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LESOTHO FINAL REPORT

## Developing, implementing and evaluating the SOFIE intervention package to support educational access for vulnerable students

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SOFIE is a three year Research Project supported by the UK Department for International Development (DFID) and the Economic and Social Science Research Council (ESRC). Its purpose is to strengthen open, distance and flexible learning (ODFL) systems and structures to increase access to education for young people living in high HIV prevalence areas in Malawi and Lesotho. It seeks to achieve this through developing a new, more flexible model of education that uses ODFL to complement and enrich conventional schooling. It also seeks to encourage application of the new knowledge generated through effective communication to development agencies, governments, development professionals, non-governmental organisations and other interested stakeholders.

Access to education and learning is being viewed as a 'social vaccine' for HIV but in high prevalence areas orphans and other vulnerable children are frequently unable to go to school regularly and are thus being deprived of the very thing they need to help protect themselves from infection. In this context sustained access is critical to long term improvements in risk and vulnerability and it requires new models of education to be developed and tested.

#### The partners

The research team is led from the Department of Education and International Development, Institute of Education, University of London and the research is being developed collaboratively with partners in sub-Saharan Africa.

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Association (LSMTA), Lesotho Association of Teachers (LAT) and Lesotho Teachers Trade Union (LTTU) is also acknowledged.

## Abbreviations

ACL	Anglican Church of Lesotho
AIDS	Acquired Immuno Deficiency Syndrome
AME	Africa Methodist Episcopal
CBO	Community Based Organisation
COSC	Cambridge Overseas School Certificate
FGD	Focus Group Discussion
FPE	Free Primary Education
IE	Institute of Education
JC	Junior Certificate
LANFE	Lesotho Association for Non-Formal Education
LAT	Lesotho Teachers Trade Union (LTTU)
LDTC	Lesotho Distance Teaching Centre
LEC	Lesotho Evangelical Church
LGGA	Lesotho Girl Guides Association
LSMTA	Lesotho Science and Mathematics Teachers Association
MOET	Ministry of Education and Training
NGO	Non-governmental organisations
ODFL	Open distance and flexible learning
ODL	Open and distance learning
OVCs	Orphans and Vulnerable Children
RCM	Roman Catholic Church
RCT	Randomized control trial
RECLISA	Reduce Exploitative Child Labour in Southern Africa
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAIDE	South African of Distance Education
SMC	School Management Committee
SRV	Senqu River Valley
UNICEF	United Nations Children's Fund

## 1. Introduction

This report presents findings of the final phase of the SOFIE research project in Lesotho. The aim of the SOFIE project is to investigate ways of improving retention and increasing access to learning for vulnerable children and young people, including those affected by HIV and AIDS. It seeks to do this through the development, trial and evaluation of a new, more flexible model of educational provision that incorporates open distance and flexible learning (ODFL) strategies to complement and support conventional schooling. In this introductory section the background and rationale for the Lesotho study is presented.

### The context

With an area of just over 30,000 square kilometres, Lesotho is completely landlocked by and dependent on the Republic of South Africa. The majority of the population, in this economy depends on subsistence farming, husbandry, migrant workers' remittances, and garment and textile manufacturing for their incomes and employment. Lesotho is divided into ten administrative districts and comprises four agro-ecological zones - Lowland, Foothill, Mountain and Senqu River Valley (SRV) – as described below.

- **Lowlands** have relatively high rainfall and allow cultivation of maize, sorghum, beans, winter wheat and vegetables. With a population of 201 per square kilometre, this zone is the most densely populated of the four zones, well above the national average of 87 per square kilometre.
- **Foothills** have relatively lower rainfall compared to lowland zone and rise from 1800 to 2400 metres above sea level. The loose sandy top soil is also susceptible to erosion.
- **Mountains** are characterised by very cold winters and rise to an elevation of 3500 metres above sea level. The zone is by far the largest (59%) portion of the country, and yet constitutes the least densely populated zone (20 per square kilometre).
- **Senqu River Valley** is a steep area along the Senqu River, which runs from east to west of the country. Although the soil along the Senqu River is generally rich, the valley is characterised by low rainfall especially in the south-western portion.

During the period 2000-2009, Lesotho's fiscal position has been very strong owing to the official transfers from Southern African Customs Union (SACU) and restraint on expenditure by the Government. However, Lesotho's overdependence on South Africa has rendered it quite vulnerable. This had become more evident as South Africa adopted a more capital intensive technology in the mining sector, reducing job opportunities for migrant labourers from Lesotho, and more recently as the SACU revenues, to which South Africa is a main contributor, 'declined' (MOET 2010). In addition, persistent droughts that ravaged the country for three consecutive years between 2001 and 2004 resulted in growing food insecurity in Lesotho. Perhaps the most serious development impact on Lesotho has come from the growing HIV and AIDS pandemic, particularly as it affects the most economically active population groups with 28.9% of the country's adults aged between 15 and 49 living with HIV and AIDS (Ministry of Health and Social Welfare, 2005). As a result of the pandemic, the number of vulnerable people in need of emergency food aid rose from 448,000 to nearly 700,000 or one-third of the population between 2002 and 2004, with the number of orphans estimated to be about 180,000 in 2005 (UNICEF, 2007). The recurring droughts and undiversified crop production have increased the section of the population dependent on food assistance.

This study reports on an intervention that was undertaken to explore alternative pathways to learning that meet the needs and requirements of orphaned and vulnerable children in Lesotho. This study employed an experimental design with 20 experimental (intervention) secondary schools and 20 comparison (control) school selected to participate. Four of the experimental schools withdrew from the study quite early in the intervention for various reasons, leaving the study with 16 experimental and therefore 16 comparison schools. Researchers collected both quantitative and qualitative data to evaluate the effects of the intervention. Sites were selected based on high prevalence rates and dropout rates in secondary schools.

### **Research problem and rationale**

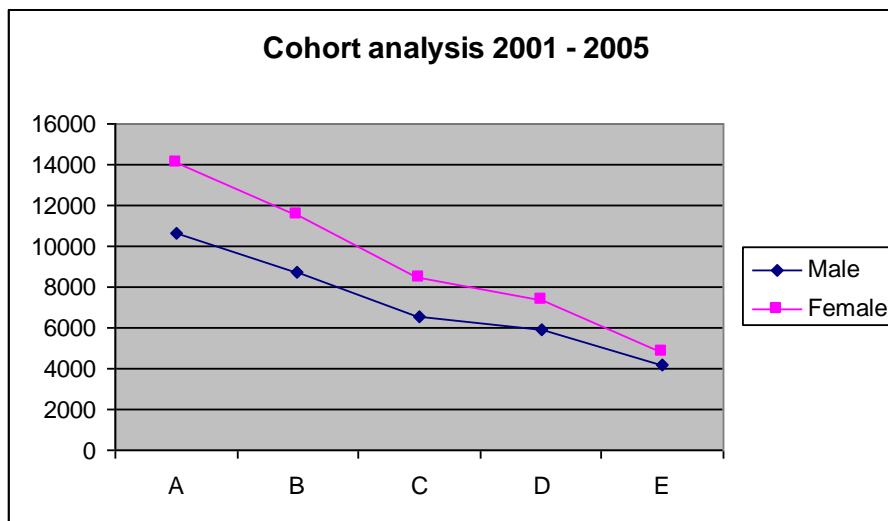
Lesotho not only has the third highest HIV prevalence rates in the world but it is also said to have one of the highest orphaning rates in the SADC region with almost 30 percent of children aged 0 – 17 orphaned, largely as a result of HIV and AIDS according to a USAID report (USAID, 2008). Therefore, more than any other country in the region, the incidence of HIV and AIDS has had the most devastating effect on the situation of children in Lesotho. This group of vulnerable children is at risk of dropping out of school, with some 30 percent of orphans already out of school (UNICEF, 2007).

Lesotho has made commendable progress in increasing access to primary education with the introduction of Free Primary Education in 2000. The introduction of other initiatives such as the bursary scheme for orphaned secondary school children is one of the signs of the commitment that both the Government of Lesotho and its development partners have towards vulnerable children. However, even with this high level of commitment, there has been indication that many orphaned and vulnerable children struggle to attend secondary school in Lesotho (Nyabanyaba, 2009; Smiley, 2009).

Lack of space and high school fees have been cited as serious constraints for education provision at secondary level (Lerotholi, 2001). Although between 2006 and 2009 teacher pupil ratio dropped from 25.7 to 23.5, there was an overall increase from 22.8 in 2000, and peaking at 26.6 in 2005 (Ministry of Education and Training, 2010). With space continuing to present a challenge for the provision of secondary education and teachers apparently becoming stretched by the growing enrolments of learners, the situation clearly calls for a consideration of means to support the provision of secondary education through alternative delivery such as open and flexible curricular delivery.

Cohort analysis as a measure of internal efficiency indicates that very few of the students enrolled in their first year of secondary schooling reach the final year of their studies within the expected five year period. For example, in the period 2001 to 2005, only 36.6% of the learners who started off in the first year of secondary (Form A) reached Form E in 2005 and only 60% had reached Form C in 2003. It is important to note that these figures relate to the period before the Free Primary Education (FPE) students had reached the secondary school level. Preliminary figures of the 2009 enrolments indicate that the trend of about 60% survival to Form C has continued with this first group of FPE students in secondary school. It is indeed unlikely to expect that the survival rate would improve within the FPE groups. What is notable on the graph below is that the wastage increases in the second year of secondary school (Form B) and again in the final year.

**Figure 1 Secondary school cohort analysis 2001-2005**



(Ministry of Education and Training, 2006)

As can be noted in Figure 1, although there are generally more girls than boys in secondary schools, wastage is higher among girls than boys in Lesotho. A closer look at the graph indicates that the highest drop-out, especially for girls, is experienced in the years of examination both at the Junior Certificate (JC) and particularly at the Senior Certificate (COSC) level. One reason may be that many parents are unable to afford these examination fees and that these fees are pushing learners out of school. Another factor that emerged in the analysis of the education statistics was that repetition rates are particularly high in Form B and Form D, where schools hold back academically weak students from progressing into taking the national examination in Form C and Form E.

It is important to note that what the cohort analysis indicates is a crude measure of internal efficiency because it does not factor in repetition rates, which have been found to be abnormally high in Lesotho (Nyabanyaba & Letete, 2007). However, the fact that only about a third of students initially enrolled reach the end of their secondary schooling is particularly significant when one considers that only about a third of appropriate age students and less than half of all students (including overage students) are in secondary school in Lesotho according to the latest statistics figures from the Planning Unit (Ministry of Education and Training, 2010). This implies that while enrolments have grown recently, less than twenty percent of students benefit from secondary education as they should. Therefore, while addressing gender inequity in terms of poor access for boys, Lesotho also needs to pay attention to internal inefficiency, particularly among girls.

The high internal inefficiency at this level implies that skills are needed by teachers to support the current learners who quite often have to face a number of interruptions and even have to drop out of school in order to undertake income-generation activities to help families struggling to raise an income (Pridmore & Yates, 2006). In addition to the sheer inefficiency of the education system and the growing vulnerability of children, secondary education is just not free in Lesotho and cost has been recorded to be a serious constraint to secondary education participation in Lesotho (Lerotholi, 2001). Issues such as the internal inefficiency and cost of secondary education need to be addressed, but even as the government tries to support orphaned children the extent of vulnerability among secondary students is unlikely to be responded to sufficiently any time soon. Therefore, opportunities are available within the secondary school level to provide more open and flexible education provision. However, it is important to further note that there is an intrinsic justification for strengthening the capacity of secondary teachers to provide more open and flexible methods of educational delivery as this would enhance the quality of education being offered. Therefore, even children who are not vulnerable would benefit from a more open and flexible education provision where



teachers are able to address the different learning paces of different children. The SOFIE project seeks to support these opportunities by exploring the potential of ODFL to enhance educational access and attainments in high HIV prevalence countries like Lesotho.

### **Open, Distance and Flexible Learning**

A number of non-governmental organisations offer a variety of programmes on literacy and vocational skills benefiting many orphans and vulnerable children as well as members of various communities. For example, the Lesotho Association for Non-Formal Education (LANFE) recently ran literacy programmes for both herd boys and child domestic workers from the support given by the Reduce Exploitative Child Labour in Southern Africa (RECLISA) funded through the American Institute for Research based in Pretoria. Another NGO, the Lesotho Girl Guides Association (LGGGA) also undertakes initiatives with out-of-school youth such as street children, providing them with some vocational skills. However, the key institution offering open and distance learning programmes at secondary level remains the Lesotho Distance Teaching Centre (LDTC). Established in 1974, LDTC continues to provide literacy programmes and opportunities for learners who are preparing to write their examinations outside conventional schooling. Recently the literacy programme was extended to some rural parts of Lesotho and the curriculum has been augmented to cover HIV and AIDS. However, the main focus has remained the preparations of those out-of-school youth preparing to sit for the external examination either at junior secondary, for the award of a Junior Certificate (JC), or at a senior secondary level for the Cambridge Overseas School Certificate (COSC). It is evident that the demand for formal education in Lesotho outstrips the supply, and open and flexible learning modes have a role to play in supporting the provision of conventional schooling.

It is generally agreed that distance education is a teaching/learning process or methodology in which the learners are separated from the instructional base or teacher, both in space and time, for a significant part of their learning (Ministry of Education and Training, 2008). As the ODL policy document further indicates, it is important to note that in the context of Lesotho, learners who end up in ODL institutions tend to be those who are unable to complete different cycles of education. In general, these are learners who have been forced into ODL either because they did not perform well in the formal system or because they are generally weak. However, the SADC ODL appraisal report notes that key to addressing the socio-economic challenges currently facing the SADC region is the provision of quality relevant education (SADC, 2006). The document raises the following factors limiting access to quality education even as many countries in the Region attempt to increase the provision of conventional schooling:

absenteeism and drop out due to loss of opportunity costs, limited coverage of school catchment areas; the costliness of conventional education systems, particularly at secondary level; limited school infrastructure and consequently overcrowded classrooms; inadequately trained and qualified teachers and irrelevant curricular (SADC, 2006, p.1).

The document then identifies the deployment of Open and Distance Learning as one way of addressing these challenges and further views the need for the increased application of open and flexible education methods in the region as intricately linked to the provision of quality education.

In an earlier study, it was indicated that as parents and learners experience increasing socio-economic challenges in the Region, there is evidence that large numbers of children in conventional schooling are experiencing disruptions and are at risk of dropping out of school (Nyabanyaba, 2009). Despite enrolment growth at secondary, higher education and teacher

education, inefficiencies continue to present challenges, particularly for secondary and higher education. In secondary, for example, while there has been a steady increase in enrolments, enrolments for boys continue to lag behind those for girls by a considerable margin. However, girls drop out of school at high rates in the later stages of secondary school. These children increasingly need alternatives modes of delivery in order to support them even as they experience disruptions to their schooling.

Provision of ODL in Lesotho has grown considerably although there is evidence of a lack of facilities such as internet and information and communications technology (ICT) as well as library books. Regard for ODL has improved in Lesotho with stakeholders noting advantages and strengths of ODL provision, particularly its affordability and flexibility for many learners whose socio-economic situation does not allow them to attend full-time studies. Although for many learners ODL was not a mode of choice, they had huge respect for the mode and argued that it molded strong character and the ability to balance commitments among its beneficiaries. The main challenge reported included financing and human capacity. Tutors were reported to lack skills in supporting ODL learners, often using only the few face-to-face sessions to cover a wide curriculum.

Drawing on lessons learned from their study of open, distance and flexible learning initiatives, Pridmore and Yates (2006) highlight the potential of ODFL strategies to support young people in the context of poverty and HIV and AIDS. Several of these relate to the emotional and social needs of children affected by HIV and AIDS, but they also argue strongly that ODFL can support more flexible approaches to delivery of curriculum content, so that vulnerable young people do not fall behind in their lessons when unable to attend school, and can re-enter if already dropped out. They highlight the use of radio, self-study learner guides for individual or group study and the use of 'buddy systems' to deliver and collect materials from learners during home visits as strategies worth pursuing. They also note the potential for ODFL materials to improve teachers' and other service providers' understanding of, and empathy with, the needs of young people made vulnerable by HIV and AIDS. Significantly, this report presents the evaluation of a school-based intervention that involves face-to-face delivery of the curriculum complemented by distance learning resources and psychosocial support and discusses the potential of ODFL to support the learning of vulnerable students in the context of HIV and AIDS.

## **Background to the SOFIE project**

It was in the context of the challenges noted above that a three year research project coordinated by the Institute of Education, University of London was set up with funding under the DFID/ESRC Joint Scheme, working in partnership with institutions in Malawi, Lesotho and South Africa. The research partner in Lesotho was the Institute of Education (IE), a centre within the National University of Lesotho dedicated to professional development of teachers and educational research. The aim of the SOFIE project was to support improved access to education for vulnerable young people in high HIV prevalence areas through developing a new, more flexible model of education that uses open distance and flexible learning (ODFL) to complement and enrich conventional schooling. The project was guided by the central research question:

To what extent can barriers to educational access and attainment presented by HIV and AIDS be addressed using open, distance and flexible learning (ODFL) as a complement to conventional schooling?

In Lesotho, the project commenced in June 2007 with the preparation of background papers to review factors that influence access to schooling in high HIV prevalence countries in SSA, provide a situational analysis of education sector responses to issues of access for vulnerable groups, including ODFL initiatives, and highlight the current policy context in Malawi and Lesotho<sup>1</sup>. These papers not only produced new knowledge and provided essential background information for the project, but were critical in informing the subsequent empirical research.

The design of the empirical research followed a mixed methods approach, using both qualitative and quantitative approaches in two distinct phases (Cresswell, 2009). The first phase was essentially exploratory in nature – data were collected in four contrasting communities severely affected by AIDS. This was essentially a multi-site investigation to examine the factors influencing the schooling of children affected by HIV and AIDS and to inform and contextualise the development of a school-based intervention, the SOFIE model. In the second phase, a randomized control trial (RCT) was set up to assess the impact of the SOFIE model on the retention and attainment of vulnerable students in grade 6 in targeted schools. Embedded within this quantitative phase was the collection of additional qualitative data used to evaluate the processes of implementation and elaborate on the quantitative results. In Lesotho, schools were selected from within high altitude and low altitude locations and generally yielded a representation of the agro-ecological zones. Schools selected were located in high HIV prevalence rates, and generally exhibited high secondary dropout rates but contrasting socio-cultural contexts.

## **Organization of the report**

Following an overview of the rationale and design of the SOFIE research project in Chapter 1, Chapter 2 describes the process of developing the SOFIE model and outlines the model itself. Chapter 3 presents the methodology for evaluating the model, whilst Chapter 4 presents the main findings, examining both the impact of the intervention and its implementation. Chapter 5 concludes the report with a discussion of lessons learnt from the evaluation and implications for policy, practice and future research.

### **SOFIE project design:**

**Step 1:** Situational analysis – desk studies to identify factors influencing access to schooling and open learning interventions.

**Step 2:** Multi-site, formative fieldwork to identify factors influencing access to schooling.

**Step 3:** Develop, trial and evaluate school-based intervention, incorporating ODFL.

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<sup>1</sup> All background papers are available at [www.ioe.ac.uk/sofie](http://www.ioe.ac.uk/sofie).

## 2. Developing the SOFIE Model

This section provides an overview of the process of developing the SOFIE intervention model and briefly describes the model and its main components.

### Developing the model

The development of the SOFIE intervention model was informed by current literature, earlier multi-site fieldwork and analysis and a series of consultations at regional, national and local levels. The face-to-face discussions amongst project team members during the first team workshop hosted by the South African Institute of Distance Education (SAIDE) in Johannesburg in September 2007 provided an important opportunity for adapting the intervention model to the local context and for addressing the various interests and concerns of the partner institutions. Participants had the opportunity to present and discuss issues arising from the project's draft background papers and implications for the design of a school-based intervention. They also met with representatives of local South African initiatives supporting vulnerable children, including those affected by HIV and AIDS. At this stage it was agreed that in Malawi the intervention would focus on primary education, whilst in Lesotho the project would work with secondary schools.

In Lesotho, initial fieldwork was carried out in four secondary schools in May 2008. Findings from this initial phase of empirical research revealed the holistic and dynamic nature of school, home and psychological factors influencing educational exclusion amongst orphans and other vulnerable children and highlighted the need for additional learning support and encouragement during periods of temporary withdrawal from school. Findings also revealed poor provision of support from schools, compounded by exclusionary policies and practices and inadequate monitoring and follow-up. Key recommendations from research participants to support greater access to learning and improve retention of vulnerable students included the provision of remedial teaching and/or homework tasks, clubs and extra-curricular activities and extra learning support. Many acknowledged that workloads of class teachers would limit their participation and a few suggested using volunteers to provide this learning support. Participants also noted the importance of close community involvement.

During the second project workshop held in Malawi in June 2008, project members had the opportunity to discuss the implications of this research and many of the key components of the model were agreed upon, including distance learning materials (self-study guides), a buddy system and extra-curricular support from youth volunteers. Team members acknowledged that in developing a new model for educational provision, the difficult circumstances in which teachers are working and the wide variations in capacity and motivation in schools and their communities need to be borne in mind. However, they saw real opportunities to deliver learning more effectively, improve capacity and build social networks of support around vulnerable students. An initial visual representation of intervention model developed by the team leader, Dr Pat Pridmore, provided a focus for discussions. This was later presented at the Fifth Pan Commonwealth Conference on Open and Flexible Learning in London in July 2008<sup>2</sup>.

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<sup>2</sup><http://www.pcf5.london.ac.uk/programme>

During the June 2008 workshop, this initial version was presented for comment to school heads from the four Malawi schools that participated in initial fieldwork - who were invited to attend the workshop - and school and community representatives during a field visit to one of the schools. During August and September 2008, consultations with key informants at national and district-level further informed the development and final adaptation of the model for the Lesotho context. Key informants included representatives of NGO-run basic education programmes, as well as MOET. Throughout the process of developing the model project team members kept in close contact with, and sought comments from, the project's Advisory group.

## **The SOFIE model**

The developed model aims to work with a range of stakeholders at school and community level to improve the inclusiveness of schools and develop 'circles of support' around vulnerable children at risk of dropping out of school or failing their grade. Its emphasis is on providing continued access to learning by utilising ODFL strategies and resources. There were some variations between the Malawi and Lesotho model, mostly as a result of the two focusing on two different contexts – primary and secondary level. Below is a description of the intervention model in Lesotho, with the main difference being on the role of the teacher.

In most participating secondary schools, the teacher in charge was not necessarily a class teacher (as would be the case at primary). Teachers were selected by principals guided by our recommendation that such a teacher must at least teach the participating class and must be keen to participate. In most secondary schools there would be more than one class at this level, and where possible we had recommended that the selected teacher must be a class teacher in one of the participating classes. However, the overriding consideration in most schools was that the teacher would participate voluntarily and this generally yielded teachers who were interested in issues of students' well-being and psychosocial support. In a few schools we were lucky that the teacher selected to be in charge was teaching either English or mathematics. In most cases, the teacher in charge had to coordinate English and mathematics tasks and this required collaboration from colleagues.

Each 'at risk' pupil received a 'school-in-a-bag' with basic stationery, including mathematical instruments, pens and notebooks. Wrap-around self-study guides for English and Mathematics were developed by a group of volunteer students at the Institute of Education in London, under the training and supervision of project staff with some inputs from the partner institution. These guides were designed to encourage independent learning and support continued access to learning for those vulnerable children for whom attendance at school is often erratic. When such children are facing difficulties in getting to class they can continue their studies using the guides, which are linked to the national curriculum. Mentor students ('buddies') were recruited to support 'at risk' students by acting as a link with the schools: providing peer support for learning, following up when absent and, if required, carrying self-study guides to class teachers for marking.

The clubs were run by club leaders with the support of the club teacher and were monitored by local community leaders. The purpose of the clubs was to provide additional learning opportunities and support outside of school, in a friendly and informal environment. Clubs were open to both 'at-risk' students and their 'buddies'. The timing of the clubs was designed to be flexible; arranged after school hours at a time and place suitable for the students. Each

club leader received training, a club leader's manual and a portable resources kit - a 'school-in-a-box' - to set up club activities (see figure 2). The kit contained learning materials, supplementary readers<sup>3</sup> dealing with issues relating to child rights and an interactive HIV and AIDS board game 'Choices and Decisions'.<sup>4</sup>

**Figure 2 School-in-a-box and school-in-a-bag**

<p><b>School-in-a-box:</b></p> <ul style="list-style-type: none"><li>• Club leader manual</li><li>• Self -Study guides (English &amp; Mathematics)</li><li>• Form B Textbooks (English &amp; Mathematics)</li><li>• Dictionary</li><li>• English readers</li><li>• Supplementary readers on child rights, child labour and gender violence.</li><li>• HIV&amp;AIDS board game 'Choices &amp; Decisions'</li><li>• Writing materials</li><li>• Wind-up Radio</li></ul> <p><b>School-in-a-bag:</b></p> <ul style="list-style-type: none"><li>• School bag (rucksack)</li><li>• Mathematical Instrument set</li><li>• 2 Notebooks, a pen and a pencil</li></ul>
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Club teachers were trained in psychosocial support and were introduced to the wraparound guides. They were expected to work hand-in-hand with club leaders to support 'at-risk' students. Teachers were responsible for keeping a register of all students identified as 'at risk' and regularly monitor their progress and participation in class activities. Files containing a set of monitoring forms, including the 'at-risk' register, were provided. Procedures to assign homework tasks and mark self-study guides were to be agreed between teachers and club leaders, but it was recommended that teachers review students' study guides at least every two weeks. Both teachers and community leaders received training in counselling skills to provide additional pastoral care where necessary.

Identification of vulnerable children – using agreed criteria - for inclusion on the 'at risk' register was the responsibility of the SOFIE sub-committee, set up at each school to oversee the selection process, monitor SOFIE activities and follow up where students were absent from school. It was anticipated that these committees include members of the School Management Committee (SMC) and the school head, the class teacher, club leader and a

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<sup>3</sup> MacMillan Lesotho helped us obtain these readers from their warehouse in Swaziland at a reduced price.

<sup>4</sup> 'Choices & Decisions' is a board game provided by UNICEF in Lesotho and designed to equip young people with life skills, knowledge and confidence to take responsibility for their own actions and lives. The emphasis is on HIV & AIDS, risk taking and decision making, sexual reproductive health (SRH), gender and self-esteem. <http://www.choicesanddecisions.com/>

pupil representative. In conjunction with the SMC, SOFIE sub-committees were also responsible for working with surrounding communities to explore ways of improving the schools' support for vulnerable children. Schools were encouraged to reflect on and address issues of inclusiveness, as played out through school policies and practice.

Overall, on-going supervision of implementation activities was the club teacher, SOFIE sub-committee members, with input from local community leader.

**Figure 3 Photo showing the school-in-a-box with its contents spread out**



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### **3. Methodology**

#### **Experimental Design**

In order to evaluate the intervention, a randomized controlled experimental design was used to measure impact on the retention and attainment of students. To control for the effects of factors external to the intervention on pupil outcomes and to increase statistical power, a Pretest-Posttest Control Group design was adopted, whereby an agreed number of schools was randomly assigned to either of two groups. Both groups were administered questionnaires and test papers (Maths and English) at the baseline (November 2008) and following implementation (November 2009), but only one group received the intervention package.

The intervention was meant to run for one academic year and targeted Form B (Grade 9). The outcome variables were:

- (a) the proportion of students enrolled in the target grade that did not dropout during the school year<sup>5</sup>.
- (b) the proportion of students enrolled in the target grade that were recommended for promotion to the next grade<sup>6</sup>.
- (c) mean test scores of students enrolled in the target grade.<sup>7</sup>

Additional quantitative data were collected on covariates such as school quality (e.g. teacher qualifications, school size, school infrastructure) and pupil characteristics (e.g. gender, socio-economic status, orphan status). Data for process indicators were collected - from intervention schools only - to monitor the implementation process. Embedded within the design was the collection of additional, predominantly qualitative data to further inform the evaluation of the intervention. There were three main data collection points for qualitative data:

- Mid-term monitoring visit in August 2009
- Concurrent with post-intervention visits (November 2009)
- District-level evaluation workshops held in January 2010.

During monitoring and post-intervention school visits, qualitative data were collected from the same four schools that participated in the formative qualitative fieldwork, providing distinct 'cases' from which to draw a cross-case analysis of the implementation process.

### **Local research team**

Supporting the Lesotho researcher, a local research team was put together to assist with instrument development, piloting and data collection. Research assistants were recruited from a pool of CBO participants who had a history of working with vulnerable groups in their communities and were reasonably familiar with research. Four research assistants – one male and three females – participated in the formative fieldwork and subsequent qualitative work in case study schools. Three of these research assistants were retained as lead research assistants for pre-test and post-test activities. An additional five research assistants – four male and one female - were further recruited and split into three sub-teams responsible for the south (2), central (1) and the north (2). All team members took part in rigorous training activities prior to field visits.

### **Sampling**

#### **Schools sample**

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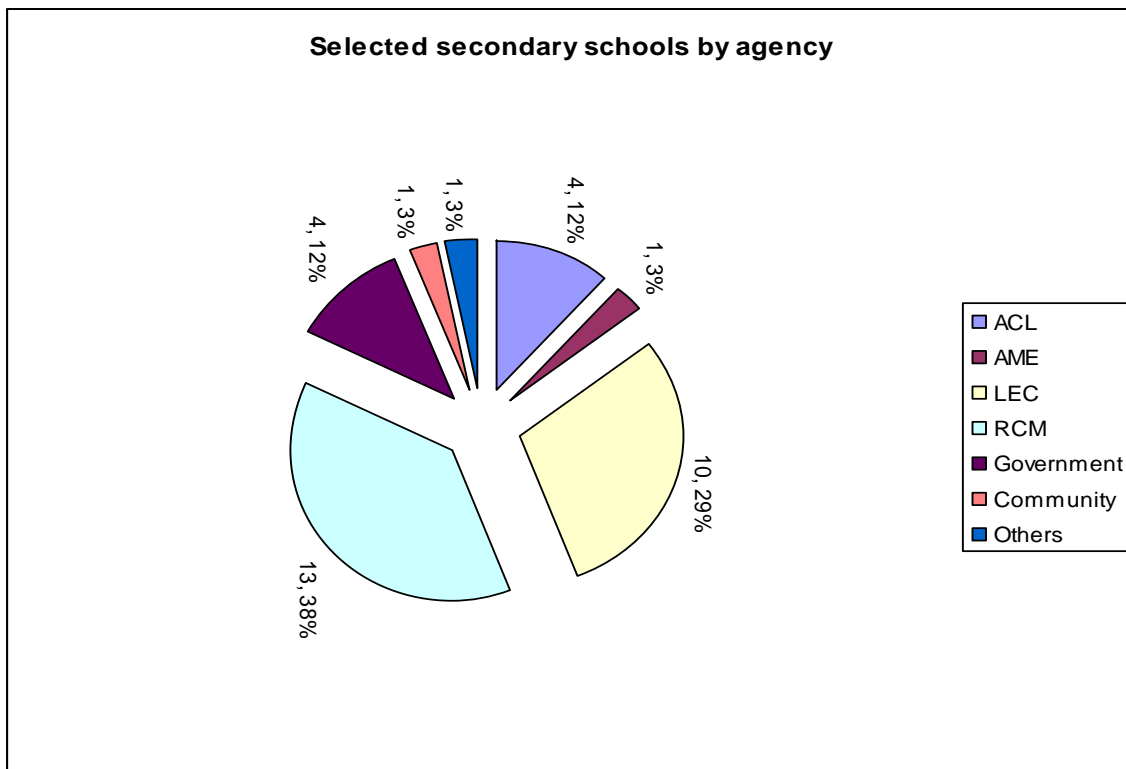
<sup>5</sup> 'Dropout' considered in the Lesotho context refers to those students had not returned by the end of the school year and were considered to have withdrawn.

<sup>6</sup> In Lesotho, promotion to the next grade is determined by the performance of students in schools' end-of-term examinations written and delivered by class teachers.

<sup>7</sup> English and Mathematics tests developed by the SOFIE team consulting the Form A and subsequently the Form B syllabus and validated by senior markers and experienced teachers.



Originally, 40 secondary schools were randomly sampled to take part in the trial: 20 from each of the two locations. However, three intervention schools withdrew (2 high altitude and 1 low altitude), resulting in 17 intervention which were then matched to 17 control schools. Selection criteria from the two locations yielded of 7 (out of 10) districts – Quthing, Mafeteng in the South; Maseru, Thaba-Tseka and Berea in the Central; and Leribe and Botha-Buthe in the North. All these districts have been reported to have high prevalence rates (Ministry of Finance and Development Planning, 2004) and high dropout rates (Ministry of Education and Training, 2006). The selected school yielded fairly representative characteristics of secondary schools in Lesotho with most of the schools owned by churches, particularly the three major churches (Roman Catholic Mission, Lesotho Evangelical Church and the Anglican Church of Lesotho) combined owning more than three quarters of secondary schools (76%), and a small minority (15%) of schools belonging to communities and the government (see Appendix 1). The majority of secondary schools (59.5%) are based in the lowlands while the rest are based in the high altitude locations (foothills, Senqu River Valley and mountains). The original selection was meant to provide an equal number of high altitude and low altitude schools, but circumstances yielded 54% low altitude and 46% high altitude schools as some of the high altitude schools could not be reached in time for the pre and post test visits.



**Figure 4 Selected secondary schools by agency**

Schools were ranked from 1 to 10 in each location (high altitude and low altitude) according to available data on educational outcomes (school performance<sup>8</sup>) and two matched pairs of schools from each quintile were randomly assigned to either the intervention or control group. (See figure 4)

<sup>8</sup> The percentage of students obtaining a first, second and third class pass as well as the percentage of failures in the Junior Certificate examinations taken after three years of secondary schooling were used to rank the schools.

Enrolment in the sampled schools ranged from 54 students (in the lowlands) to 1495 students (in the highlands). Although high altitude schools tend to be smaller, there are some really large secondary schools in the highlands and some small secondary schools which mushroom in the low lands because of high demand and poor supply. Two of these small schools had class sizes of about 10 and only three forms. More girls than boys are enrolled in secondary schools in Lesotho, with the 2006 statistics recording 52908 girls (56 %) and 41637 boys (44 %). However, as has been noted in the cohort analysis graph before, girls drop out considerably more than boys in the latter years of secondary schools.

Most schools have fully qualified teachers, but it has been noted that many schools struggle to find and retain mathematics and science teachers. The school feeding programme generally runs in the primary schools only and although many schools provide a lunch for the students, it is usually as part of the school fees. There is a government bursary scheme in which double orphans are identified through the schools and supported with their school fees. Books and stationery are also available to all students through a government rental. Although problems of late delivery of learning material through the rental scheme have been reported at a number of schools, it does help a number of orphans and vulnerable children who would otherwise not afford to purchase material through bookshops to access learning material more affordably. A number of NGOs and CBOs assist some OVCs.

The schools visited to collect additional qualitative data (the four ‘case study’ schools from earlier, formative fieldwork) were a purposively selected school sample. For ethical reasons, all four schools had been selected from intervention schools, although two dropped out of the project. As shall be discussed further under limitations, the main reason why we lost the case study schools in Lesotho was due to confusion about the role of the research assistants who were also CBO members in the area. When a misunderstanding arose around activities of the CBO members, which were usually around finding funding for OVCs, the schools withdrew from the project and eventually four such schools withdrew including two more that were not in the case study. The case study schools were situated in the three agro-ecological zones with one in the Senqu River Valley, one in the foothill and two in lowlands, yielding two high altitude and two low altitude schools.

### Sampling students

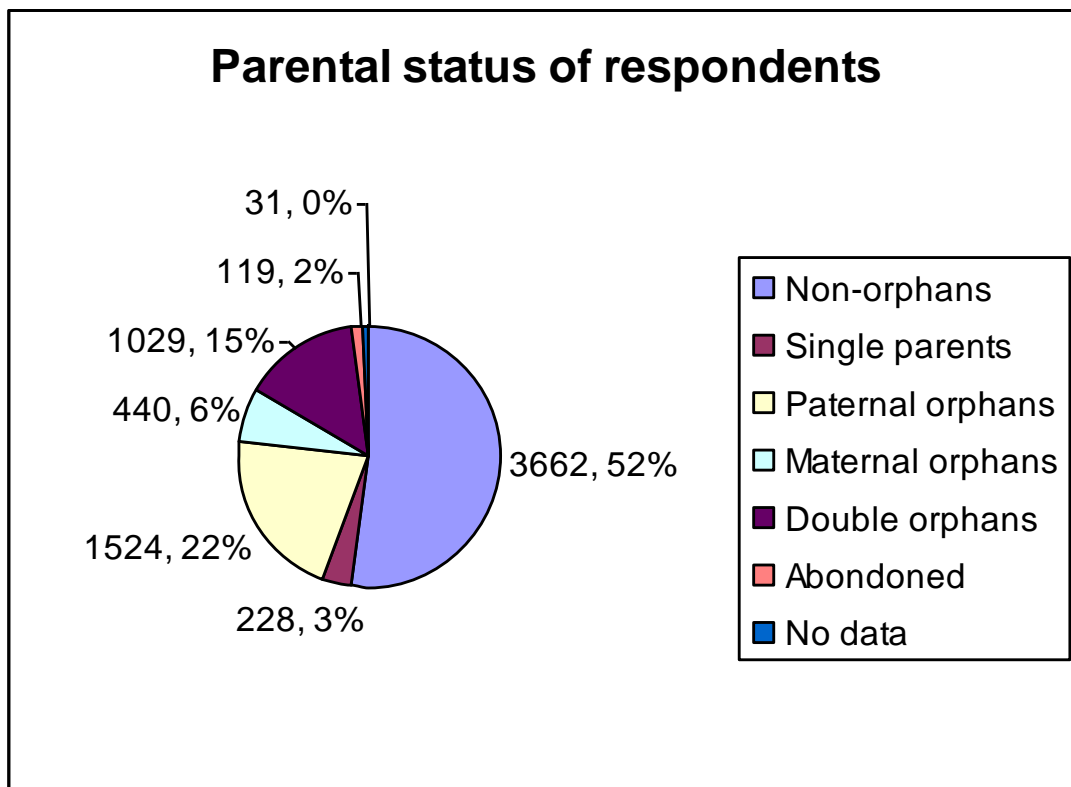
The Form B students selected for the intervention were the first cohort of the free primary education students who had reached secondary school. Form sizes had more than doubled in many schools and up to 300 students were in Form B in some schools and this yielded 3,649 children in 34 secondary schools participated in the pre-data. A total of 3335 participated in the post-data where 1952 (57.63%) were girls.

**Figure 5 Number of sampled students by school status**

School status	No. of students (baseline 2008)			No. of students (2009)		
	male	female	total	male	female	total
Intervention	982	834	1816	879	711	1590
Control	1053	780	1833	1056	689	1745
Total	2035	1614	3649	1935	1400	3335

As is evident in Figure 5, there were more girls than boys. Absenteeism in several schools meant that, according to school records, only 71.34% of girls and 67.71% of boys were present for the baseline. There were 1816 students enrolled in intervention schools and 1833 students in control schools. During the baseline study, although the majority of students (54%) had both parents alive, it is notable that there were four times as many paternal orphans as there were maternal orphans. In 2009, the proportion of orphaned children had increased from 41.09% to 44.02%. The proportion of orphans at just over 40% is more than 10% the national average and this is probably due to the bursary scheme that supports double orphans.

Many children were either single or double orphans in this study. Six percent (6%) indicated that they had lost their mothers while twenty-two (22%) reported that they had lost their fathers. A further three percent (3%) indicated the status of only one of the parents, and did not indicate the status of the other parent, which could mean that they came from single-parent families. Fifteen percent (15%) of the respondents reported that they were double orphans, while a further 2% did not know whether either of their parents was still alive (classified as abandoned in figure 6).



**Figure 6 Parental status of respondents**

Most of the children indicated that only one of the parents was in formal employment (1471, 40.6%). Most of the children (64%) reported that they received financial support for their schooling from parents alone, but a further two percent also said that other members of the family helped. Others (15%) were supported by family members only, particularly grandparents. Non-governmental organizations and well-wishers featured in the support of needy children (3%), and others (3%) reported that they got their support from the school. It is possible that the support from the school was in many instances from the government

through the National Manpower Development Secretariat (NMDS) together with the further 0.4% who explicitly reported that they were sponsored by NMDS/Government.

The situation remained fairly similar during the post-intervention period with a high proportion of paternal and double orphans. (See figure 7)

**Figure 7 Parental status of selected students**

Student status (orphans)	Pre-data (baseline)		Post-data (2009)	
	Frequency	Percent	Frequency	Percent
Non-orphans	1966	53.97	1697	50.10
Single parents	116	3.18	112	3.31
Paternal orphans	755	20.72	767	22.65
Maternal orphans	208	5.71	232	6.85
Double orphans	534	14.66	492	14.53
Abandoned	57	1.56	63	1.86
No data	7	0.19	24	0.71
Total	3643	100.00	3387	100.00

In order to estimate further the impact of the intervention on ‘at-risk’ students a sub-group of students equivalent to ‘at-risk’ students in the intervention schools was sampled retrospectively from the pupil dataset using propensity score matching (see section 0). This gave an overall sample of 518 students: 259 registered ‘at-risk’ students and 259 matched equivalents.

### **Instrument design and development**

With the collaboration of national teachers associations, in particular the Lesotho Science and Mathematics Teachers Association and Lesotho Association of Teachers, a common test paper was developed for Mathematics and an English paper by the SOFIE team and validated by a number of experienced English teachers and senior markers in non-participating schools. The papers were designed to take about 1½ hour to complete and all instructions were in English, the medium of instruction for secondary schools. It was intended that the process would be repeated for the post-test, but when the SOFIE team missed a meeting of the teachers where they were setting the common paper, the papers were developed from the Form B syllabus and validated by experienced teachers and senior markers.

A structured, self-completion pupil questionnaire was adapted from Malawi to gather data on pupil characteristics. The questionnaire consisted mainly of closed questions, answered by circling one or multiple responses. Open questions were kept to a minimum. Piloting took place in two schools in Maseru semi-urban and rural in October 2008. The Malawi structured checklists were again adapted to collate data from school records and SOFIE monitoring forms. During mid-term and post-test visits, additional questions were included to capture process indicators (intervention schools only). Semi-structured key informant interview schedules and FGD guides developed in Malawi were adapted to gather specific data on the implementation and impact of the SOFIE model.

### **Methods of Data Collection**

#### **Quantitative Data**

Baseline and post-test data were collected during field visits to all 34 schools in October 2008 and November 2009. Both districts were visited concurrently. All schools had been notified ahead of time and access negotiated. On arrival, research teams followed the necessary protocols and briefed school heads. A venue to meet students and administer instruments was agreed upon.

During the baseline, students were allowed to seat themselves and the first instrument – the pupil questionnaire - was then handed out, along with a pencil. As a group, students were guided through the questionnaire by a research team member who read aloud each question and its possible answers. The majority of students coped well with this approach, although there were a few that needed additional support. Following completion of the questionnaire and a short break, students filled in the test papers under examination conditions. During the post-test, the questionnaire and tests were administered to the entire target group.

In addition to administration and management of instruments, research assistants liaised with school management to access school records and complete the school checklist. Information on students' promotion to the next grade was not available during field visits, as students had not yet sat their end-of-year school tests. Records of students attendance and promotion were generally difficult to obtain from schools and frequent visits had to be made and even these were rarely successful.

### **Mid-term monitoring trip**

In August and September 2009, research team members returned to schools to up-date pupil tracking records and collect data on pupil attendance. At intervention schools, quantitative data to monitor the set up and progress of the intervention was also collected, using the school checklist. Additional qualitative data were collected from the four case schools: key informants were interviewed and FGDs conducted with (1) 'at-risk' students and (2) representatives of school committees. Again schools did not co-operate, many often citing preparations for examinations as much more pressing.

### **Post-test Qualitative data**

Further qualitative data collection with club teachers and the SOFIE committee members took place in October 2009. During this time SOFIE team members interviewed key informants (club teachers and SOFIE sub-committee chairs) through FGDs and some community members were interviewed. Interviews were also held with club members, but the low participation in many schools meant that only three meaningful FGDs were held with students. During final evaluation workshops held in January 2010, school and district-level stakeholders took part in a number of activities, including presentations and group work. All participating schools were well represented and a parallel session was held with control schools during which psychosocial support training was provided for teachers.

## **Data management and analysis**

### **Pupil database**

Following baseline and post-test fieldwork, test scores, data from pupil questionnaires and checklists, using names of students, were entered onto a SPSS database. Test papers were marked by the same senior examiners that participated in the instrument development. Initial close reading of marked test papers post-test revealed numerous inaccuracies and test papers were re-marked before final data entry. Because names were used for recording data instead of IDs, numerous errors and mistakes crept into the dataset and the data had to be cleaned and recleaned.

### **Quantitative analysis**

Basic descriptive statistics were run to explore school-level factors and process indicators in intervention schools. Preliminary analyses of outcomes were done using non-parametric tests. The primary outcome measures for impact were the proportion of students who are still enrolled in school and the proportion promoted to the next grade at the end of the school year (2009) in the intervention schools compared to the control schools. A secondary outcome measure compared attainment levels of students in English and Mathematics tests. Data were analysed firstly by class (school) and then by a sub-group of the pupil sample identified as 'at-risk'. The primary explanatory variable of interest is the treatment (intervention) variable (1=intervention, 2=control). The intervention will be deemed to have had an impact on educational participation of students if there is a significant ( $\alpha < .05$ ) effect of the intervention on promotion and/or dropout rates, supported by attainment scores.

### **Qualitative data**

Recorded interviews and FGDs were transcribed by research assistants in the field and, where necessary, subsequently translated into English. Where audio recordings were not produced, full reports were written up from detailed interview notes. All transcripts were typed, proof-read and up-loaded onto Atlas for coding and analysis. Reports of students' mini-workshops and district-level workshops were written up. Participants' responses were tallied, categorized and presented in tabular form. Categorical aggregation of issues emerging from coded texts and analysis of evaluation materials were pulled together in a narrative discussion.

### **Ethical considerations**

Although permission to conduct the research had been granted by the Ministry of Education, access to enter schools was re-negotiated with school management prior to every field visit. Community leaders were closely involved in notifying schools of forthcoming visits. Care was also taken to ensure that informed consent was sought and received at each stage of the field activities. With regard to the sampling of an equivalent sub-group of 'at-risk' students from control schools, concern over possible discrimination against these vulnerable children and the absence of any accrued benefits excluded the option of physically identifying and tracking such students. As such, sampling of this sub-group was done retrospectively using propensity score matching based on pupil characteristics available from the pupil database (see 0). Following the post-intervention field visits, small 'gifts' (notebooks, pens and textbooks) were distributed to all schools (including control schools) as a 'thank-you' for participating in the study.

### **Limitations and challenges**

#### **Design limitations and challenges**

Decisions were made relating to the design of the intervention and its evaluation which were very logical at the time of design and were aimed at obtaining the best results. One such decision was to go with junior secondary schools students who would be expected to benefit most from open and flexible teaching methods. Unfortunately, implementing an intervention at secondary level proved to be extremely complex even if it made sense to expect more from secondary students than primary students. The club teachers who were trained were rarely class teachers and had to negotiate activities with the principal as well as the English teacher and Mathematics teacher. It was difficult to maintain the interest and cooperation of all of these educators. Even some principals could not maintain the enthusiasm and it became difficult to gain the participation and assistance in the second half of the year where the focus in many schools began to turn towards preparations for the examinations.

It made sense that the skills for open and flexible teaching approaches be directed at secondary teachers who were experiencing expanding numbers of learners from the Free Primary education programme, many of whom were vulnerable. However, the sheer number students enrolled in the secondary schools and the growing number of orphaned and vulnerable children made implementation and monitoring extremely difficult. The challenge was most evident at selection of 'at-risk' children, where many children turned up to join the club only to discover that there were only 15 packages. In many schools the clubs then fizzled away and being teenagers, the secondary students appeared to appreciate least the attention given to them and the constant queries of class-mates about the club. The situation was compounded by the delay in the textbooks and supplementary readers. Since the introduction of the book rental scheme in secondary schools in Lesotho bookshops do not stock additional textbooks and only order to the requisitions of schools. Besides the administrative difficulty of ordering such books at reasonable costs, it was extremely difficult to obtain textbooks for the clubs and the supplementary readers had to be ordered from a warehouse in Swaziland, taking ages arrive. This delayed the implementation of the project so that only in July were most schools able to effectively start the implementation. And then some schools soon turned their attentions to end of year examinations.

Again it appeared a very sensible decision to work with established community leaders, many of whom were NGO and CBO members close to the schools. Many of these had contact with schools and were even running a number of projects aimed at assisting orphaned and vulnerable children in the schools. In a number of schools this arrangement worked very well, but in many schools there arose some misunderstandings about what the schools were to get out of the intervention. Such schools appreciated the fact that with the growing vulnerability of children at secondary schooling, there is need for more than just the standard academic preparation of students. However, a number of schools pulled out of the project, claiming it was a waste of time when the schools should just be focusing on standard academic preparation of students. Schools pulled out of the pre-data visits at short notice and it was impossible to replace them at short notice and with many schools already preoccupied with end-of-year examinations. Monitoring itself was difficult because of the number of educators who needed to be involved. Sometimes the principal was not prepared to cooperate, sometimes it was the class-teacher and at other times it was one of the subject teachers.

As with any experimental design taking place in a complex social setting, the observed impact of the intervention may be compounded by the participants' awareness and corresponding response to their participation in the research itself – the Hawthorne effect (Dowling & Brown). Another potential challenge of working with an experimental design that includes pre-test measurements is the 'interaction effects' of the testing itself (Cohen,

Manion, & Morrison, 2000) such as sensitisation of students to the pre-test instruments. To reduce this, care was taken during pre-test visits to ensure that no copies of the test papers were left behind at the schools, nor that teachers had access to the papers.

The tracking of transferred students and dropouts from the target grade once they had left their respective schools was problematic and beyond the scope of this study. Thus, whilst in theory the outcome variable for retention would be the reported proportion of targeted students still in full time education at the end of the school year, in practice, this was measured by the proportion of targeted students that were *not* recorded as dropouts. Similarly, attainment measures for transferred students and dropouts are not available.

### **Fieldwork Challenges**

The chief challenge facing fieldwork in Lesotho proved to be the reluctance of secondary schools to provide information and access. Part of the reason is the pressure and focus on the standard academic performance and many schools continue to ignore the scale of vulnerability among its students. It was very helpful that we received a supporting letter from the Ministry of Education and Training (MOET) and received amazing assistance from the senior education officers responsible for curriculum and secondary schools. Yet even with the MOET letter, schools delayed responding to our requests and it was extremely difficult to conduct the fieldwork consistently across schools. The training of teachers in psychosocial support brought to the attention of teachers the scale of vulnerability in their schools and sensitized them to the difference they could make. The disadvantage of this training was that it then took over the attention of teachers at the expense of ODFL skills training. However, this group of teachers became our best contact to schools and they were very willing to seek information on our behalf. Unfortunately as noted before, these teachers did not have the ultimate say in their schools and sometimes ran into difficulties with the class-teacher or the head-teacher. In addition, teacher mobility resulted in our losing many of our initial trainees, and when that happened, all contact was lost with schools. This made monitoring and evaluation extremely difficult. Lesotho has an extremely difficult terrain and it was very difficult to keep coming back for records at great expense. We included some replacement teachers in the second training session that focused mainly on the control school teachers, but it was difficult to answer questions about what support they were going to get now that the project was coming to an end. There were indeed genuine requests for the intervention to extend to other schools as teachers become increasingly aware of the scale of vulnerability in their schools and the failure of conventional teaching methods. But this realization is a process and it was very difficult to win the cooperation of all participating schools during the period of this project.

Records are poorly kept in secondary schools and that they are kept by class-teachers made it difficult for our club teachers to help us. It was very difficult to even ascertain the scale of absenteeism among students as we struggled to get information about attendance. In addition, teenagers are extremely conscious of their status and soon attendance in the club declined considerably. The provision of the wraparound guide, particularly the mathematics guide, proved an extremely effective negotiation tool in Lesotho, at least among the experimental schools. Many teachers have very few support materials to refer to and became more enthusiastic in participating once we began delivering the guides. Unfortunately, these, together with the supplementary readers, became available at a late stage of the intervention. Therefore, the setup of clubs was a stop and start affair and in a number of intervention schools it was not very effective.



## **Randomisation**

Analysis of school characteristics in control and intervention groups shows that the process of matched random assignment of schools to either group had resulted in equivalence between the groups in almost all observed background variables (see Appendix 2). Exceptions were age and location, with intervention schools having significantly older students and more students in the intervention schools located in high altitude schools. Otherwise in the key characteristics of gender parity, number of orphans and the indication of parental support (SES measured roughly by whether both parents working or struggling) the intervention and control students were roughly equivalent.

## **4. The implementation process: Key Strategies and Activities**

This section presents and discusses key activities and processes in the implementation of SOFIE intervention.

### **Preliminary Activities**

#### **Training**

Training activities were conducted in a central location in January 2009. Activities included:

- An initial half-day workshop to familiarise teachers and community-level actors with the SOFIE model and their roles and responsibilities in implementing and monitoring the intervention activities.
- An additional three-day training and capacity building workshop for volunteer teachers and community-level actors to train them in aspects of the project implementation, in psychosocial support skills, working with communities and the use of intervention resources. Participants also received training in monitoring and record-keeping, as well as identifying and working with vulnerable students.

Training resources included a club leaders' manual and manual on adolescent counselling and HIV and AIDS<sup>9</sup>. In addition, teachers and club leaders were provided with sets of monitoring forms were designed to support monitoring and follow-up of students identified as 'at-risk'. Class registers were provided for all teachers.

#### **Distribution of resources**

Resources for clubs, teachers and students were distributed much later than the training exercises and the initiative was significantly lost by the time the resources were fully distributed. The delivery of resources did provide an opportunity for resuscitating interest but further delays in obtaining bags at affordable prices further set back the setting up of clubs. Eventually 15 bags were obtained for each school and the supplementary readers finally

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<sup>9</sup> This manual drew heavily from materials from Touch Roots Africa (TRA) a company which facilitated the psychosocial support training.

arrived from the Swaziland warehouse. These were distributed during a later monitoring trip, along with the radios<sup>10</sup>.

### **Selection of youth volunteers**

Prior to the training, school staff and community representatives selected youth volunteers to run the SOFIE clubs. All youth came from within the schools' catchment areas and ranged in age from 20 to 31 years. The majority (80%) held School Leaving Certificate commonly referred to as Cambridge (Overseas School Certificate) or COSC, representing a minimum of 5 years secondary schooling and two held the Junior Certificate (JC) representing 3 years of secondary schooling. Unfortunately, the most competent of these youth volunteers left for schools and the least competent dropped out and the youth volunteer all but collapsed and the programme was then supported by the senior community leaders coming from NGOs and CBOs based in the areas. A number of problems were experienced with misunderstandings about financial benefits between a number of teachers and community leaders.

### **SOFIE sub-committee**

An attempt to set up the SOFIE committees was eventually left with the teacher and club leader, as well as the most consistent school-based support community, with the school management committees (the SMC) only showing interest at the beginning and the interest waning over the period.

### **Raising awareness in communities**

Secondary schools in Lesotho draw on parents from very far from the schools and with the cost of traveling resulted in the awareness left to members of school management, in particular the SMC chair who attended the initial meetings. A number of key informants noted were identified from the neighbouring communities with the help of the chiefs who sat on the SMCs.

### **Identification and registration of 'at-risk' students**

One of the first activities of SOFIE sub-committees was the identification of vulnerable students in Form B to be placed on 'at-risk' register and join SOFIE clubs. Overall, 340 students were registered as 'at-risk' in the intervention schools (See figure 8). This represents 18.9% of all Form B students in intervention schools.

**Figure 8 Number of 'at risk' students by districts**

<b>At-risk students</b>	<b>Female</b>	<b>Male</b>	<b>Total</b>
Low altitude	64 (50.39%)	63 (49.61%)	127
High altitude	119 (55.87%)	94 (44.13%)	213
All schools	183 (53.82%)	157 (46.18%)	340

As was indicated in the training workshop, the number of students who qualified and were deemed to be 'at-risk' exceeded the agreed upon club size of 15. In some of these schools

<sup>10</sup> Delays in the purchase and customs clearance of radios meant that they were only available for distribution in June 2009.

where more than 20 students turned up, there was evident disappointment when resources went short and the activities of the club were severely affected.

## **Key ODFL Strategies and Activities**

### **School-in-a-bag**

All students placed on the ‘at-risk’ register received a ‘school-in-a-bag’. There was some evidence during the late monitoring visits that the items, including the study guides, were rarely made accessible to the learners. The items were safely kept in the school-in-a-box in a number of schools, partly because the relevant teachers were not particularly keen to cooperate. However, in a number of schools the arrival of the items was a source of strong motivation for students to continue with school. A number of activities, including fund-raising for the most needy members, were driven by these clubs.

### **Study guides and learning support**

A key component of the ‘school-in-a-bag’ was the inclusion of wrap-around self-study guides linked to the Form B curriculum. During the summative evaluation workshop, groups of participants were asked to assess the use of the study guides in their schools. All groups agreed that the format of the study guides was clear and easy to use. However, evidence of the use of the study guides was inconclusive in most schools with the guides generally very new towards the end of the intervention. Some teachers did claim that they rather photocopied the material for distribution to students in order to keep them intact. In particular, the mathematics guides received great acclaim by the Form B teachers. Unfortunately, it became evident that some of the study guides, not locked up in the school-in-a-box were exclusively kept by the subject teachers in the promise that they would assign work but only to use them as reference. This was clearly what the material was not meant for and did not inform the intervention, but some good came of a wonderful effort by the team set up by Chris Yates.

### **SOFIE Clubs**

SOFIE clubs were generally run by club leaders with the support of teachers. During initial training, it was agreed that the venue and timing of the club meetings should be flexible and responsive to students’ needs. Meetings were generally held on school premises after school hours, usually on Wednesdays. Venues were a challenge in some schools, but generally the clubs were able to meet in some classroom or the teacher’s staff house. Informal interviews with teachers revealed that a number of clubs became great centres of support. However, there were clubs which did not succeed to take off because of the engagement of the members in other sporting and extra-mural activities. Already existing clubs such as the Rotary Club, which explicitly gave out financial support to OVCs, were much more popular. This was particularly the case in low altitude urban areas where such clubs were more common. Club meeting ranged from 8 to 22 with the high altitude schools indicating slightly better attendance than the low altitude schools. (See figure 9)

**Figure 9 Number of meetings attended by 'at risk' students by gender and location**

Club meetings	Low altitude			High Altitude		
	Female	Male	Total	Female	Male	Total
Average No. of club meetings attended	8.2	8.6	8.2	9.8	8.9	9.4
Percentage of club meetings attended	(47.4%)	(49.7%)	(48.6%)	(53.8%)	(48.9%)	(51.3%)

Three of the intervention schools experienced student strikes which severely affected the set up of the clubs and attendance. In the high altitude areas, male club members were very irregular with many reportedly often leaving as soon as school was out in order to go and attend to animals.

At first, club teachers reportedly directed the club meetings using some of the skills gained at the workshop to set up circles of support among members. However, as clubs took off, youth leaders took more control and the structures became more flexible. In particular, the focus on studying tasks was quite variable with some of the smaller schools apparently benefiting from the closely knit teaching staff. Although teachers rated the study guides highly, they were not consistently used in the clubs. The mathematics study guide was put to greater use in a number of schools according to teachers. Some teachers reported to have used the radio for some English tasks including listening skills.

**Figure 10 Pupils' ranking of club activities**

SOFIE items	Not useful at all	Minimally useful	Partially useful	Very useful
English study guides		<b>H</b>	<b>L</b>	
Maths study guides			<b>HL</b>	
Radio		<b>HL</b>		
English readers		<b>H</b>	<b>L</b>	
Supplementary Lifeskills readers			<b>HL</b>	
Maths instruments				<b>HL</b>
Dictionary			<b>HL</b>	
Stationery			<b>L</b>	<b>H</b>
Club leader manual			<b>HL</b>	
Rucksack				<b>HL</b>
HIV and AIDS game board		<b>HL</b>		

Abbreviations are used to represent the locations: L = Low altitude; H = High altitude

It is important to note that SOFIE teachers reported that some of the teachers appeared to use the maths study guide and the dictionary for their own reference rather than to set tasks. The stationery and mathematics instruments were very welcomed by the very poor learners. Club

members also used the meetings for other activities such as debates, drama and generally supporting each other with studies. Figure 10 shows the pupil’s rankings of club activities.

### **Buddy system**

Schools were encouraged to identify ‘buddies’ for at-risk students to provide motivation, friendship and additional learning support. Generally teachers were responsible for identifying possible buddies, though in some cases students were allowed a degree of involvement. The system did not work too well as many of the identified buddies drifted off into other activities once they realized that they were not going to receive any materials.

### **Promoting an Enabling Environment**

#### **Record-keeping, monitoring and follow-up**

During the case studies, it became apparent that poor record-keeping and lack of psychosocial support skills by teachers were resulting in many ‘at-risk’ students dropping out. During monitoring visits club members confirmed that club teachers had gained in their ability to look out for and support at risk children. But keeping the attendance register up to date remained problematic as club teachers who were rarely class teachers struggled to keep track of students and genuinely could not force class teachers to help out. A number of challenges were presented as having affected the ability to monitor the club meetings and attendance. In general, SOFIE teachers reported that they were experiencing difficulties persuading students to attend and that it was difficult to monitor attendance where class teachers were not cooperative. In large schools, it became clear that teachers were not always keen to cooperate and learners had more distractions in large urban schools. In urban areas communicating with caretakers was difficult because of distances and lack of parental supervision. Therefore, large urban schools experience more in-school difficulties and small rural schools experiences mostly home background difficulties. Figure 11 shows the strategies that were used to monitor ‘at risk’ students.

**Figure 11 Strategies used to monitor 'at-risk' students by location**

	<b>Lowlands</b>	<b>Highlands</b>
<b>Strategies used to monitor attendance in school and club</b>	SOFIE teachers would liaise with class teachers on information attendance and subjects teachers on setting up of class and home work	SOFIE teachers would coordinate with parents and community leaders about general attendance
<b>Reports on success of strategies</b>	Partially successful with smaller schools showing greater preparedness to collaborate but generally poor collaboration among teachers and students	Some success but reports of difficulties communicating with grandparents not responding well or just unable to persuade learners to attend and students often distracted by chores

The success was quite partial and in some schools teachers reported that there was no improvement and this was made worse by the fact that other teachers were not prepared to help out with the monitoring of students’ attendance and participation in school. The SOFIE

teachers reported that there was a perception that the SOFIE teachers would be benefiting from the project. In rural and generally high altitude areas, parental involvement was irregular and generally poor even after the SOFIE teachers made several attempts to get in touch. Meetings were held later in the intervention process to devise ways of keeping records and improving attendance but by then it was too close to the end of year.

### **Counselling and pastoral care**

During the case studies school staff indicated that they were overwhelmed by the scale of psychological support needed by the growing number of students experiencing 'sadness' either due to the death of parents or the rising hardship in their families. Previous research into the impact of HIV and AIDS in schools in Lesotho also highlighted the lack of guidance and counselling at schools as a key challenge and indeed it has been argued that is a valuable investment in the chances of vulnerable children being kept in school (Kadzamira, Banda, Kamlongera, & Swainson, 2001; UNAIDS, 2001). As such, sessions in PSS were included in initial training of teachers and community leaders. These proved popular, with the majority of participants in the training naming these sessions as the most useful. The PSS training appeared to have given teachers much confidence as they shared their experiences freely during the mini workshop held later in the intervention but other resources such as the radio, supplementary readers and the 'Choices & Decisions' appeared not have been used consistently at all.

### **Community involvement and support**

As noted above, all schools had SOFIE sub-committees in place, which included members representing the wider community who were generally drawn from the SMC with support from community leaders. All SOFIE sub-committees remained in place throughout the school year, meeting a minimum of once a term, often far more frequently. Not all members were equally active, however, and school heads at three of the case schools complained that some members would rarely attend meetings, or get involved in agreed activities, noting that they were likely to be busy with their own concerns or disaffected because of a lack of incentives.

### **Implementation issues**

During summative evaluation workshops participants were asked to list the main issues that emerged as they attempted to implement the SOFIE model. The main issues that emerged during this session are summarised in figure 12.

**It is evident that changes in household organization as a result of poverty and HIV and AIDS, and the growing phenomenon of children living with grandparents are making it difficult for children to benefit from parental support in schooling. As will be observed in the quantitative data below, the impact is quite different for boys and girls. The attendance and progression rate for boys is worse than girls in general, especially in rural areas. This is usually related to the practice of boys being called upon to look after animals. However, girls experience more disruptions and eventually drop out of school more than boys as the two groups progress into the second year of secondary schooling. This is possibly a result of girls being called on to look after sick members of families and siblings more than boys as they grow older according to one chief. In poor families, girls are more likely to accede to early marriage in an attempt to escape the increasing burden of poverty at home. There were other cultural practices such as initiation**

**Figure 12 Some key implementation issues**

<p><b>Main challenges</b></p>
<p><b>Selection process for ‘at-risk’ students</b>  <i>“The impact of FPE has increased the number OVCs in the Form B leading to difficulties in selecting out SOFIE members” Teacher in Mafeteng (Low Altitude)</i>  <i>“Attracting learners to participate was difficult because of the attraction of other better financed clubs like the Rotary Club” Teacher in Maseru (Low altitude)</i></p>
<p><b>Keeping track of attendance</b>  <i>“...children who stay with their grandparents are very difficult to keep track of because even when I sent out letters through another student, the grandparents rarely come” Teacher in Quthing (High Altitude).</i>  <i>“ Girls here often miss school and eventually drop out and elope once they experience lack of support at home” Community leader in Mafeteng (High altitude)</i></p>
<p><b>School support</b>  <i>“teachers keep on asking us what this SOFIE is and why these children are receiving so much attention” Teacher in (Low altitude)</i>  <i>“Everyone now know SOFIE committee and a number of teachers try to help” Principal (High altitude)</i>  <i>“this thing is long over here, we’re focusing on the exams” Principal (High altitude)</i></p>
<p><b>Students’ learning and participation</b>  <i>“Some of the boys came to my house and seemed to behave strangely ... I think they though it was just a social club”, teacher (Low altitude)</i>  <i>“some club member are even beginning to take an interest in maths and it is no longer a monster.” Teacher (Low altitude)</i></p>
<p><b>Workload and time constraints</b>  <i>“teachers are already overloaded and have to prepare students for the exams”, teacher (low altitude)</i></p>
<p><b>Expectations of incentives and handouts</b>  <i>“the community leader asked us to invite out of school youth to attend with promise of finding funding for them but disappointed us after we had invited the youth” the community leader (Low altitude)</i>  <i>“Can SOFIE pay the school fees of needy children”, teacher (Low altitude)</i></p>
<p><b>Resources and learning materials</b>  <i>“others came and when they did not get a bag they left and others attend regularly”, teacher (Low altitude)</i></p>
<p><b>Resources and learning materials</b>  <i>“because most parents are unable to pay fees, our most reliable source of income is the money paid by the government for the double orphans ... this year we haven’t received any money from government and it is November, so we can no longer afford to provide lunch to students”, SMC member (Low altitude)</i></p>

school which caused some disruptions in the rural areas, which also point to the quality of education and the low regard many parents in rural areas have for education.

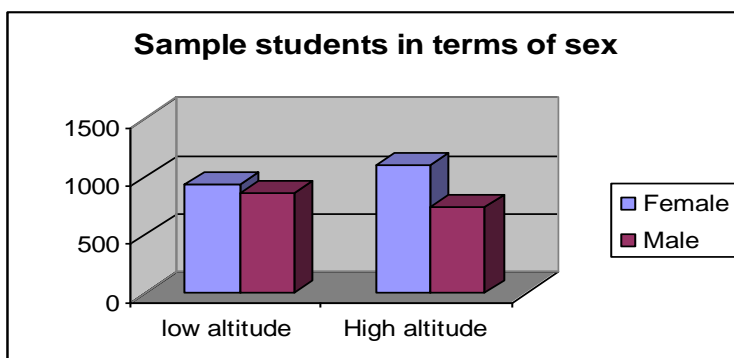
These issues point towards patterns of inequalities and disadvantage experienced by many children in Lesotho and will be looked at further from within the quantitative data. Initiatives such as the Free Primary Education programme, the scholarship programme for double orphans and the book rental scheme are all very commendable efforts by the Government of Lesotho to assist parents in the face of serious socio-economic challenges such as growing unemployment and HIV and AIDS. However, it is also becoming evident that the

government is finding it hard to keep pace with the scale of neediness and vulnerability as evidenced by the late payment that a number of secondary schools reported and pointed out was making it difficult for them to operate. A study by Smiley (2009) that looked at the double orphans' scholarship programme confirmed our earlier finding (Nyabanyaba, 2009) that the scholarship programme was leaving out many very needy children. The initiatives notwithstanding, it is important to look at how an education initiative might be designed to respond to the deepening inequalities and disadvantage.

**Baseline data**

At the start of the study 40 schools agreed to participate, but only 32 schools eventually took part in the study and only 35 participated to the very end of the study. In general, there are more females (57%) than males (43%) enrolled in secondary schools in Lesotho according to the 2008 education statistics (Ministry of Education and Training, 2008). In 2008 a total of 3643 students from 35 schools participated in the survey conducted, with girls (56%) in the majority. The majority of schools selected in this study (77%) were owned by churches, with government schools and private schools a mere 3% each, a situation very similar to the general proprietorship in the country. The schools also represented the geographic location of schools in Lesotho with the majority (54%) located in the lowlands and the rest spread over the rest of the high lying areas of Lesotho. Other characteristics that determined the selection of schools included HIV prevalence rates as well as high dropout rates, with most schools coming from Quthing, Maseru and Leribe, three districts that are reported to have higher than average prevalence rates. The schools selected were then paired in terms of several main characteristics of schools in Lesotho such as performance in national examinations, enrolments and location so that schools being compared are as similar as possible in context.

The correct age for this grade was 14 years and indeed that was the modal age of the selected students. However, the median age was 15 years and the average (mean) age was even older (15 years 5 months) indicating that there were some extremely old children in this group of students. The average age of boys (15 years, 9 months) was much higher than that of girls (15 years, 2 months). Schools in the high altitude areas tended to have much older children (15 years, 7 months) than low altitude schools (15 years, 2 months). And as shown in Figure 13, selected high altitude schools tended to have a much lower proportion of boys than girls.



**Figure 13 Sample of students**

In general, it appears that in Lesotho boys tend to be much older than the correct school age and a lot fewer boys than girls are attending schools, particularly in the rural areas. A worrying finding was that 16% of students reported that they were repeating the first year of secondary, which is higher than the official Form A repetition rates of 14% and the overall secondary repetition rates of 13% (Ministry of Education and Training, 2006). Repetition



rates are highest in the first two forms of secondary, with the second form (Form B) usually the highest at 15% (Ministry of Education and Training, 2008). Less than half (48%) of the respondents had not missed school at all in the past two weeks. However, there were no noticeable differences between low and high altitudes schools and between control and intervention schools in terms of repetition rates and absenteeism at the beginning of the study. A smaller proportion of absenteeism was reportedly due to family commitments including funerals, chores and even caring for sick family members. The most common reason cited for missing school was falling ill (7.5%), lack of clothes, books or transport to school (3%) and inability to raise money for school fees (2.5%). Lack of money for food and books accounted for the biggest reported barriers for children's schooling (13% and 12% respectively). However, teachers who did not attend classes were also reported to be a serious threat to children's schooling (11%). It was also notable that many of these children experienced a great deal of sadness while in school and ten percent (10%) of the children indicated that this was the most serious threat to their schooling.

At home the greatest reported threat to learning for many of these children was said to be either household chores, including grazing animals particularly for boys (10%) or unavailability of textbooks (9%). The latter is all the more significant if we consider that while almost all students (94%) reported that they were regularly given homework, only half of the children (53%) reported that they could take a textbook home, with only 33% having access to a school library book to take home. It is important to note though that a large proportion (63%) of the children reported that they had access to textbooks, with a further thirty percent reportedly sharing textbooks. It appears that many children do have access to textbooks, through the government rental scheme, but that the textbooks are not adequate or do not arrive on time and many students have to share them.

Farming was also one of the most common means for supporting families and more than a quarter (26.9%) of the children said they survived largely through farming. A high proportion (472, 12.9%) of children simply said that they 'struggle' to get a living on a daily basis and a number of the children were reportedly in the care of grandparents, largely surviving on the grandparents' pension (67, 1.8%).

In the pre-intervention data, the first choice of a person for the children to confide in while in school was the school friend (923, 25.2%), the principal (858, 23.5%) or the female teacher (595, 16.3%). In general, girls (475) preferred to confide in female teachers while boys (264) preferred male teachers. The tendency to confide in school friends grew substantially more in the post-data (1259, 36.6%) and this was followed by the female teacher (516, 15%) and the principal (458, 13.3%). At home most children overwhelmingly preferred to confide in household members (1205, 33%), followed by a relative living elsewhere (572, 15.2%), a village elder (391, 10.7%) or a school friend (375, 10.3%). In the post-data the first choice for the children to confide in while at home became the religious leader (904, 26.3%), the village head (532, 15.5%) and the school friend (436, 12.7%). Therefore, in general, these children prefer to confide in their school friends, both in school and at home. In school they confide in either their principal or a teacher of the same sex.

Three key variables were meant to be used for evaluating the impact of the intervention: the score of the children in English and mathematics tasks administered by the evaluation team, as well as the students' attendance and progression recorded by the teachers. Several independent variables were used to see which of the characteristics of the schools and the

students made a significant impact on the dependent variable and whether the schools started more or less equal.

**Figure 14 Baseline scores of students**

S	Statistics	Baseline English score	Baseline Maths score
EX Female	Mean	54.14	49.57
	Number	1846	1812
	Standard Deviation	18.00	19.31
Male	Mean	51.26	51.21
	Number	1345	1328
	Standard Deviation	18.87	19.54
Total	Mean	52.93	50.26
	Number	3191	3140
	Standard Deviation	18.41	19.42

As can be seen in Figure 14, girls performed slightly better than boys in English, but boys did better than girls in mathematics.

**Figure 15 Baseline progression rates of students**

	Female	Male	Total
Not repeated Form A	1751 (86.0%)	1398 (86.6%)	3149 (86.3%)
Repeated Form A	285(14.0%)	216 (13.4%)	501 (13.7%)
Total	2036	1614	3650

Repetition rates were equal between boys and girls in Form A, with about 14% reported to be repeating the class in 2008. (See figure 15) However, girls were reported to be absent less than boys during the last few days of that term. (See figure 16)

**Figure 16 Baseline absenteeism rates**

Gender	Mean	N	Std. Deviation
Female	0.63	1230	1.547
Male	0.69	1042	2.141
Total	0.66	2272	1.843

For example, girls were reportedly absent an average of 0.63 days a term while boys were absent 0.69 days a term. More importantly, both intervention and control schools performed more or less the same in most scores.

Schools selected for the intervention scored slightly better than the control schools in English and mathematics.

#### Baseline test scores

		English score	Maths score
Intervention	Mean	52.31	52.71
	N	1819	1818
	Std. Deviation	13.23	19.14
Control	Mean	51.05	51.99

	N	1841	1842
	Std. Deviation	11.89	18.19
Total	Mean	51.68	52.35
	N	3660	3660
	Std. Deviation	12.58	18.67

An analysis of these scores using non-parametric tests (i.e. Mann Whitney U) shows that intervention schools performed significantly better than control schools in English ( $p=0.000$ , 5% significance level). However, the performance in mathematics was not significantly different although the intervention schools still performed slightly better than the control schools. One thing that was found to make quite a difference right from the start was the age of students with the students at the correct age (13 and 14) performing significantly better than the over-age students, in both English and mathematics. In other words, over-age students tend to do far worse in the two subjects. It was also found that students who did not know whether their parents were alive or dead tended to perform worse than any other group of students.

School location also made a significant difference on student performance in English and mathematics, with low altitude students outperforming high latitude students by quite a margin ( $p=0.000$ , 5% significance level). However, there was not real difference between school in the two locations in terms of progression or attendance, and in fact absenteeism was slightly higher in low altitude schools.

In general, it can be noted that there were patterns of inequalities as a result of location and family background. Girls generally did better than boys, particularly in English but there was no difference in attendance or progression rates between the two groups. Low altitude schools performed significantly better than high altitude schools in both English and mathematics, but attendance rates were worse in the low altitude schools. Finally, it may be said that intervention schools started off better than control schools in English, but attendance rates were significantly worse in the intervention schools at the start of the intervention.

## 5. Findings: The impact of the intervention

This section presents the results of the experimental design used to evaluate the SOFIE intervention, focusing on pupil outcomes of retention (reducing dropout), promotion and attainment. It also discusses additional benefits and anticipated outcomes from participants' involvement in the intervention.

### School dropout

Premised by the view that retention is just as important as opening up access, a key outcome of the intervention was the reduction of the dropout rates and the improvement of progression. As noted earlier, there were very high repetition rates in the schools, particularly the intervention schools at the beginning of the study. However, significantly fewer students dropped out of schools in the intervention schools than was the case in the control schools by the end of the study. (See figure 17) In particular, intervention schools did not expel or lose

students as readily as in the control schools. However, this good practice or impact could not be traced to the ‘at-risk’ students as summarised below.

**Figure 17 Drop out and progression rates of 'at-risk' club members and non-club members**

	Student status	N	Mean Rank
Repeated Form B in 2009	Club member	224	318.50
	Non-club member	412	318.50
	Total	636	
Dropped Out From School in 2009	Club member	224	319.00
	non-club member	412	318.23
	Total	636	
Progressed to Form C in 2010	club member	224	318.92
	non-club member	412	318.27
	Total	636	

All ‘at-risk’ students virtually experience the same degree of repetition and dropout rates in Form B, the same degree of progression to Form C.

It is evident that the impact of the intervention on various students was difficult to measure. Some measure could be made of some impact on the schools in the intervention, including increased participation and less abysmal performance in mathematics.

The difference in performance between students in the post-intervention period remained the same in many respects. For example, girls continued to do better than boys in English and boys did better than girls in mathematics. And again girls continued to repeat slightly more than boys, but then girls are reported to miss school more frequently than boys in Form B. As a result of poor cooperation between class-teachers and SOFIE teachers, the monitoring of children was not very well conducted. Absenteeism, therefore, did not improve in the intervention schools and was indeed worse than in the control schools. In general, the impact on progression was also quite limited as indicated in figure 18.

**Figure 18 Drop out and progression rates in intervention versus control schools**

		N	Mean Rank
Repeated Form B in 2009	Intervention	1602	1674.41
	Control	1748	1676.50
	Total	3350	
Dropped Out From School in 2009	Intervention	1602	1675.45
	Control	1748	1675.54
	Total	3350	
Progressed to Form C in 2010	Intervention	1602	1676.27
	Control	1748	1674.79
	Total	3350	

Repetition of learners in the SOFIE schools was very slightly less than in the control schools and drop-out rates were virtually the same in the two sets of schools. No significant differences were found in the repetition, drop-out and progression of the students in either intervention or control schools. Once more age made a significant difference on performance

and attendance with the correct age students doing significantly better than other ages in both English and mathematics, repeated less and attended school better. And children who lived with both parents did best in all respects and attended school best.

The respondents to the qualitative study reported that one of the reasons why the outcome of the intervention was so low on attendance and progression was because of the reluctance to take up ODFL practices by subject teachers of mathematics and English. Many subject teachers and class teachers viewed supervising independent work and even attendance as introducing additional load on them. Class teachers in Lesotho do not yet receive any additional allowance for their duties and many perform their duties as minimally as they can. In addition, it was noted by teachers who attended the SOFIE psycho-social support that staffrooms were not such safe environments for vulnerable children. Not only is corporal punishment widely practiced in many secondary schools, but teachers are generally not trained to provide support for children experiencing difficulties at home. A number of the participants recalled how they tend to deride students experiencing difficulties in the staff room.

A further complication experienced with the monitoring and support of students was in relation to the cooperation between teachers and community members. Many community members have qualifications that are much lower than teachers and hold a lower status in their communities. Communication with community members did reveal that some secondary schools did not have a high regard for the community members and tended to dismiss them when they tried to support. In a number of contexts, the problem was exacerbated by misunderstanding about whether there were really no monetary gains for the community members and what was in it for the school financially.

## Performance

Schools located in low altitude regions continued to do well in both English and mathematics, but again children in the low altitude region missed school more than those in high altitude regions despite the difficult terrains and harsh winters.

We attempted to look at the impact of the intervention by splitting the files and considering the difference between the baseline and end-of-intervention scores. Figure 19 reports on the differences and the extent of the observed changes and how far the changes could be attributed to the intervention.

**Figure 19 Changes in performance and attendance in the intervention schools**

		N	Mean Rank
English score	Baseline	1819	1708.43
	End-of-intervention	1578	1688.13
	Total	3397	
Maths score	Baseline	1818	1680.78
	End-of-intervention	1559	1698.59
	Total	3377	
Absenteeism	Baseline	1205	1332.71
	End-of-intervention	1439	1313.95
	Total	2644	

As can be observed above, there is a slight decline in the scores for English, a slight increase in the mathematics scores and a slight decline in the rate of absenteeism. None of the changes was found to be statistically significant. However, this apparent lack of impact becomes significant when one observes the outcome in other schools (control). Figure 20 below summarises the changes in the control schools.

**Figure 20 Changes in performance and attendance in the control schools**

	File number	N	Mean Rank
SCR:/English score	Baseline	1841	1667.63
	End-of-intervention	1629	1812.21
	Total	3470	
SCR:/Maths score	Baseline	1842	1867.56
	End-of-intervention	1596	1548.62
	Total	3438	
P:/Absenteeism	Baseline	1075	1226.67
	End-of-intervention	1371	1221.01
	Total	2446	

It emerges that there has been a significant improvement in English and a significant decline in mathematics and a small decline in the rate of absenteeism. Therefore, there is an improvement in the English scores in the control school, where the improvement was quite low in the intervention schools. One can note though that the improvement in the control school did start off a lower base than in the intervention schools, but it does appear that the impact on English in the intervention schools was negligible. On the other hand, the significant decline in the control schools could indicate that while the children in the control schools continued to experience difficulties with mathematics, there had been a slight arrest of that deterioration in the intervention schools. Indeed qualitative data from various teachers in the intervention schools indicated that there had been an improvement of attitudes and participation in mathematics in the intervention schools which could have influenced the scores.

It would have been interesting to evaluate the impact of the intervention on the ‘at-risk’ students, particularly those who had been recruited into the clubs. Unfortunately, many of the baseline students (the 2008 group) were not found in the 2009 study for a number of reasons including the high repetition and dropout rates. Figure 21 reports on the attendance rates and performance among ‘at-risk’ students in the intervention schools.

**Figure 21 Performance and attendance among 'at-risk' students**

	ID:/Student status	N	Mean Rank	Sum of Ranks
S:/repeated Form A in 2008	club member	224	149.50	33488.00
	non-club member	74	149.50	11063.00
	Total	298		
S:/Absenteeism	club member	224	151.33	33899.00
	non-club member	74	143.95	10652.00
	Total	298		
SCR:/English score	club member	220	144.86	31869.50
	non-club member	73	153.45	11201.50
	Total	293		

SCR:/Maths score	club member	216	151.69	32764.00
	non-club member	73	125.22	9141.00
	Total	289		

While there has been very little impact that the clubs had made in most outcomes, the club members fared significantly better than the rest of the ‘at-risk’ students in mathematics again using the Mann Whitney U which shows that ‘at-risk’ students who enrolled for the SOFIE clubs did significantly better in mathematics compared to the similar students who did not enroll ( $p=0.019$ , 5% significance level).

## 6. Discussion and concluding remarks

This report has presented findings on the barriers to educational access and attainment in Lesotho in a context of high HIV and AIDS infection rates and the extent to which Open, Distance and Flexible Learning approaches can address such barriers as a complement to conventional schooling. Like most countries in the region, Lesotho has seen various socio-economic challenges threaten to reverse the gains made towards achieving the millennium development goals. It has to be noted that the government’s continuing support to Free Primary Education in the face of declining revenue collections is commendable. However, the late payment of money for double orphans is one of the indicators that government resources are under severe strain. With the global economic crisis likely to reduce aid to developing countries, it is difficult to see how Lesotho might extend free education into secondary schools. The economic difficulties brought about by the decline in the SACU revenue collection and the growing unemployment have come at a time when the AIDS pandemic is taking its toll on the resources available to families for educational needs. The SOFIE project implemented and evaluated an educational intervention aimed at reducing the educational inequalities and disadvantages being exacerbated by the economic crisis and the AIDS pandemic in Lesotho.

The study highlighted various inequalities and disadvantages in the secondary education system in Lesotho. Unlike most developing countries, girls continue to have better access to school than boys in Lesotho’s secondary education. Boys, particularly in rural areas, repeat more frequently and appear to suffer from a variety of interruptions confirmed by qualitative data as resulting from child labour practices which require that boys look after animals. However, the apparent advantage held by girls in Lesotho, contrary to popular belief, is thin and precarious. Firstly, girls’ performance advantage in English did not extend to mathematics. Secondly, girls were reported to miss school very slightly more frequently than boys (boys averaging 0.130 with girls at 0.131 per term) in their second year of secondary, and go on to drop out just as much as the boys. The differences between the boys and girls in the second year of secondary may not be significant, but it is important to note that the much talked about advantage that girls have over boys is lost in the face of increasing socio-economic difficulties. Qualitative data confirm that girls are increasingly called upon to look after family members and their attendance further disrupted by difficult economic circumstances such as the inability to purchase school uniform.

It has been indicated by the study that these patterns of inequality are made worse by practices in schools that do not support disadvantaged children. It has also been shown by the study that central interventions by the government are important but that on their own these measures are insufficient to deal with the scale of the problem. A low cost intervention was

set up to complement schooling through more open, distance and flexible approaches aimed at reducing absenteeism and improving attainment. It was found that the set up of secondary schools generally make the implementation of such a programme a very intricate exercise and the measurement of its impact even more complex. In the absence of a single teacher who both teaches and manages students, generating the necessary buy in becomes a highly composite affair. Training was not only needed for the several role players in very specific aspects, but on-going support and incentivisation emerged as an issue.

It was also found that schools implement various initiatives for the inclusion of marginalised learners in the context of the growing vulnerability. However, in the absence of policy to guide both government intervention and school initiatives, many other learners continue to be excluded. The study has indicated that double orphans are but only one of the evidences of the impact of poverty and HIV and AIDS. A growing pattern emerged in this study where after the death of the father most mothers are forced to go and look for work to support their families. Often such children are left with grandparents and this does not always work and such children feel abandoned in terms of care and support. In general, single orphans and children who do not know whether their parents were still alive attend school poorly and often eventually drop out of school. A framework is needed for the inclusion of a wider variety of disadvantaged children in school than is presently the case. Such a framework would include how schools are expected to deal with children who may not afford uniform or school fees.

Measuring for the overall impact of the intervention has produced some rather mixed results. The most positive results were found in the use of mathematics study guides where improvement was notable in the intervention schools. Implemented with the assistance of the Lesotho Science and Mathematics Teachers Association (LSMTA), buy-in was more evident in this case and qualitative feedback from SOFIE teachers confirmed the value teachers attached to these materials. While it was not in the design of the project to implement the intervention through teachers' associations as closely as happened with the case of mathematics, it was an important finding to learn just how critical such structures can be in enhancing buy-in. On the other hand, SOFIE teachers reported rather poor collaboration from their English colleagues which resulted in lack support for SOFIE club members in the English aspect of the intervention.

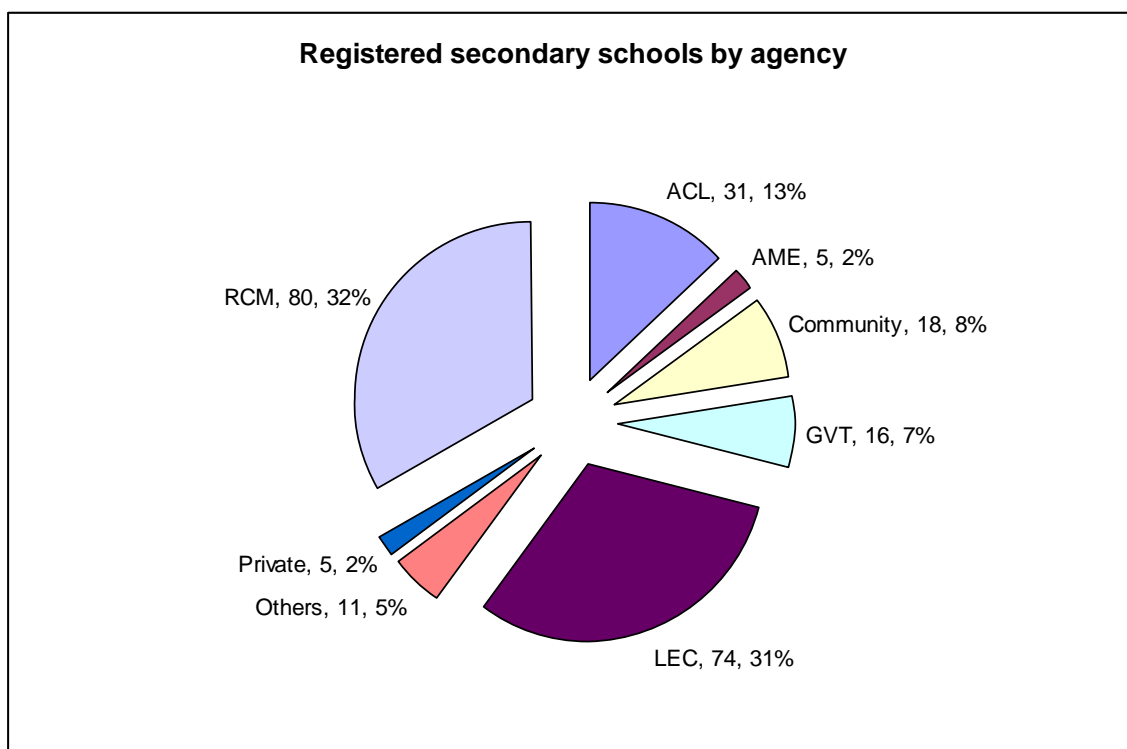
In terms of dropout and progression rates, it was encouraging that more students in the intervention schools progressed into the next level (Form C) than those in the control schools. In particular, control schools appeared to lose more students than intervention schools. This indicates that monitoring processes and follow-ups on children were beginning to impact positively on retention and progression of students. However, it appears that the effect had not yet become significant and that many constraints were still frustrating the implementation during the final evaluation stage. Most notable were the poor levels of cooperation between teachers and that the context of secondary schools makes it very difficult to implement strategies for the reduction of dropout rates and the improvement of performance.



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**Appendix 1: Registered Secondary Schools by agency (ownership)**



**Appendix 2 Absence and performance outcomes**

**Report(a)**

ID:/Student status		P/SEX	P/Student age*	P:/Orphan status	P/Means of support
club member	Mean	1.52	17.00	3.6667	5.19
	N	48	47	48	48
	Std. Deviation	.505	1.945	1.65457	2.481
non-club member	Mean	1.42	15.94	2.3035	3.89
	N	1824	1818	1832	1828
	Std. Deviation	.494	1.783	1.59108	2.619
Total	Mean	1.42	15.97	2.3383	3.93
	N	1872	1865	1880	1876
	Std. Deviation	.494	1.795	1.60674	2.623

a ID:/File number = Pre-data

\*significant ( $\alpha < .05$ )

Significant differences were found in two outcome variables. Students in intervention schools became less absent and performed far better than those in control schools in mathematics. The latter finding is confirmed by qualitative data from intervention schools who reported that they found that their students became less intimidated by mathematics. It is possible that the opportunity to do mathematics in groups and with the availability of textbooks could have given both teachers and students more confidence and begun to impact on the students' performance.

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