

Summary report on the
evaluations of the
literacy-numeracy
project in the Eastern
Cape and KwaZulu-Natal



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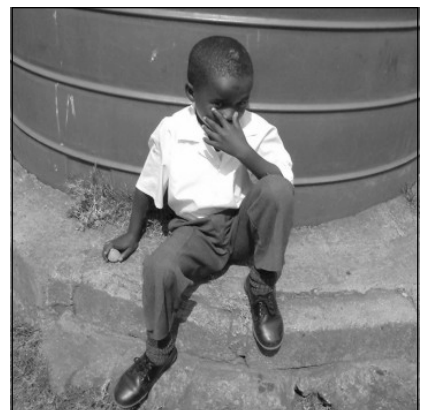
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1 Background

In January 2003, the Catholic Institute of Education (CIE) began a literacy and numeracy project in 48 Catholic and state schools in KwaZulu-Natal and the Eastern Cape. This project is Phase 2 of the Whole School Development and Renewal Project. Phase 1 began in 2000 and ended in 2002 and Phase 2 is scheduled to end in December 2005. The Zenex Foundation has funded both of these phases.

This evaluation has been carried out at the request of the Zenex Foundation. The research for this

evaluation was carried out during September, October and November 2004.

The evaluation consisted of three parts:

- An evaluation of the model of delivery used by the CIE in carrying out the intervention.
- An assessment of school management, and teaching and learning practices in schools.
- An assessment of learners' literacy and numeracy abilities in Grades 4 and 7.

Project aims

The aims of the project are to improve the quality of teaching and learning in the areas of:

- Reading and writing (i.e. literacy)
- Basic numeracy concepts and skills

Plans

The plans for the project were outlined as follows:

- Specific training in how to apply OBE most effectively in large classes.
- Specific training in how to teach learners the basic concepts of literacy and numeracy in the correct order.
- Through the above, strengthening the teachers' own concepts.
- Monitoring the schemes of work, daily lesson-planning and assessment procedures.
- Exposing the teachers to creative teaching methods and skills.
- Seizing opportunities to provide classes with necessary learning support materials.

Project delivery

The project is aimed at building teachers' knowledge and skills. It does not deal directly with learners, although its final goal is to improve learner performance. The aims were to be achieved using the following model:

- Conducting workshops for teachers.
- Classroom-based support visits to schools to help teachers cope in the classroom.
- Monitoring the use of learner support material provided by the Zenex Foundation.

Evaluation of the model delivery 2

Data was gathered using a pencil-and-paper teacher questionnaire. Questionnaires were sent to 48 schools. 225 teachers from 29 schools replied, representing a 60.4 % return rate.

Focus interviews were held with the project implementers (the national literacy and numeracy co-ordinator as well as the regional fieldworkers). Interviews with the project beneficiaries (the teachers) were also held.

Three workshops (one in the Eastern Cape and two in Natal) and ten lessons were observed. The documents produced during the project were also analysed.

Compared with other literacy and numeracy projects, it can safely be said that the CIE literacy and numeracy project is in line with universal best practice.

The project should continue for another three years, but with important changes.

At present, the CIE is well placed to continue the project because:

- a solid infrastructure is in place (e.g. project implementers, project methodology).
- the project implementers and most of the teachers want the project to continue because they believe that it is successful.
- the RNCS is firmly in place, so there is now a definite goal at which to aim when trying to improve literacy and numeracy teaching and learning.
- the CIE project has built a solid reputation among schools in the areas where the project is being implemented.

Depending on the funding available, one or more of the following options could be followed in the future, or they could be used in combination:

- Fewer schools, closer to the regional offices, should be included and the training should be holistic so that it relates to other Learning Areas, management training, etc.
- A fieldworker must service a specific area (i.e. live in the area), or fieldworkers must stay in an area for a week and visit all the schools in that area.
- Regional fieldworkers should become 'educational consultants', supporting fewer schools but in many different ways.

When judged against the original proposal, it is clear that the project has been delivered as planned.

Three main areas of concern were identified:

- Although generous, current funding makes it difficult to run a project as large as this effectively.
- Schools are too far away from each other for the project to be successful in its present form.
- Teachers receive no official recognition for taking part in the project.

3 The assessment of school management, and teaching and learning practices in schools

The post-implementation study made use of classroom observations and a questionnaire about management and governance of the school. The aim of this activity was to describe the context of the interventions. A team of seven researchers observed 222 lessons in 19 schools.

KEY FINDINGS FROM THE 2000 BASELINE STUDY

In 2000 the observations showed that lessons were taught on the spur of the moment and seldom formed part of an organised plan. Teacher-centred activity and rote recital work were commonplace, and learners were seldom actively engaged in activities. Communication between grades was poor and there was little evidence of critical thinking skills.

Teaching took place in challenging contexts:

- Some of the classes were large and conditions were cramped.
- There was a lack of teacher reference and other reference materials.
- There was a shortage of storage space in some schools.

A number of positive aspects were identified in schools and these included:

- well-kept schools
- good relationships between learners and teachers
- punctual teaching staff who spent the required time at school
- teachers who were open to new ideas and being mentored

- good classroom management skills.

Almost all of the teachers arrived on time for lessons and started teaching immediately. A number of teachers had made an effort to display posters and other teaching aids. Classroom observations showed that teachers made much more effort to include learners in activities than in 2000. In most cases classroom furniture was arranged in a way that would support group work. However, many teachers still tended to dominate classroom activities. Whole-class teaching was the main approach used by most teachers. In some instances teachers used interactive whole-class teaching.

The teaching of reading in schools was effective, but more can be done to encourage learners to write creatively and independently. Judging from the time spent observing lessons it was very clear that learning support materials supplied by the CIE were being used in classrooms.

Some of the teachers managed to use the language of numeracy and were able to demonstrate concepts. Some also encouraged learners to estimate and to problem solve. However, most of the learners were not confident in numeracy.

More teachers were using assessment in their lessons than in 2000, and many were beginning to record a range of assessment tasks.

As shown by the results of the numeracy and literacy tests, much progress has been made over the last four years of training. The table below lists some of the most important features of this progress that emerged from the classroom observations. It also begins the discussion on the way forward.



Table 1: Summary of strengths and points of action in the Eastern Cape and KwaZulu-Natal

EASTERN CAPE	KWAZULU-NATAL
<p>Key Strengths</p> <ul style="list-style-type: none"> • Classrooms are well organised. • Schools are using the literacy and numeracy materials. • Learners are being exposed to spoken and written English in all grades. • Learners are taught word-attack skills. • Teachers effectively use oral and visual communication modes. • Effective group work is being carried out in many classes. <p>Points for action</p> <ul style="list-style-type: none"> • Too little written work is being completed. • The pace of learning is slow in many classes. • Very little continuous assessment is taking place. • There is still too much chorus reading and meaningless repetition. • Not enough attention is being paid to progression. • The level of questioning is still very basic • The quality of teaching in the Foundation Phase is better than in the Intermediate Phase. 	<p>Key Strengths</p> <ul style="list-style-type: none"> • Classrooms are well organised. • Teachers use group work to discuss issues and find answers together. • Learners are taught word-attack skills. • Effective group work is being carried out in many classes. <p>Points for action</p> <ul style="list-style-type: none"> • Learners are not exposed to enough spoken and written English. • Not enough attention is being paid to using correct mathematical language. • The level of questioning is still very basic. • Not enough attention is being paid to progression. • Lessons are taught in isolation and links are not being made. • There is still too much chorus reading and meaningless repetition. • Too little written work is being completed. • Schools are not making effective use of the literacy and numeracy materials.

Both the CIE KwaZulu-Natal and Eastern Cape offices have made progress in improving literacy and numeracy in the project schools. The good work being done is acknowledged and the following recommendations are made:

- The team should possibly work in fewer schools and spend more time at each.
- The project should consider producing high-quality training videos that show examples of best practice.
- Teachers need to develop skills to integrate writing strategies with the reading strategies.
- Far more ongoing structured support needs to be provided for the teaching of numeracy. Teachers need help to enable them to shift the emphasis from mechanical learning towards understanding.
- School management teams need to pay more attention to teaching and learning issues. Language and assessment policies must also give clear direction for teachers implementing the curriculum.
- More attention needs to be given to linking assessment and assessment strategies to outcomes.

The assessment of learners' literacy and numeracy abilities in Grades 4 and 7

4.1 NUMERACY RESULTS

Grade 4

Numeracy abilities were assessed using separate tests that were compiled by the Research Institute for Education Planning (RIEP). CIE regional staff carried out the data collection. 299 learners completed the tests in the Eastern Cape and 355 in KwaZulu-Natal (Table 2).

There were significant increases in performance in both the Eastern Cape and KwaZulu-Natal schools. Numeracy results improved from 27,6% to 49,4% in the Eastern Cape, and from 34,6% to 42,7% in KwaZulu-Natal. The average performance of project schools in both literacy and numeracy is well above those of the MLA and systemic evaluation (see Figures 1 and 2 for school details).

Table 2: A comparison of the 2000 and 2004 Grade 4 numeracy results in the Eastern Cape and KwaZulu-Natal. Comparison is also made with recent provincial and national testing

	Eastern Cape (CIE project)	Eastern Cape Monitoring Learner Achievement	Eastern Cape Systemic Evaluation	KwaZulu-Natal (CIE project)	KwaZulu-Natal Monitoring Learner Achievement	RSA Systemic Evaluation
Numeracy results 2000	27,57%	30,83%	–	34,60%	31,00%	30,03%
Numeracy results 2004	49,4%	38,8%	34,4%	43,7%	30,3%	30,7%

Fig. 1: Results of the Numeracy assessment by school in the Eastern Cape, Grade 4

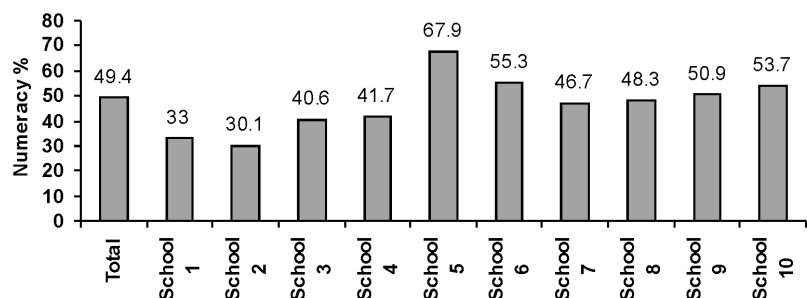
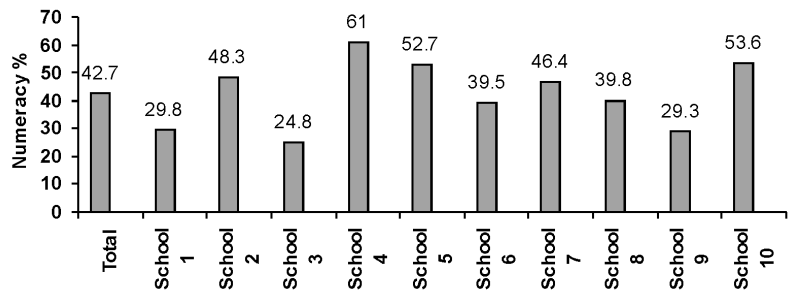




Fig. 2: Results of the Numeracy assessment by school in KwaZulu-Natal, Grade 4

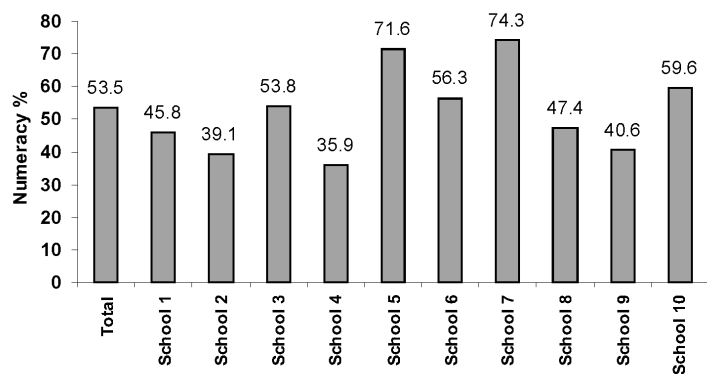


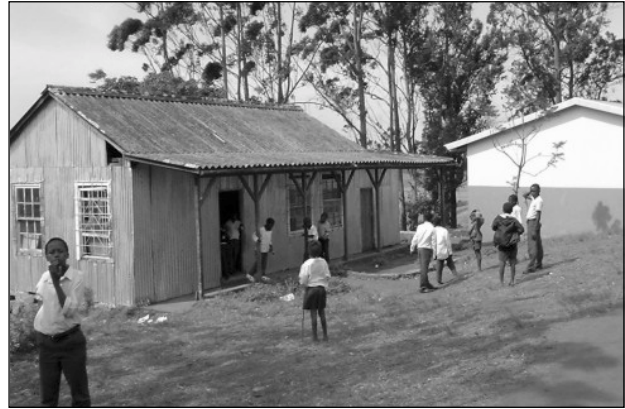
Grade 7

Learners' literacy and numeracy abilities were assessed using separate tests consisting of 44 items for literacy and 40 items for numeracy. These were compiled by the Research Institute for Education Planning (RIEP) using items from an international study evaluating literacy and mathematics. A contextual questionnaire for learners was also included in the survey.

In KwaZulu-Natal the total average for numeracy in this survey was 46,3 percent. The performances of the individual schools ranged from 32,6 percent (School 2) to 62,2 percent (School 3), indicating a difference of about 30 percent between them. Four of the schools performed above the mean (average).

Fig. 3: Results of the Numeracy assessment by school in the Eastern Cape, Grade 7





In the Eastern Cape the total average for numeracy in this survey was 53,5%. The performances of the individual schools ranged from 35,9% (School 4) to 74,3% (School 7), indicating a difference of about 38 percent between them. Half of the schools performed above the mean (average).

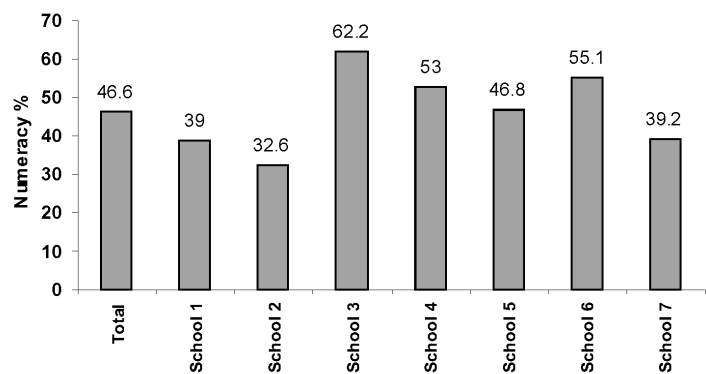


Fig. 4: Results of the Numeracy assessment by school in KwaZulu-Natal, Grade 7

4.2 LITERACY RESULTS

Grade 4

Literacy is important at the individual learner level as it plays a key role in personal growth, quality of life, self-image and access to knowledge.

Table 3: A comparison of the 2000 and the 2004 Grade 4 literacy results in the Eastern Cape and KwaZulu-Natal. Comparison is also made with recent provincial and national testing

	Eastern Cape (CIE project)	Eastern Cape Monitoring Learner Achievement	Eastern Cape Systemic Evaluation	KwaZulu-Natal (CIE project)	KwaZulu-Natal Monitoring Learner Achievement	RSA Systemic Evaluation
Literacy results 2000	48,89%	48.19%	–	61,17%	51,40%	48,10%
Literacy results 2004	77,7%	48,1%	50%	72,1%	51,40%	54%

There were significant increases in performance in both the Eastern Cape and KwaZulu-Natal schools. Literacy results improved from 48,9% to 77,7% in the Eastern Cape, and from 61,2% to 72,1% in KwaZulu-Natal. The average performance of project schools is well above those of the MLA and systemic evaluation (see Figures 5 and 6 for school details).

Fig. 5: Results of the Literacy assessment by school in the Eastern Cape, Grade 4

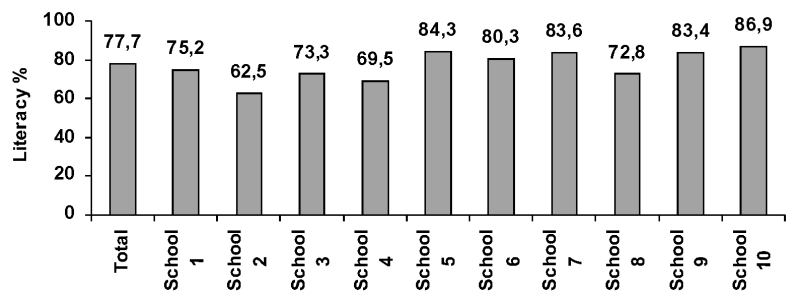
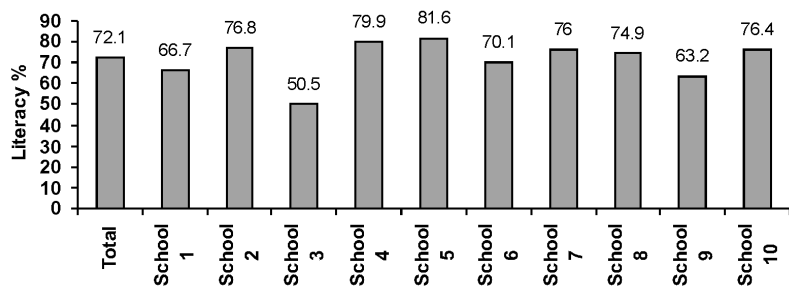


Fig. 6: Results of the Literacy assessment by school in KwaZulu-Natal, Grade 4





Grade 7

Grade 7 learners' literacy abilities were assessed using tests consisting of 44 items for literacy and 40 items for numeracy. These were compiled by the Research Institute for Education Planning (RIEP) using items from an international study evaluating literacy and mathematics. A contextual questionnaire for learners was also included in the survey.

In KwaZulu-Natal the total average for literacy was 62,4%. The performances of the individual schools ranged from 41,7 percent (School 2) to 78,6 percent (School 6), indicating a difference of about 37 percent between them. Four of the schools performed above the mean (average). The total average for numeracy in this survey was 46,3 percent. The performances of the individual schools ranged from 32,6 percent (School 2) to 62,2 percent (School 3), indicating a difference of about 30 percent between them. Four of the schools performed above the mean (average).

In the Eastern Cape the total average for literacy in this survey was 70,9%. The performances of the individual schools ranged from 52,1% (School 4) to 89,4% (School 5), indicating a difference of about 37% between them. Six of the schools performed above the mean (average). The total average for numeracy in this survey was 53,5%. The performances of the individual schools ranged from 35,9% (School 4) to 74,3% (School 7), indicating a difference of about 38 percent between them. Half of the schools performed above the mean (average).

Fig. 8: Results of the Literacy assessment by school in KwaZulu-Natal, Grade 7

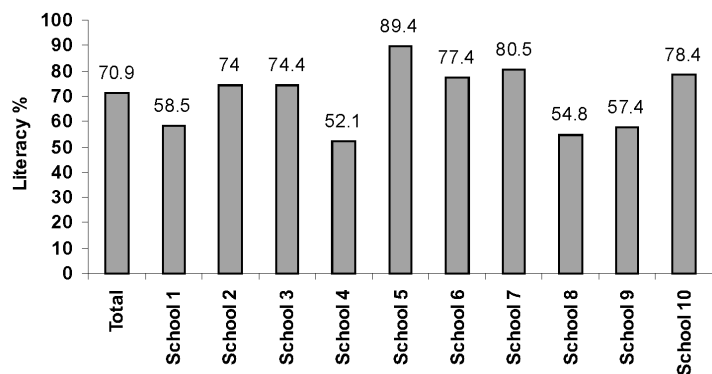
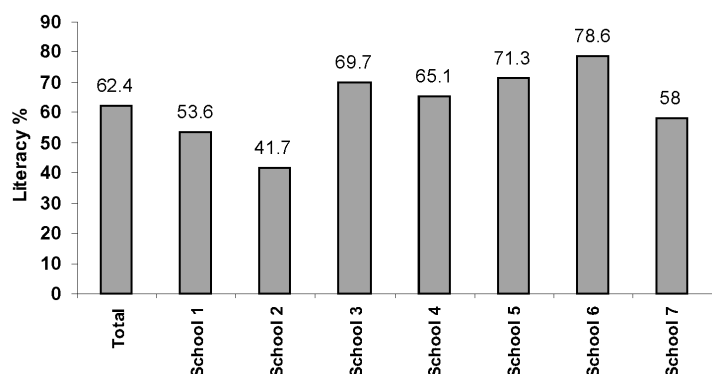


Fig. 7: Results of the Literacy assessment by school in the Eastern Cape, Grade 7



4.3 CONTEXTUAL CHALLENGES

The Grade 7 tests included an extensive contextual questionnaire, which looked at the influence of environmental factors on the performance of learners.

The learners who performed well in literacy also performed well in numeracy. Gender and age did not influence the performance of learners.

Factors that had a large influence on the performance of learners were:

- frequency of speaking English
- exposure of learners to TV broadcasts
- a place to study
- light to study.

This suggests that learners should be exposed to more spoken and written English. The more learners hear and speak English, the better they will perform. More attention should also be paid to making reading books available in the learners' homes.