid this danger. The first four recommendations set out simple practical solutions to specific problems: solutions that can leverage reform quickly at minimal cost. Recommendations five and six set out the longer term and more expensive interventions that are needed to ensure that the momentum gained by implementing the first four recommendations is not lost. Recommendations seven to ten detail four interventions that need extensive and intensive work due to the complex nature of the problem and the lack of readily available answers.

Recommendation one deals with the need for increased and reliable feedback on the operating status of the system. Poor data collection, capture, distribution and analysis result in all sorts of problems across the whole system. We still do not have accurate information on basic inputs such as the number of learners, qualification of the teachers, pass rates and conditions of schools. By next year (2011) the NDBE will implement standardised literacy and numeracy tests in all schools at grade 3, 6 and 9 levels, resulting in a massive increase in the amount of data we will have on the performance of learners, teachers, schools, wards, districts and provinces. Properly done, these assessments will provide detailed tracking of how the system performs each year, enabling focused interventions. Establishing effective feedback mechanisms across the system - feedback based on reliable information and sound principles - is the single biggest intervention that allows for an immediate impact on efficiency and quality. It is also one of the cheapest and most tangible ways to make a measurable difference, mainly because it enables an explicit view of the actual performance of the system and of any improvements that may have resulted from interventions. It provides the key leverage point from which to effect the most change for the least effort and lowest cost. At the simplest and most basic level, the data collection and analysis arm of the KZN DOE must be strengthened, especially as their workload has rapidly increased and will continue to do so. Inaccuracy at this level will result in fundamental weakness throughout the system. A strengthened resource, staff and skills base for data collection and analysis therefore sits as the first and key recommendation of the Treasury Project and comes in at a cost of R18 400 000 per year.

The second recommendation calls for a publicly available education information system that facilitates the engagement of all interested governmental, civic and community members who do educational work or have an interest in education. It will detail the geographic location of all schools in the province along with specific information on each school such as contact details, teacher and learner ratios, status of the school, quintile level, educational performance of the ward and district, budget received from the KZN DoE, etc. It will enable civic and community participation in local education. This would cost R250 000 to set up and run at an upkeep cost of R150 000 per year.

The third recommendation revolves around a short course on Planning for Quality Education in a Developing Context, that has specific reference to KZN. This will target middle levels of management within the KZN DoE and work in a practical way that enables best practices based on existing research. A first cohort of 40 KZN Department managers will be identified and engaged in the course at a cost of R15 000 per head (R600 000). This will improve the capacity of human resources within the KZN DoE and set momentum towards a knowledge driven, evidence based education system.

The fourth recommendation calls for a high level committee to be set up between higher education, trade unions and the KZN DoE to improve planning with regard to teacher education and development. The annual budget for the committee is R100 000 per year.

The net effect of implementing these four recommendations will be improved data capturing and analysis, the facilitation of wider civic and community engagement with education, an enhanced understanding of how to improve the quality of education within the KZN DoE and effective high level planning between the major stakeholders working with improving the quality of the teaching workforce. These recommendations also provide the seeds for developing a knowledge based, evidence driven, empowered KZN education system striving for sustainable quality in a developing context.

In order for this vision to grow, however, the human resource capacity of the KZN DoE needs to be extensively improved and developed, as does the ability of the system to access and utilize evidence to drive policy and provide feedback. Improved data capture and management will place enormous demands on the districts to act on the performance levels of its learners, teachers, principals, schools, wards and circuits, especially once systemic evaluations at grade 3, 6 and 9 become entrenched. Research done by the Treasury Project point to specific districts being both under-resourced and poorly structured. At the same time, however, district level officials do not have clear job descriptions or performance agreements to help them identify the work they are actually supposed to do. Recommendation five sets out mechanisms for working out the resource demands of specific districts as well the need to speed up the process of job descriptions at district level to ensure work is effectively done. It is important not to go ahead with bolstering district resources before clear job descriptions are in place. This will enable a clearer picture of the specific shortfalls to emerge.

Recommendation six calls for a research community of practice to be set up that is focused specifically on education in KZN. Although the Treasury Project has set out some of the parameters of education in the province there is a real danger that the research outdates itself and/or gets shelved. The Project has been valuable not only because of its deliverables but because of processes, practices and expertise it has enabled and put in conversation. These need to be sustained, nurtured and developed to enable a genuinely research led and evidence driven provincial education system. A model similar to that of Umalusi and CHE is recommended, whereby appointments are made at the upper levels of the KZN DoE to manage, requisition and co-ordinate research on education in KZN. There are both salary implications (R600 000) and budget implications (R4 000 000) for the KZN DoE. This is to be combined with extending the short course on education planning into Honours, Masters and PhD levels, thus developing and extending expertise and research in improving the quality of education in KZN. To kick-start the process, bursaries should be made available for students at Masters and PhD level to research issues raised by the Treasury Project and specifically focused on KZN.

Recommendations seven to ten deal with complex problems that cause major disruption and inefficiency within the system and do not have simple clear solutions. For example, we know that learners need to stay for as long as possible with their home language as the language of learning and teaching. Nevertheless there are powerful reasons and forces that prevent this from happening across KZN. Major longitudinal research needs to be done on this issue before a policy move on isiZulu as the language of teaching and learning in primary schools is made (recommendation seven). There are similar issues with the research into the consolidation of rural schools (recommendation eight), introduction of workable and researched strategies at the level of the curriculum, pedagogy and assessment (recommendation nine), and the reworking of the resource allocation model and post provisioning norms (recommendation ten). The basic insight motivating the last four policy recommendations revolves around the lack of informative research into effective educational practices and the resulting massive waste of resources when new ideas are put in place without careful research. These recommendations dovetail with the establishment of an education research community of practice dedicated to researching educational practices in KZN and how to improve them within a developing context. This will address the paucity of reliable research that can be used to make policy and planning decisions. It will also result in improved information on the current education practices in KZN and thus dovetails with the first two recommendations around data quality and feedback.

In an appendix we have included a set of radical suggestions around the re-organization of the geography of KZN education based on the increasing demands that will devolve to district level with the new reforms. This entailed exploring different district models such as the increase of districts from 12 to 18 and the realignment of district circuits with municipal boundaries to improve cross sector alignment.

There is a danger with policy recommendations that a whole raft of policies are mooted that do not see the light of day due to budget constraints, the inability to find well qualified personnel or the failure to secure proper infrastructural requirements. These constraints can result in poorly

qualified people being employed, at great cost both financially and in terms of effective practices. It can even result in existing effective practices breaking down and a poor image taking their place. We would seek to avoid these difficulties and rather set up communities of practice within the system that are information rich, evidence driven, research led and committed to working at a local level with existing practices.

Policy recommendation 1

Increased staff resources for improved data quality (EMIS and SA-SAMS)

An appropriate resource, staffing and skills base for EMIS and SA-SAMS/LURITS in KwaZulu-Natal.

The Education Department needs to recognize the critical role that an accurate, comprehensive and up to data Education Management Information System (EMIS) can play in supporting effective decision-making in the province as well as the crucial contribution of SA-SAMS in enhancing school-based information systems and data accuracy.

A conscious decision should be made to increase staffing resources for both EMIS and SA-SAMS, with more resources for larger and more challenging districts, instead of the under-resourced and overstretched one-size-fits-all situation which prevails. Similarly, the provincial EMIS unit should be staffed to its full complement so that it can realize its full potential. The existing capacity of EMIS should be radically transformed at provincial, district and ward level through the employment of additional specialized personnel with the requisite data analysis and IT skills. Considerable savings can be realized through more accurate data (e.g. reduced learner numbers) and more efficient resource allocation.

1.1. Justification of policy recommendation

There are huge challenges associated with the quality of education data in the province. The Department's Operational Plan indicates that the percentage accuracy in the compilation of statistical data is currently only 85%, and that it takes a month for submission of surveys to occur plus over two months to capture school data (KZN DoE Operational Plan 2010 – 2011. p. 27). There are problems therefore with data quality and efficiency, which has lead to a level of scepticism regarding the data provided by schools.

Self-reported enrolment data are prone to inflation, leading to inefficient resource allocation. The time required for school information to be captured, verified and analysed for effective decision-making is too long. The rollout of SA-SAMS and LURITS is currently too slow and,

at the present pace, will take years to be properly implemented in districts. In the meantime, schools may become frustrated at the lack of support they are receiving with SA-SAMS.

SA-SAMS provides crucial management, administration and governance support for schools. It will help schools to manage themselves better, raise their awareness of management and data accuracy issues and improve their self esteem. It is however a resource-intensive undertaking to get it up and running to the stage where schools are comfortable with it. It cannot be implemented, supported and maintained by staffers who already have EMIS to contend with. The net result is that it may take years to implement and can never be properly supported at current staffing levels.

Finally, there is a compelling financial reason to devote more resources to improving EMIS and school information systems. If, as the KZN DoE Operational Plan estimates, the percentage accuracy of statistical information is currently 85%, it means that the department could be spending up to 15% of its budget unnecessarily or at least misallocating funds by this amount. The reason for this is that learner numbers determine most of the key financial allocations to schools: how many educators they qualify for (post provisioning), their norms and standards allocation, physical infrastructure needs etc. This 15% 'inaccuracy' represents up to R1.2 billion of expenditure (the 2009/10 Budget Speech by the MEC for Education Senzo Mchunu puts the total budget at R24.6 billion) that could arguably be put to better use. The implementation of SA-SAMS is already showing that learner numbers in the province are dropping dramatically. This is because the system is learner ID-based, making it difficult to artificially inflate enrolment figures through inventing learners.

A key question remains whether the department, by fully implementing SA-SAMS and an improved EMIS, can realize the savings resulting from more accurate data. If, as suspected, it results in lower learner numbers, there will be opportunities for redeployment of educators and for reducing expenditure on some schools in favour of genuinely needy schools. Many resourcing decisions would be affected such as post provisioning, resource targeting, quintiles, physical infrastructure, books and stationery, but the department will need to take concerted action to re-deploy resources (including human) in favour of real need.

1.2. Prior efforts

District-based EMIS personnel have been appointed (one per district) and some additional staff have been assisting with the rollout of SA-SAMS and LURITS. The Department's Operational Plan 2010-2011 indicates that there were 1 800 schools using SA-SAMS in 2010/11 with a target of 6 160 (100%) by 2014/2015. It also indicates that there is an estimated 85% accuracy in the compilation of statistical information, with a target of 100% by 2014/2015. There are similarly ambitious targets for reducing the turnaround time for submission of surveys, data capture and return rate of survey forms.

It is clear that some work has already been done to improve the functioning of EMIS in the province but the added challenges of SA-SAMS and the continued understaffing of the provincial EMIS section are taking their toll. There is an opportunity to take a bold new leap towards better quality data and planning with SA-SAMS, but this cannot be done at current staffing and skills levels.

The one-year operational plan refers to 3 EMIS officials per district but at this stage there only appears to be one. The one-size-fits-all approach to staffing districts is inappropriate. A district such as Vryheid with 752 schools should clearly have more staff than Amajuba which has only 242.

1.3. Challenges

Resources are scarce and the department is under pressure to reduce administrative costs. There may be some resistance to increasing the number of EMIS staff due to competing priorities as well as gate-keeping. There is a real risk of the wrong staff being appointed and being unproductive e.g. staff with no data analysis, database or IT skills. It is counter-productive to make appointments based on favour or political influence since such personnel are unable to take proper ownership of the job. It is critically important that the right people are appointed: people who take a personal stake in improving data quality in the province and who will take responsibility for their schools. This will facilitate their provision of accurate data and support the full implementation of SA-SAMS.

1.4. Implementation strategy and options

Once the new staffing levels per district and for the province have been agreed it will be essential to develop a clear set of job descriptions and a short and long-term EMIS plan per district. The goal is clear: to achieve 100% accuracy of school data and to make this data widely available for decision-makers and stakeholders. The skills of existing staff should be capitalised upon, and in many cases they can mentor new staff members. In addition to staffing, there will be a need for intensive training sessions on software tools for data capture and analysis, mapping and basic reporting. EMIS staff should become trained information professionals who know their schools thoroughly and can report with authority on school-related data, including the use and interpretation of education indicators.

The roll-out of SA-SAMS has given rise to an urgent need for school-based support and it will be necessary to undertake school visits to resolve technical problems, to provide additional training and software updates. This will require transport and recognition that staff members who work in rural districts have to travel greater distances.

1.5. Costing

The point of departure for staffing of EMIS and SA-SAMS at the district level is a basic minimum of two people per district, one for EMIS and another for SA-SAMS. This should be increased by additional staff based on a weighting that takes into consideration the number of schools, the number of learners and the distances from district offices to schools. In other words, it is expected that a district with large numbers of rural schools will have to work a great deal harder to turn EMIS surveys around, to verify the data, to ensure that SA-SAMS is properly implemented and to deal with day-to-day school-based SA-SAMS queries.

Staffing Recommendations:

Table 1 below sets out a proposed scenario for staffing districts with regard to EMIS and SA-SAMS personnel. The school, enrolment and distance factors are equally weighted and used to determine an additional staff complement that would allow for districts to be more evenly matched in human resources for managing EMIS and for supporting a per school implementation of SA-SAMS.

Table 1: EMIS and SA-SAMS staffing requirement for Districts

District	Schools	Enrolment 2009	Average Distance from District Office to Schools (km)	Base EMIS & SA-SAMS Staff Complement	Recommended additional Staff required due to enrolment, school numbers and distance considerations	Total EMIS & SA-SAMS Staff Complement
Amajuba	242	130 000	23	2	0	**2**
Empangeni	661	292 767	48	2	3	**5**
Ilembe	429	162 040	30	2	1	**3**
Obonjeni	538	228 164	61	2	3	**5**
Othukela	444	184 469	40	2	2	**4**
Pinetown	499	317 920	16	2	2	**4**
Sisonke	444	158 651	61	2	2	**4**
Ugu	491	215 284	38	2	2	**4**
Umgungundlovu	503	219 807	26	2	1	**3**
Umlazi	461	303 606	11	2	1	**3**
Umzinyathi	481	176 686	64	2	2	**4**
Vryheid	752	298 096	67	2	4	**6**
Total	**5 945**	**2 687 490**		**24**	**24**	**48**

In addition it would be necessary to staff Provincial EMIS fully. The organogram makes provision for 11 staff members, but only 4 positions in the provincial EMIS office are filled at present. Like the district EMIS personnel, they are overstretched and cannot provide a professional service at present staffing levels. Too much emphasis is placed on meeting deadlines for survey turnaround and not enough on data verification, analysis and management support. They would also benefit hugely from more judicious use of the internet as a data distribution means.

Costing:

The costing below assumes a district based staffing complement of 48, plus a total of 11 staff at the provincial office (as per the organogram) as well as four training sessions/technical meetings per year and transportation for SA-SAMS related visits to schools.

Table 2: Annual costing for enhanced data quality - EMIS and SA-SAMS

Item	Cost
Total salaries	R 13 870 000
Workshops, training sessions and inter-district collaboration meetings	R 2 520 000
Transport	R 2 100 000
Estimated Annual Cost	**R 18 490 000**

Policy recommendation 2

A comprehensive, publicly accessible and up to date information system for schools in KwaZulu-Natal

A comprehensive and up to date information system on KwaZulu-Natal schools is developed and made available on the Internet for public and departmental access. The system should provide high quality maps showing schools and health facilities in relation to roads, towns, rivers and administrative boundaries for the use of service providers, trainers, department personnel, MECs etc. There should be a facility allowing users to zoom to an area of interest, find a specific school, clinic or town and display increasing levels of detail: this can be used for spatial planning. The ability to click on a specific school or clinic and display critical attribute information such as the number of learners and educators, Section 21 status, quintile or Matric. results is also essential, together with being able to view photographs of the school (where available) and display more detailed school or clinic information.

In this way the Department of Education can take a leading and proactive role in the provision of relevant education information to stakeholders within and outside the department. Local communities will be empowered with crucial information about schools such as performance,

funding levels and enrolment. Government departments, NGOs, funders and other stakeholders will have free access to information about schools, learner performance and matriculation results. The distribution potential of the Internet can be fully utilized. Over time the system can be developed to provide information about teachers such as biographical details, qualifications and the resources provided to schools. It may be necessary to restrict access to certain components of the information system if the data is deemed to be too sensitive, but the general principle should be one of open access and transparency.

2.1. Justification of policy recommendation

Many people are in the dark about what is going on in the Department of Education and at schools. Information remains behind closed doors on the basis that it is confidential, unreliable and/or too sensitive for release. It is almost impossible to get something as simple as an accurate address list of schools or school level data on Matric. results or recent enrolment data or information on the public funding given to schools or maps showing how to get to rural schools. This data should be freely available in the public domain so that stakeholders can interact with it, interrogate and analyse it. It is a matter of public record and a powerful way of ensuring that the quality of education information is improved over time and inconsistencies are ironed out.

The effective use of an Internet-based information system would mean that EMIS could spend less time dealing with mundane day to day queries and more time on strategic information management and analysis. This will have positive spin-offs for decision-making in the province since there will be a greater focus on key education indicators and longitudinal trends.

2.2. Prior efforts

The Department of Education has a website but it is out of date and poorly maintained. It does not indicate an understanding of the kinds of information that people would find most interesting and useful to download. There are no maps, indicators or key statistics available. EMIS information is buried in the main departmental website and takes too long to access. Many of the more interesting data elements (such as Matric. results, Section 21 status and learner numbers) are not made available. There are no photographs of schools.

The Department's Operational Plan (KZN DoE Operational Plan 2010 – 2011) states they are aiming to ensure that 'information is available and accessible to all target audiences' (p.74). They are also planning to 'develop the Department's intranet and internet' (p. 73). There is no indication of how this will take place and of what kinds of information will be made available. There are references to multi-media presentations, media statements, radio interviews, newspaper articles and 'publicity campaigns' (p. 73) but the need for providing real, tangible information on school performance, funding and infrastructure to stakeholders seems to have been overlooked.

In short, very little information is available or shared either within or beyond the Department of Education. No effort has been made to capitalize on the benefits offered by the Internet.

2.3. Challenges

The Department has been reluctant to share data for fear that it could open itself up to criticism or that the veracity of the data would be questioned. There are concerns about labelling poorly performing schools, stigmatizing teachers or denigrating certain areas of the province. It is far better to open education up for debate and to give people the means to see what is going on in the province so that they can help and contribute.

2.4. Implementation strategy and options

There are Open Source solutions to providing maps and data via the internet. These offer free software with a highly professional means of designing information systems that are interactive and scalable.

The information system should have the following minimum capabilities:

- Maps of the whole of KwaZulu-Natal showing schools, health facilities, towns, roads, rivers, administrative boundaries and key landmarks. These should be downloadable and free of charge
- Data for schools such as school type, ownership, Section 21 status, number of learners
- An up to date address list for schools
- Planning maps for each district that show the distribution of education wards, circuits and administrative offices
- A facility to upload and view photographs of schools
- A one-page profile for each school providing key statistical data e.g. enrolment trends, learner-classroom and learner-educator ratios and infrastructure needs

Over time the system could be developed to provide more analytical information such as education indicators, trend analyses and commentary. A series of information leaflets could be developed that are provided to all schools and communities (via libraries). These would summarize local education wards and the schools therein. Thematic information and analysis

could also be provided to various stakeholders within the Department, such as Personnel, Finance and Physical Planning.

2.5. Costing

If an Open Source software platform is used there are no ongoing license fees to be paid. The main cost is the initial development of the system and thereafter ongoing maintenance and data update costs. The system can therefore be developed and maintained at a fraction of the cost of a commercial software system.

Development costs: R250 000 – includes software development, Map Server and HTML programming, data acquisition, development of user interface, map preparation and layout, loading of school and district profiles, linking of photographs, uploading of all maps.

Ongoing annual update costs: R150 000 – includes liaison with District EMIS personnel, identifying and effecting changes in key datasets, modifying maps, modifying school profiles, loading new photographs etc. Also includes ongoing development to the system.

Policy recommendation 3

Short course on planning for quality education in KwaZulu-Natal

Introduction of an accredited in-service educational planning course for middle management, aimed at: bringing about change, i.e. working within shared norms, ethos, vision and goals on how to improve the quality of education in a developing context; and improving capacity to plan, implement and monitor quality of education in a provincial context.

3.1. Justification of policy recommendation

The development of organisational human resource capacity and enhancement of skills is a crucial factor in service delivery. The development of the capacity of office-based personnel will contribute to the accomplishment of strategic goals and, in turn, service delivery. This focus area could also contribute to the effective utilization of the Skills Development Levy. Developing such a course at the University will result in improved understanding of educational planning at tertiary level and enable the beginnings of a specialization in this field.

3.2. Prior efforts

There is already an ACE-level qualification for school principals funded by the Department of Education. However, there is no specific course intervention for office-based employees within middle management levels of the KZN DoE. There is no specialization on education planning available in KZN.

3.3. Challenges

The KZN DoE works in silos and does not have a clear working understanding of the principles behind delivering quality education within a developing context. Nor is there a consolidated understanding of existing practices and research in educational planning within a developing context (provincially, nationally or regionally). There is limited expertise in educational planning within the province both professionally and academically. There are no existing models in the province to build on.

3.4. Implementation strategy and options

The course should work on principles that have already been established as effective in the Principals' Management and Development Programme. Clear deliverables that centre around the existing demands and materials within the DoE should be used as a starting point. The actual practices of the KZN Department of Education middle management must be engaged with and the various levels within middle management put in contact with each other.

3.5. Costing

The costing of a short course in Education Planning is R15 000 per student. The initial cohort would be 40 students (R600 000). This can be covered by the KZN DoE or the skills levy.

Policy recommendation 4

A high level co-ordinating committee on human resource development with a specific focus on teachers

A comprehensive staff development strategy whose implementation is centrally coordinated and utilises a range of partners needs to be developed, implemented and managed. The focus should, in the short term, be on system integration and support of the teaching-learning endeavour.

4.1. Justification of policy recommendation

There is little doubt that the human resources in the department are the central leverage point for enhancing quality in education. The international and local research shows clearly that it is people that make the difference, not buildings or other material resources. While the drawing of different district boundaries, setting up of directorates, building classrooms and laboratories or developing new materials can all enhance quality, they do so only if the people that populate the structures, manage schools and resources or use the materials are motivated and skilled enough to utilize these resources effectively. This point is often demonstrated by the different performance of schools where all other factors are constant. Investing in the people is the single most likely enhancer of quality.

Clearly, with 90 000 educators in the employ of the KZN Department of Education, the focus needs to be on the existing staff. But the KZN DoE has a turnover of some 3000 – 4000 teachers per annum and it is critical that there is a far more systematic attempt to replace these teachers with quality teachers. There cannot be a passive approach that relies on the higher education system to produce the future employees. There needs to be a strong, coordinated and long term plan that addresses the supply aspect of quality teachers, as the new teachers have the potential

to change the quality of the teaching and the culture of the schools if they are trained, recruited and retained in a systematic manner.

From a financial perspective, staff compensation accounts for the bulk of the expenditure in the department and it is a fixed cost that remains largely out of the control of the province, given that labour relations are managed centrally through the Education Labour Relations Council. The province's opportunity is to maximize the value that employees add to the mission and vision of the department through better deployment and management processes and through systematic and long term investment in the training, recruitment, retention and development of the people in the system.

South Africa has very sophisticated skills development policy architecture and the infrastructure and expertise to deliver quality programmes. The National Skills Development Strategy and the Skills Development Act provide a policy and statutory framework which determines that a minimum 1% of the salary bill is spent on training and skills development. This is already a sizeable amount of funding earmarked for this activity. In addition, specific national funds are committed to the provision of bursaries and financial aid, and targeted interventions. Through the publicly funded higher education system the costs of training new and existing educators are further subsidised. And capacity development and training are areas of work that are regularly funded by donors and other funders, including other government departments. In short, there is already substantial investment in training and the potential to leverage funds, so that there is no significant pressure to divert funds from other budget lines.

4.2. Prior efforts

The Department of Education nationally and in KZN has taken the development of its human resources seriously at a number of levels. There has been ongoing investment in training specifically at the school level, both through supporting current employees to improve their qualifications and through changing the supply side dynamics. Some of the most significant initiatives have been:

- The introduction of the Funza Lushaka bursary scheme for the training of new teachers
- The enrolment of large numbers of teachers in teacher upgrade and retraining programmes such as the National Professional Diploma in Education and various Advanced Certificates in Education
- Short courses offered to school principals, circuit managers and subject advisors
- KZN DoE's own continuing professional development unit known as Ikhwezi.

4.3. Challenges

Current human resource development strategies in the department are largely uncoordinated and driven by individual champions or sectoral interests. In addition, there has been little alignment between the various branches and sections that deal with human resource development and there have been significant blind spots or seemingly clashing initiatives. The biggest challenge is to coordinate such a large organization.

The second challenge is ensuring that the human resource development strategy is comprehensive. The approach thus far has been driven largely by 'priority areas' determined by national and provincial imperatives that, while worthwhile, have resulted in a skewed emphasis that has prioritized maths and science and management to the virtual exclusion of many other critical areas. Of particular concern is that some critical areas requiring development have been ignored in the allocation of resources. This is especially true for small but specialized fields.

A third challenge is linked to the above, but is related to supply and demand. Supply is largely being managed through the allocation of bursaries administered by the national Department of Education, with limited provincial bursaries supplementing this. The priority areas once again are privileged in the allocation of bursaries and so a number of subjects are simply not supported. Because they are smaller or less fashionable these subjects are not flagged as problems; but increasingly, new teachers of these subjects are not entering the system.

Part of the problem is that the data that can assist in modelling the educators' needs and the demand side simply is not available. Thus the improvement of data and better analysis of the data will be crucial to a successful strategy.

A final and ongoing challenge is that this proposal is highly dependent on collaboration and system-wide responses. It requires coordination across a range of internal and external stakeholders, including provincial and national departments, the Sector Education and Training Authority (SETA), the South African Council for Educators (SACE), higher education institutions and private providers. Coordination across so many stakeholders is extremely difficult, even when all parties are committed to the process. If they are not, then it is almost impossible.

4.4. Implementation options

A high level committee needs to be constituted that will oversee the work of the skills development directorate. Current diverse activities such as the individual bursaries allocated by the Human Resources section, skills funds allocated to specific sections and general skills development initiatives need to be coordinated with external expertise to assist in the process of prioritization.

A comprehensive and evolving 5 year, 10 year and 15 year plan needs to be developed based on an analysis of all aspects of the system. This will need to factor in predictable data such as the retirement dates of educators in the system as well as macro-trends such as urbanization to make provision for the changing supply needs. The continuing professional development (CPD) of staff needs to take account of all areas of the curriculum and wider systemic issues, so that all educators are given opportunities for CPD. The skills levy monies and bursaries should be tied directly to the plan and monitored by staff in the office of the senior general manager responsible for human resources.

4.5. Costing

The costs of training are already factored into the statutory requirements of 1% on the salary bill, with targeted external funding through the SETA and other donors.
The setting up of the high level committee and support for the committee will require resources, including staff directly responsible for the development and implementation of the plan as well as costs related to travel and accommodation. Estimated annual cost R100 000.

Policy recommendation 5

Prioritize clear and specific job descriptions that respond to the challenges at District level

A new set of staffing and resourcing norms are adopted for district offices that reflect the challenges they face such as large numbers of schools, large distances from schools to district and circuit offices, and high poverty levels. The new norms acknowledge the difficulties faced by large rural districts and ensure they are staffed appropriately, so that each district has the capacity to provide a consistent level of professional and management services to schools in order to enable them to improve teaching and learning. This will only be possible once clear and explicit job descriptions and performance indicators are formulated and implemented at district level.

Once properly implemented, a district such as Vryheid should be in a position to estimate what its resourcing demands are (school visits, subject advisory services etc.) in a manner that is consistent with a district such as Umlazi. The concept of 'spatial justice' is significant here – the department should aspire towards providing learners with the same educational opportunities irrespective of where they go to school. At present it is clear that the average learner in Obonjeni or Sisonke district is considerably more disadvantaged than one in Pinetown or Umlazi – and twice as likely to fail Matric. if they reach grade 12.

The staff complement should enable an optimum number of visits by SEMS and Subject Advisors to schools. Ward Managers should visit each school in their Ward at least once every six weeks to provide support and to diagnose problems that require urgent attention such as the need for subject advisors or management training. Subject advisors should visit each school in their jurisdiction a minimum of once per term. The Education Department should also consider providing salary incentives to make it attractive for staff to work in rural districts.

If the department is unable to staff districts differentially then it should investigate the possibility of creating smaller districts in order to make them more equal in terms of workload (see Appendix on smaller districts).

5.1. Justification of policy recommendation

It is a well known fact that education districts in KwaZulu-Natal are unevenly matched, yet they are expected to provide a consistent level of professional service to their schools. They have vastly differing numbers of schools to contend with (ranging from 242 to 752), differing learner numbers (from 130 000 to 318 000), differing proportions of 'poor' (Quintile 1 & 2) schools (from 84% to just 3%) and major variations in terms of the average distances that personnel have to travel from administrative offices to schools (67kms compared to 11kms). They also perform very differently in terms of Matric. results - the best district is at a level equivalent to Gauteng province, whereas the worst is amongst the lowest of all districts countrywide. Clear job descriptions and performance indicators will provide the first step enabling the process.

Table 3 overleaf illustrates these differences between districts. A ranking has been assigned to each criteria, with a combined ranking to represent how 'challenging' a district is in terms of size, poverty and distance criteria. This is not an objective measure, but it does provide some indication of the difficulty of adopting a one-size-fits-all approach to district management and staffing. Longer distances mean more time spent travelling to schools, often on poorer roads in rural areas. Poorer schools mean a greater need for management support and subject advisory services, and potentially more visits to ascertain progress. Larger numbers of schools mean more demands on existing staff.

5.2. Prior efforts

Strategic Objective 3.2 in the Department's Operational Plan (KZN DoE Operational Plan 2010 – 2011. p. 21) states that the aim is to 'ensure equitable distribution of human resources in the Department'. Part of this involves ensuring that all offices are 'provided with adequate and suitably qualified personnel' but the baseline indicates that only 60% of districts and offices were adequately staffed in 2010 (p21). The aim is to ensure that 85% of schools, districts and

offices are adequately staffed by 2014/15. It is not clear from the Operational Plan how this is going to be achieved - whether a differentiated staffing model will be adopted for districts, or whether they will be treated more or less the same in terms of staffing needs. A separate objective in the Operational Plan states an intended National Senior Certificate pass rate target of 80% in 2014/15 - up from the present level of 61%. This will not be achieved unless special attention and resources are given to the weaker districts: they are where the most progress in learner performance and progress can be made.

At present, there is an approximate norm of 30 schools per education ward that is applied throughout the province. This means that districts with more schools have more education wards and therefore more SEMs (Senior Education Managers) at their disposal. Vryheid District for example has 24 wards and therefore 24 SEMs compared to Amajuba which has only 8. The number of circuits is also loosely based on school numbers and Vryheid has 5 compared to Amajuba which has 2. This ratio system ensures that the staffing of wards and circuits is based on school numbers and roughly equitable at face value.

Table 3: District ranking data

District	Schools		Enrolment in 2009		Proportion of schools that are poor (Quintile 1 or 2)		Average distance from District Office to schools (kms)		Combined ranking 1 = Most challenging district
	Number	Rank 1 = largest, 12 = smallest	Number	Rank 1 = largest, 12 = smallest	Number	Rank 1 = largest, 12 = smallest	Distance	Rank 1 = longest, 12 = shortest	
Amajuba	242	12	130 000	12	42%	9	23	10	12
Empangeni	661	2	292 767	4	70%	6	48	5	3
Ilembe	429	11	162 040	10	69%	7	30	8	11
Obonjeni	538	3	228 164	5	84%	1	61	4	2
Othukela	444	9	184 469	8	57%	8	40	6	9
Pinetown	499	5	317 920	1	4%	11	16	11	7
Sisonke	444	9	158 651	11	82%	3	61	3	6
Ugu	491	6	215 284	7	75%	5	38	7	5
Umgungundlovu	503	4	219 807	6	40%	10	26	9	8
Umlazi	461	8	303 606	2	3%	12	11	12	10
Umzinyathi	481	7	176 686	9	82%	2	64	2	4
Vryheid	752	1	298 096	3	79%	4	67	1	1

What this system does not take into consideration is the fact that the distances required to reach schools vary hugely from district to district, as do the conditions under which schools operate. It can easily take an SEM in one of the rural districts three times longer (up to half a day) to reach one of his or her schools compared to an SEM working in an urban district. It is likely that these schools will be visited fairly rarely when they are so hard to reach and where only one SEM has to manage 30 or more of them.

Linked to this problem is the apparent lack of a clear job description for SEMs or a clear (and regulated) indication of how often they are supposed to visit schools. Without either of these in place, and in the absence of a school inspectorate, there is no way to measure the effectiveness of SEMs or to determine where the current system is working and where it is breaking down. These issues need to be addressed so that more human resources can be applied in the areas of greatest need, and the under-performance of some SEMs can be properly dealt with.

5.3. Challenges

The pressure to reduce administrative costs in education remains a constant challenge. The hiring of more office-based staff in rural districts will increase administration costs, and may necessitate additional office accommodation. It may be difficult attracting suitably qualified staff to rural districts where social and economic opportunities are perceived to be inferior. Unless clear job descriptions are agreed upon, there is the likelihood that additional staff will not prove effective in achieving the aim of improving service delivery to schools. It is therefore important to establish clear and detailed job descriptions before embarking on increasing resources to the districts.

5.4. Implementation strategy and options

A proper work study needs to be undertaken that examines the resource and staffing requirements of each district and the directorates therein. All personnel should list their jobs and the hours spent undertaking their key tasks. Labour saving devices and initiatives to improve efficiency should be taken note of. Clear job descriptions should emerge from this process.

5.5. Costing

Although substantial long term costs are involved in resourcing districts correctly, this should not be done before there is clarity on the job description and performance indicators at district and ward level. Nevertheless it is possible to estimate roughly what the actual resource implications are. The proposals below are informed by the Draft National Policy on the Organization Roles and Responsibilities of Education Districts, 2008. A minimum staffing level for each district should be determined, which is then weighted by the number of schools and learners that the

district has to serve, the poverty of schools as well as the distance between the district/circuit office and its schools. Districts serving large numbers of poor schools should be given more resources to support disadvantaged schools as follows:

- Districts with more than 70% of schools in Quintiles 1 and 2 should receive 5% additional posts. This would apply to Obonjeni, Sisonke, Ugu, Umzinyathi and Vryheid.
- Districts where the average distance from the District Office to schools is more than 60km should qualify for 6% additional posts. This would apply to Obonjeni, Sisonke, Umzinyathi and Vryheid.
- Districts where the average distance from the District Office to schools is between 60km and 40km should qualify for 3% additional posts. This would apply to Empangeni, Othukela and Ugu.

The allocation of these posts should prioritise curriculum (subject advisory) support as well as school management services (SEMs etc).

Policy recommendation 6

Establish a research community engaged in researching education in KZN

A research division that coordinates research activities focusing on education must be established within KZN DoE.

6.1. Justification of Policy Recommendation

The vision of an information rich, evidence driven, research led KZN DoE calls for a focused and coordinated research community that is concerned about improving the existing educational practices in KZN. This will result in better and more informed decisions being made on key policy initiatives rather than the often knee-jerk reactions we are currently witnessing.

6.2. Prior efforts.

The Treasury project has enabled such a community over the last two years, and links have been made between the KZN DoE, UKZN, the Teacher Trade Unions, and various NGOs. Research expertise has been developed and basic data sets put together on the size and shape of education in the province as well as practices that improve the quality of education in a developing context. Although there are existing research efforts within the KZN DoE, UKZN and UNIZULU, NGOs and Trade Unions, these are uncoordinated, unfocused and have little impact on policy or planning.

6.3. Challenges

Achieving coordination between KZNDoE, UKZN, UNIZULU, DUT and trade unions on research; maintaining the momentum built up by the Project; funding more ambitious long term large scale studies; and including the FET sector in the research group.

6.4. Implementation strategy and options.

The research community has to extend across three sectors: tertiary education, the provincial Department of Basic Education and NGOs engaged in researching education within the province. UKZN needs to use the short course on Education Planning as a base from which to develop post graduate studies in the specialization of Education Planning. The KZN DoE needs a high level focus on the latest research on education in KZN and a dedicated coordinating person both requesting research and ensuring the KZN DoE knows about and uses the research. NGOs need to develop expertise in researching KZN education by being tasked to do certain kinds of research.

6.5. Costing

Initial costs to set up a research base on education in KZN have already been covered by the Treasury Project. To extend research and human capacity development three levels of funding are needed. The first is bursaries at Post Graduate level for research into KZN education; the second is funding for large scale, longitudinal studies set out in policy recommendations 7, 8 and 9; the third is the appointment of a high level research officer in the KZN DOE with a research budget. Full time doctoral bursaries (R80 000 per year over three years) and full time masters bursaries (R40 000 per year) will develop expertise and research. It would be advisable to begin at a masters level with 2 bursaries each for the three key areas identified by the Treasury project and outlined in recommendations 7, 8,and 9 (6 x 40 000 = 240 000). A high level research coordinator within the KZN DoE will cost R600 000 per year. A research budget of approximately R4 000 000 will be needed to co-ordinate and facilitate research. This portfolio would be responsible for initiating and costing the research projects listed in recommendations 7, 8, 9 and 10. It should be noted that the research projects are expensive as they involve resourcing.

Policy recommendation 7

Language of learning and teaching (LOLT)

Primary schools with a majority of learners using IsiZulu as their home language should be actively encouraged to use isiZulu as their LOLT until at least grade 6, especially during the shift from early literacy (grades 1-3) to academic literacy (grades 4 onwards). Although this is well understood, there is strong community and school resistance to such a proposal for various reasons. More detailed longitudinal research is needed to understand the complexities underlying these issues and to address possible logjams in the system around resources.

7.1. Justification of policy recommendation

Research clearly indicates that development of academic capacity in the home language results in better learning and understanding of subject content, the home language and additional languages. English needs to be effectively taught as a subject for 6 years before it is used as LOLT by isiZulu home language speakers. The shift from early literacy to academic literacy is a key point in a learner's academic literacy; to require a shift to another language of learning and teaching at that point is to build failure into the system.

However, communities and schools will not move away from attempting to introduce English as soon as possible, because of the perceived benefits of English as a language of power. There is a poor understanding of the actual implications of attempting to extend the use of isiZulu as the LOLT in the intermediate phase. A well resourced pilot study over 7 years will enable a more

detailed understanding of the dynamics, implications and costs of a more wide scale attempt to encourage the use of isiZulu as the LOLT in primary schools.

7.2. Prior efforts

Recent recognition of the importance of home language as LOLT has occasioned increased translation of textbooks into isiZulu, increased production of isiZulu readers and increased systematization of the isiZulu lexicon. A new Oxford isiZulu/English dictionary has just come out – the first one in over 40 years. There are already strong practices of code switching in schools. Recent policy change has shifted the teaching of the LOLT from grade 2 to 1, meaning that the learner will learn about the language she is using. English is also to be taught as a subject from grade 1. We already have teachers who are bilingual and able to teach in English and isiZulu. Increasing availability of isiZulu on TV, in books, movies, and magazines has extended its reach.

7.3. Challenges

There are many challenges standing in the way of necessary and desirable language practice in primary schools, chief of which is the belief in communities that learners should shift to English as LOLT as soon as possible to ensure more time learning the 'language of power'. This is combined with a belief that English primary schools provide a better education than isiZulu schools. Other challenges are a poorly developed isiZulu conceptual lexicon, and fewer textbooks in isiZulu as grades get higher and subjects more specialized.

The teaching of English as a second language in foundation phase is very tricky when combined with the learning of isiZulu. Two very different phonetic systems are involved and this could confuse learners.

7.4. Implementation strategy and options

The NDBE has recently made three policy moves that can be used to advantage in increasing isiZulu as LOLT. The first is the introduction of subject workbooks in literacy and numeracy from grade 1 to 6. These are currently being written and will be available in isiZulu. The second is the increasing specification of subject content enabling easier and more rigorous translation into isiZulu. The third is the introduction of English as an additional language from grade 1 - thus addressing parents' fear that their children are not being introduced to English soon enough.

A concerted public awareness program is needed that alerts parents and teachers in rural areas to the importance of home language for learning and teaching. IsiZulu readers must be made widely available, and textbook production in isiZulu must be monitored and encouraged. Diagnostic reading tests need to be done at those schools performing poorly in grades 3, 6, and 9; and systemic evaluations and systematic reading programmes must be introduced where

reading is not fluent. Clear phonetic education in the second language must be carefully put in place over a sustained period to ensure automaticity and lack of confusion between phonetic structures. The effectiveness of such interventions needs to be researched and reported on as one of the primary foci of a research unit. Post-graduate bursaries directed specifically to research in this area should be made available.

On a more ambitious level, a comparative longitudinal study on the impact of the extended use of isiZulu through primary school needs to be conducted. Two primary schools from each of the 12 districts should be selected to implement isiZulu as the LOLT. Another two primary schools should be given the same amount of resourcing assistance but follow the usual shift to English as LOLT in grade 4. Baseline tests should be taken for comparative purposes. Teaching and material resources will be budgeted for (on a model similar to the Dinaledi schools) and longitudinal research done on the experiences and developments within these schools over 7 years. This development research project should be fully elaborated in a formal proposal (at a cost of R50 000) and funding sought for it. Because it involves extensive and intensive resource support the costs will be substantial. It will provide the first detailed research study on a matter of vital importance to the future of education in KZN.

7.5. Costing

Bursaries at Masters level to research isiZulu as LOLT (R40 000 X 2 = R80 000)

Proposal for longitudinal comparative case study that is effectively resourced (R50 000)

Policy recommendation 8

Research on the effectiveness of consolidating rural schools

A pilot project exploring the effectiveness of rationalizing small rural schools within a particular radius from each other and consolidating them into bigger, well resourced schools is currently underway at Sukuma High school outside Pietermaritzburg. This pilot project needs careful qualitative research, so that the rationale and interests of different communities and partners involved are captured and expressed. This, along with a detailed review of current policies and practices in rural schools across the country, will provide an informed base from which to start the process of consolidating rural schools in KZN. The option of boarding facilities for teachers in these consolidated schools must also be explored. The intention is to research the effectiveness of such a policy: whether it creates conditions for maximum utilization of resources, broadens access to quality education, and ensures the retention of teachers in rural schools.

8.1. Justification of policy recommendation

Rural areas are characterized by many small schools that are not viable and cannot function effectively. Although the KZN DoE has had the consolidation of rural schools on its agenda for some years there has been no substantial movement in this direction. The benefits of consolidation are already well understood but implementation is difficult for all sorts of

complex reasons that need to be properly understood. Focused research on the consolidation of rural schools will enable more informed and structured movement towards consolidation. This should include an exploration of boarding facilities for teachers and learners. The tragedy of HIV/AIDS orphans can be partly addressed through an extension of boarding school facilities in rural areas. A pilot study of the consolidation of rural schools will enable better policy and planning decisions around this key area.

8.2. Prior efforts

The consolidation of rural schools has been on the agenda of the KZN DOE for some years without much movement or success. The current pilot project at Sukuma High school is a useful starting point to explore the complexities involved. Kwa-Zulu Natal has a history of good missionary boarding schools and other schools with a tradition of academic excellence. Many of these schools, located in rural areas, are in a dilapidated state because of the reduced funding, particularly for boarding facilities. The KZN DoE has started a process of rebuilding and reinvesting in such schools, as an attempt to revive their academic excellence. Using and researching these existing schools for piloting the consolidation of small rural schools will test the effectiveness of consolidation before the huge expenses involved in building new schools are incurred. If the pilot is successful the roll-out of consolidation can then follow.

8.3. Challenges

Many of the existing boarding facilities in rural KZN are secondary schools. Primary schools remain a challenge: how the consolidation would work out in primary education needs to be carefully researched.

There are questions about the appropriateness of removing very young children from their families and placing them in a boarding school. The needs and interests of the children need to be carefully considered here. Each rural context would also have to be carefully assessed, and community participation in decision making need to be sought before any decision is taken.

Building new, well-resourced boarding schools in areas where none presently exist will be costly.

8.4. Implementation strategy and options

Research on rural schools should be initiated using Sukuma High School as a focus, as well as traditional boarding schools that are currently being upgraded.

A longitudinal research and development project on the consolidation of primary schools is needed. It should provide for the following:

- An audit of all existing boarding schools located in rural areas in the province
- An audit of all schools within a pre-determined radius of each boarding school, with an aim of identifying small, non-viable schools
- An exercise establishing the cost-effectiveness of consolidating the small schools, and resourcing the associated boarding schools
- Identification of the first few schools that would be most cost-effective to consolidate and allocation of a budget for this process
- Community participation and advocacy for the consolidation of small schools to be sought
- The resourcing of the boarding school, informed by academic and other community needs
- The application process for admission into each boarding school to be decided upon and implemented, with the full involvement of the local communities and all other relevant stakeholders
- Closing of the small schools and opening of the first boarding schools. Monitoring and evaluation of these schools conducted within an agreed upon time-frame. Results thereof inform how this recommendation is taken forward.

8.5. Costing

Bursaries at masters level to research rural schools (40 000 x 2 = 80 000)

Proposal for longitudinal development and research project (R50 000)

Policy recommendation 9

Research and evaluation unit on curriculum, pedagogy and assessment

A research unit dedicated to evidence driven research on curriculum, pedagogy and assessment which will align closely with subject advisors and the curriculum section of the KZN DoE to ensure the introduction of workable and researched strategies to implement effective changes at the level of the curriculum, pedagogy and assessment.

Existing research on curriculum, pedagogy and assessment in a developing context points to the following principles in design:

- Focus on one topic at a time, pursue it in depth rather than broadly, and do not include distractions and additions that integrate other topics, other subjects, or other experiences as a part of the topic.
- Ensure each topic has basic assessment tasks that are clear and explicit.
- Ensure that the topic is covered in a number of different ways to improve understanding. Select these topics carefully according to the key concepts and principles of the relevant subjects and ensure that they follow a logical sequence that carefully builds up understanding.
- Each year must focus on substantially new material rather than going over the same material supposedly in more depth. (Rather do it properly once, than again and again. Recall tests can be used to ensure that older material is embedded in memory).

Pedagogic interventions and training must focus on ensuring that the teacher actually understands the content before attempting various pedagogic strategies. The most important two strategic (and related) features of pedagogy are pacing and feedback. Rather than rushing through a curriculum, the teacher must select key topics and do these topics slowly and carefully, ensuring understanding. This means that the teacher has to learn the basics of working through

a textbook and using feedback: working out where the learners are and responding to their difficulties with strategies that improve understanding. Rather than introducing a whole range of sophisticated pedagogic techniques, the focus should simply be on whether the teacher has spent enough time on the topic to ensure understanding and has given strong enough feedback to guide the learners through the steps.

Assessment and evaluation must be explicit about what specific content will be assessed and how it will be assessed. Assessment must not test generic skills but must rather focus on the issues, skills and content of the subject. Learners must get proper feedback that shows them what they did wrong and how they can go about fixing it. This means that formal assessments should not be overused and over-carefully prepared for. More informal forms of evaluation can be used that simply check where the learner currently is and what the next step is. This is achieved through the way in which the teacher marks learner work books and responds to learner questions and misunderstandings in class.

In KZN education there is currently little understanding of such principles and similarly little research on their effectiveness or implementation.

9.1. Justification of policy recommendation

Although much of the approach described above seems obvious, it is not common practice nor has it been the focus of policy, implementation processes or research.
Firstly, curriculum materials have tended to be 'busy', superficial, spread out and unfocused. Many different topics are covered. Often there is weak content specification, so that both teachers and learners struggle to find out what is important in all the various tasks and boxes that confront them. Learners and teachers need clarity about what exactly they are learning so that they can focus on it and master it. Research is clear that learners from poor backgrounds need an explicit, simple and detailed focus on topics, exploring them in depth from a number of angles.

Similarly with pedagogy, the recommendations are obvious but have not been followed. Research shows clearly that use of textbooks, feedback and pacing are the three most important variables impacting on the performance of learners from poor backgrounds. These learners need to work systematically through an organized and clear curriculum and be given time in class to practice and master the topics and skills that each specific subject demands. Rushing through the lessons to cover content does not help, nor does repeating the lesson next year in the hope that the learner will finally get it right. This calls for a strong focus on the teacher using a textbook. The teacher cannot just be a facilitator.

One of the biggest dangers in assessment is losing focus on what the subject actually is and demands as a specializing force. There is strong evidence that subject specific skills are not easily transferable and cannot be learnt generically. This means that each subject must be tested

according to its specific demands. Attempts to use the subject for more generic skills or for cross-cutting themes must be avoided as this distracts both teachers and learners from the main function of assessment which is to specialize consciousness. Our research has pointed to the almost complete lack of proper feedback to learners in the classroom. No decent evaluation of their responses is given. Teachers lack skill both in identifying what the learner is struggling with and also then making recommendations on how to address the issue. This is the core of evaluation and assessment but it is almost completely absent in previously disadvantaged schools.

Curriculum, pedagogy and assessment sit at the heart of improving the quality of education in KZN yet changes or interventions at this level are generally implemented without any research or trialling.

9.2. Prior efforts

Key reforms at national level are aiming to ensure that minimal levels of quality in teaching, learning and assessment are ensured. These are:

- A focus on grade R and the foundation phase
- A simplification of the subject structure of the intermediate phase
- Reduction and simplification of teachers' workload by simplifying assessment, especially through stopping the common tasks of assessment in Grade 9 and the use of portfolios for assessment. Project work is also to be cut down
- An increasing reliance on end of the year exams rather than continuous assessment from grade to grade
- Use of the same subject names and mark structure throughout basic education
- The teaching of English from grade 1 as an additional language for learners using another language for learning
- Each subject in each grade to have clear and explicit content specified
- Clear pacing and sequencing rules provided for when and how the subjects are to be taught and assessed. Teachers will know what topics to teach when and how
- Appropriate textbooks for each subject in each grade will be provided, starting with foundation phase and moving upwards. A national textbook catalogue that ensures quality and pricing to be set up

- Learner workbooks provided from grade 1 to 6 (in literacy and numeracy) providing learners with clear specifications, content and tasks for what they need to do each day; in all official languages.

- External national assessments at grade 3, 6 and 9 levels in literacy/language and numeracy/ mathematics.

Every single one of these new national policy statements resonate strongly with the research done on the Treasury Project.

Key moves have also been made at a provincial level to improve the quality of the curriculum through its delivery, pedagogy and assessment. In particular:

There is a clear focus on the classroom and the interaction between the teacher and the learner as the primary unit of delivery. In effect this means a policy that is directed towards support for curriculum delivery and learner assessment, support for subject specialists and teachers, support for school management teams and support towards school governance. The KZN DoE has undertaken a review of itself to reduce the distance between itself and the classroom. It recognizes that responding to the underperformance of teachers and learners through allocating more resources is not adequate and that a deeper understanding of the reasons for underperformance need to be better understood. The treasury report will assist them in this regard.

The KZN DoE has a 10 point plan that focuses on Matric. improvement. There has been a notable improvement in KZN Matric. results in 2009.

The KZN DoE has placed the improvement of school functionality and outcomes firmly on its priority list of strategic goals. Its focus will be on three strategic objectives: to implement quality assurance measures, assessment policies and systems to monitor the success of learners; to develop the professional quality and academic performance of managers and educators; and to administer an effective and efficient examination and assessment service.

Systemic evaluations at grade 3, 6 and 9 levels in literacy/language and numeracy/mathematics across the country will result in a massive improvement in our understanding of how basic education is functioning in the country and the province. This key development will allow for detailed feedback on the performance levels of schools, teachers, learners, wards, circuits, districts and provinces that can be used as a baseline to improve performance levels. It is a highly specialized and complex endeavor that needs professional and dedicated resources both to analyse the data and to respond to the many issues it is going to throw up.

There is currently no research unit that focuses on these crucial interventions. There is no systematic trialing of materials or evaluation of textbooks, no rigorous case studies or robust comparative studies that assist in materials development. The KZN DoE does have a curriculum

unit that makes interventions through designing and distributing teaching materials. This section struggles to distribute its material and no research or trialling is done on the effectiveness of the material.

9.3. Challenges

Curriculum and pedagogy contain both the quickest and slowest mechanisms of change. It is possible to change a curriculum and assessment within a couple of years. Changing pedagogic practices that have been deeply absorbed through years of schooling and teaching is very difficult. Research on these areas needs to be updated continually as policies, curricula and educational practices change.

The perception that the curriculum has been dumbed down and has taken freedom and professional discretion away from the teachers could result in an apathetic workforce.

The acceptance of poorly trained and educated grade R teachers into the foundation phase presents a major challenge. Foundation phase is a high priority area that is crucial to the future functioning of the school system and learner performance. A strong line must be drawn between grade R and foundation phase otherwise there will be a strong negative impact on basic numeracy and literacy skills.

The quicker adoption of English as the language of teaching and learning must be discouraged in schools that have a strong isiZulu home language profile. English is being taught as an additional language in grade 1 and this will encourage a quicker move to English as the language of learning and teaching. This will have a strong negative impact on learners as the language structure of the subjects becomes more complicated after grade 3.

There is a widespread tendency to teach to the test only, resulting in rote learning and memorization without understanding.

There are increased demands on provincial systems in terms of assessment, teacher training, provision of materials, feedback, and material design, piloting and distribution based on feedback. This strain will run through the whole system at provincial level, district, circuit and ward levels (see district and information recommendations).

Ineffective design of workbooks and textbooks rather than design based on principles that are crucial for success, such as moving slowly through the curriculum and dealing with each topic in depth.

Teachers are omitting areas they do not understand and teaching only what they are familiar with.

The KZN DoE sets unrealistic goals for itself in terms of educational outcomes (improvement of national certificate results from 63% to 80% in 5 years; a 25% improvement in NCS mathematics pass rates over 5 years; and similar goals in science and language). A similar trend is noticeable in its focus on enhancing the professional quality and academic performance of managers. For example it expects to reduce the number of dysfunctional schools from 200 to 2 over five years and to halve the number of underperforming grade 12 schools. In similar vein it expects to reduce the number of days lost due to educator absenteeism from 15 to 0.

9.4. Implementation strategy and options

The time has never been more auspicious for the policy recommendations made for curriculum, pedagogy and assessment in KZN. The Department of Basic Education has outlined a strong focus on getting back to the basics of teaching, learning and assessment along with a clear and explicit curriculum that specifies content. The KZN DoE has prioritized the same set of issues in its strategic plan. This document will not go over terrain already covered by the Department but look at what else can be done to improve the quality of education in KZN.

Our research clearly shows that teachers mostly teach only what they already know and do so without much focus on understanding or feedback. In addition to the existing national and provincial reforms that now specify what teachers should teach it is crucial that this issue is tackled with focused care. The danger is that an attempt is made to move too quickly with teachers already in the system. Teachers and learners from grade 1 to grade 6 are going to receive workbooks that take both through the literacy and numeracy expectations for the year. This is the key leverage point in the system, especially for schools that are struggling to perform academically. It will form the basis for heads of department, principals, subject advisors and ward managers to check if learners are actually covering the curriculum at an adequate pace. It will mean that teachers start to learn how to teach lessons beyond their current range, that they pace their lessons more carefully and structure the sequence of lessons in a manner that makes sense.

To replicate this massive national imperative locally will be to waste resources. Far more important will be to treat these workbooks as a pilot structure, to find out where teachers and learners are struggling with the workbooks, where content is not detailed enough, where inessential and time wasting activities are suggested, and where there is confusion about what is expected. Research at this level will enable detailed and effective feedback.

This focus must be separated from the related attempt to ensure that teachers are actually teaching the curriculum. Subject advisors will need to intervene quickly and effectively with support at this point, either providing additional materials that clarify and deepen a crucial topic or offering strong recommendations about what can be left out without much loss to the subject (so that more time can be devoted to a deeper understanding of crucial concepts and topics). The design of curriculum material is currently undertaken by a specific section of the

KZN DoE. Its task will shift from curriculum design to investigating the problems, difficulties and successes of the workbooks and how to augment them. It will mean a close alignment between subject advisors, the curriculum section of the KZN DoE and a research unit dedicated to evidence driven research on curriculum, pedagogy and assessment.

This implementation strategy must be carefully applied. Schools that are already performing excellently will find the workbooks to be both damaging and limiting. Attempts to insist that these schools implement the workbooks will do untold damage to their professional practices and ethos. The DoE is implementing the workbooks in Quintile one and two schools. The intervention that will make some difference in the 80% of our schools that are seriously underperforming would do serious damage to the 20% of schools currently producing most of our good results. One way to determine which schools should use the workbooks as the driving force behind the schools' pedagogic structure can be the performance of schools in the systemic evaluations at grade 3 and 6 levels. Those schools that are performing poorly in the evaluations will have to adapt to the workbooks as the structuring mechanism for their teaching and learning, with careful monitoring of their use.

There is a danger that use of the workbooks across the board at these schools becomes very boring and results in all sorts of disciplinary and pedagogic issues. It must be borne in mind that these workbooks are currently developed only for literacy and numeracy. Other subjects must ensure that teachers and learners work systematically through a clear, content rich, carefully sequenced textbook. Over several years this will result in improvement not only of teachers' content knowledge but also of their pedagogic skill.

The textbook can be augmented by a selection of key topics in a subject and a commitment to develop high quality materials that focus in depth on understanding and engagement. These lessons can form the basis of interactions between teachers and master teachers, and between teachers and subject advisors. The development of local communities of practice that focus on these lessons and how to teach them will result in turn in the development of a subject specialist professional identity, which will push teachers to teach in areas they are not comfortable in. This must be implemented slowly, at the level of one key topic a year per subject and per grade.

9.5. Costing

A Planning and Support Branch exists in the KZN DOE. The staff working in these sections should be prioritized for the short course in Educational Planning. The cost of this has already been dealt with in recommendation 3. The KZN DoE needs to set aside funding for evidence driven research on curriculum materials, textbooks and workbooks as well as the analysis of pedagogic practices and assessment practices that work across districts. Funding should be made available for research in these areas at Honours, Masters and PhD levels. Two bursaries at Masters level will provide for initial baseline research on the effectiveness of workbooks, the simplification and increased specification of the curriculum, and the effectiveness of the systemic evaluations.

Two masters bursaries (40 000 x 2 = 80 000)

Policy recommendation 10

Improve PPN and RAM

Redesign the Resource Allocation Model and the Post Provisioning Norms to take account of variables other than learner numbers.

10.1. Justification of policy recommendation

The current allocation of resources to schools and districts is based on a combination of historical allocations and a formula that is based on enrolments and the classification of the school in a particular quintile. This system does not differentiate between schools in terms of: size of grounds; infrastructure; proximity to towns and cities; local government; curriculum; services available. Consequently schools with laboratories and computers do not receive more funding than those who do not have these, despite the running costs of these facilities. Similarly, schools that offer subjects with specific resource requirements are not compensated for this. The quintile system itself takes no account of the fact that learners travel to schools and that the immediate surroundings of the school do not necessarily reflect the socio-economic make up of the learners.

The net effect is that the current formula does not reward schools that offer diverse curricula, that take in children from poor backgrounds and that maintain their facilities. This proposal will enable schools to access resources that are aligned to their needs rather than a simple headcount.

The staffing formula, or Post Provisioning Norm (PPN), is similarly based on headcount enrolment. This also makes sense only if one has a notion of highly standardised schools in mind. This is not the case on the ground. Firstly, staffing of a school needs to be linked to its physical capacity to accommodate staff: more teachers in a school without classrooms will not improve quality. Secondly, the needs of secondary schools with specialised curricula are not accommodated, and no account is taken of subjects where normal teacher: educator ratios may not be realistic or where schools are required to offer the subject. The consequence is that smaller schools may not be able to have specialists teaching key subjects such as Mathematics because of the PPN. There is also no allocation for posts such as a school counsellor or a school librarian in the current PPN.

10.2. Prior efforts

There is recognition at both national and provincial level that the RAM and PPN is problematic and there have been suggestions that the quintile system be adjusted or removed. A current proposal is to merge a number of the quintile categories to draw a clearer line between poor and better resourced schools.

There have also been adjustments to the PPN for purposes of ensuring that all schools have an isiZulu teacher.

10.3. Challenges

The greatest challenge is data quality. A RAM that is more sensitive to the actual needs of the school will only work if data on schools, educators and learners is accurate and reliable.
Any change to the system of resource allocation will result in winners and losers. This has to be managed sensitively and carefully so that there are not serious and unforeseen consequences.

10.4. Implementation options

A phased approach is recommended in order to reduce the shock to the system.

In terms of the PPN:

- Distinguish between primary and secondary schools
- Ring-fence specific posts that are required by the curriculum e.g. Mathematics, Mathematical Literacy, Languages
- Create a mechanism for the establishment of certain schools to be funded outside of the PPN, where those schools have specialist functions: such as focus schools, full service schools or schools with specialised curriculum streams
- Establish norms for specialist posts such as school counsellors and librarians and make these progressively available
- Link the PPN to the available infrastructure, so that schools do not expand beyond their physical capacity

In terms of the RAM:

- Distinguish between schools that are paying for municipal services and schools that are not
- Factor in a per square metre rate for routine building maintenance
- Progressively move away from a quintile based allocation to one based on the school needs and the socio-economic status of the learners
- Factor in specific requirements such as direct funding for hostel facilities, libraries, laboratories etc.

10.5. Costing

A full review of PPN and RAM is a complex issue that needs extended and focused research. It also cuts across national and provincial levels. A high level consultant must be appointed to rework the models to align them to the strategy directions of the department and adequately resource the system, taking account of the level of differentiation, at a cost of approximately R800 000.

Conclusion

The crisis in education has loomed large in our national consciousness over the last couple of years and has formed the major impetus behind the Treasury Project. Despair and resignation are real dangers, in the face of the massive difficulties. One solution is to concede that we can't solve all the problems in education immediately and to ask which problems we should solve first. This goes against the instinctive response to look for the most serious problems causing the most damage and to try and solve them. However, what we forget is that some problems don't necessarily have simple or easy solutions. We should therefore rather start with a list of solutions to problems and prioritize them from most solvable to least solvable. This is an uncomfortable process because you do not focus on the most pressing problem but on the most effective solution. However, framed in this way, the policy recommendations of the Treasury Project provide four simple solutions that will directly impact on the quality of education in KZN.

Improving the data collection and analysis arm of the KZN DoE targets the simplest and most basic leverage point within the system. It provides a key foundational layer that allows the vision of the KZN DoE as an information rich, knowledge led, evidence driven enterprise to flourish. Without accurate data across the system, this vision is dead in the water.

The second recommendation provides a simple way to start the process of getting communities and civic structures to engage with existing information on the structure and state of education in KZN. A freely available website that provides a full picture of the landscape of education in KZN is the second foundational recommendation that spreads the vision of an information rich, knowledge led enterprise to communities and organizations interested in or involved with education. The short course in Education Planning for Quality Education in a Developing Context extends the vision of an information rich, knowledge led, evidence driven enterprise into the activities and practices of the KZN DoE. It is not only the quality and accuracy of data that will enable the vision but an active production and consumption of research on how to improve the quality of education in KZN. Communities of practice that take forward the work done by the Treasury Project have to be established in KZN educational structures; the recommended short course is the simplest and most direct kick start to this process. The fourth recommendation cements the first three recommendations in a high level planning committee that works with the key resource on which everything hinges in the system – teachers – ensuring that an adequate supply of well trained teachers enters the system and that the current workforce is effectively upskilled.

Recommendations five and six take a longer term view and set out what structural demands need to be met if the vision of an information rich, knowledge led, evidence driven enterprise is to be sustained. The district level is the key carrier of the vision between school and education department. Without a clear description of the tasks and performance expectations at this level it is almost impossible to carry the vision outwards and into schools. Clear job descriptions at district and ward level are a priority item that needs concentrated and urgent work. Further to this, the Treasury project provides key criteria that can be used to work out which districts are understaffed so that a clear picture emerges of what the human resource demands are.

Recommendation six consolidates the short course into a longer term research community of practice dedicated to improving the quality of education in KZN. This involves both a high level appointment devoted to research within the KZN DoE and the support of a Planning Specialization at UKZN growing into Honours, Masters and PhD levels. These will provide both research and human resources that can entrench a knowledge driven provincial setup.

Recommendations seven, eight, nine and ten deal with intractable problems that have a negative impact on quality in KZN education. The language of instruction, rural schools, curriculum structures/pedagogic practices, and crude models of resource allocation all have a direct impact on education performance but are wrapped up in complex, powerful and contradictory forces that are not easy to change. We could pretend to have answers to these issues and make strong recommendations but this would be in bad faith, as we are not convinced our recommendations will have any effect. Communities across the province will not stop pursuing English as the language of instruction because of a recommendation, nor will the drift to urban areas stop with the consolidation of rural schools. It is clear that more extensive research and interventions that go beyond the brief of the Treasury Report are needed at these levels. For example, longitudinal research into isiZulu as the language of teaching and learning that enables change within the province, using the DINALEDI model, could cost around R100 million. A similar amount will be necessary for research into the consolidation of rural schools as both involve serious investment in human and physical resources as a part of the research. Only with such studies will we have the basis to start making large scale changes to the way education is structured in KZN.

Finally it must be noted that the experiences, networks, connections and insights of the Treasury Project must be carried forward as a process and set of practices. The deliverables are a vital part of the project, but should form stepping stones to communities of practice that take forward the recommendations in new and evolving ways.

Appendix

Reducing the size of the Districts

The Department limits the size of districts to a maximum of 300 schools, in the process creating another seven districts. Special support is provided to districts where the educational needs are greatest.

12.1. Justification of policy recommendation

Much has been written about the fact that Education Districts in KwaZulu-Natal are very different in terms of numbers of schools that they serve and the challenges they face. For example, the largest district has three times more schools than the smallest one and the average distance from district to school in the most rural district is four times larger than in the most urban. Some of these differences are reflected in the performance of schools so it would seem obvious that larger, more rural districts should either be staffed according to the challenges they face or alternatively reduced in size.

The Draft National Policy on the Organisation, Roles and Responsibilities of Education Districts recommends a common approach to the demarcation, organisation, and delegation of powers and resources of education districts across all provincial education departments . A key aspect of the policy is to 'bring district sizes within an acceptable range for effective service delivery, ensure that all district offices have the necessary roles, delegated powers, functions, and ensure that special support is given to districts where the educational needs are greatest' .

The draft policy recommends that districts should consist of no more than 300 schools. This would require an additional eight districts to be created in the province and a much more systematic approach to their staffing and resources. This is not a decision that can be taken lightly since it would require major re-organisation within the province. It is not proposed here as a policy option per se but rather as a scenario for consideration. If it is rejected then a strong case must be made for retaining the existing district structure and addressing the concerns raised in the Draft National Policy on varying levels of efficiency within districts and their inequitable sizes.

12.2. Prior efforts

The Department has undergone various restructuring exercises over the years resulting in different configurations of regions, districts and circuits. They are laborious and invariably result in great disruption and a degree of confusion. It can take several years for the changes to settle in and for staff to be re-assigned. It is rarely clear whether the changes actually benefit the key clients of the education department, namely the learners and their schools.

The most recent changes involved doing away with the old region/district/circuit structure and replacing it with a new district/circuit/ward configuration. A total of twelve districts were created, each of which was aligned to District Municipality boundaries. Ethekwini was the exception, since it was split into two districts, Umlazi and Pinetown.

12.3. Challenges

The obvious challenge of creating smaller, more responsive districts is that there will need to be more of them. If eight more districts were created then premises would need to be found for these, together with staff, resources and administrative support. The costs and disruption associated with this cannot be under-estimated. It will however probably be more disruptive for management than for schools, since if anything they should receive greater levels of support.

12.4. Implementation strategy and options

Since this is not a policy option per se it is presented here as a point of discussion to show that, at least in geographic terms, it is possible to divide the province in such a way that each district only serves 300 schools.

The current arrangement of 12 districts is based on District Municipality boundaries. Ethekwini is, as indicated earlier, the exception being split into two. Whatever method is used to re-size districts, it is assumed that the premise of using existing local government demarcation (either District Municipalities, Local Municipalities or Wards) as the basis for any change is desirable.

Scenario 1: Grouping Local Municipalities to form smaller districts

The Education District Demarcation Scenario shown in the table and map overleaf investigates the potential for reducing the size of education districts using local municipality boundaries as opposed to district municipalities. Since there are 50 local municipalities in the province it is clear that each one cannot comprise a district of itself. The solution would be to try and combine local municipalities in such a way that they reach the target of 300 schools.

The scenario overleaf is an illustrative example based on grouping adjacent municipalities in an attempt to reach the reduced-size education district target of 300 schools or less. Local municipalities vary hugely in terms of numbers of schools they contain, ranging from 1 089 in eThekwini Metro to just 18 in Mtubatuba. Apart from eThekwini, which would need to be split into three, there is no single local municipality that could comprise an education district of itself. The largest outside the metro is Umgungundlovu, which has 228 schools, 72 short of the target. It could therefore be combined with another adjacent municipality such as Mkhambathini to comprise 300 schools. The smallest local municipality is Mtubathuba, which with only 18 schools would need to be grouped with several others in a cluster in order to reach the size target.

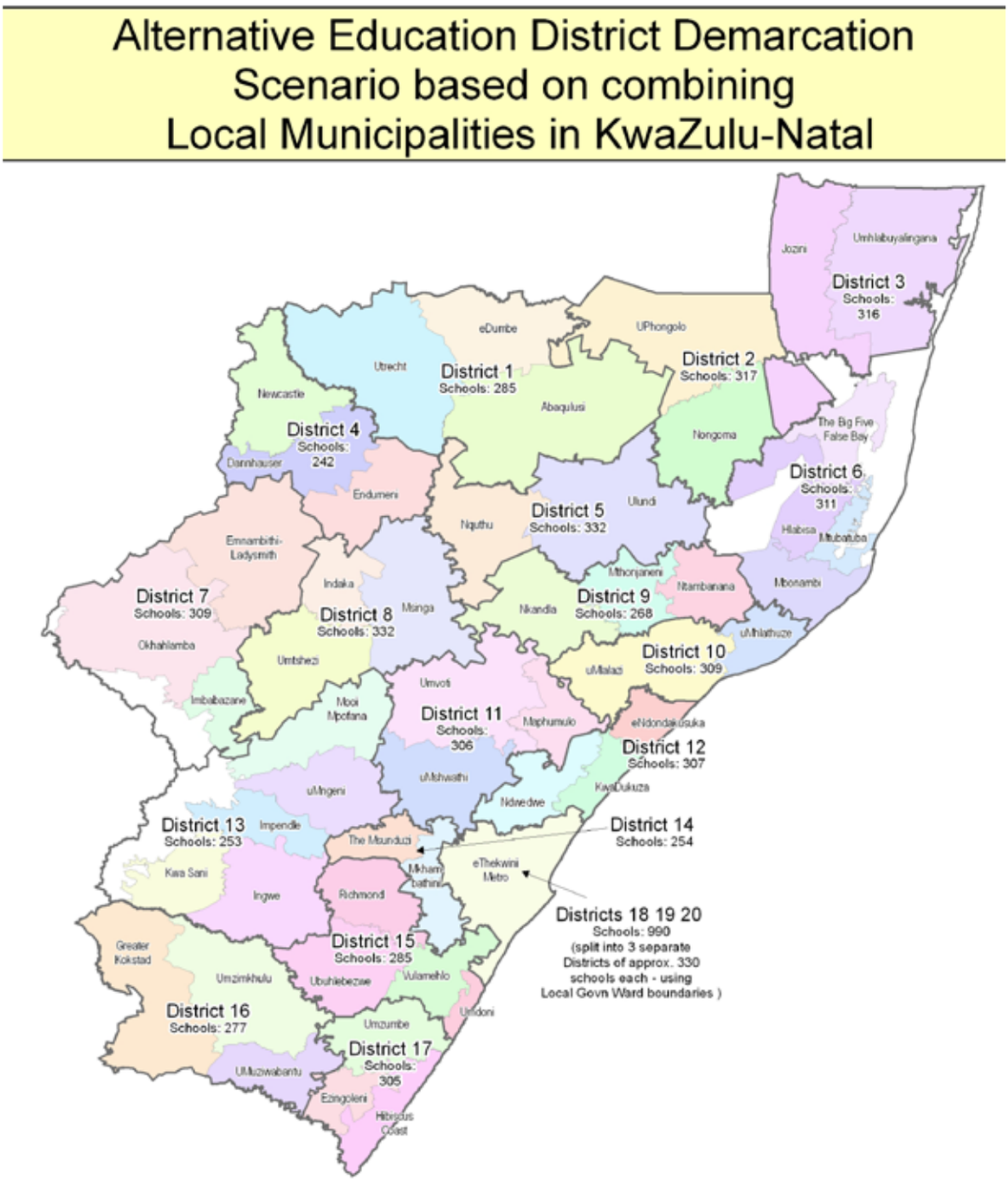
The advantage of combining local municipalities to form education districts is that they can be smaller (and possibly more manageable) as well as allowing for local councils to participate more actively in education delivery. Map 1 overleaf shows that the resulting education districts range from a minimum grouping of 2 local municipalities (as in District 14 – Mkhambathini & The Msunduzi) to a maximum of 5 (as in District 13 – Impendle, Ingwe, Kwa Sani, Mooi Mpofana, uMngeni). They vary considerably in geographical size, the largest being District 1, which covers an area of nearly 10 000 sq kms, compared to District 14 covering 1 500 sq kms. It is not possible to reach the target of 300 schools in every case. The map and table show that several fall above and below the recommended target size. The greatest deviation below 300 is District 4 which has 242 schools and the greatest deviation above is Districts 5 and 8 with 332 schools.

Local Municipality	District Municipality	Schools	Enrolment 2009
District 1			
Abaqulusi	Zululand	152	67 998
eDumbe	Zululand	87	28 835
Utrecht	Amajuba	46	8 174
	Total:	285	105 007
District 2			
Nongoma	Zululand	198	75 835
UPhongolo	Zululand	119	46 142
	Total:	317	121 977
District 3			
Jozini	Umkhanyakude	165	67 939
Umhlabuyalingana	Umkhanyakude	151	59 417
	Total:	316	127 356
District 4			
Dannhauser	Amajuba	70	31 352
Endumeni	Umzinyathi	40	17 613
Newcastle	Amajuba	132	90 674
	Total:	242	139 639
District 5			
Nquthu	Umzinyathi	154	60 547
Ulundi	Zululand	178	70 201
	Total:	332	130 748

Table 4: Schools per Local Municipality and District – Scenario 1

Local Municipality	District Municipality	Schools	Enrolment 2009
District 6			
Hlabisa	Umkhanyakude	172	74 853
Mbonambi	Uthungulu	89	38 965
Mtubatuba	Umkhanyakude	17	11 005
The Big Five False Bay	Umkhanyakude	24	11 919
DMA	Umkhanyakude	9	2 618
	Total:	311	139 360
District 7			
Emnambithi-Ladysmith	Uthukela	128	61 585
Imbabazane	Uthukela	70	36 827
Okhahlamba	Uthukela	111	37 916
	Total:	309	136 328
District 8			
Indaka	Uthukela	86	26 199
Msinga	Umzinyathi	195	70 920
Umtshezi	Uthukela	51	21 890
	Total:	332	119 009
District 9			
Mthonjaneni	Uthungulu	42	16 861
Nkandla	Uthungulu	171	53 634
Ntambanana	Uthungulu	55	25 828
	Total:	268	96 323
District 10			
uMhlathuze	Uthungulu	114	80 266
uMlalazi	Uthungulu	195	76 171
	Total:	309	156 437
District 11			
Maphumulo	iLembe	123	38 719
uMshwathi	Umgungundlovu	82	31 147
Umvoti	Umzinyathi	101	34 060
	Total:	306	103 926
District 12			
eNdondakusuka	iLembe	71	35 344
KwaDukuza	iLembe	65	39 430
Ndwedwe	iLembe	171	48 328
	Total:	307	123 102
District 13			
Impendle	Umgungundlovu	40	10 060
Ingwe	Sisonke	111	35 646
Kwa Sani	Sisonke	24	3 726
Mooi Mpofana	Umgungundlovu	35	6 136
uMngeni	Umgungundlovu	43	14 339
	Total:	253	69 907
District 14			
Mkhambathini	Umgungundlovu	54	15 816
The Msunduzi	Umgungundlovu	200	126 352
	Total:	254	142 168
District 15			
Richmond	Umgungundlovu	64	16 141
Ubuhlebezwe	Sisonke	92	37 451
Umdoni	Ugu	35	18 918
Vulamehlo	Ugu	94	29 051
	Total:	285	101 561
District 16			
Greater Kokstad	Sisonke	45	14 270
UMuziwabantu	Ugu	59	35 430
Umzimkhulu	Sisonke	173	66 612
	Total:	277	116 312
District 17			
Ezingoleni	Ugu	32	14 991
Hibiscus Coast	Ugu	102	61 564
Umzumbe	Ugu	171	55 466
	Total:	305	132 021
District 18			
eThekwini	eThekwini	330	206 865
District 19			
eThekwini	eThekwini	333	204 762
District 20			
eThekwini	eThekwini	327	208 968
Grand Total:		**5 998**	**2 681 775**

Map 1: Alternative education district demarcation scenario based on combining local municipalities in KwaZulu-Natal



Scenario 2: Grouping local government wards to form smaller districts

The Education District Demarcation Scenario shown overleaf investigates the potential for reducing the size of education districts by using local government wards as opposed to district municipalities. There were 771 wards defined in the province in the 2009 elections. By overlaying schools on these, it is possible to determine how many schools are located in each local government ward. The local government wards can then be used as the basis for creating new, smaller education districts. Since wards are small, numerous and can contain anything from 1 to 36 schools, it is possible to group them in such a way that the target of 300 schools is very closely matched.

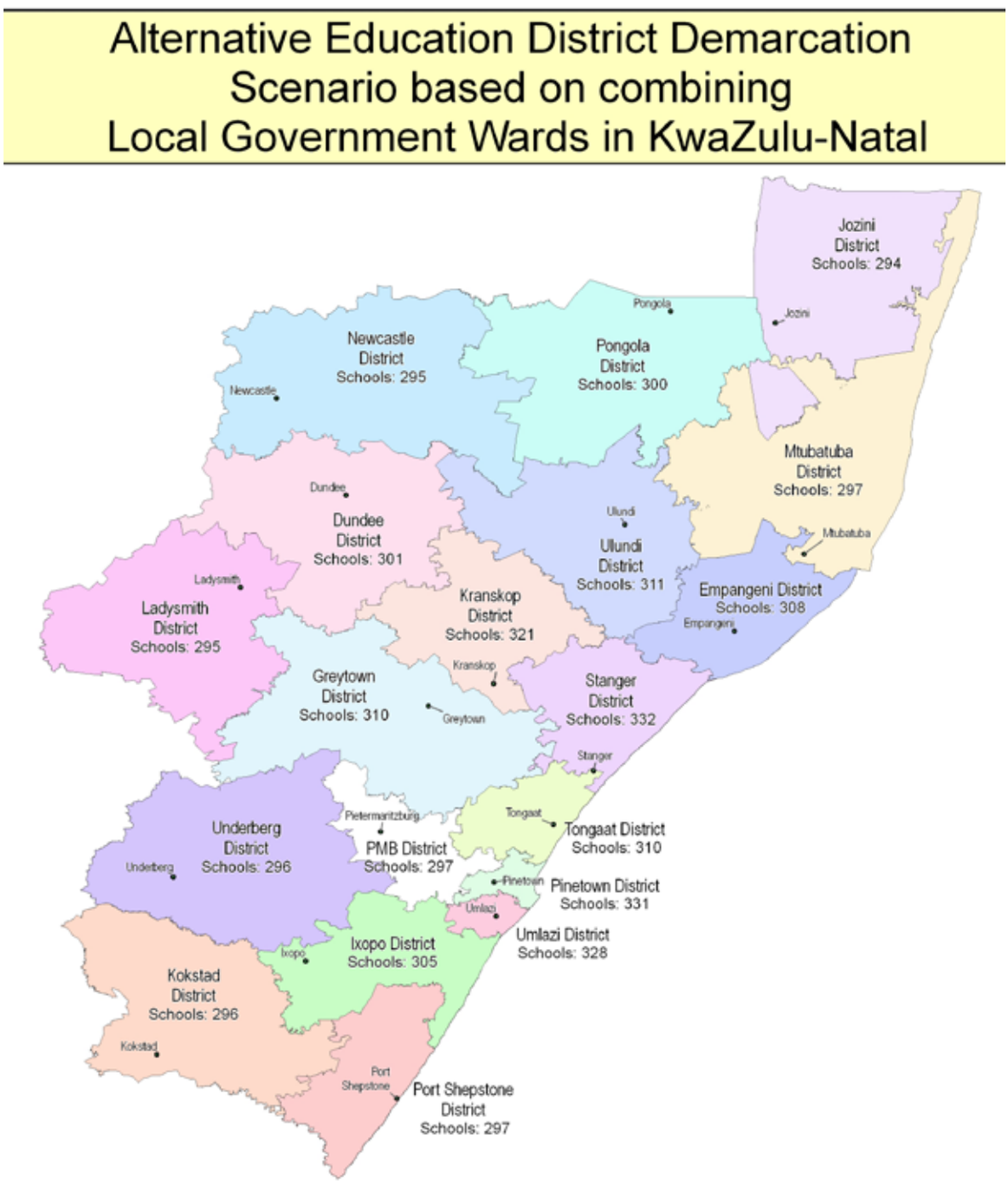
The scenario overleaf is once again an illustrative example based on grouping adjacent local government wards to reach the reduced-size education district target of 300 schools or less. The names given to each district represent the major town or centre within each district and are for illustrative purposes only. The table and map show that each district contains close to 300 schools, with only minor deviations. The smallest district (Jozini) contains 294 schools and the largest (Stanger) contains 332.

The advantage of combining local government wards to form education districts is that it is possible to achieve a very close match to the recommended target of 300 schools per district. In this way the province can be divided up into districts that are almost equal in terms of numbers of schools served. They will of course vary considerably in size, ranging from the largest, Mtubatuba which is 8 300 sq kms, to Umlazi which is only 484 sq kms. Even though they are matched in terms of numbers of schools, they will vary greatly in terms of the number of learners served. Umlazi has the largest number of learners with 215 800 and Kokstad has the least with 45 600. The challenges of small schools, rural education and service delivery in remote areas are likely to remain an issue to be resolved.

Table 5: Schools per district – Scenario 2 (local government wards)

District	Area (sq km)	Schools	Enrolment 2009
Dundee	6 627	301	123 776
Empangeni	3 430	308	171 812
Greytown	7 428	310	131 312
Ixopo	3 637	305	103 035
Jozini	6 678	294	138 460
Kokstad	6 224	296	45 645
Kranskop	4 297	321	115 745
Ladysmith	6 691	295	144 158
Mtubatuba	8 343	297	132 690
Newcastle	8 106	295	154 950
Pinetown	527	331	210 245
PMB	2 213	297	196 189
Pongola	7 436	300	116 236
Port Shepstone	2 909	297	204 793
Stanger	3 308	332	140 000
Tongaat	1 719	310	150 134
Ulundi	5 792	311	132 351
Umlazi	484	328	215 779
Underberg	7 427	296	54 527
Total	93 275	5 998	2 681 775

Map 2: Alternative education district demarcation scenario based on combining local government wards in KwaZulu-Natal



PROVINCIAL TREASURY
KWAZULU-NATAL

In February 2009, the Provincial Treasury KwaZulu-Natal awarded a contract to a group of researchers under the auspices of the School of Education and Development, University of KwaZulu Natal, to conduct a study on improving the quality of education in KwaZulu-Natal.

The outputs delivered included:

- A literature review on “What makes education work”
- A synthesis of statistical data and qualitative research on education in the province entitled “The state of education in KwaZulu-Natal”
- A map of schools in the province, detailing key variables related to teachers, learners, schools and districts; and
- A set of recommendations and costing based on the study, entitiled “Policy recommendations: Improving the quality of education in KwaZulu-Natal.”

This document is the policy options report entitled “Policy recommendations: Improving the quality of education in KwaZulu-Natal.”