

# ZENÉX

F O U N D A T I O N

Educating for impact  
in mathematics,  
science and language

A ten-year review



# Vision

The Zenex Foundation's vision is of skilled and empowered communities with competencies that will contribute towards growth, development and democratisation in South Africa.

# Mission

The Zenex Foundation will educate and empower historically deprived learners so that they can improve their competencies and take advantage of new opportunities through the provision of financial resources, and the proactive engagement with funded projects and their stakeholders.

**Educating for impact  
in mathematics,  
science and language**  
**A ten-year review**



Phindubuye Primary School, Eastern Cape (COUNT)

# Contents

## Foreword 6

**Message from Sizwe Nxasana,  
Chairman of the Board of Trustees**

**Review by Gail Campbell, Chief  
Executive Officer**

## Introduction 9

**Educating for impact in mathematics,  
science and language**

## History 11

**Innovation in education**

The story of the Zenex Foundation

## Projects 22

**Early childhood development**

Laying the foundations in the formative  
years

**Numeracy, mathematics and literacy in  
primary schools**

Back to basics for a strong foundation

**Mathematics, science and English in  
secondary schools**

Preparing learners for life

## Evaluation 32

**Learning from programme evaluation  
and research**

A review of insights gained from a meta-  
evaluation of mathematics, science and  
language projects between 1998 and 2006

## Strategy 48

**Looking ahead**

The Zenex Foundation's ten-year strategy  
2006-2015

## Grant-making 54

**Zenex Foundation grant-making  
guidelines**

Learning from ten years of practice

**Examining project sustainability**

Promoting the sustainability of project  
effects

**Code of good practice**

Guiding the Zenex Foundation's approach  
to development funding

# *Foreword*





# Foreword

## Message from Sizwe Nxasana

### Chairman of the Board of Trustees

The Zenex Foundation has made a significant investment in South African education and development. Since 1995, the organisation has funded projects to the value of R237 million. In many ways, however, its work has just begun.

South Africa participates in a number of cross-country comparative studies and a clear message has emerged: South Africa performs poorly in mathematics, science and language when compared with many of its more impoverished neighbours and in relation to developing countries in other parts of the world. Getting this right is a key driver for the Zenex Foundation, and it is a challenge that motivates me not only as chairman of the Board and as a business leader, but as a citizen of this country. What we have working in our favour are South Africa's school enrolment rates that approach 100 per cent, and the fact that the Department of Education has strongly encouraged partnerships with donors and civil society organisations in its efforts to innovate and find solutions to the skills deficits that beset our country.

I have been involved with the Zenex Foundation since its inception and regard the sale of Zenex Oil as one of the first

empowerment ventures in the country. As this book outlines, the disinvestment of foreign firms from South Africa in the 1980s was a critical factor in the anti-apartheid struggle; in the process, Zenex Oil went even further and provided the means by which a new entity – the Zenex Foundation – could make an ongoing contribution to rebuilding South African education. The establishment of the endowment fund was a highlight for me because it enabled us to grow the Zenex Foundation as an independent education and development entity in the South African education landscape.

Over the years, our funding supported a very wide range of activities that required assistance in view of the massive deficits left in the wake of apartheid. Today we are able to focus our work more closely on mathematics, science and language education, and our research and innovation is starting to make an impact in this field.

Since a mathematically and scientifically literate society is vital to creating wealth and improving the quality of life in South Africa, our strategy for the next ten years could not have come at a better time. The Zenex Foundation's focus on mathematics, science

and English language is firmly aligned with the long-term objectives of the Accelerated and Shared Growth Initiative of South Africa (ASGISA), spearheaded by Deputy President Phumzile Mlambo-Ngcuka and launched in February 2006.

As we celebrate this ten-year milestone, I must thank my fellow trustees, both past and present. They have made their strategic insight and professional expertise available to the organisation, its service providers and the disadvantaged learners that they reach. For us the reward has been to know that the Zenex Foundation has made an impact on the lives of South African children – some in the most rural schools in the country.

I also thank Gail Campbell, CEO of the Zenex Foundation, her staff, and their predecessors, for having made the Foundation what it is today. The Foundation's ten-year strategy going forward represents a continued commitment to the country and, together, we will do all we can to accelerate the level of investment with the commensurate impact necessary to achieve empowerment through education.



## Review by Gail Campbell

### Chief Executive Officer

With the publication of *Educating for Impact in Mathematics, Science and Language*, the Zenex Foundation celebrates ten years of contributing to education in South Africa. The organisation also looks ahead with its ten-year strategy for 2006 to 2015.

Ten years in the life of an organisation is a milestone. It requires reflection and introspection. The Zenex Foundation used its birthday year to take stock of internal systems and made the decision to stay small and focused on its core specialist services – grant-making programme management. Over the years the Zenex Foundation has built up a core of excellent service providers that assist it in undertaking and delivering projects in mathematics, science and language education.

A celebration also provides the opportunity to plan for the future with renewed energy by drawing on lessons and successes from the past. The Zenex Foundation initiated a meta-evaluation of 23 of its mathematics, science and language projects in South African schools between 1998 and 2006. This forms part of its commitment to project evaluation

and research as a way of strengthening its impact.

The aim of each project has been to improve the quality of teaching and learning, and to achieve positive change in schools. The projects have achieved varying levels of success, but more importantly, the evaluations have provided invaluable information on critical success factors and the dynamics of school development. The lessons documented by the meta-evaluation have informed the development of the Zenex Foundation's strategy for the next ten years.

A critical element in the strategy is the development of partnerships and the Zenex Foundation is actively building partnerships with the Department of Education and key service providers involved in education delivery. The organisation has learned through experience that grant-making can only have a real impact if new projects are aligned with the Department of Education's strategic agenda, and if service providers are supported to deliver projects.

In celebrating its birthday year, the Zenex Foundation rewarded itself with a brand new outfit. The organisation has gone through

a re-branding exercise and identified its core values as being: professional, caring and innovative. It also re-committed itself to its code of practice and developed a new positioning statement: Educating for impact in mathematics, science and language.

No celebration is complete without thanking the people behind the success. I would like to thank our trustees who give up their time and truly add value with their specialist skills and knowledge. Our staff inspire me with their passion and commitment, and I cannot thank them enough.

I also want to thank our service providers who travel long distances and work under difficult circumstances to make a difference in our schools. Our evaluators and researchers have assisted us in building the organisation over the years and have influenced our strategy going forward. Our partnerships with the education departments have improved the impact of our projects and, going forward, we look forward to forging even stronger partnerships in the delivery of our strategy.

# Introduction



# Introduction

## Educating for impact in mathematics, science and language

The Zenex Foundation's story is one of an organisation that was born during the disinvestment campaign of the anti-apartheid struggle. It has since developed into an independent, South African, non-profit donor agency with a clear focus on mathematics, science and language education.

Today the Zenex Foundation is recognised as a grant-making organisation that values innovation and prizes highly its partnerships with government, donors and service providers in its efforts to respond to the local education and development context.

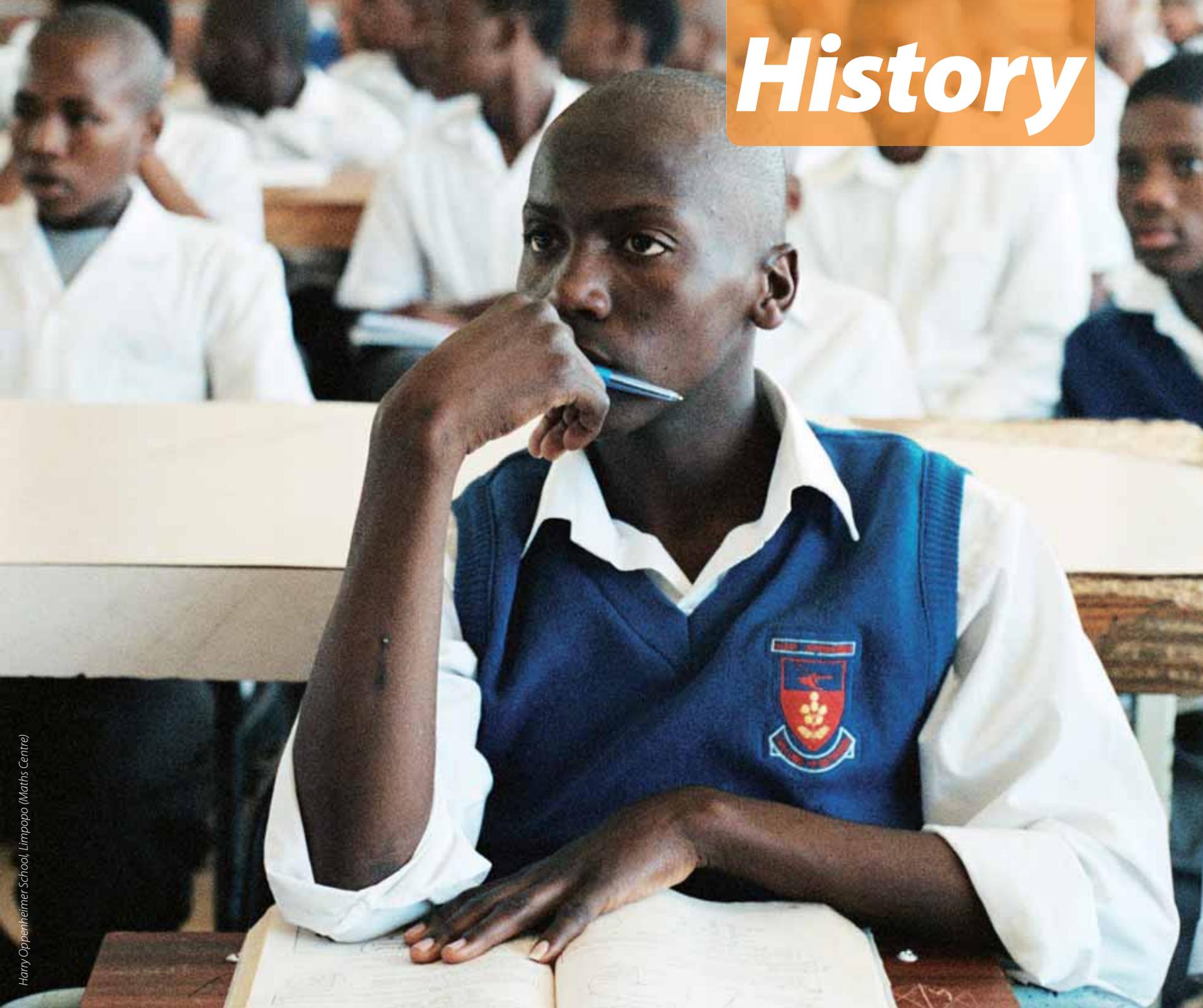
The Zenex Foundation's vision is one of empowered communities contributing to the

growth and development of a democratic South Africa. Its mission is to provide financial resources and engage proactively with funded projects and their partners and stakeholders in order to empower historically disadvantaged teachers and learners through education and training.

Looking ahead, the next ten years will see the Zenex Foundation focusing its energy and resources on developing long-term systems to support education in mathematics, science and English. This is to be achieved through a number of enterprising objectives which the Foundation will pursue in partnership with a range of stakeholders involved in education delivery in order to enhance the value and impact of its contribution.

This booklet contains an account of the Zenex Foundation's development since inception in the 1980s and its formal establishment in 1994. It also documents lessons learnt by the Zenex Foundation since 1998 about project interventions in the field of mathematics, science and language. It describes the Zenex Foundation's projects and outlines its ten-year strategy for 2006 to 2015.

# History



# History

## Innovation in education

### The story of the Zenex Foundation

The story of the origins of the Zenex Foundation begins with its early germination in 1986, through to its birth in 1994 and subsequent growth, expansion and consolidation in 2005. The account below traces the organisation's development through a number of phases. It shows how the Zenex Foundation has grown in maturity through its consistent alignment with South Africa's education and development priorities, and through its responsive, proactive and rigorous approach to grant-making. Over the years the Zenex Foundation has provided much-needed support to a wide range of projects across all nine provinces and has nurtured teachers and learners in ways that enable them to succeed.

### Origins of the Zenex Foundation

Like other large foreign firms in South Africa, Esso Oil, a US-based company, faced the question of how to disinvest from South Africa while still being able to contribute to South Africa's transformation and development.

In dealing with this question, the company adopted an innovative approach to ensure that its assets remained viable business entities and at the same time used the proceeds from these assets to support socio-economic development in South Africa.

The transfer of Esso Oil's assets was structured as a commercial sale to a Jersey-based trust, which allowed this trust to assume ownership of Esso Oil's filling stations and its Durban-based chemicals plant (that later became known as Zenex Oil). Esso advanced a loan to the trust, which provided it with the capital to make the purchase. The expectation was that the profits from the filling stations would be used to repay the loan (both the capital and the interest) over a ten-year period. The sale was also subject to another very important condition: five per cent of the profits had to go to charitable projects that supported skills development and education. In January 1994 the trust paid the loan back two years ahead of schedule.

Esso Oil's disinvestment from South Africa thus created the circumstances that gave birth to the Zenex Foundation.

## In SA at the time...

### Struggle against apartheid

The anti-apartheid struggle was fought on many fronts, including the deployment of economic sanctions against the apartheid government. Sanctions against South Africa escalated during the 1980s, following the launch of the Nationalist Government's 'Total Onslaught' campaign which sought to crush all opposition to apartheid. A number of lobby groups and anti-apartheid organisations put pressure on multi-national companies and governments to disinvest from South Africa and apply trade boycotts.



The early 1990s was a period of massive change in South Africa. With the unbanning of liberation movements came the realisation that the political and economic climate of the country would change dramatically. Although this was a period of great optimism, it was tempered with uncertainty about how the politics of transition would play out.

1986

1994

1995 - 1997

1998 - 2002

2003 - 2005

## Birth of the Zenex Foundation

The birth of the Zenex Foundation as we know it today occurred at the same time as the birth of South Africa's new democracy. The government and organisations supporting transformation became involved in a process committed to realising a new social order and a better life for all South Africans. Towards this end, the Zenex Foundation set about establishing its own legal and corporate identity, aligning itself with the key priorities set for the country by its new, democratic government.

The Zenex Foundation started as a small organisation with staff comprising only the CEO, Kobus Visagie, his personal assistant and one project manager.

During its first year the Zenex Foundation inherited Zenex Oil's corporate social investment programme. This meant that the Foundation remained committed to funding 15 corporate social investment projects, to the value of R 1.4 million. This commitment enabled existing grant agreements and worthwhile projects to run to term; it also allowed the Zenex Foundation to retain good relations with the organisations that had previously been beneficiaries of Zenex Oil.

During this phase the Zenex Foundation focused on establishing itself as an independent donor organisation.



## In SA at the time...

### Birth of the new South Africa

Working closely with civil society organisations, the new democratic government set about eradicating the legacy of apartheid.

Education was marked by huge backlogs and the inequitable distribution of resources, materials and skills, both managerial and educational, in the majority of South Africa's schools. This situation required donors, like the Zenex Foundation, to commit their resources to supporting the new government's efforts to transform and rebuild education.



Umlazi Junior Primary School, KwaZulu-Natal (READ Educational Trust)



READ Training Centre, Gauteng (READ Educational Trust)

## Growth of the Zenex Foundation

Between 1995 and 1997 the Zenex Foundation grew to establish its own identity, which was independent of Zenex Oil. It formulated its own strategies, operating principles and managerial systems, enabling the Foundation to support a growing number of projects on a national scale.

By mid-1995, the Zenex Foundation had established itself as an independent grant-making organisation. In 1997, the Zenex Oil Trustees decided to sell the company to a black economic empowerment consortium, Worldwide Investment Holdings. An endowment fund was created and this provided the Zenex Foundation with a financially sustainable base.

The Zenex Foundation's support for educational programmes was wide-ranging and covered:

- educational infrastructure (school buildings, community facilities and tertiary institutions)
- human resources (adult basic education, career guidance, skills training, capacity building, management training and teacher in-service education and training)
- educational resources (books, literature, study materials, equipment and furniture, teaching aids and demonstration materials)
- tertiary institutions (academic support, staff development and outreach programmes).

The first projects supported by the Zenex Foundation by mid-1995 included:

- a mobile crèche and child-minder resource centre serving the greater part of Soweto
- an agricultural training programme serving the farming community
- study assistance in Hotel Management and Catering serving pupils from deprived communities.

In this phase, the Zenex Foundation gave preference to year-long projects which were provided with once-off funding. These projects had to be focused on the achievement of economic and social benefits in terms of 'specific and quantifiable' outcomes, along with project performance criteria and evaluation plans. Thus, the Zenex Foundation prioritised monitoring and evaluation, even in the early stages of establishing itself as a functional grant-making organisation.



## In SA at the time...

### Reconstruction begins

The democratic state focused on the immediate issues of desegregation along with the restructuring of the 16 previous apartheid-era departments of education into a single national system. The new government also prioritised addressing backlogs in the provision of basic infrastructure and resources.

By the end of 1995, the factors restricting the development of education programmes capable of providing appropriately prepared and trained people were seen as:

- the lack of a widespread culture of teaching and learning throughout the system
- high levels of teacher dissatisfaction leading to endemic labour unrest
- ineffective school management leading to a lack of control by school managers and consequently, an inability to provide quality governance and professional leadership
- the undermining effects of the poor training teachers had received in the past
- a lack, in both quantity and quality, of appropriate educational materials supplied to schools.

## Organisational growth continues

In 1996 the Zenex Foundation started investing in programmes that were aligned with the Department of Education's whole school development approach. This approach encouraged a holistic involvement with the schools that the Zenex Foundation supported. It enabled the Zenex Foundation to focus its support on both managerial and teacher development.

In retrospect, this could be seen as the start of the Zenex Foundation's efforts to focus its work more strategically. In the interim, however, it continued its broad-based support strategy across a range of education sectors – from mathematics and science, early childhood development, pre-school facilities and training, National Qualification Framework-aligned adult basic education and training projects (embedded in local economies and committed to job creation) and adult skills training for employment, to the provision of educational learning resources for schools.

The broad-based focus of the Zenex Foundation was prompted by the many areas of the education system that required development and support. In order to free up resources to provide grants for this wide range of areas, the Zenex Foundation reduced its emphasis on physical infrastructure, since by this time it was being dealt with on a more equitable basis by the state.

During this phase, the Zenex Foundation also committed itself to supporting more projects in more provinces, especially projects in disadvantaged rural communities, as well as nationally based projects. In particular, the Zenex Foundation sought out cluster-based interventions that involved various projects complementing each other in the vicinity of particular communities.

By the end of 1997, the scale of the Zenex Foundation's activity had more than doubled – from 20 to 44 projects – and the Zenex Foundation was supporting at least one project in each of the nine provinces.

Zenex Foundation	1995	1997
Number of projects	20	44
Financial support	R3.12 million	R9.9 million
Where	Mainly Gauteng and KwaZulu-Natal	At least one project in each of the nine provinces

The end of 1997 thus saw the Zenex Foundation having established itself as a significant player in the South African education landscape.

Dimza Pityana was appointed CEO of Zenex Foundation in 1997 and she served in this capacity till 2002.

## In SA at the time...

### Changing education policy framework

Whole school development was an approach identified by the Department of Education in 1996 as a way of improving school management and restoring a culture of teaching and learning. It was intended to ensure that schools exhibit basic levels of functionality.

The South African Schools Act (No. 84 of 1996) was signed into law and set the national goals and priorities within which organisations and donors, like the Zenex Foundation, would operate in the future.

Curriculum 2005 Lifelong Learning for the 21st Century was introduced in March 1997.

The progressive allocation of funds to education by the state since 1994 helped improve school infrastructure, but the educational environment was still characterised by huge backlogs and the inequitable distribution of resources, materials and skills, both educational and managerial. This situation was a feature of most South African schools, but was especially marked in schools in rural areas.

## Zenex Foundation expands

*Expansion and alignment with national priorities*

During this five-year period, the Zenex Foundation operated in an educational policy environment that was increasing in stability. It therefore expanded the number of projects that it was committed to. It also strengthened its alignment with government priorities and policies and adopted a more rigorous approach to project evaluation and the design of grant-making (which included substantially increasing expenditure in relation to projects' scale and provincial reach).

The number of projects the Foundation supported continued to expand very rapidly during this phase, and the strategic choices informing project selection are presented below.

The Zenex Foundation continued to fund mathematics and science education, with a growing commitment to funding English language programmes. This stemmed from the emergence of English as the preferred language of instruction among parents and learners – a factor that would be key to the teaching and learning of all of the other learning areas. The Zenex Foundation's other funding foci included support for materials development and education resource centres that served a number of schools.

The Zenex Foundation also took a vigilant stance in funding skills training programmes by insisting that these be tied to employability. It was a requirement that projects receiving funding had to provide follow-up placement records.

The Zenex Foundation decided to prioritise support for developing IT-based school management systems as a solution to effective and efficient school management.

The Zenex Foundation's support for infrastructure projects continued to diminish and it started reducing its emphasis on whole school development. It chose instead to focus on human resource development in schools. This prompted the Foundation to direct grants to projects that aimed to improve the performance of teachers with a view to making an impact on outcomes at a classroom level.

During its expansion phase, the Zenex Foundation remained responsive to the priorities and policies of the state, especially in relation to the review of Curriculum 2005, the establishment of the Provincial Educational Trusts, and the HIV and AIDS pandemic.

- The Department of Education's review of Curriculum 2005 in 2002 meant that the Zenex Foundation became cautious about accepting proposals from service providers before ensuring that the service providers were aware of the developing changes and were ready to align their programmes accordingly.
- The Zenex Foundation actively participated in the newly established Provincial Education Trusts. These trusts provided the Zenex Foundation with the opportunity to partner with the Department of Education to implement its infrastructure programme. The trusts also, importantly, continued to provide opportunities to work in tandem with

## In SA at the time...

### Focus on policy implementation

The educational context was characterised by the growing coherence of the national education policy framework represented by documents like the South African Schools Act, the National Qualifications Framework and Curriculum 2005.

Mathematics and science education continued to cause serious concern as teachers had poor content knowledge and inadequate pedagogical skills. English had emerged as the overwhelming choice as medium of instruction in schools after Grade 3 and at tertiary level. This was despite the fact that learners were struggling to learn through the medium of English, particularly when their teachers also had an inadequate command of the language. Difficulties with the use of English would inevitably impact on learners' conceptual ability to deal with mathematics and science.

The Department of Education undertook a major drive to develop management capacity at school and district level. It set up training programmes for whole school development.

other funding agencies and ensure that the Zenex Foundation's support was complementary. Over the years, the Zenex Foundation has withdrawn from the various trusts as its strategy has become less focused on infrastructure.

- Owing to the growing impact of the HIV and AIDS pandemic in schools, the Zenex Foundation commissioned a report on the issue and also became active in a number of forums. From this informed position the Zenex Foundation decided to make it a condition of grant approvals that HIV and AIDS awareness and education be integrated into project proposals.

During this period, the Zenex Foundation adopted a rigorous approach to project evaluation and grant-making, which included larger grants for longer-term projects on a larger scale.

Project evaluation was used to develop a 'learning culture' within its operations, supplementing its internal experience with external evaluations of its most extensive or significant projects. The number of external evaluations increased and yielded important information that the Zenex Foundation used to inform the design and evaluation of the projects it was supporting. In addition, the Zenex Foundation started placing more emphasis on quantifiable indicators concerned with the impact of the projects. It was not surprising, therefore, when the Zenex Foundation decided to withdraw funding for an agricultural training project and a technical career development project, because they did not meet the Foundation's criteria for effective operation and measurable impact.

Curriculum 2005 (introduced in 1997) underwent a review in 2001, resulting in the Revised National Curriculum Statement that was published in June 2002.

Provincial Educational Trusts were established to co-ordinate the contribution of donor agencies seeking to work in the field of schooling.

HIV and AIDS was increasingly being recognised as having a huge impact on teachers and learners.

Education was still marked by large backlogs and inequitable distribution of resources, materials and skills, both managerial and educational, in the majority of South African schools.



READ Training Centre, Gauteng (READ Educational Trust)

### *Focused approach to expansion*

In terms of its grant-making strategy, the Zenex Foundation decided to focus on impact and provide much longer-term support to fewer but larger projects. The scale of the Zenex Foundation's activities had grown significantly from 44 projects in 1997 to 124 in 1999 (the projects were spread across all provinces, with its priority provinces being Gauteng, KwaZulu-Natal, Limpopo and the Eastern Cape). Of the 124 projects, 15 were complete and many of these were school building projects. This meant that by the end of 2000 the Zenex Foundation had more resources to support larger projects of R250 000 and more. This led to a new, proactive approach to its grant-making. Along with the traditional route of considering unsolicited and solicited proposals, the Zenex Foundation began to use its criteria to encourage organisations to submit proposals.

The proactive approach proved to carry a higher risk, since some projects did not have the capacity to manage large grants over a longer period of time. The Zenex Foundation overcame this problem by providing capacity-building support to those projects that needed it, until the projects' organisations had reached the level where they could make effective use of the larger grants.

By 2001 the Zenex Foundation was supporting some projects with grants as large as R2 million or more. Many of these projects also operated in more than one province simultaneously. The projects that showed the spreading scope and scale of the Foundation's activities were:

- the mathematics development programme combined with materials development in KwaZulu-Natal, Limpopo and Eastern Cape: R9.5 million (2001 to 2003)
- the science programme combined with the delivery of micro-science kits in the Eastern Cape: R7.7 million (1999 to 2001)
- the whole school development and classroom-based teacher programme in KwaZulu-Natal and Eastern Cape: R2.8 million (2000 to 2003)
- the mathematics and science programme in Gauteng: R2.7 million (2001 to 2003)
- the technology education programme in KwaZulu-Natal: R2.4 million (1999 to 2001).

By the end of 1999, the Zenex Foundation had supported 124 projects across all provinces. By 2001 it was supporting 24 projects of which 14 were large projects operating on the basis of cross-province collaboration.

This gave the Foundation a deeper understanding of the 'make and break' factors which define project efficacy. The accumulated knowledge came from approximately 40 external evaluations.

By the end of 2002 the Foundation had successfully passed through the expansion phase of organisational growth.

## In SA at the time...

### **Policy implementation continues**

Government extended its commitment to larger-scale educational projects that involved collaboration across provinces. This was based on the premise that ad hoc school improvements were failing to have significant impact.

A critical factor informing sustainability was the need to develop the capacity of the education bureaucracy to manage, guide, mentor and monitor schools.

Government and organisations recognised that it was the weak alliances and networks that lacked co-ordination and reduced the impact of programmes.



Archie Velle Senior Secondary School, Eastern Cape (RUMEP)

## Consolidation of the Zenex Foundation

### *Professionalising grant-making practices*

The Zenex Foundation's move into the consolidation phase showed that, while its growth had been substantial and its financial contribution to education and development sizable, it was not yet able to meet a key objective set by its trustees: to have 25 significant projects running in tandem. Instead of expanding further, the Zenex Foundation decided to consolidate its efforts by preparing for longer-term growth and systematic development. This decision was especially justified since it had already established itself as a legitimate grant-making organisation that was proactive and responsive to the local educational and development context.

Gail Campbell was appointed as CEO of the Zenex Foundation in 2003 and, charged with taking the organisation forward, she undertook a thorough review of the Zenex Foundation and its operations.

The internal review of the Zenex Foundation highlighted its key achievements to date as:

- implementation of new organisational and operational structures aligned to Zenex Foundation strategy
- consolidation of the policy framework for the funding of projects
- development of grant-making tools intended to ensure the capacity of the Zenex Foundation to effectively identify, appraise, select, manage and evaluate evermore significant programmes
- development of a project-tracking and record-keeping system
- improved communication with NGO partners
- development of a research-based strategy for the funding of mathematics and science projects
- establishment of impact indicators for all projects
- projects approved in 2003 all being evaluated both through internal monitoring and external evaluations.

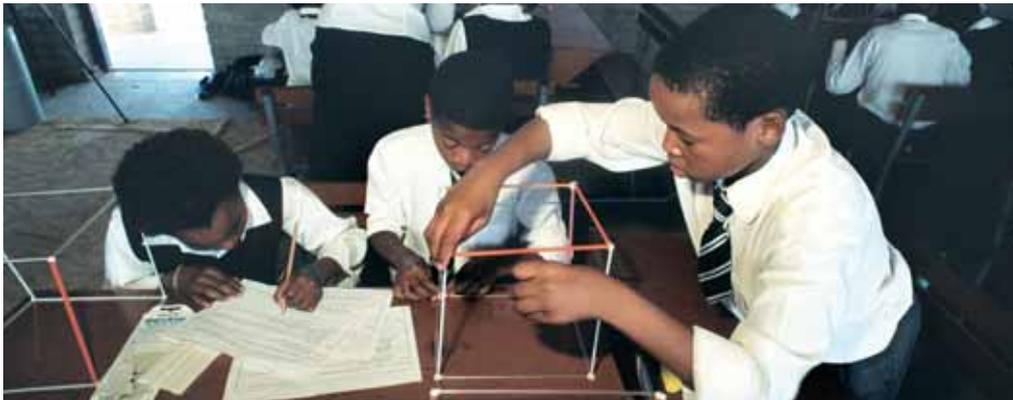
## In SA at the time...

### Development continues

The transformation of the national policy architecture in education was complete and there was national consensus that education and skills development was key to the ongoing development of the country.

- Government had allocated more of the national budget to education than any other item. However, 87 per cent of this budget was spent on teacher salaries, and only 13 per cent was left to spend on infrastructure, learning and teaching resources, and teacher training.
- The corporate and private sector made the highest annual contribution to the non-profit sector of any comparable country – an estimated R2.2 billion. In 2002, 36 per cent of this funding (R792 million) was devoted to education; this amount excluded the contribution of independent trusts like the Zenex Foundation.

Phindubuye Primary School, Eastern Cape (COUNT)



### *Refining the focus on mathematics, science and language*

The environmental factors of the years 2003 to 2004 persuaded donor agencies to provide continued support to the education system – both private sector donors and independent agencies like the Zenex Foundation. The CEO's internal review listed some of the national policy imperatives with which the work of the Zenex Foundation was very clearly aligned:

- focus on learners previously disadvantaged by state policy and in marginalised communities
- focus on retraining existing mathematics and science teachers and encouraging the professional development of teachers in accordance with the National Framework on teacher education
- need to provide incentives to retain mathematics and science teachers in the system
- need to provide the necessary resources for the teaching of mathematics and science
- need for the improved teaching and learning of English as a second language used as the language of learning and teaching while still promoting multilingualism.

During this period, the Zenex Foundation supported 32 projects (some of which will run to 2008), as well as the cost of 16 external evaluations, which amounted to a total of R80 million.

## In SA at the time...

### Development continues

Increased expenditure had resulted in some key achievements such as:

- greatly expanded access enjoyed by learners of all ages
- an increasing level of systematic and formal management of the system
- the adoption of 'cutting edge' educational policies and curricula for learning
- high access and enrolment figures – between 1998 and 2002 figures showed that access to education was high, with 20 million learners enrolled in schools in 2002.

South Africa's democracy had firmly taken root and the national environment was stable. The country was even more ready to grow and develop – assuming it could overcome its remaining major educational challenges such as:

- There were still large backlogs in resource provision and qualitative improvement.
  - Four provinces (Mpumalanga, Eastern Cape, KwaZulu-Natal and Limpopo) had the lowest expenditure per learner and had the greatest backlogs, lowest matriculation pass rates and the highest number of unqualified or under-qualified teachers.
  - It was more difficult than expected to operationalise and implement the new policies effectively.
- The shift to outcomes-based education, in the form of the Revised National Curriculum Statement, presented enormous challenges to the system. Many teachers had inadequate content knowledge and government lacks the resources to retrain and develop teachers rapidly. Government also lacked the resources to provide adequate teaching and learning resources to the level required for the effective implementation of the revised curriculum.
  - International assessments of learners' performance in mathematics, science and English showed that South African learners fared poorly against other countries, often obtaining the lowest scores. This finding does not bode well for economic growth.
  - Some of the challenges in mathematics, science and language classrooms included poor curriculum coverage, the slow pace of task completion, lack of conceptual progression in lessons, the fact that learners did very little written work, inadequate opportunity for learners to read and comprehend, and a lack of meaningful feedback given to learner responses.

### Zenex Foundation ten-year investment

An overview of the Zenex Foundation's grant expenditure since 1995 shows that it increased steadily on an annual basis.

The total amount of R237 million provided to funding grants since 1995 represents a significant investment in South African education and development. The Zenex Foundation's ten-year strategy going forward assumes a continued commitment to the country with an accelerating level of investment over the next ten years. The strategy (see page 49) gives a clear sense of how this investment will be allocated to programmes and projects that are aligned with its strategic goals and national educational priorities.

Zenex Foundation grant expenditure	
Year	R (Million)
1995/1996	14
1997	10
1998	23
1999	10
2000	15
2001	20
2002	20
2003	30
2004	30
2005	35
2006	30
Total	237

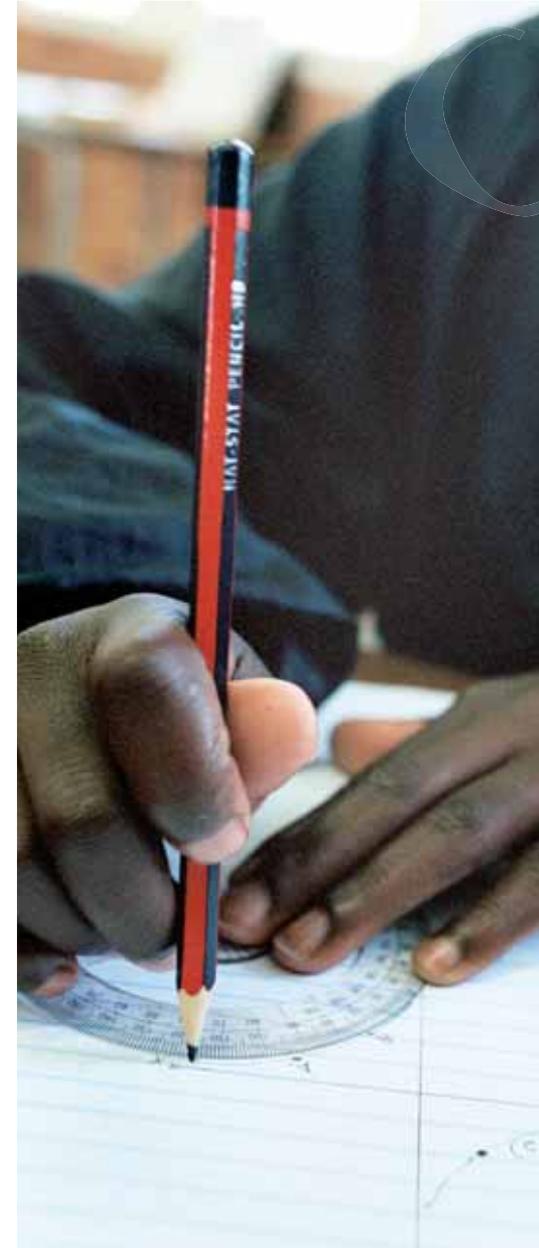
### Board of Trustees

#### Current Trustees

**Sizwe Nxasana (Chair)**  
**Michael Richardson – UK**  
**Thandi Orleyn**  
**Dr Jane Hofmeyr**  
**Sir Michael Oliver – UK**

#### Past Trustees (Zenex Oil and Zenex Foundation)

**Albert Celerin**  
**David Knaggs**  
**Rob Paterson – Canada**  
**Paul Richards**  
**Johan Strauss**  
**Giovanni Theodoli – Italy**  
**John Truscott**  
**Kobus Visagie**



Archie Veille Senior Secondary School, Eastern Cape (RUMEP)

# Projects



# Projects

## Early childhood development

### Laying the foundations in the formative years

As the first decade of democracy placed high expectations on the education system, the Zenex Foundation became involved at various levels to assist government to meet these needs. One of the areas needing attention was the neglected sector of early childhood development (ECD). The Zenex Foundation's commitment to early childhood development stems from the knowledge that learning achieved in children's formative years plays a major role in their long-term development.

### Phase 1: Community-based early childhood development projects

In its first phase of investment in early childhood development, the Zenex Foundation contributed strongly to the training of community-based ECD practitioners. The first early childhood development projects were started with NGOs like **Ntataise** and **Tshepang** in the Free State, **Katlehong Early Learning Resource Unit** in Gauteng, the **Centre for Cognitive Development** in Limpopo, and **EDUCARE Trust** in the Western Cape. All these organisations used a model of

workshop training and on-site follow-up for early childhood development practitioners. The Zenex Foundation also followed a new approach with an early childhood development organisation called **KONTAK** in Gauteng, setting up a fully equipped mobile pre-school training unit that could move to various pre-school sites.



Rise and Shine Pre-School, Gauteng (Wozobona)



Young Teddies Pre-School, Gauteng (Wozobona)

### *Reading materials*

While implementing early childhood development training, the Zenex Foundation partnered with the **Centre for the Book** to develop relevant reading materials for very young children. This initiative encouraged South African writers, illustrators and publishers to produce appropriate literature for children. Sets of picture and storybooks were developed in all 11 South African languages in an effort to build a common culture of reading for future generations. The Centre for the Book also trained all the Zenex Foundation's early childhood development project partners so that parents and other caregivers could learn how to use these books with young children.

### *Evaluation and review*

In 2002, six years after starting its work in early childhood development, the Zenex Foundation commissioned Jinni Mullins, an expert in the field, to undertake a review of the Zenex Foundation's initiatives in early childhood development. At the same time she reviewed government initiatives, non-profit early childhood development support programmes and donor involvement in early childhood development, and proposed a way forward for the Zenex Foundation's further involvement. The recommendations were incorporated into the Zenex Foundation strategy on early childhood development. They advocated a holistic approach to providing early childhood development, including accredited training for practitioners, infrastructure support for the early childhood development centres started by community-

based practitioners, educational resources for the centres, and capacity building for training service providers. Subsequently, the Zenex Foundation's early childhood development programme was incorporated in organisations like **TREE** in KwaZulu-Natal, **Ntataise** in Mpumalanga, **Woz'obona** in North West, **Lesedi** in Free State and **Thusanang** in Limpopo. All of these projects focused on marginalised communities in rural areas. The projects were shaped by a community development model, whereby parent committees were formed and trained to ensure the sustainability of the community-based centres. The Zenex Foundation enhanced its funding model for later pre-school projects by adding materials for practitioners and children, and with infrastructure support for **Thusanang** and **TREE**. Nevertheless the Zenex Foundation early childhood development programme remained a stand-alone community-based initiative that was not yet incorporated into its school programme.

## **Phase 2: From community-based ECD to school-based ECD**

Since Mullin's review, the Zenex Foundation has been grappling with the question of how to integrate the early childhood development programme into its school programme. This question was partly resolved by the state's acknowledgement of the importance of early childhood development and its inclusion in the Foundation Phase of the Revised National Curriculum Statement. The reception year, or

Grade R as it is commonly called, is the level at which the Zenex Foundation is currently directing its commitment to early childhood development.

There are convincing reasons for the Foundation's shift in its early childhood development strategic focus from community-based early childhood development to Grade R:

- Only some 10 per cent of South African children are currently able to access community-based early childhood development. Working on the principle of investing resources for maximum impact, the argument is that resources will effect more change by focusing on areas of the system from which 90 per cent of children may benefit.



Rise and Shine Pre-School, Gauteng (Wozobona)

- The government is in the process of making Grade R compulsory. All South African children will now enter school in Grade R and teachers will be faced with teaching classes of children whose levels of school preparedness differ. The high number of learners per class as well as pedagogical dilemmas such as handling varying levels of preparation in the classroom, age and informal vs. formal learning, make it likely that interventions at this level will have a strong impact. Further, increasing numbers of parents are forsaking community-based early childhood development for economic reasons, and placing their children directly into Grade R where school preparedness does in fact begin.

## The Zenex Foundation's early childhood development legacy to date

The legacy that the Zenex Foundation has established in the field of early childhood development includes:

- Significant contributions to infrastructure development. Evaluations of both **Thusanang** and **TREE** have reported that this has positively impacted on the quality of learning. Infrastructural developments have included fencing, water tanks, furniture, cupboards for storing food, and outdoor play equipment.
- Support for projects which include not only workshop training, but also increased coaching and mentoring at pre-school sites for practitioners. The Thusanang evaluation showed that this type of intervention is making an impact, so much

so that Dr Ingrid Herbst in her *Impact Evaluation Report* (2006) reported that these learners are performing at the same level as other learners in high quality pre-schools in the country.

- Developing Fundamental Level 1 training for the entire early childhood development sector in partnership with the **South African Institute for Distance Education (SAIDE)**. At the moment service providers are accredited only to provide electives in early childhood development and not the Fundamentals in Mathematics and Communications.
- The Zenex Foundation has ensured that in phasing out community-based early childhood development, practitioners will have access to a full qualification in terms of NQF Level 4 (Mathematics and Communications). In practice, this means that career opportunities are now available for these teachers as Grade R teachers at primary schools. Currently, women from **Lesedi** and **TREE** are already being trained to receive this qualification.



Rise and Shine Pre-School, Gauteng (Wazobona)



Rise and Shine Pre-School, Gauteng (Wazobona)

# Numeracy, mathematics and literacy in primary schools

## Back to basics for a strong foundation

The Zenex Foundation has always had a focus of working in primary school education and development. This work grew alongside the early commitments of the Foundation as it supported infrastructural development by building schools and classrooms, mainly in Gauteng and KwaZulu-Natal. These building projects were carried out in partnership with the government's reconstruction and development programmes.

Initially, the Zenex Foundation's projects in primary schools targeted various grades until it found that learners lacked a proper grounding in numeracy and literacy. The accumulative effects of this lack in basics were difficult to rectify in subsequent grades. The Zenex Foundation realised it had to ensure that projects intervene in the Foundation Phase and work systematically through the subsequent phases of the primary school system.

Over the years, the Zenex Foundation clarified its intervention strategy and projects started at Grade 1 in the Foundation Phase and were carried through to Grade 6. The

Foundation's projects covered a range of interventions which included whole school development with a focus on school management, INSET teacher training, in-school support and materials provision, numeracy and mathematics, literacy (English and home language literacy) and life skills (HIV and AIDS). A summary of the projects follows below.

## Support for numeracy and mathematics

The Zenex Foundation's interventions in numeracy and mathematics in primary schools were carried out in conjunction with NGOs such as the **Catholic Institute of Education**, the **Co-operative Organisation for the Upgrading of Numeracy Training (COUNT)**, the **Maths Centre**, and **Number Skills** (in KwaZulu-Natal, Eastern Cape, Limpopo, Western Cape). In the early days, projects had a mass-based approach to training, in order to reach as many schools, teachers and learners as possible. Both the Zenex Foundation and the NGOs defined the problem in numeracy and mathematics education to be one of poor learner achievement. To address this, their interventions were focused mainly on improving teacher skills through workshops, classroom support and materials.

However, the provision of educational resources such as mathematics kits and in-service teacher training are not in themselves able to impact on teacher practice. The Zenex Foundation realised that the emphasis on quantity needed to shift to a policy of 'less is more'. Fewer, more robust schools with committed teachers who are better equipped

to enable more learners to attain quality passes should be targeted. The important component of ensuring the success of projects is to select schools based on their potential, rather than need.

The **Supedi** project is an example of a project where the Zenex Foundation provided a combination of resources: materials focused on content, structured lesson plans for teachers, and the empowerment of school management to become involved in the process.

Following research on the shortcomings of the INSET model of teacher training, the Zenex Foundation worked with **Rhodes University Mathematics Education Project (RUMEP)** to provide an Advanced Certificate in Education (ACE) and BEd degree in primary



Sivuleleni Primary School, Gauteng (Supedi Trust)

school mathematics to primary school teachers. This was found to have a more positive impact on classroom practice and learner performance.

Thus, in later years, projects initiated by the Zenex Foundation in the Eastern Cape, KwaZulu-Natal and North West have focused on an accredited model of teacher development. The projects are undertaken with NGOs like **Maths Centre**, **Media in Education Trust (MiET)**, **COUNT** and the **Molteno Project**, with the **Nelson Mandela University** and **Unisa** being the accrediting agencies. These projects are currently in the implementation phase and the impact of using an accredited model of teacher training with intensive classroom support and monitoring is under evaluation.

## Support for literacy and language education in primary schools

The Zenex Foundation's interventions in language and literacy in primary schools began with its support for the following NGOs: the **Molteno Project**, **READ Educational Trust**, **SMILE**, the **Mobile Library** and the **Sunday Times READRIGHT Educational Project**. The projects focused on language and literacy through the development of resources, provision of training and the distribution of learner reading materials.

Over the years, both NGOs and the Zenex Foundation became more aware of the importance of home language literacy, especially in the early years of primary school. Exemplar interventions in this respect are

**READ's** isiXhosa and isiZulu learner materials and the **Molteno Breakthrough** to isiXhosa which is used in combination with its well-known product, *Bridge to English*, in the Foundation Phase. In an evaluation of the Molteno Project, conducted by Dr Carol MacDonald for the Zenex Foundation in Limpopo in 2004, she found that the literacy levels of learners exposed to a mother tongue literacy programme did improve at the Foundation Phase level.

The challenge facing the Zenex Foundation and its service providers is to sustain mother tongue literacy, while at the same time helping learners to attain a competent command of English for learning across the curriculum from the Intermediate Phase.

## Integrating literacy and numeracy

The Zenex Foundation has identified that there is a need to integrate language and literacy with numeracy and mathematics projects. Together with a range of NGOs, the Foundation is exploring the challenge of how this can be done as a seamless intervention in schools. It requires NGOs who have previously worked independently in the delivery of project interventions to join forces and work with each other and the Zenex Foundation in an integrated manner across learning areas. Exemplars include the partnership between the **Maths Centre** and **READ** in the Eastern Cape and KwaZulu-Natal and **Molteno** and **COUNT** in North West.

It is too soon to tell what impact this innovation will have, but the Zenex Foundation is optimistic that such initiatives are moving in the right direction.



Sivuleleni Primary School, Gauteng (SupeDi-Trust)



Phindubuye Primary School, Eastern Cape (COUNT)

# Mathematics, science and English in secondary schools

## Preparing learners for life

It was only in the late 1990s that the Zenex Foundation began to invest in projects aimed at the support of secondary schools. Part of the reason for this was that there were few service providers working at this level in mathematics, science and English education.

Another factor that has contributed to the Zenex Foundation's slow uptake of secondary school-based projects is that the majority of programmes have focused on learners, in particular learner enrichment and remedial programmes (like Saturday schools, after school and/or holiday programmes). Such interventions are usually aimed at improving learners' matric results. Thus it would seem that, in the first five years of South Africa's new democracy, fewer service providers focused on teacher development at a secondary school level. The exception were the higher education institutions that provided formal training towards formal qualifications, but often only a relatively small amount of time was dedicated to applied learning in real educational situations.

Therefore, it was only during the Zenex

Foundation's expansion phase (1998 to 2002) that its funding strategy actively encouraged and supported secondary school-based projects which included support for teachers, learners and sometimes school management.

The Zenex Foundation's current model for school-based interventions has identified that teacher training must include in-school support, classroom-based interventions, and the provision of educational materials as critical success factors. The emphasis on the application of acquired knowledge and educational resources means that the Zenex Foundation's service providers are encouraged to engage in face-to-face teacher mentorship and hands-on engagement with the realities of the classroom. This model is in keeping with the Zenex Foundation's holistic approach to education and development. The need to adopt this model is demonstrated in the lessons learnt through the evaluations of the projects presented below.

## Support for secondary school-based science

In 2002 the Zenex Foundation supported **RADMASTE** to run a science project that focused on the training of teachers in the Butterworth region of Eastern Cape. Apart from teacher training, the project was primarily a materials-driven project supplying schools with micro-science kits. This project began to focus the Zenex Foundation's attention on the need for increased classroom mentoring and support, and the need to select robust schools for interventions. The

remoteness of some of the schools limited the amount of contact the project was able to commit to.

In 2001 and 2002, the Zenex Foundation funded the **Valley Trust** to implement a science project targeting secondary schools in Camperdown, KwaZulu-Natal. This project provided training to science teachers and supplied Microchem kits to schools. The evaluation of this project by Dr Relebohile Moletsane highlighted two factors that Zenex has incorporated into its new ten-year strategy. The first is the importance of having a strong foundation in mathematics together with science, and the second is the importance of English language competency. The Zenex Foundation expanded this project to include an English component with the assistance of an NGO called **English Language Education Trust** (ELET) and the impact of this intervention is currently under evaluation.

The evaluation of both **RADMASTE** and the **Valley Trust** clearly showed that projects cannot intervene in the area of science without including support for mathematics and English. This insight is critical and paves the way for mutually co-operative relationships between service providers from all three learning areas. In addition, the findings highlight the importance of the truism that 'every teacher is a language teacher'. It is necessary to support training in both English and language across the curriculum, so that mathematics and science teachers can be comfortable in the language of instruction.

## Support for secondary school-based mathematics

As the Zenex Foundation realised that accredited programmes had more potential for success as a model for teacher training, the Foundation extended its investments to two such programmes for secondary school teachers. The **Rhodes University Mathematics Project (RUMEP)** is involved with providing a Bachelor of Education (BEd) to FET teachers in Fort Beaufort in the Eastern Cape. The model includes academic tuition, school support visits and regular cluster workshops to help teachers put into practice what they learnt during the contact session. In line with the Zenex Foundation's support for English, the **Institute for the Study of English in Africa (ISEA)**, based at Rhodes University, will provide an Advanced Certificate in Education course for the English teachers at the same school.

In a similar vein, the Zenex Foundation entered into a partnership with the **Maths Centre** in Limpopo and the **Nelson Mandela Metropolitan University** in Port Elizabeth. **ELET** provides the English component.

By its nature, the impact of teacher training is long term and this investment in degree-based interventions is only likely to yield a positive impact on learners in four to five years' time. In the current context where Grade 10 learners in the targeted schools are scoring an average of 11 per cent on test scores, the Zenex Foundation trustees have recommended that a learner intervention be initiated to help them catch up on mathematics concepts that lay the basis for matric passes.

## Innovations

The lessons learnt from evaluations led to an innovative project called **Inkanyezi** piloted by the Zenex Foundation in the Winterton area of KwaZulu-Natal. The project involved both primary and secondary schools and used four NGOs (**COUNT**, the **Programme for Technological Careers (PROTEC)**, **Molteno** and **ELET**) to deliver teacher training in mathematics, science and English. This pilot project was the first to provide an integrated teacher training programme in targeted schools. However, from this experience, the Zenex Foundation discovered that school selection is a critical factor. In the above projects, the Foundation was targeting the poorest and most rural schools with low learner performance and inadequate teacher support and management infrastructure.

A selection of a reasonable number of functional schools with evidence of baseline learner performance, committed teachers and active management, creates the conditions for successful projects.

To date, all the teacher training programmes have followed an intensive model of face-to-face training. An organisation called **Mindset Network** argues that the extent of the need for content knowledge for teachers across all learning areas is so great, an innovative approach is needed. Technology provides a platform to explore innovative models of teacher training. Mindset Network uses a multimedia technology platform to provide teachers with content knowledge in the classroom. The Zenex Foundation partnered with the Mindset Network to develop science



Archie Velile Senior Secondary School, Eastern Cape (RUMEP)

multimedia content for Grade 10 and 11 learners and teachers. The evaluation of the project as a model for teacher training is underway.

Given the importance of language proficiency in mathematics and science, and the severe shortage of teaching materials, the Zenex Foundation supported an innovative project with the **Concept Literacy Book Project**. The project developed a teacher's resource book that translates and explains the key mathematics and science concepts from English to isiXhosa, Afrikaans and isiZulu. The book is not a dictionary as such, but rather a concept literacy resource that supports teachers up to Grade 9. The book is published by Maskew Miller Longman and is on the Department of Education's recommended list of teacher resource books. The further education and training resource book is currently in development.

## Support for learners

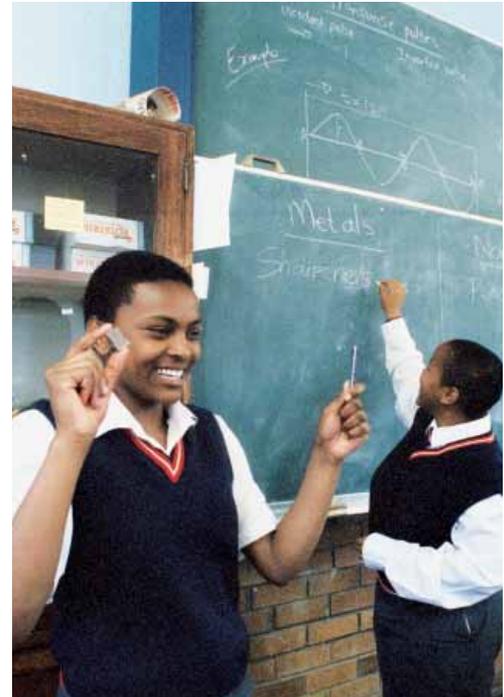
The Centre for Development and Enterprise report, *From Laggard to World Class* (2005), recommended that government and private sector initiatives focus on producing more black school-leavers with quality passes in mathematics and science. The Zenex Foundation had already begun a partnership with the Independent Schools Association of Southern Africa (ISASA) to address this problem. The Foundation supported two types of programmes: outreach programmes and whole schools programmes. This is a

short-term measure to deal immediately with the problem of the current education system providing fewer than 1 500 black learners with higher grade passes in mathematics per year.

**St Mary's Outreach Combined Programme** was an outreach programme that operated from St Mary's School in Pretoria up to the end of 2005, targeting learners from Atteridgeville. This Saturday school project focused on both learners and teachers by providing tuition and training. The Zenex Foundation also funded bursaries for three learners to attend St Mary's School and they have subsequently attained quality matric passes.

The Zenex Foundation phased out this programme and did not take on any further outreach learner programmes, as evaluations showed that 'add-on' or part-time remedial or enrichment models – such as Saturday schools and holiday schools – are inadequate to address the problems of previously disadvantaged learners. It is critical that learners attend school on a full-time basis and are immersed in intensive academic study.

**Sekolo sa Borogo** and **LEAP's** learner-focused mathematics and science projects are whole-school learner programmes. The schools provide access to high-quality education from Grade 10 to 12 (LEAP includes Grade 9 learners) for promising students from economically impoverished backgrounds. Learners are selected on the basis of having written a scholarship examination.



Brakpan High School, Gauteng (Mindset)

The teachers use their skills to work with learners with potential to fill conceptual gaps in knowledge as a result of poor schooling. Both schools include transport, nutritional support and leadership activities to make their specific educational programme more holistic. The success of the programme is shown by the fact that learners entering the programme with initial scores of under 20 per cent at Grade 9 level have exited the programme with matric exemptions and passes in mathematics and science that enabled them to enter tertiary institutions. The Zenex Foundation aims to expand this programme from 2007 to include KwaZulu-Natal and eventually to target at least 30 learners in each province.



*Harry Oppenheimer School, Limpopo (Maths Centre)*

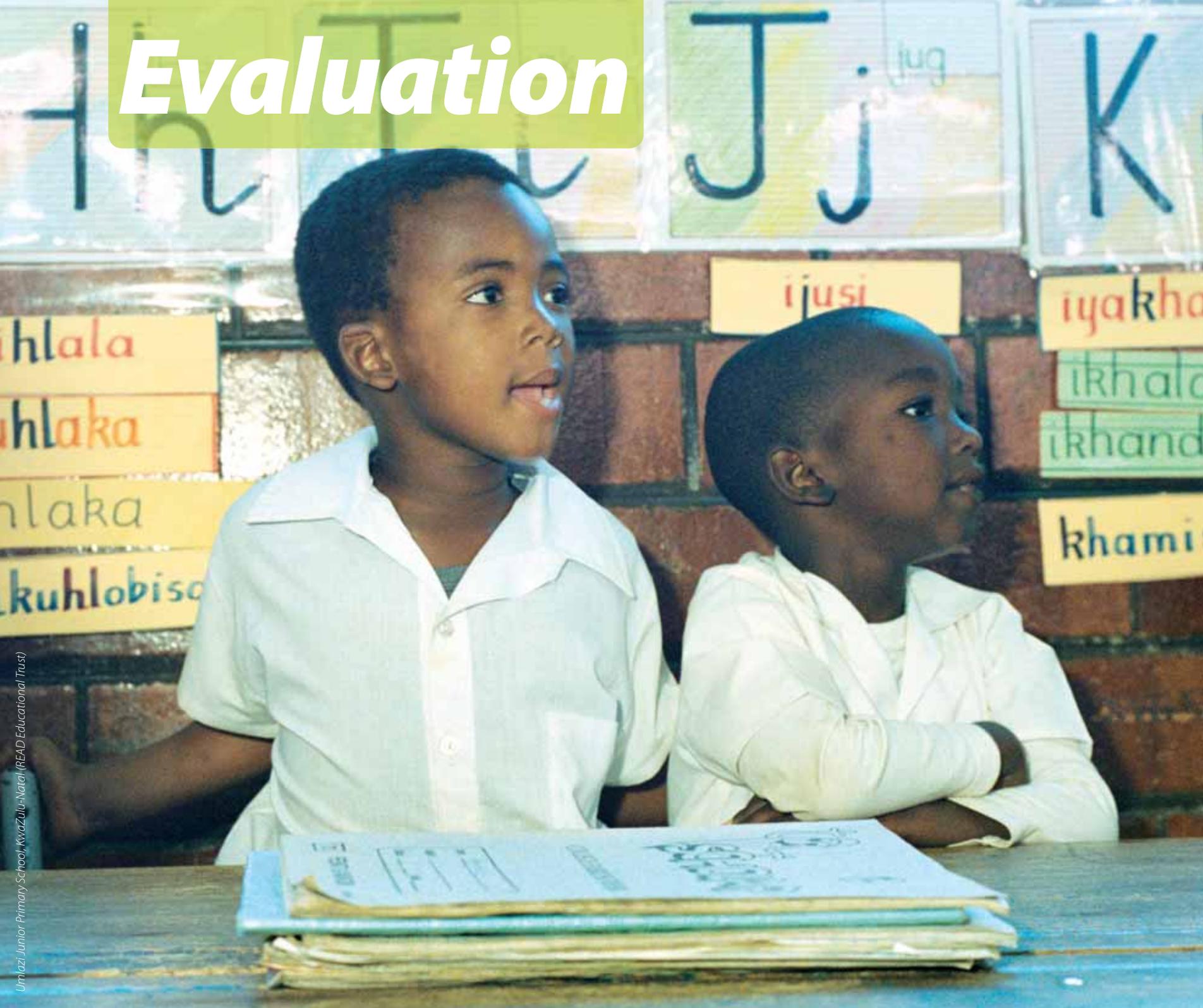


*Sekolo sa Borogo, Gauteng (Maths Centre)*



*Sekolo sa Borogo, Gauteng (Maths Centre)*

# Evaluation





# Evaluation

## Learning from programme evaluation and research

### **A review of insights gained from a meta-evaluation of mathematics, science and language projects between 1998 and 2006**

Since its inception in 1996, the Zenex Foundation has been committed to project evaluation and research as a way of strengthening its work in the field of mathematics, science and language education, and making a contribution to the field. In this sense, the Zenex Foundation sees itself as a learning organisation. Research and evaluation provide a basis for continuous improvement. By understanding weaknesses that the research highlighted, the Zenex Foundation has been able to transform its interventions into more appropriate tools that can make a difference.

In 2006, the Zenex Foundation initiated a meta-evaluation research project<sup>1</sup>. The project aimed to uncover the trends and lessons that could make its mathematics, science and language programmes more

effective. The meta-evaluation reviewed 23 impact evaluations of mathematics, science and language programmes operating in South Africa between 1998 and 2006. All the programmes were funded projects that were involved in delivering the Zenex Foundation's programme in mathematics, numeracy, literacy and English.

In addition, several local and international reports on the state of mathematics and science teaching, as well as school and learner improvement interventions, were reviewed.

The inclusion of language in the review of mathematics and science education was prompted by the importance of language skills in the development of mathematics and science concepts at all levels of the schooling system.

The meta-evaluation highlights important lessons for projects and the donor community related to the:

- design of mathematics, science and language projects
- delivery of the projects
- impact of the projects on the target audience
- role of donors in supporting these types of projects
- importance of project evaluations.

These insights are presented later in this account of the meta-evaluation, as the lessons that were learnt from working in educational development over the past ten years.

---

<sup>1</sup> The meta-evaluation was carried out by Eric Schollar and Jennifer Roberts.

## Investment in education

The government allocates a significant proportion of total national and provincial expenditure to education – around 23 per cent in 2006, an amount of R95 billion. This is much higher than the proportion of the budget allocated to education in other developing countries<sup>2</sup>. In addition, the corporate private sector, foreign governments, and independent trusts and foundations provide a significant amount of off-budget education support. Although the total value of all these investments is difficult to calculate, the current *Corporate Social Investment Handbook*<sup>3</sup> (2005) estimates that the private sector alone provided a total of R2.4 billion to social development in 2004, of which 36 per cent was allocated to education. Of this, around 43 per cent was channelled to mathematics and science education. These sources exclude donations by private foundations and bilateral (government) donor funding agreements. These amounts represent a significant level of investment in attempts to raise levels of participation and performance in key learning areas, but what return on investment is evident? The meta-evaluation tries to answer this question.

## The purpose of the meta-evaluation

The meta-evaluation critically analysed what is known about the conceptualisation, planning, implementation and outcomes of 23 Zenex Foundation projects that aim to

raise levels of performance in mathematics, science and language teaching and learning in South Africa. It is necessary to outline some of the underlying principles on which these programmes are premised and to consider seriously what results have been delivered through existing levels of investment in mathematics and science education. This includes a focus on the methodology of evaluations, and a critical review of the projects' designed interventions.

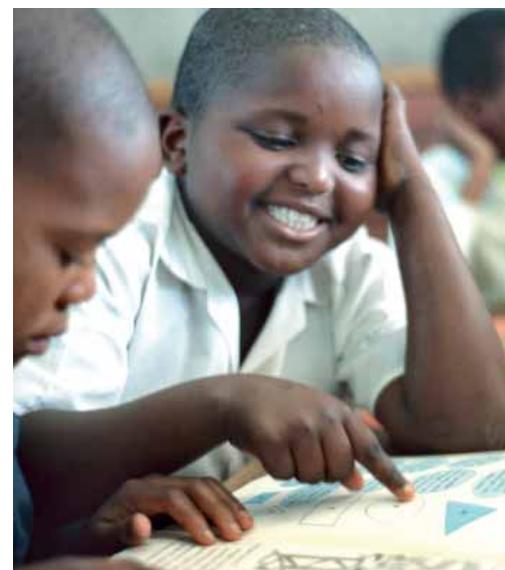
## Research questions

The meta-evaluation examined the following research questions:

- What do we know about mathematics, science and language teaching and performance?
- What do we know about the form that projects aimed at improving mathematics, science and language performance take?
- What do we know about the factors that lead to successful project implementation and impact?
- What is known about the quality of research on mathematics, science and language programmes?
- What recommendations can be made to inform the development of project donors' work?

## The method used in the meta-evaluation

The meta-evaluation analysed each of the 23



Umlazi Junior Primary School, KwaZulu-Natal (READ Educational Trust)

projects' own evaluation research reports and compared the findings. This was done in order to identify the projects' strengths and weaknesses and to extract the lessons that can inform the focus, design and assessment of future project interventions.

The meta-evaluation drew on three analytic approaches:

1. Working off available project evaluations, each project was examined in relation to the following factors:
  - conceptualisation of the project and any evidence of the underlying theories or ideas which influenced the design of the project
  - nature of inputs provided (including a quantification of project dosage)
  - manner in which the project was delivered

<sup>2</sup> However, Taylor (2006) cautions that one must remember that the gross (and net) enrolment rates in South Africa are far higher than in other developing countries and therefore represent a greater cross-section of the population in terms of socio-economic status. That noted, South Africa is ranked lower than a number of other developing countries in terms of its Education For All Development Index. Gross enrolment rates (as cited in the 2005 Education For All report) also show that for primary schools South Africa's enrolment rate is higher than that in a number of other SADC countries. However the differences are not as great as would be expected, with South Africa having a gross enrolment rate ratio of 0.89, while that of Lesotho is 0.84 and Malawi is 0.81.

<sup>3</sup> www.csimatters.co.za/current.asp.

- extent to which the project was delivered according to plan
- process changes that were noted (particularly changes in management or teaching practice)
- project impact on learner performance scores (particularly where these scores were compared against those of learners whose teachers did not receive the intervention).

2. The logic model was used to analyse the overall design, delivery and impact of the projects. The logic model<sup>4</sup> provides a simple and coherent method for comparing and analysing different programme elements. It also identifies threats to project impact that may arise at different points in the project design and delivery. For more detail on the logic model see the box alongside.

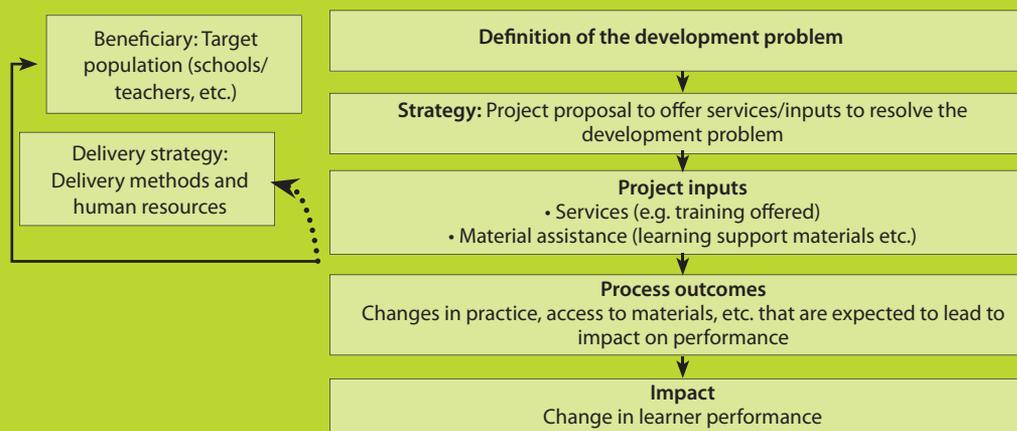
3. The 'gold standard' of project evaluation design was used to compare quantitative data, such as the impact on learner performance, in a reliable and valid manner.

For more detail on how the 'gold standard' was applied in the meta-evaluation see the box on page 36.

### The logic model

The diagram below summarises the basic features of the logic model that was used to analyse the overall design, delivery and impact of the projects. The logic model includes five components: (i) the analysis of the development problem, (ii) the strategy

used to address this problem, (iii) the inputs or services supplied, (iv) the process outcomes (intermediate changes, which if successful, should lead to the achievement of programme impact), and (v) the impact of the programme.



Archie Velle Senior Secondary School,  
Eastern Cape (RUMEP)



Brakpan High School, Gauteng (Mindset)

<sup>4</sup>Babbie E & Mouton J (2001) *The Practice of Social Research*. Belmont: Oxford University Press.

### The framework for the meta-evaluation

The analytic method used in the meta-evaluation included an assessment of learner performance. The reliability of the evaluation designs of the individual projects were assessed against the 'gold standard' of programme evaluations.

The 'gold standard' of programme evaluation expects evaluations to include the following features:

- The evaluation should be organised so as to demonstrate logical linkages between programme interventions, observed changes and learner impact.
- A combined quantitative and qualitative approach for project groups and control groups.
- Multiple measurement points – preferably more than just the minimum baseline and post-project measurements.
- Measurements taken in similar (or matched) schools that are participating in the project and those that are not (i.e. a control group). Both groups must be randomly selected and of sufficient size.
- Reliable data collection measures that do not make strong inferences on the basis of unreliable data collection methods.

Since very few of the project evaluation research designs contained all of the above features, the meta-evaluation adopted the following approach in order to compare the evaluations of the 23 projects:

- The highest weighting to findings was apportioned to studies that used at least two measurement points (pre- and post-testing of learner performance) for either control groups or very large project samples.
- A lower weighting to findings was apportioned to studies that evaluated projects based on learner performance, but used unreliable data collection methods including test instruments that had been developed by the projects themselves, and/or allowed project staff or teachers to administer and score the test instruments.

*Note: This framework was developed by Jennifer Roberts and Eric Schollar to undertake the meta-evaluation.*

### Diagnosing the development problem

In diagnosing the 'development problem' they wished to address, and in shaping their interventions, all 23 projects examined one or more of four levels of need: needs at learner level, classroom level, school level and system level. Once the needs had been identified, projects were able to design their interventions appropriately.

The relationship between need and the design of the project intervention can be described as follows:

**1. At learner level:** The need to improve the poor academic performance of learners by:

- providing increased access to adequate educational experiences
- providing appropriate teaching and learning resources.

**2. At classroom level:** The need to develop teachers' ability to transmit knowledge by:

- providing training in the use of pedagogic methods, in particular 'learner-centred' methods (see the box on page 37 for more detail)
- providing books and/or teaching and learning materials (both text-based and physical) to assist teachers in conveying complex concepts, among other things.

**3. At school level:** The need to improve school management and governance so as to facilitate effective teaching and learning in classrooms by:

- improving professional accountability and quality assurance, curriculum planning and assessment processes, resource management and conflict resolution arising from a lackadaisical attitude towards timekeeping.

**4. At system level:** The need to improve district, provincial and national departments of education's capacity to support schools by:

- assuming responsibility on a routine basis for the development, management, monitoring, demand for accountability and support that independent agencies cannot provide on their own.

### Learner-centred methods

The strong focus among most of the projects on what is sometimes termed 'discovery learning' is based on the educational theory of constructivism. Long (2000) provides a concise definition of constructivism: 'learners actively construct their own understanding rather than passively absorb or copy the ideas of others'. Supporters of this theory of learning believe that children should work (often collaboratively) to learn content deductively and discover their own ways to solve problems and to derive underlying rules. In practical terms, this usually translates into activity-based group learning where learners discuss and complete tasks and activities with minimal direction from the teacher. The teacher assumes the role of a facilitator of learning.

Evaluations of projects that focused on methodology as an intervention reported that the types of changes achieved most commonly in teacher behaviour were:

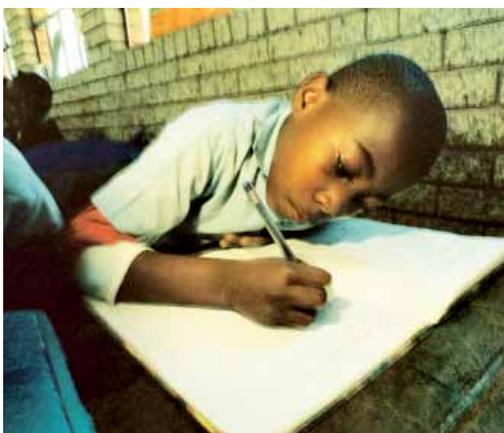
- an increase in group work
- learners completing more activities in class (often using worksheets or materials supplied by the projects)
- teachers spending less time telling learners facts
- an increase in the use and recognition of learners' knowledge
- adopting new assessment methods that move away from relying only on individual test scores.

Although the projects delivered these interventions effectively, learner performance did not improve. This leads the meta-evaluation researchers to conclude that 'constructivism' is not an effective theory of learning and teaching in that it does not achieve the impacts on learners that it predicts. This is not unique to South Africa, but is increasingly being commented on in other countries (e.g. the USA and Australia).

### Types of project interventions

The projects designed their interventions in different ways, depending on how they had diagnosed the development problem. One or more of the following approaches were used to improve learner performance in mathematics, science and language. The approaches are presented in the table alongside in order of frequency. Since many of the projects combined a variety of approaches, some projects are included in this list more than once.

Approach	Frequency of use	Number of projects that used the approach
Teacher training and school support	High	17
Materials supply (complementary)	Medium	9
Materials supply (high)	Medium	7
Learner-focused (scholarship)	Low	4
Management, governance, teacher skills	Low	3
District, school, classroom model	Low	2
Learner-focused (supplementary)	Low	1
Management	Low	1



Sivuleleni Primary School, Gauteng (Supedi Trust)

### *Kinds of materials provided by the projects*

The kinds of materials that were typically provided by projects were:

- worksheet exemplars for teachers to use
- learner textbooks (published by commercial publishers)
- reading books for learners
- learner workbooks
- training materials for teachers, including notes or textbooks on pedagogy
- teacher guides (usually in the form of expanded versions of learner textbooks)
- mathematics kits containing posters and physical materials used to demonstrate mathematics concepts
- science kits used for practical demonstrations in physics and chemistry classes.

### Discussion of project approaches and inputs

By far the most common approach to improving learner performance in mathematics, science and language has been to offer in-service teacher training workshops. These are followed by in-school monitoring and support activities combined with the supply of complementary materials. Materials include textbooks, teacher guides and worksheet exemplars for teachers, reading materials for learners, mathematics and science kits or workbooks, etc.

Most projects offered between six and eight full days of training over the course of a year, usually holding either full or half-day workshops for teachers. A few projects offered workshops lasting two or more days as well. Assuming that each workshop offers six hours of instruction on average, this is roughly

equivalent to 48 hours of professional development. Workshops were followed by school-based support visits during which teachers received individualised feedback on their classroom practice. Assuming these visits to be approximately two hours per visit, this is an additional eight hours of support for four visits per year. In total, a reasonable rough estimate of the average intervention is around 56 hours of additional professional development for a teacher over a year.

Irrespective of the approach, all of the projects were responding to local needs in one way or another. They were operating in the context of trends in learner performance in mathematics, science and language evident across South Africa during the period under review. A summary of these trends is presented below.

### Trends in learner performance

The meta-evaluation researchers provided an overview of learner performance trends by synthesising a number of local and international studies on the state of mathematics and science teaching. South Africa participated in all of these. They are:

- **National Systemic Evaluation (NSE).** Based on the assessment standards of the Revised National Curriculum Statement, the Department of Education introduced the National Systemic Evaluation in 2000. The first cycle was administered at Grade 3 level in 2000, while the second was administered at Grade 6 level in 2005. Until the introduction of this evaluation,



Isasa Lentsa Primary School, KwaZulu-Natal (Maths Centre)

the only measure of the performance of the school system was the matriculation examination. The National Systemic Evaluation was introduced to measure performance at other key points in the schooling cycle.

- **Monitoring Learner Achievement Study (MLA)** (2000). This study focused on the comparative performance of learners in Africa.
- **Southern and Eastern African Consortium for Monitoring Educational Quality (SACMEQ)**. To date, two assessments have been undertaken at Grade 6 level, the most recent in 2000.
- **Trends in Mathematics and Science Studies (TIMSS)** studies. South Africa has participated in three cycles of TIMSS, the first being in 1995 and the most recent in 2003.
- **Primary Mathematics Research Project (PMRP)**. This South African study compared the data derived from six impact evaluations of educational interventions between 1998 and 2004 in which mathematics was tested using the same instrument.

The first cycle of the national systemic evaluation was administered at Grade 3 level in 2000, while the second was administered at Grade 6 level in 2005. In general, both cycles have confirmed that the majority of children at the two levels are performing well below their expected levels in relation to our own curriculum (see Table 1).

**Table 1 Mean scores of South African learners from the National Systemic Evaluation**

NSE Grade 3				NSE Grade 6	
Literacy	Numeracy	Life Skills	LOLT*	Mathematics	Science
54%	30%	54%	38%	27%	41%

\*Language of learning and teaching

**Table 2 Proportion of learners who did not achieve the minimum expected standards of the grade level**

#### Mathematics

NSE: Grade 6: 2005	SACMEQ: Grade 6: 2000	TIMMS: Grade 8: 2003	MLA: Grade 4: 2000
81%	84%	82%	30.2%

#### Language of instruction

NSE: Grade 6: 2005	SACMEQ: Grade 6: 2000	MLA: Grade 4: 2000
63%	66%	48%

#### Science (learners who scored under 50%)

NSE: Grade 6: 2005	TIMMS: Grade 8: 2003
69%	77%

**Table 3 Trends in TIMMS: 1999 to 2003 (%)**

	1999	2003	Change
Mathematics	34.4	33.0	-1.4
Science	30.4	30.5	+0.1

**Table 4 Trends in performance in mathematics: percentage change between pre- and post-testing**

Period	Province/s	Grade 5	Grade 7	Grade 4-7
2000-2003	National	+1.7	+1.9	
2002-2004	Gauteng, KwaZulu-Natal, Eastern Cape and Western Cape		-1.2	-2.9
1998-2000	Gauteng, KwaZulu-Natal and Western Cape		-4.2	-3.1
1998-2000	Eastern Cape	-2.1	-0.1	
1998-2001	Mpumalanga	-1.1	-2.3	
2000-2004	North West	n/a	n/a	-2.1

All three international studies showed that the majority of South African children are achieving performance levels well below those of their counterparts in both Africa and the rest of the world. Importantly, the proportions of learners who did not achieve the minimum expected standards recorded in these studies were strikingly similar to comparable figures obtained in the National Systemic Evaluation (see Table 2).

Perhaps most disturbingly, the Southern and Eastern African Consortium for Monitoring Educational Quality (SACMEQ) study found that 52 per cent of Grade 6 learners were achieving scores at the Grade 3 level or lower for mathematics. The figure for the language of learning and teaching was 31 per cent.

On the basis of these results, the meta-evaluation concludes that learners are routinely being promoted from one grade to the next without having mastered the content and foundational competencies of

preceding grades. This results in cognitive backlogs that inhibit the acquisition of more complex competencies. Any programmes aimed at higher-grade levels must take this factor into account.

It is also important to note that most of the learners tested in all of these studies began their schooling after the introduction of the new outcomes-based curriculum (C2005). Children in Grade 9 in 2006 were in Grade 1 in 1998. There is much argument about whether education outcomes have improved over this period. Unfortunately, at the time that the meta-evaluation research was conducted, there were only two sources of relevant empirical and longitudinal data on this issue. The first is provided by the Trends in Mathematics and Science Studies (TIMSS) between 1999 and 2003 for mathematics and science. It is summarised in Table 3.

According to the data presented in Table 3, there is clearly no evidence of

any improvement in these two subjects. This conclusion received support from the second reliable source for performance in mathematics, namely the findings of the local Primary Mathematics Research Project (PMRP). This source used data from six separate evaluation studies between 1998 and 2004.

Since the Primary Mathematics Research Project data has a precision of two per cent, there is again no significant evidence that mathematics scores improved between 1998 and 2004 in any of these studies. Indeed, of the 11 changes shown in Table 4, six are significant, but they all reflect a decline in scores.

The analysis shows that the trends in learner performance present a serious challenge to the education system as a whole and the projects that are designed to support it. The meta-evaluation provides some insight into the impact of the projects it surveyed so as



to answer the question: What was the impact of project interventions on improving learner performance in mathematics, science and language education?

## Impact of the projects

The impact of the projects reviewed by the meta-evaluation can be reported at two levels, namely: process outcomes, and learner performance outcomes.

Almost all of the projects demonstrated process-level changes that they ascribed to the effectiveness of their interventions at the level of school management, and/or the classroom practice of teachers. Many of these process outcomes were designed with the expectation that they would impact positively on learner performance. However, this has not generally been the case.

### Process outcomes

The significant process-level changes that were reported typically show improvement in the following:

- *Management practices*
  - increased availability of school policy, management and planning documents (including timetables, codes of conduct, vision and mission statements, school development plans, time registers, establishment of committees, work schedules, etc.)
  - improved financial management (record keeping and financial planning)
  - greater interest in the quality assurance of teaching and learning
- *Classroom practices*
  - correctly constituted governing bodies that were able to carry out their statutory functions
  - increased frequency of curriculum planning and an improvement in the quality and clarity of planning documents (of both long-term plans and lesson plans).
  - activity-based teaching and learning that encourages learners to perform tasks and complete activities rather than sitting and listening to the teacher present a lesson
  - ‘a move to more learner-centred teaching’. This phrase is cited regularly across the various reports. In most cases, this includes the promotion of learner activities, the recognition of learner knowledge, making references to everyday knowledge during lessons, encouraging learners to ‘teach themselves’ (i.e. discovery learning) and promoting co-operative learning through the use of group work
  - greater confidence and motivation in both teachers and learners, including a more positive attitude towards the teaching and learning of mathematics and science
  - use of materials supplied by the project and based on the preferred theory of learning employed by the intervention.

In general, the detailed lists of process changes reported in the studies are impressive. All these changes were ascribed to what the intervention intended to achieve. It is therefore reasonable to expect predicted

impacts on learner performance to have occurred on an equally general level.

### Learner performance outcomes

Despite the uniformity of the reported process changes, there were no consistent patterns in relation to changes in learner performance. In fact, very few of the evaluation studies reported significant impact on learners’ scores. Furthermore, similar changes in teacher behaviour and practice were reported for interventions that had resulted in significant improvements in learner performance as well as for those where no improvement (or even negative change) was measured.



Archie Velle Senior Secondary School, Eastern Cape (RUMEP)

Of the 23 project evaluations that were reviewed, seven used research designs that included data from both the project and control groups. However, only three of them were able to use sample sizes large enough to provide reliable measures of impact. None of these studies was of science projects.

In general, the results are disappointing, especially for numeracy and mathematics. Of the seven projects that included a focus on numeracy and mathematics, only three achieved a statistically significant positive impact on learner performance – and the results of one of these have been challenged as the sample size used was not big enough. The language/literacy impacts are more positive; although overall learner performance is still very poor, two of the three studies measured statistically significant learner impact. Overall, there was a speculative median gain in score of some +2.97 per cent higher for these language/literacy projects than that obtained for numeracy.

One of the reasons why the results from the evaluation of learner performance are inconclusive is that many of the project evaluations did not use a control group. Even though ten of the 23 evaluations conducted pre- and post-tests with learners from project schools, only one of them used a very large sample drawn from a near-universal set of project schools. Eight of these interventions included a numeracy/mathematics component while two focused exclusively on science. Four of the projects included a literacy/language component.

Larger gains in mathematics/numeracy were recorded in five of the interventions, while only one of the literacy projects achieved a comparable figure. While the gain scores reported in these studies present a somewhat more positive assessment of project impact, it should be remembered that it is inherently very difficult to be certain about the accuracy of the impact they measure without large sample sizes or control groups. It is important that project evaluations in future ensure that the size of the control group is large enough to produce more solid findings on the impact of learner performance.

While the results of learner performance are disappointing, they should help the school system and service providers to gain better insight into the causes contributing to the low impact of interventions on learner performance.

### Lessons learnt about project design, management and delivery

The projects under review used one or all of the following components in the design of their interventions: teacher training, materials provision, management training and support to Department of Education officials. The meta-evaluation did not demonstrate whether one particular type of intervention, theory, mix of components or delivery strategy worked consistently more effectively than another. What one can do, however, is to distil recommendations from the most successful projects and the factors that promote impact.

### Lessons from teacher training

Since 1997, teachers have been inundated with demands to change teaching practices, implement new curricula and adhere to far higher administrative demands. In-service training places additional demands on teachers to understand new methodologies and adopt new practices. Programmes might have a better impact if they focus on a number of core practices that impact negatively on learner performance and reduce the extent of changes to teaching practice. When designing teacher training programmes, donors and service providers should therefore take into account the fact that teachers are tired of change. It is also recommended that donors and service providers seriously consider the following:



Umlazi Junior Primary School, KwaZulu-Natal (READ Educational Trust)

- **Offer more tightly-scripted programmes.** Many projects describe themselves as being 'needs-driven', responding to perceived or reported training needs expressed by teachers. Instead, it might be a better idea to experiment with more tightly scripted programmes. These programmes would tailor training to emphasise curriculum coverage and increase learners' opportunity to learn through more regular, structured written work. These programmes would also offer teachers structured work plans that, if adhered to, would cover the year's work.
- **Offer a variety of methodological approaches.** It is likely that training programmes would be more effective if they offered a variety of methods that are appropriate to the specific class and topic, rather than using a single methodological approach (such as the inappropriate use or overuse of group work).
- **Include a strong focus on developing subject content knowledge.** Teacher subject content knowledge is poorly understood and under-researched. Training components should contain a core focus on subject content knowledge. In accredited programmes, credits should not be awarded until participants have mastered subject content components of the training. Teacher testing could be a pre-condition to participating in the project and receiving donor funding.
- **Train teachers to use learner assessment effectively** to achieve the assessment standards of the Revised National Curriculum Statement, as well as in terms of the progress of individual learners.

- **Provide meaningful measures of teachers' accountability** such as accreditation tied to the training they receive. Also provide incentives for teachers to both complete training and apply what they have learnt in their own classrooms.
- **Focus on core teaching practices that are likely to yield results.** The results of the teacher training evaluations suggest that the training programmes have not succeeded in changing practices that seem to fundamentally influence performance. Core elements that should be included in these programmes include:
  - Curriculum coverage. Cover all outcomes set for the year as per the National Curriculum Statements.
  - Increase the volume of written work completed by learners. Set performance targets for projects that require participating teachers to give learners written work every day.
  - Increase the regularity with which

learners read a variety of different texts. Reading needs to be meaningful, with individual reading being encouraged.

- Set meaningful assessment tasks for learners that result in clearer feedback on performance to the learner and school managers.
- **Work with a critical mass of teachers/beneficiaries.** An issue noted in a number of evaluation reports is the lack of stability in the project populations in schools. Teachers move out of grades or learning areas, leave participating schools or no longer wish to participate in the project. Changes like these can have disastrous implications for the sustainability of impact in the school. It is for this reason that the Zenex Foundation has started working with larger numbers of teachers within participating schools to ensure that a critical mass of teachers receive training and are able to sustain new practices.



Rise and Shine Pre-School, Gauteng (Wozobona)

- **Set clear, realistic and achievable impact indicators.** Impact indicators should be specific, measurable, achievable, realistic and time-bound. Clear statements of the intended effects of a project – both in terms of process changes and changes in learner achievement levels – provide a clear framework that will structure and guide implementation processes.
- **Carefully select the beneficiary population (schools).** Several evaluation reports noted that results were disappointing in schools that were deemed dysfunctional or which were operating under such poor infrastructural (or social) conditions that success was highly unlikely. It is therefore recommended that the schools in which the Zenex Foundation works, meet set standards for functionality. Work with schools that show a real willingness to implement changes and where there is a strong likelihood of an externally funded project having some impact. This may mean a significant shift in donor policy to re-directing support to schools that are already managing to achieve reasonably good results. The government would then be required to concentrate its efforts on raising the functionality of the neediest schools.
- **Increase frequency of contact between projects and teachers.** The analysis of the frequency of contact between projects and participating teachers showed that contact was fairly sporadic. Infrequent contact has a poor effect on this type of in-service training. The frequency of monitoring visits and school support should therefore be increased.
- **Balance support and accountability.** Balancing support and accountability is

one of the biggest challenges that NGOs face in attempting to bring about reform in schools. NGO interventions (with donors) are supply-side driven. They provide assistance to schools that teachers may reject or ignore, should they so desire. The government, as a project partner, could set pre-conditions and performance targets for schools receiving additional support.

### *Supply of materials*

Projects successfully delivered materials to schools, but what remains a challenge is to ensure that schools use the materials they receive in an effective way. The data suggest that:

- All materials supplied to schools should be designed in terms of the Learning Outcomes of the National Curriculum Statement and, especially, the Assessment Standards associated with them.
- Materials should provide guidance on how they should be used within the detailed learning programmes across phases. Work schedules should be provided across grade levels so that teachers are clear on how to implement the National Curriculum Statement effectively.
- Projects that supply materials should also consider the issue of supplementing them, in one way or another, after project completion.
- The supply of materials should, ideally, be complemented with teacher assessment and training in subject content knowledge (mathematics and science programmes) and in the teaching of literacy (language programmes) for teachers.
- It is necessary to provide ways of measuring

teachers' accountability in terms of their routine use in the classroom of materials with which they have been supplied.

### *School management*

A number of projects that were reviewed included school management training alongside teacher training. There is no doubt that a more stable and 'aligned' school environment supports teaching and learning, but only one project (EQUIP) clearly demonstrated the impact of improved school management on learner performance. (It should be remembered that the period of the review – 1998 to 2006 – includes a time when both government and NGOs were struggling to re-establish a culture of learning in schools.) In other cases, even where changes in management practice were evident, this did not translate into improved learning.

In spite of these findings, some studies show that a number of key management factors can, and do, influence teaching and learning. They include:

- more efficient use of school time (including providing as many weeks of instruction as possible within the overall school year, daily starting and ending times, and utilisation of time within the school day – the familiar issue of 'time-on-task')
- greater monitoring of curriculum planning to ensure that planned teaching programmes cover the prescribed syllabus at the correct conceptual levels for each grade
- monitoring of the implementation of the curriculum plans to ensure that teachers cover all of the required content by the end of the year

- quality assurance of teaching practices
- quality assurance of assessment practices.

In spite of these early indications of the management factors that correlate with higher learner achievement, many programmes have not emphasised these elements. In short, greater attention should be given to curriculum management.

### *Alignment with Department of Education*

It is essential that programmes should not be run in isolation from the national and provincial departments of education, which are ultimately responsible for the performance of the schools. Ideally, programmes should be designed, delivered and monitored in conjunction with the education department. The central objective of this process should be the eventual ability

of the Department of Education district offices to sustain the effects of interventions and spread them to all the schools for which the department is responsible. It is also important that department officials pay sustained attention to the same managerial factors listed above – the monitoring, demand and accountability chain should not end with the school management team.

### **Lessons learnt about project evaluation**

The meta-evaluation highlights a number of changes in project evaluations that are noticeable in the period between 1998 and 2006. These include:

- **An increasing sophistication in research designs.** Evaluators are using increasingly

complex statistical methods in an attempt to model the relative effects of different variables on project outcomes.

- **A move to integrate qualitative and quantitative analysis.** Earlier studies generally placed greater emphasis on qualitative data and analysis. A greater proportion of later studies sought to balance qualitative assessments of changes in process outcomes with quantitative measures of success. This was usually done through learner performance tests. There has also been a move to making greater use of more reliable forms of qualitative data, especially in terms of triangulation – for example, carrying out a documentary analysis that supports (or refutes) observational and interview data.



Umlazi Junior Primary School, KwaZulu-Natal (READ Educational Trust)



Isasa Lemtsa Primary School, KwaZulu-Natal (Maths Centre)

- **Increased acceptance of using learner performance as the key measure of programme impact.** In the late 1990s there were relatively few evaluators that used learner performance tests as a measure of programme impact.<sup>5</sup> By 2006, a number of studies either used these tests or others that they developed themselves. Several of these performance tests based the instruments on items from the Trends in Mathematics and Science Studies (TIMSS).
- **More rigorous research designs with greater attention to sampling.** The issue of sampling is discussed in more detail below as it remains one of the central factors that undermines the results of many of the evaluations that were reviewed. With the move towards a greater degree of quantitative analysis, it is important to place more emphasis on selecting sample sizes that are sufficiently representative of the 'target' population and/or will support more sophisticated forms of analysis. At the same time there is concern about the use of learner tests. Criticism of learner tests includes that they are too long, they pose questions in an unfamiliar way and they do not allow learners to represent their knowledge in a way that is similar to the methods used by teachers (including verbal presentations).

The implication is that test and item design is a critical element of any impact evaluation and instruments must be based on the predicted outcomes and impacts of the intervention concerned. However, the meta-evaluation researchers believe, in line with the vast weight of local and international opinion in academic and development institutions alike, that it is necessary to use

some kind of objective testing process to investigate learner impact beyond the level of subjective observational and interview data.

In spite of the advances in evaluation methodology that are described above, the evaluation reports differ greatly in terms of approach and the quality of how the data is reported. Some of the factors which weakened the power of the findings include:

- changing research design partway through the research process
- changing the evaluation agency partway through the evaluation cycle
- changing the process/outcome and impact indicators during the course of the project
- control samples being too small in comparison with the project sample and lack of equivalence between project and control schools
- sample sizes being too small to reliably attribute change to the effects of the project, i.e. where the magnitude of measured change is smaller than that which could be attributed to chance (sampling error).

The bulk of evaluation literature argues in favour of longitudinal, quasi-experimental designs that track change over a reasonable period of time and try to control as many of the variables as possible that could explain changes in performance. These variables include school-level variables, demographic changes, departmental programmes and the effects of home-background or socio-economic status. The evaluation measures impact by analysing the variance between project and control groups on a number of variables.

<sup>5</sup> Schollar was one of the first to use tests to measure changes in cohorts of learners, while JET Education Services started to use grade-specific tests in Mathematics and Literacy in 2000.

## Guidelines for donors on commissioning evaluations

Project evaluations are usually commissioned by donors who want some kind of demonstration that their investment in an educational programme has benefited teachers, schools or learners. The fact that this form of research is commissioned creates a political economy within which evaluators must work and that can influence the way in which findings are both researched and presented.

Comments made in many of the evaluation reports demonstrate the influence of budgetary decisions on evaluation design. Most importantly, very often sample sizes are reduced in order to fit the budgets that are available for studies. The exclusion of control schools from studies is also often driven by budgetary considerations. In general, project funders often desire a more detailed description of the process changes in the targeted schools or teachers instead of a comparison between groups. These factors often lead to research designs that are insufficiently robust to reliably measure impact.

In addition, evaluation writers must remain aware that they have to balance a range of interests when writing the report, including the need to serve donors' interests in seeing some demonstrable change, managing relationships with projects and service providers which have been built up over time, and personal biases towards a particular

theoretical approach adopted by a project. These tensions can influence the tenor of a report or can soften the findings in order to manage ongoing relationships.

If funding agencies wish to utilise the findings of reliable research studies to define and refine their investments in terms of achieving impact on learner performance levels, they need to be prepared to invest sufficient money in programme evaluations that allow for the use of strong research designs. Some of the key factors in this regard are to:

- Require that evaluators use rigorous research designs that will allow for the identification and measurement of project impact.
- Ensure that sample sizes (for both experimental and control groups) are sufficiently large to overcome sampling error and will enable more conclusive attribution of project impact. Where the sampling error is high, projects will need to demonstrate large levels of change in order for the change to be attributed to the project and not to sampling error.
- Begin the evaluation process sufficiently early. Baseline studies should precede project interventions.
- Commit sufficient resources to evaluations in order to ensure that they are able to provide reliable and rigorous indications of impact.
- Consider using a set of common learner tests across projects.

In order to measure the relative success of different programmes, and hence be able to distinguish between the effectiveness of competing theoretical approaches and/or delivery models, it is suggested that funding agencies collaborate in order to commission studies employing similar designs. Further, the collaboration should use a single set of instruments to observe school/teacher change and measure learner performance. This would add greatly to the cumulative and comparative value of evaluation research, an element much neglected in the South African environment where 'once-off' studies of single interventions is the norm.



Brakpan High School, Gauteng (Mindset)

# Strategy





# Strategy

## Looking ahead

### The Zenex Foundation's ten-year strategy 2006-2015

In late 2005, the Zenex Foundation's Board of Trustees developed a ten-year strategy to address persistent mathematics, science and language needs in schools. Based on experience, the strategy aligns the Zenex Foundation's work more closely with identified needs. At the same time, the strategy ensures that the Zenex Foundation's contribution is significant, unique and excellent.

The board recognises that, as a result of South Africa's apartheid legacy in education, there will invariably be a long lag period during which mathematics and science learners continue to perform more poorly than their counterparts in other countries. The absence of a good foundation in mathematics and English in the early FET years constrains young people who hope to pursue mathematics and science-based study and career pathways.

This problem features principally at two points in the school system: the Foundation Phase starting from Grade R, and the Further

Education and Training phase leading to matriculation. In the Foundation Phase, the aim is to develop institutional learning in literacy and numeracy to provide the foundations for mathematics and the English language. In the Further Education and Training phase, attention has to focus on teachers as well as learners to ensure that sufficient learners exit the system with quality passes in mathematics, science and English.

In short, the Zenex Foundation articulates the problem to be addressed as follows:

Effective and researched responses to the teaching and learning of mathematics, science and English in South African schools.

### Impact of research on strategic thinking

The ten-year strategy responds to the findings of the meta-evaluation<sup>6</sup> described in the Evaluation section. The factors that appear to be contributing most to the low levels of learner performance present the

Zenex Foundation, its service providers and other donors with strategic information that can inform the design of future interventions. The following table outlines how the Zenex Foundation has responded to the main findings of the research.



Harry Oppenheimer School, Limpopo (Maths Centre)

<sup>6</sup>Schollar E & Roberts J (2006) *Report on the Meta-evaluation of Maths and Science*, Zenex Foundation: Johannesburg.

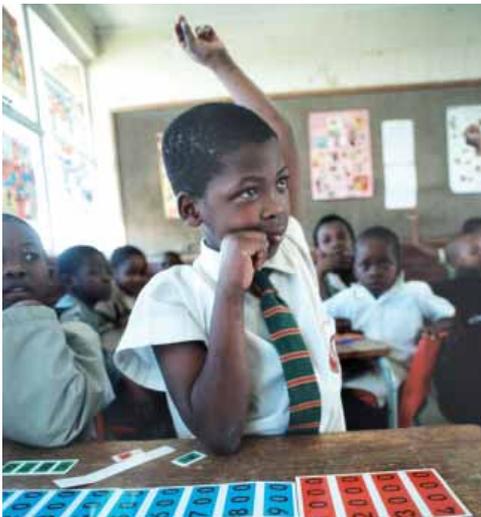
<b>Factors impacting on learner performance in mathematics and science</b>	<b>Causes of poor learner performance</b>	<b>The Zenex Foundation's strategic response</b>
<b>Language of instruction</b>	Learners struggle to learn in a language that is different from their home language.	Prioritise support for literacy, mother tongue and English language education.
<b>Content expertise</b>	Teachers have difficulty in transferring efficient problem-solving methods for numeracy and mathematics, which inhibits learners developing competency.	Prioritise support for a more structured approach to teacher training that focuses on skills deficit by developing teachers' content knowledge and specific methods.
<b>Instructional time</b>	A tremendous amount of instruction time is lost through late starts and early finishes to the school day, term and year. It is evident that in many schools the effective school year is reduced from around 40 weeks to as little as 28 weeks.	Prioritise support for a more structured approach to school management, with an emphasis on time management in schools.
<b>Pace of teaching and learning</b>	Teaching and learning proceeds very slowly in most classrooms. As a result, learners complete too few exercises and do not do enough reading and writing to provide the sustained practice required for mastering newly learned skills.	Prioritise support for a more structured approach to teacher training and to learner-based interventions that emphasise pacing, curriculum coverage, cognitive demand and sequencing, time-on-task and greater amounts of learner class work to be done in exercise books.
<b>Validation of learners' responses</b>	Teachers often fail to comment on the objective correctness of learners' responses, as they have grown to rely too much on group feedback. A result is that answers are valued for their own sake, irrespective of how sensible or correct they are. Learners are deprived of reliable feedback about their own performance. Another result is that learners are promoted from grade to grade irrespective of whether they have mastered the required assessment standards.	Prioritise more structured teacher training with an emphasis on content knowledge and content methodology (as opposed to general methods of teaching and learning, such as group work). This includes training teachers in how to mediate in question and answer activities, i.e. to respect learners' contributions, but also give learners more concrete feedback on right and wrong answers where appropriate, etc.
<b>Department of Education monitoring</b>	The level of monitoring and demands for accountability from the education department is very low. The system focuses primarily on support, as do NGOs. The result is that the school system is almost exclusively 'supply-driven'.	All donor-funded projects must be undertaken in partnership with the Department of Education and in accordance with its mandate. This increases the impact of the interventions and provides the donor and the service provider with 'positional power' in relation to the school. In practice it means taking steps such as including a district representative on the project and monitoring team.

## Strategic goals

The Zenex Foundation's ten-year strategy will focus energy and resources on developing long-term programmes to support education in mathematics, science and English. The strategic goals for the ten-year cycle – 2006 to 2015 – are three-fold:

1. The focus will switch from community-based early childhood development programmes to school-based early childhood development in Grade R and the rest of the Foundation Phase.
2. The focus for the Intermediate Phase will be on accredited teacher training in language and numeracy or language and mathematics, as well as continued professional development.
3. At the Further Education and Training phase, the Foundation remains committed to teacher training, and to producing sufficient learners with quality passes in mathematics, science and English.

Isasa Lentisa Primary School, KwaZulu-Natal (Maths Centre)



The strategy is guided by eight themes that will shape programmatic action. They are:

<b>Systems intervention: "All players at all levels make the system work"</b>	Supporting interventions in systems at provincial, district and school levels that create an enabling environment for the teaching and learning of mathematics, science and English.
<b>Partnerships: "Together we can achieve more"</b>	Building partnerships for the optimum delivery and sustainability of interventions with departments of education and other government departments (involved in education delivery), schools, NGOs and other institutions (involved in the delivery of education).
<b>Teachers: "Teaching teachers to teach others"</b>	Piloting models of teacher training and continuing professional development that use mentoring and classroom support to build sustainable professional skills and development.
<b>Matriculating learners: "Learners going places with mathematics, science and English"</b>	Striving to boost significantly the number of disadvantaged learners matriculating with high quality passes in mathematics, science and English.
<b>Capacity building: "Stretching to do our very best"</b>	Building capacity of all the stakeholders involved in the delivery of Zenex Foundation programmes to implement the programmes to a level agreed in operational plans.
<b>Modelling success: "Spreading models of excellence"</b>	Contributing to best practice, providing opportunities for innovation, and modelling and spreading success, particularly with regard to excellence in the teaching and learning of mathematics, science and English.
<b>Monitoring, evaluation and research: "Learning from what we do to do it even better"</b>	Continuing commitment to monitoring and evaluation, and contracting relevant research in support of, or inspired by, programmes. This includes commissioning a ten-year longitudinal study centred on issues of mathematics, science and English teaching and learning.
<b>Sharing knowledge and building a legacy: "Learning so as to share and grow"</b>	Growing a knowledge management and dissemination capability via the consolidation of project monitoring and evaluation, management information systems, research and experience.

## Implementation of the strategy

The strategy for this ten-year cycle will be implemented in schools according to the following plan.

### Foundation Phase

The Zenex Foundation's focus at this level aims to achieve the following:

- Grade R: Implement an early childhood development programme aimed to prepare young learners for school readiness.
- Grades 1 to 3: Strengthen home language, and provide foundations of numeracy and literacy.

### Intermediate Phase

- Grades 4 to 6: Introduce English literacy and mathematics.

The focus at this level of the schooling system will be on accredited teacher training and continued professional development. The aim is to support 600 teachers in the Foundation and Intermediate Phases (Grades R to 6) to achieve certified competence in teaching language and numeracy or language and mathematics.

### FET Phase

The Zenex Foundation's focus at this level of the schooling system will aim to:

- support 1 000 black learners to achieve matriculation passes in mathematics, science and English that will qualify them to enter higher education in these streams
- support 400 teachers in the FET phase (Grades 10-12) to achieve certified competence in teaching mathematics, science and/or English
- support 60 secondary schools to achieve

'centre of excellence' status against agreed criteria in matric-level mathematics, science and English

- support ten school districts to implement models for district strategies encouraging schools of mathematics, science and English excellence.

## Strengthening partnerships

Through experience, the Zenex Foundation has learnt that projects undertaken in the public school system must be developed and implemented in partnership with the relevant education departments. This will ensure that the projects:

- are aligned to the Department of Education's strategy and priorities
- add value to the education departments and build capacity

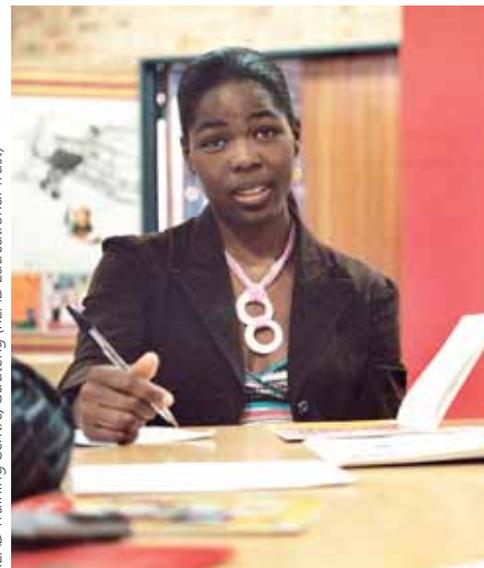
Young Teddies Pre-School, Gauteng (Wozobona)



Harry Oppenheimer School, Limpopo (Maths Centre)



READ Training Centre, Gauteng (READ Educational Trust)



- are sustainable in that they are mainstreamed into the Department's programmes.

The Zenex Foundation wishes to focus its limited resources in such a way that it achieves high quality, high impact returns. It thus intends to enhance the impact of its provincial partnerships by adopting the following operational principles:

- Negotiations and partnerships with provincial departments of education are a pre-requisite for the initiation and support of projects. This is especially so since developments in education are leading the Zenex Foundation to operate increasingly within the schooling system.
- This in turn requires the Foundation to adopt a new or enhanced modus operandi in its selection of projects. Programmes and projects will require government partnerships if they are to germinate in a climate that enjoys direct provincial support. This is because the drive to innovate and model systemic interventions at district levels requires on-going and active engagement with the provincial education departments.
- The intervention needs to focus on producing models and/or schools of excellence in the delivery of mathematics, science and English teaching.
- School selection is a pre-cursor to project implementation. The Zenex Foundation will only intervene in schools that are functional in terms of criteria pre-determined in consultation with the education departments.

The Zenex Foundation does not have

sufficient resources to spread them widely and still achieve the desired returns. Spreading activities and focus across all nine provinces is thus not an effective way of achieving the stated aims and objectives. For this ten-year cycle, the Zenex Foundation has selected the provinces of Gauteng, Western Cape, Eastern Cape, Limpopo and KwaZulu-Natal.

The Zenex Foundation did not use need as a criterion for selecting the provinces, nor to 'fill gaps' in government provision. The limited size of its budget relative to the education spend, made it imperative that it invests where it can make a significant impact.

For the Foundation, the implications of partnering with provincial departments are two-fold. Firstly, it involves a shift to proactive funding. The Zenex Foundation will play a significant role in conceptualising programmes aligned to its long-term strategic vision. It will negotiate the set-up of the programmes and projects within the programmes, and build capacity among the major stakeholders including provinces and districts. The Zenex Foundation will also monitor and evaluate programmes and projects.

Secondly, the Zenex Foundation will budget for the costs incurred during the pre-start-up stage of such negotiations and the capacity-building requirements with and within provinces.

### Indicative funding ratios

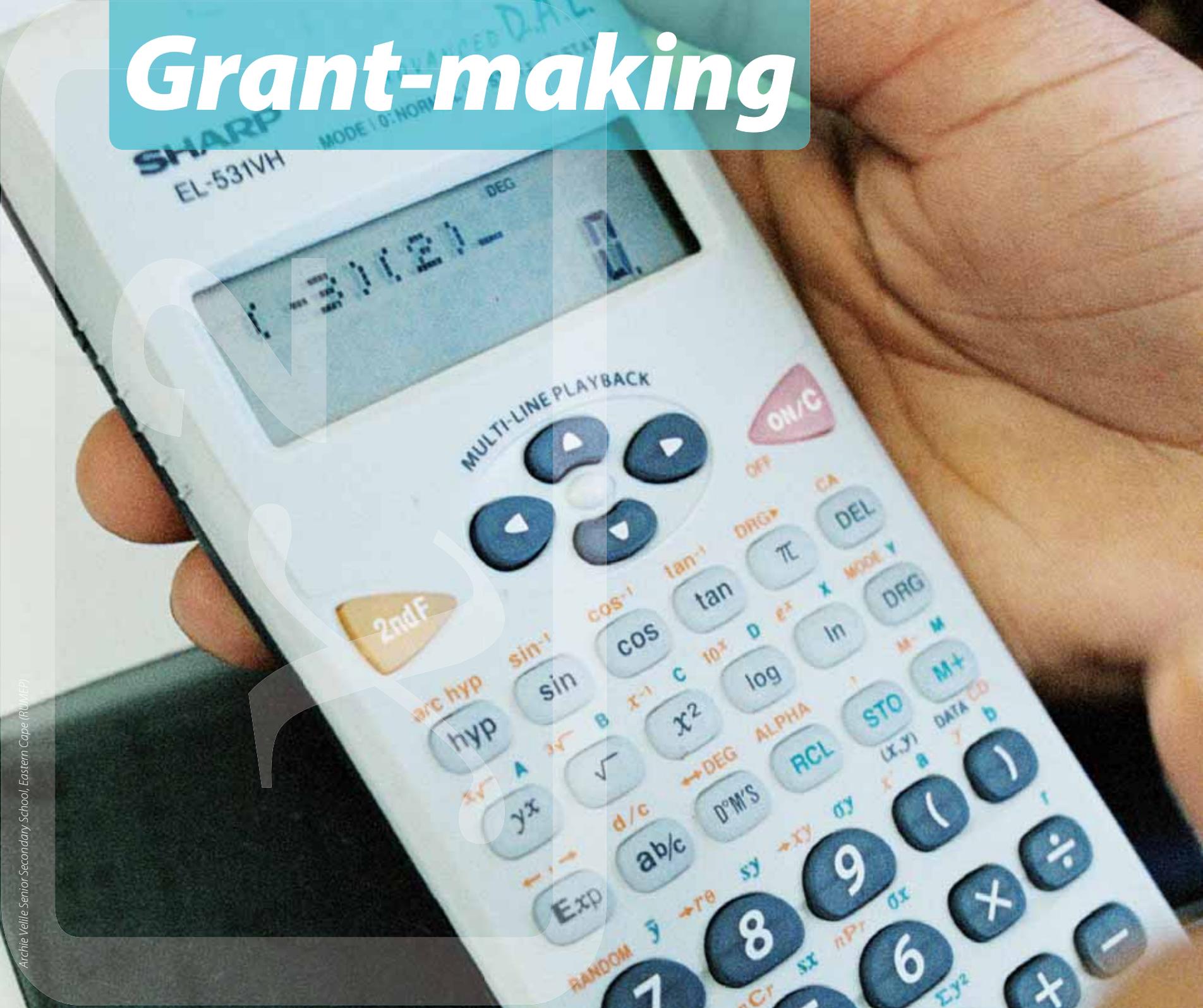
The following are indicative funding ratios for the ten-year strategic cycle:

Budget key focus areas	Percentage of cycle budget
Grades 10–12	50
Grades R–6	25
Innovation	5
Capacity building	5
Research and development	5
Monitoring and evaluation	10



Isasa Lemtsa Primary School, KwaZulu-Natal (Maths Centre)

# Grant-making





# Grant-making

## Zenex Foundation grant-making guidelines

### Learning from ten years of practice

The Zenex Foundation's approach to grant-making has changed and evolved over the past ten years. In examining the success with which the Foundation has managed its role as a grant-maker, the professional standards for good grant-making – as adopted by the Southern African Grantmakers' Association (SAGA)<sup>7</sup> – have provided a useful analytic framework. These principles of grant-making (developed by SAGA members and adapted from international codes of good practice) are applied to the work of the Zenex Foundation in the analysis below.

partnership with key stakeholders, including the Department of Education. The Zenex Foundation then asks providers to bid to offer services in line with a pre-determined project design.

#### *Work in partnership with grantees/project partners*

One of the challenges is to manage an inherently unequal relationship between donor and recipient organisations. In addition to seeing grantees as partner organisations, the Zenex Foundation characterises the relationship between organisations as one

where it procures services from implementing organisations to effect its development agenda.

#### *Cultivate mutual respect*

The cultivation of mutual respect works in tandem with the idea of partnership and the equalisation of power differentials. A range of approaches is used to cultivate mutual respect, including dialogue about project designs and implementation; having a joint process for commissioning evaluators; and providing regular feedback on the content and format of reports submitted by grantees.

### Principles of good grant-making

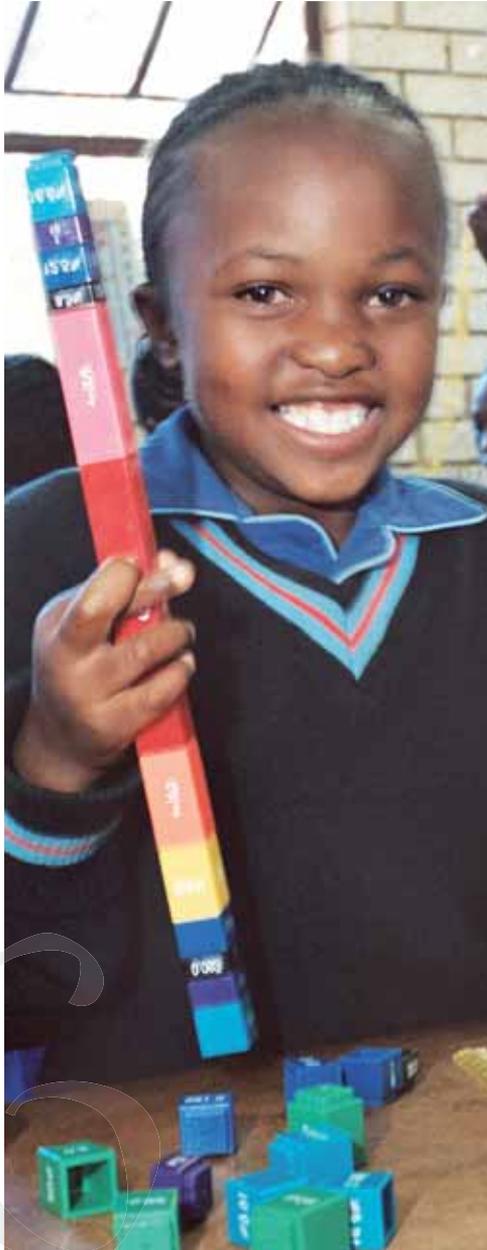
#### *Contribute to positive social change*

The Zenex Foundation's vision has always been to contribute to positive social change through the provision of quality education and training for historically disadvantaged communities. The Foundation's new strategy proves its commitment to become more proactive by developing project ideas in



Isasa Lenisa Primary School,  
KwaZulu-Natal (Maths Centre)

<sup>7</sup> The Southern African Grantmakers' Association (SAGA) was a membership organisation of donors, and existed from 1996 to 2006. The Zenex Foundation was a member along with 120 other donor organisations. The organisation closed down in 2006. However, resource information is still available from the Charities Aid Foundation South Africa.



Sivuleleni Primary School, Gauteng (Supedi Trust)

### *Be open and accessible*

Good communication is one of the keys to successful grant-making. The Zenex Foundation seeks to achieve this by appointing project managers to maintain regular communication; providing feedback on reports submitted by projects; and encouraging negotiation and discussion.

### *Champion accountability*

One of the main forms for ensuring accountability is through regular project evaluations and having effective project monitoring systems in place. In 1997, the Zenex Foundation's Trustees took a decision that all large projects would be subject to an external evaluation. The Foundation's commitment to regular, high-quality evaluation reflects a clear commitment to accountability. The Zenex Foundation has also become increasingly committed to discussing and debating evaluation findings with project partners and beneficiaries and looking for ways to address weaknesses in project design or delivery.

### *Foster internal monitoring systems*

The Zenex Foundation has instituted comprehensive monitoring systems which enable project managers to remain in regular contact with project implementers and beneficiary groups through site visits and regular progress reports from partner organisations.

### *Practise consistency*

Among the Zenex Foundation's very first policies was a clear declaration of criteria for

funding projects and organisations. Over the years, the Foundation has continued to develop policies and protocols for funding applications and structuring relationships with project partners. It also holds training workshops for grantees to explain how reporting (financial and activity reporting) is to be submitted.

### *Adopt professional and effective approaches*

The Zenex Foundation's approach has become increasingly professional with the introduction of procedures and templates for reporting and feedback to grantees. The organisation offers training on the use and completion of templates. The Foundation is committed to the continuous improvement of its internal systems and draws on feedback from grantees to improve its template design.

## **Features of the Zenex Foundation grant-making relationships**

Four characteristics stand out in the Zenex Foundation's grant-making relationships:

1. The Foundation funds the full cost of programmes, including administrative costs.
2. It is committed to a capacity-building programme for service providers to ensure delivery of quality programmes.
3. It enters into multi-year funding agreements with three-year funding cycles.
4. It is committed to monitoring and evaluation.

## Examining project sustainability

### Promoting the sustainability of project effects

The issue of project sustainability often attracts a great deal of donor attention. Most donors want to be assured that the project activities will be maintained once the grant period has ended, or that the benefits of the project will continue.

In the past, the Zenex Foundation used two models to promote the maintenance of project effects:

- training a key teacher who continues to provide professional support to teachers (from the same school) who participated in the project
- training a group of individuals (usually district officials) who are able to assume the role of external providers of teacher support.

The 'training of a key teacher' model has been unsuccessful, largely for two reasons: many teachers lacked the confidence to hold workshops for other teachers; alternatively they did not have access to their colleagues' classrooms, because they did not have sufficient authority to conduct oversight or monitoring activities.

As the work of the district officials does not depend on external funding, the assumption is that this is the most cost-effective model to ensure project sustainability. Only one

Zenex Foundation project explicitly followed this model, but it found that there was little real involvement of district officials in the project other than through the provision of administrative support and facilitation of access to the schools. It can be concluded that there was therefore very little likelihood that this would lead to maintenance of project effects.

### Understanding the failure of project sustainability

Funders and grantees (or project implementers) tend to focus on service delivery within the grant period, but pay little attention to the period immediately following the end of the grant.

In examining the general failure of project sustainability, it is necessary to re-examine some of the assumptions on which either the maintenance or expansion of effects are based. Sustainability assumes that:

- sufficient change has taken place to be sustained
- human capacity exists to assume the role of a change agent
- there is a willingness to assume the role of promoting and maintaining change
- there is sufficient capacity to continue the change process in the absence of external pressure or encouragement
- material support is available to sustain the change process.

The assumption that teachers have the spare capacity to take on additional roles as supporters of change and providers of



Archie Vellie Senior Secondary School, Eastern Cape (RUMEP)



Archie Velle Senior Secondary School, Eastern Cape (RUMEP)

professional development activities – over and above their normal teaching loads – has proved to be somewhat faulty.

The assumption that district officials will take over the role of support providers is premised on the idea that their existing job descriptions require that they monitor, support and train teachers. Unfortunately, this approach has not proved particularly successful. This has largely been attributed to the fact that donor-funded projects are conceptualised as special activities that fall outside of normal activities and are tied to specific time-frames. The ‘add-on’ nature of these projects results in them enjoying a low priority among district officials in relation to other activities.

### New attempts to foster sustainability

Based on the relatively disappointing results of earlier efforts to ensure project



Isasa Lentsa Primary School, KwaZulu-Natal (Maths Centre)

sustainability, the Zenex Foundation has embarked on new strategies to promote greater sustainability. These approaches include:

- **Increasing the number of teachers in a school participating in a project.** This has been introduced to bring about a ‘critical mass’ of those that are exposed to new methods, with the hope that even if only a small percentage of teachers continue promoting the project’s efforts and ideas, the change will be sustained.
- **Promoting project buy-in by beneficiaries.** Greater self-selection to participate in developmental activities has been identified as a success factor in some projects. Participants must volunteer and be committed to participate in the programme.
- **Brokering and sustaining partnerships with the Department of Education.** This approach promotes an understanding of the project’s design and approach, as well as creating joint ownership of the project from its inception. As long as projects are seen as parallel activities to normal teaching and learning, their effects will remain marginal. By aligning new projects with the Department of Education’s strategic agenda, it is hoped that they can be linked more explicitly with the normal activities of the schools.
- **Promoting organisational capacity of project implementers.** This is done on the understanding that it will improve the delivery of services during the grant period, and will also contribute to the ongoing work of the Zenex Foundation and its ability to source funding in future.

# Code of good practice

## Guiding the Zenex Foundation's approach to development funding

### Introduction

The Zenex Foundation has developed a code of good practice, which is a set of principles to guide its approach to development funding.

### 1. Transformation (social change)

**We aim to direct our funding and development efforts towards working with disadvantaged communities through:**

- developing our funding policy to include clear statement of purpose and an appreciation of the problems we hope to address
- ensuring that development objectives shape our funding policy
- making funding decisions against criteria that include sustainability, participation and relevant impact on existing conditions
- ensuring that our management processes facilitate the social change agenda
- seeking regular input from relevant stakeholders on current developments in the sectors in which we work
- valuing and promoting diversity and striving to reflect this in all our practices.

### 2. Partnership building

**We aim to work cooperatively with our partners to build a shared development vision, through:**

- creating partnerships with other donors, projects and key stakeholders
- building regular interaction, dialogue and collaboration with project partners
- facilitating interaction between government, schools and service providers to enhance the change process
- developing funding methods that enable project partners to seek appropriate development solutions
- recognising and acknowledging the needs of our project partners
- contributing to initiatives that build on the existing strengths and knowledge of partners
- ensuring mutual understanding and acceptance of project purpose, indicators of progress, outcomes, monitoring and evaluation mechanisms.

### 3. Empowerment

**We aim to empower our project partners and beneficiaries through:**

- supporting initiatives for improved effectiveness and accountability of project partners
- encouraging and supporting good governance and management practices among project partners
- being sensitive to the power relationship embedded in our mandate

- promoting and ensuring an empowered relationship between project partners and beneficiaries.

### 4. Integrity

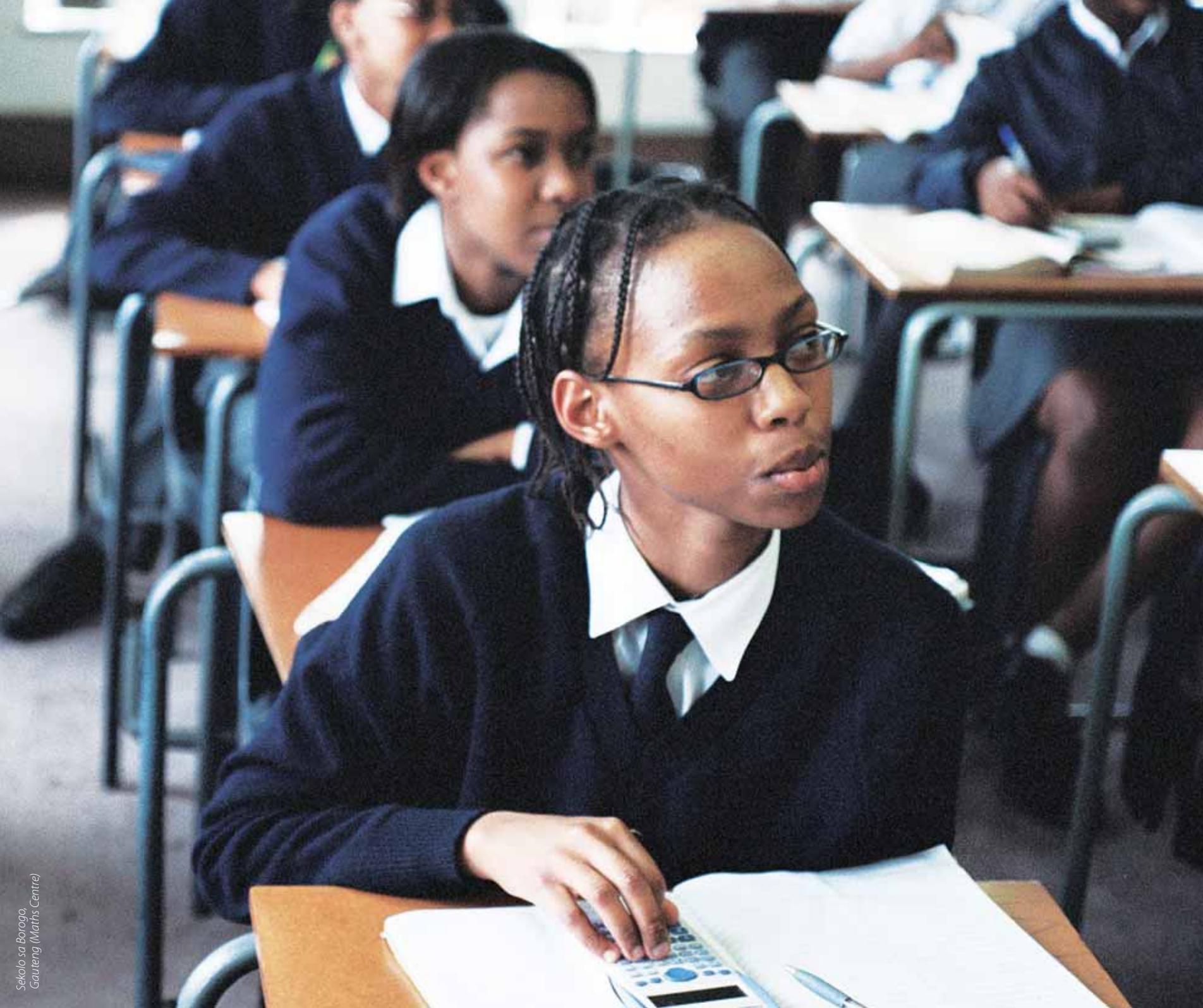
**We demonstrate high levels of integrity by:**

- providing accurate, accessible, relevant, user-friendly information
- being honest and sincere in our behaviour
- complying with ethical standards in the way in which we work
- dealing sensitively and responsibly with information
- being consistent in the administration of our Policy
- respecting our relationships with all external stakeholders.

### 5. Professional service delivery

**We aim to be professional in our approach and to achieve maximum effectiveness in our work by:**

- meeting the expected standards and objectives of our work, demonstrating organisational competence
- ensuring that our daily interactions with all stakeholders reflect the spirit of our values
- being accountable for all consequences of programmes: positive, negative or unintended
- researching and analysing new ideas
- keeping abreast of trends and developments in the sector
- actively striving to be at the forefront of new thinking and approaches
- being lateral, creative and innovative in our thinking and willing to consider new ways of doing things.



## Board of Trustees



*Sizwe Nxasana (Chair)*



*Dr Jane Hofmeyr*



*Sir Michael Oliver - UK*



*Thandi Orleyn*



*Michael Richardson - UK*

## Zenex Foundation Staff



*Jabu Ndinisa, Lulama Geqiwe, Modiegi Moletsane, Gail Campbell, Onica Luthuli, Janet Marx, John Mac Farlane, Gugu Zulu*

© Zenex Foundation 2006

The contents of this publication may be freely used and reproduced for non-profit purposes, provided full acknowledgment of the source is given. All rights reserved.

Writer: Dr Patricia Watson

Contributors: Jennifer Roberts, Eric Schollar, Gail Campbell, Helene Perold, Philanie Jooste

Editing: Helene Perold, Philanie Jooste, Pat Botes

Proofreading: Wordsmiths

Photos: Otmar Dresel

Philip Schedler (cover)

Paul Weinberg/South/The Bigger Picture (p 12)

Juda Ngwenya/Reuters/The Bigger Picture (p 13)

Mothalefi Mahlabe/South/The Bigger Picture (p 14)

Layout and design: Limeblue Design

Project management: Philanie Jooste for Helene Perold & Associates





The Zenex Foundation  
PO Box 2172 Rivonia 2128  
1st Floor 356 Rivonia Boulevard  
Telephone: 011 803 4203 Fax: 011 803 4432

[www.zenexfoundation.org.za](http://www.zenexfoundation.org.za)

