

**An Economic Analysis of the COPE Program
in Uganda:
Current Costs and Recommendations for
Meeting the Educational Needs of
Disadvantaged Children**

By

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Executive Summary

The COPE program has demonstrated that a significant demand for flexible basic education alternatives exists. The high initial enrollment and demand from areas not served by the program indicate that this demand is significantly greater than what an externally funded and sponsored program can provide.

COPE has also validated the effectiveness of its methods and materials. Informal testing and anecdotal accounts indicate that children attending the program for the entire three years do reach a P5 equivalent. Interviews in the communities also indicated that the methods and materials were attractive to both participants and parents.

COPE suffers from unacceptably high rates of program failure and desertion on the part of participants. Program failure and desertion of participants increase the cost of producing a P5 equivalent program completer by a factor of three (\$1,619 vs. \$562).

A significant factor in program failure and participant desertion is the underinvestment in building local capacity. It was estimated that only about \$200 per year was invested in building local capacity. Given the crucial role of local actors and the potential improvements to the internal efficiency (lowering the cost per completer), greater investments in developing local capacity should be a priority.

Despite efforts on the part of UNICEF and MoES, COPE has remained to some degree a parallel primary education initiative. The more COPE and the formal system remain parallel systems the less the benefits of complementarity can be realized. Strengthening the complementary focus of COPE requires that community capacity to plan and manage both systems in concert be strengthened.

This strengthening of local capacity should be accompanied by changes in public policy that promote complementarity over parallelism. These policy changes include a modification to educational funding formulas that incorporate complementary approaches for disadvantaged students into the normal funding mechanisms. Failure to unify funding will result in continued competition between two parallel systems.

The current COPE model also contributes to the tendency toward parallel systems. Expansion of complementary opportunities requires that the COPE model be made more flexible. If complementary approaches are to promote UPE they must allow movement between complementary programs and the formal primary school. Complementary programs must also evolve to meet the needs of a learners at different stages of their education through multi-level methods and self-paced materials. Complementary approaches must also be sufficiently flexible to meet the needs of particular groups of excluded children in given communities.

While the primary dynamic of exclusion is the economic needs of households, formal school practices and policies also make a significant contribution to this exclusion. A school day that is too long, a curriculum perceived as not relevant to immediate needs, and methods and materials that lack dynamism are also factors that must be addressed in a comprehensive effort to bring children into the educational system. An analysis of the experiences in COPE can provide helpful guidance for improving the formal primary school.

1) Introduction:

Significant investments of financial and human resources on the part of the government of Uganda have resulted in a well-documented expansion of educational opportunities at the primary level. Despite these important gains in primary school enrollments, it is widely recognized that significant numbers of children are still not being reached and retained by the formal primary school.

As part of the goal of reaching Universal Primary Education (UPE) the government's Education Strategic Investment Plan (ESIP) contemplates a "complementary basic education" to reach and retain children whose life circumstances exclude them from entering and completing a basic education via the formal primary school. The recent (April 2000) review of ESIP progress highlights the need to develop concrete policies and plans to further these approaches as part of a comprehensive effort to reach UPE.

Since 1995 UNICEF-Kampala has managed technical and financial support¹ for a "complementary" basic education initiative. This initiative, Complementary Opportunities for Primary Education (COPE), was conceived as a cost effective means for meeting the educational needs of this group of disadvantaged and excluded children. COPE was designed to provide an accelerated primary education (to P5 in three years) through the use of adequate quantities of high quality materials, an abbreviated school day (3-4 hours versus the 7-hour school day in the formal system), and paraprofessional teachers supported by ongoing training and supervision. While UNICEF Kampala coordinated financial and technical support to COPE, the Ministry of Education and Sports (MoES) assumed management of the program through the use of "focal point officers" at both the national and district level.

The original program design incorporated local (community, sub district, and district level) financial and in-kind resources into the funding of day to day COPE operations. Consistent delivery of these local resources, both from parents and local government has been problematic. Instructor salaries have now been shifted from local resources to a central level MoES grant administered by the districts.

Meeting the needs of the significant numbers of disadvantaged children excluded from the formal primary school in Uganda requires a comprehensive nation-wide effort that cuts across a number of areas of public policy. Even stand-alone initiatives of significant scope such as COPE can never do more than provide a "jewel box" solution for a relatively small number of disadvantaged and excluded children. The real return to the investment in COPE is the knowledge generated and the lessons learned that can be applied to more comprehensive initiatives.

This document analyzes the investments and outcomes of the COPE initiative within a framework of providing guidance to future comprehensive efforts to provide opportunities for disadvantaged and excluded children. A key element in the analysis is

¹ Principally the governments of Holland and Canada

the concept of “complementary approaches.” To be effective any effort to reach disadvantaged and excluded children must build on (be complementary to) the existing opportunities in the formal system. The primary questions to be addressed are:

- I. What are the costs and outcomes of the COPE initiative?
- II. What is the contribution of COPE as a complementary approach to the goal of UPE in Uganda?
- III. What are the potential contributions of complementary approaches to the effort to reach UPE in Uganda?

2) The Costs and Outcomes of COPE

As emphasized earlier, the purpose of analyzing COPE is to generate a knowledge base for designing and implementing programs and policies that provide meaningful opportunities for a basic education for disadvantaged and excluded children. Given this emphasis, the task is to use cost information from COPE to inform future decisions about policies and practices to reach disadvantaged and excluded children rather than a mere accounting of past expenditures. A decision-making orientation also determines which costs are relevant to the analysis. Only incremental costs necessary to meet the needs of additional disadvantaged and excluded children are relevant to decisions about future initiatives and policies. Other historical expenditures will be considered “sunk costs” as they do not increase when additional children are served. In the case of COPE the significant investment in curriculum and materials development is an example of a sunk cost, as expanding COPE to more communities does not necessarily involve additional expenditures on curriculum and materials development.

Analyzing the costs of COPE is only useful when they are placed in the context of the outcomes of the program. It is when the cost of COPE can be expressed in terms of the “unit cost” of producing a desired outcome (i.e. a child provided one academic year equivalent, a child reaching a P-5 equivalent, a child completing the three-year COPE program, etc.) that cost information has something meaningful to contribute to program and/or policy development decisions. An “ingredients” method is used to work backwards from the desired outcomes of the program to identify all of the necessary resources to produce those outcomes.

It is also important to keep in mind that analyzing the cost effectiveness (or estimating the returns to future investments) requires that all of the relevant social costs be included in the analysis. Social costs include more than just the financial expenditures of UNICEF donor funds. An accounting of the social costs of COPE requires the inclusion of the financial contributions of the Government of Uganda at all levels as well as the more difficult to monetize contributions of time and material on the part of individuals both in the government and in the communities where COPE operates.

In order to estimate the relevant recurring costs to COPE information was gathered from UNICEF-Kampala as well as from field visits to a sample of 16 COPE centers in the four districts where COPE was originally implemented. While some costs can be estimated very accurately, (instructor salaries for example) other estimated costs like the monetary value of the time local officials and community leaders contribute to COPE will be much more of an educated guess at an average across communities. This inexactitude does not, however, significantly effect program and policy choices as all of the alternatives are subject to more or less the same degree of uncertainty. The outcome of such an analysis is an accurate ranking of alternatives for reaching policy or program goals rather than a to-the-penny estimate of future costs.

a) Estimating the costs of COPE:

As designed, COPE was intended to serve 6,400 children in 80 centers in four districts. Training costs and educational materials budgets were developed on the basis of these assumptions about utilization (number of centers and enrollment).

From the perspective of social costs the origin of resources or who bears the costs of any component are irrelevant to decisions about the relative costs and benefits to society of an effort to provide educational opportunities for disadvantaged and excluded children. However, the relative weight that groups of stakeholders will or can bear can have an important impact on the sustainability of any initiative. For this reason the analysis will also highlight who bears the costs of current or potential efforts.

The following analysis breaks the costs for COPE into five functional categories: infrastructure, instructors, instructional materials, training, and management and supervision.

Figure 1.
Functional Categories and Source of Resources for COPE

COPE Resource Category:	Source:
Infrastructure:	Contributed through a combination of community level (including local government) in-kind and financial resources
Instructors:	Originally to be paid through community level resources. Shifted to central level MoES funding in 1999
Instructional materials:	UNICEF provided funds for curriculum and material development as well as production and distribution of materials.
Training:	UNICEF provides funding for initial 3-week course and refresher courses for instructors. UNICEF also provides funding for management committee training.
Management and supervision:	COPE supervisors provided with motorcycle and travel reimbursements. District Focal Point Officer paid by MoES but dedicates time to managing COPE centers in the district.

i) Infrastructure:

Infrastructure for COPE centers has come from a variety of sources. The original concept of relying on community contributions exclusively has been relaxed in some districts. UNICEF and MoES have provided resources, as have NGOs in a number of communities. In general, the provision of adequate infrastructure has been a problem in many of the communities. The costs of infrastructure have proved to be a significant obstacle. The reliance on “community contribution” reduces the financial expenditures on the part of donors (UNICEF) and MoES as the social cost is shifted to communities. The fact that significant numbers of centers never finished completion of the two classrooms is a reminder that shifting social costs does not reduce or eliminate them.

To build a unit cost estimate for COPE it was assumed that an adequate two-classroom structure (see specifications in chart below) had a cost of \$5,000. It was assumed that the classroom structure would have a useful life of 12 years. The opportunity cost of the capital investment was assumed to be 10 percent per year, yielding an annualized cost for constructing a COPE center of \$734. Adding an approximate 10 percent for maintenance raises the annual infrastructure cost to \$817.

It was not necessary to consider the current mix of financing sources for COPE center construction. As stated before, shifting the relative burden of financing construction does not affect the true cost of developing the necessary infrastructure. Any consideration of alternative strategies for reaching disadvantaged and excluded children must explicitly consider the question of where to provide complementary opportunities.

Construction cost per 1 Center: \$5,000	Annualized cost:	\$817
<ul style="list-style-type: none"> • Two classrooms 12m X 12m with secure storage space in one • Concrete floor, local brick walls, metal roof 	Based on 10 percent discount rate with a useful life of 12 years	\$734
	With maintenance (+10%):	\$73

ii) Instructors:

Each center is staffed with two instructors. Instructors are currently paid through central level MoES funds administered at the district level. Instructors are paid on a 10-month basis. The COPE instructor salary is 50 thousand Ugandan shillings per month; approximately \$33.34 per month. Total annual salary expenditures for each center is \$672.

New instructors also receive a bicycle to facilitate travel to the COPE center. Assuming that each bicycle has a useful life of 4 years², the annualized cost for continuing to provide bicycles to COPE instructors is about \$38 per year. This raises the annual compensation costs to \$710 per year.

Compensation for Instructors	Annualized cost:	\$710
<ul style="list-style-type: none"> Two instructors with salary of 50,000 Ugandan Shillings per month for 10 months Bicycle provided at beginning of service \$60 per instructor. 	Annualized cost of bicycle with a useful life of 4 years and a 10 percent discount rate	\$672 \$ 38

iii) Instructional materials:

A significant investment was made in the initial development of a curriculum and design and production of instructional materials for the COPE program. From the point of view of future oriented decisions, the costs of this initial development task are “sunk costs,” or costs that do not enter into questions about how much it costs to reach an additional excluded or disadvantaged student. The relevant expenditures are incremental expenditures necessary to reach additional children. Those incremental costs include periodic redesign and improvement as well as the production and distribution of materials.

Instructional materials include items like student and teacher texts, displays, teaching equipment, etc. that have a useful life of several years (capital expenditures) and those that are consumed each year like exercise books, paper, chalk, etc. (recurrent expenditures). For the purpose of estimating a unit cost for COPE the capital expenditures must be converted to an annual equivalent. All of the capital expenditures in instructional materials were converted to annualized equivalents assuming a five-year useful life and a discount rate of 10 percent. The latest (May 2000) revision of the COPE Center “Learning Kit” was used a guide for estimating the costs of instructional materials. This kit has undergone several revisions since 1995. Some items have been deleted or reduced (i.e. sewing machines, number of supplementary reading titles, etc.), while other items have been added (metal sheeting for roofs). Only the elements of the COPE Center Learning Kit that are instructional materials are considered here. Other items in the kit are considered as components of other cost categories (i.e. motorcycles for instructors as part of compensation for instructors, metal sheeting as part of infrastructure).

In addition to the discounted costs of materials considered capital expenditures and an estimate of recurrent expenditures on classroom materials, an annualized estimate of the cost of ongoing development, review and refinement of instructional materials is also estimated. The estimate of this ongoing process

² Estimate based on wear and tear on bicycle and on turnover of COPE instructors.

was based on the assumption of a \$20,000 expenditure³ every three years and a discount rate of 10 percent.

The discounted annualized cost of instructional materials per COPE center was estimated to be \$1,182. Student and instructor texts account for roughly one-third of instructional material expenditures.

Instructional Materials	Annualized cost per center:	\$1,182
• Texts (student and instructor guides):	All capital expenditures	\$344
• Teaching aids:	annualized based on 5-year useful life and 10 percent discount rate.	\$294
• Supplementary reading texts:		\$ 94
• Teaching equipment:		\$129
• Vocational equipment:		\$101
• Consumable materials (paper, exercise books, etc)	Estimated at \$1.50 per student	\$120
• Ongoing revision (annualized cost of ongoing revision divided by 80 centers)	Useful life of 3 years discounted at 10 percent	\$100

iv) Training:

COPE relies on paraprofessional instructors and local management of the centers. The reliance on local human resources (instructors and management committees) is intended to reduce costs, ensure quality, and encourage sustainability.

Instructors are provided an initial three-week residential training. Instructors are also supported through periodic two-day residential refresher courses. The number of refresher courses planned or actually delivered was difficult to quantify as budgets reviewed called for anywhere between 4 and 12 courses per year. Actual expenditures varied from district to district, as did the number of courses delivered.

While the operations and management issues around delivery (or failure to deliver) the anticipated refresher courses are important considerations in the effectiveness of the COPE initiative, they will be assumed away for the time being as the task is to estimate a unit cost for future initiatives rather than account for previous expenditures. In order to estimate the training costs for expanding complementary opportunities based on the COPE model it was assumed that each instructor would receive an initial training and 6 refresher courses per year.

Reviewing available documentation revealed budgets for initial training that varied from \$600 to \$1,500 per instructor for total costs of the three-week training. Given the variability in costs for residential sites, the number of trainers and officials attending the training, etc. a figure of \$900 per instructor was used as

³ The “ongoing revision” expenditure includes the human resources for revision and redesign as well as the higher costs of producing a revised version of instructional materials in the first year.

the estimate of the cost of the initial training. If this capital investment is annualized using 5 years as the useful life of the training⁴ and a discount rate of 10 percent, the annualized cost of the initial training is estimated at \$238 per instructor.

Using the available documentation as a guide the cost per instructor for a refresher courses was estimated at \$125 per instructor. Providing six refresher courses per year would bring annual costs for instructor refresher course costs to \$750 per instructor. Total annual costs for instructor training are estimated at \$988 per instructor.

The initial two-day training for management committees was estimated at \$200 per center using available documentation. Subsequent work with management committees appears to be driven by program needs (i.e. familiarization with new curricular elements, new procedures, etc.) An additional \$200 per year was added to management committee training costs to cover these additional management committee development tasks, bringing management committee training cost to \$400 per year.

COPE supervisors also receive an initial three-week training and shorter (3-day) follow up training on a quarterly basis. As was the case with instructors, the initial training is a capital investment with returns in subsequent years while the quarterly training is a recurrent cost. Initial training for supervisors was budgeted at about \$1,000 per supervisor or an annualized cost⁵ of \$264. The annual cost of training for COPE supervisors rises to \$784 per supervisor when the \$520 annual cost of quarterly training is included.

Training is also provided for the COPE center management committees. Documentation as to the “standard” ingredients or length of management committee training was inconsistent. A number of sources were used to estimate the costs for a “typical” management committee training. This estimate assumed a three-day (residential) training for 15 participants using three paid facilitators with fees and payments for accommodations and materials similar to those for instructor and supervisor training. The estimated cost per participant using these assumptions is \$90. This investment should be discounted to an annualized amount since the training would be expected to produce benefits in subsequent years. Discounting management committee training to an annualized figure assumed a three-year useful life rather than five given that the documentation reviewed did not mention “refresher” courses for management committee training. As with other annualized investments a ten percent discount rate was used. The annualized cost of management committee training is estimated at \$36 per committee member.

⁴ The “useful” life of the training accounts for instructor turnover. Using 5 years as the useful life means that the annualized cost of initial training is sufficient to provide initial training to entire new cohort of instructors every five years.

⁵ Annualized cost assuming a useful life of five years and a ten percent discount rate.

Training	Annualized cost per COPE center*:	\$2,423
• Instructors (per instructor)		\$988
• COPE Supervisors (per supervisor)		\$784
• Management Committee members (per member)		\$ 36
*Calculated using: two instructors, .34 COPE supervisor, and five management committee members.		

v) Management and Supervision:

This final category includes activities required for ongoing management and supervision of the program as well as the preliminary activities required before a COPE center receives children. These activities involve participation of UNICEF, MoES at both the national and district level, and community members.

Implementation of these activities and satisfying these functions requires that a management structure be maintained. The maintenance of the management structure as well as the additional resources committed to specific routine management and supervision tasks are costs relevant to an economic analysis of COPE specifically, and of other possible initiatives to meet the needs of disadvantaged and excluded children.

At the national level both UNICEF and MoES have a management structure that supports COPE. In the case of UNICEF two professional staff and one support position have significant involvement in COPE. The senior professional position has a time commitment of roughly 25 percent to COPE while the junior position has about a 30 percent time commitment to COPE.⁶ The support position as it is currently configured is largely dedicated to managing the production and distribution of COPE materials for the expansion into several additional districts as well as a backlog of materials to the original four districts. If the support position is restricted to the current tasks of managing and distributing materials a yearly level of effort would be estimated at roughly 33 percent⁷.

While assigning a monetary value to management and supervision costs is a relatively straightforward process, it is important to keep in mind that assigning a cost to the components of management and supervision (UNICEF staff program support in this case), is not an assertion that the level of UNICEF (or MoES, etc.) support is adequate. In a later section of this document the basic information gathered about the costs and outcomes of COPE will be applied to an analysis of

⁶ These estimates are based on observations and discussion. It is important to note that this estimate of the level of effort dedicated to tasks associated with COPE is significantly less than the level of UNICEF staff commitment previously.

⁷ Estimated at four person-months.

what the COPE effort suggests about promising paths toward reaching disadvantaged and excluded children.

At the national level several central level MoES officials have nominal involvement with COPE. Efforts have been made since the inception of COPE to provide a clear national education system identity to the program by placing key leadership responsibilities with MoES officials. As a program for primary schooling for Ugandan children many different entities within the MoES have a legitimate interest in the functioning of COPE (i.e. curriculum, teacher training, educational supervision, etc.). For the purpose of estimating unit costs for COPE our interest is in costs that are incremental to MoES costs; costs that would not be incurred if COPE did not exist. From this perspective it is possible to limit MoES costs for maintaining a management structure to the costs represented by the monetary value of time dedicated to COPE related tasks by the national focal point officer. (The time of other central level officials is accounted for in specific activities – i.e. facilitation at COPE supervisor training, etc..).

A similar logic applies to the district level. District Education Officers have the ultimate responsibility for education in the district, including COPE. District Inspectors of Schools, school supervisors, drivers for the district and others participate in specific activities. The social cost of their time contribution will be included in estimates for the particular activities. The only personnel cost for maintaining the COPE management structure at the district level is the compensation costs for the District Focal Point Officer. This district level official assumes day to day COPE management in the district. However, COPE is not the only responsibility or duty of these officials. District Focal Point Officers generally have other duties and responsibilities in regards to supervision and management of formal primary schools in the district. To estimate the contribution of District Focal Point Officers it was assumed that fifty percent of their time was involved in managing COPE.

The total monetary value of management structure personnel involves summing UNICEF, MoES central, and MoES district level costs. To estimate unit costs the central level costs are divided by the number of anticipated COPE centers while district costs are divided by the number of centers per district (20). The estimated annual management structure costs at the central level are \$2,378 per center and \$200 per center at the district level. At both levels a number of other support services are involved in managing COPE (drivers, secretaries, accountants, office supplies, etc.). To account for those costs an additional 15 percent is added to the combined central and district level management structure costs bring the total to \$2,965 per center.

Management structure costs	Annual cost per COPE center:	\$2,965
• Central level (UNICEF and MoES)	per center (80)	\$2,378
• District level (MoES)	per center (20)	\$200
• 15 percent addition for overhead		\$387

Supervision of COPE centers is provided by COPE supervisors. A majority of COPE supervisors are lecturers at teacher training institutions. The costs associated with supervision of COPE centers are the motorcycles provided to COPE supervisors and their allowance for travelling to visit the centers. Original program design called for 1 COPE supervisor for every three centers.

The cost of motorcycles is included in the cost of supervision. The cost of a motorcycle is annualized using a five-year useful life and a 10 percent discount rate. Original COPE documentation anticipated weekly visits to COPE centers. Field visits to COPE centers indicated that supervisor visits are occurring much less frequently. For the purpose of estimating unit costs a once every two-week frequency is used. When the annual costs of the motorcycle are combined with the allowances and travel costs associated with twice-monthly visits to COPE centers the cost of supervision per COPE center is estimated at \$458 per year.

Supervision Costs	Annual cost per COPE center:	\$458
• Motorcycle (annualized cost of \$3,500 = \$924)	per center (3)	\$308
• Allowances, lodging, and fuel (\$30 per visit)	5 visits per center	\$150

Building support for a COPE center requires that a number of mobilization activities take place. Several documents reviewed listed a budget of about \$11,500 for the initial mobilization activities^{8,9}. Initial mobilization activities are not necessary each year. Initial mobilization costs have been annualized using a three-year useful life¹⁰ (4,600). Subsequent mobilization meetings (quarterly) were estimated at 25 percent of the initial mobilization costs (\$3,833 per meeting). Assuming that one-half the centers participate in each of the quarterly meetings the mobilization and support costs per center are estimated at \$997 per COPE center.

⁸ Based on developing 20 centers in 20 communities.

⁹ The costs of mobilization and support were particularly difficult to estimate. Records of actual financial disbursements as well as budgets were not consistent in terms of how the expenditures were categorized. In order to arrive at a workable estimate it was assumed that mobilization and program support consisted of an initial set of activities (mobilization, community assessment, identifying participants, identifying instructors, etc.) and subsequent follow up quarterly activities with roughly half the centers participating in each quarterly follow up event (each center participates in two follow up activities per year). Again, these assumptions are consistent with the program design rather than actual implementation which could not be determined across the districts.

¹⁰ An annualized cost based on a three-year useful life accounts for subsequent initial mobilization activities to open new centers as well as more intensive activities to renew and strengthen existing centers once every few years.

Mobilization and support	Annual cost per COPE center:	\$997
• Initial mobilization activities (11,500 = annualized cost of \$4,600)	per center (20)	\$230
• Quarterly mobilization and follow up (3,833 per event- each center participates in two events per year)	per center (10)	\$767

Combining management structure costs, supervision costs, and mobilization and support activity costs the annual cost per COPE center for management and supervision is \$4,420. These management and supervision expenditures do not represent all of UNICEF support to primary education in Uganda. Some major expenditures, like vehicles for the districts have been left out of the estimation of unit costs for COPE. The logic of which expenditures to include and which expenditures to exclude was based on the concept of incremental costs. The effort here has been to separate the costs of implementing a program for disadvantaged and excluded children from general support to education.

b) Calculating COPE unit costs

A total annual cost for a COPE center can be estimated using the calculated costs for infrastructure, instructor compensation, instructional materials, training, and management and supervision. Combining these component costs yields an annual cost per COPE center of \$9,552.

Total costs	Annual cost per COPE center:	\$9,552
Cost category		
• Infrastructure:		\$817
• Instructors:		\$710
• Instructional materials:		1,182
• Training		\$2,423
• Management and supervision:		\$4,420

Unit costs can be calculated using planned levels of utilization as a guide. If each center enrolls 70 children and attrition over the three-year cycle is a modest 10 percent per year, 51 children will complete the three-year program.

COPE unit cost – planned (per completer)	\$562
• Initial enrollment of 70 children.	
• 10 percent per year attrition yields 190 student years for 3 years	
70 children in year 1	
63 children in year 2	
57 children in year 3	
51 children complete program	
• 3 years of expenditures @ \$9,552	\$28,656

As part of this analysis more up to date information was gathered from central sources as well as from filed visits to 16 COPE centers. This more recent information provides the basis of a more accurate estimation of unit costs for COPE.

The field visits indicated that the actual level of utilization is significantly lower than anticipated. During field visits to 16 COPE centers in March and June of 2000 researchers gathered information regarding initial enrollment and children attending the center on the day of the field visit. Gathering this information was somewhat problematic as there was some confusion regarding enrollment. The COPE program enrolls children in three-year cohorts, however some centers had enrollments for each year. It also appears that UNICEF also will occasionally refer to some kind of yearly enrollment.

An estimate of the attrition in COPE over the three-year cycle was estimated using the initial enrollment and attendance in the center on the day of the field visit. The pattern of attrition observed in the formal schools was used to distribute the estimated attrition over the three-year cycle. Using this method an average attrition for the three-year cycle was estimated at 65 percent. In other words, of every 100 children that enroll in COPE about 35 would be predicted to finish the three-year cycle. This attrition does have an impact on the unit costs for implementing COPE. While the estimate used for “planned” levels of utilization amounted to about \$562 per child who completes the program, the estimated unit cost based on observed levels of utilization are estimated at about \$1,432 per person who completes the program.

COPE unit cost – observed (per student year)	\$1,432
<ul style="list-style-type: none"> • Initial enrollment of 70 children. • 65 percent attrition over cycle yields 138 student years for 3 years <ul style="list-style-type: none"> 70 children in year 1 43 children in year 2 25 children in year 3 20 children complete the program • 3 years of expenditures @ 9,552 	\$28,656

Planned utilization is also less than anticipated when the number of functioning centers are considered. While some confusion exists in regards to the number of centers functioning it can be conservatively estimated that 20 percent have failed and no longer receive children¹¹. If some percentage (20 in this case) of centers will fail given the current strategies for selecting and mobilizing communities then the investment in centers that fail should also be viewed as part of the cost of reaching disadvantaged and excluded children.

¹¹ The failure of COPE centers is also addressed in the 1997 interim evaluation. The findings from that investigation cite inadequate mobilization efforts as the principal cause of poor performance on the part of COPE centers.

The cost to reach an additional child must include the costs of investments in centers that fail. A failed center represents an investment in infrastructure, compensation for instructors, instructional materials, training, and management and supervision. One way to incorporate this investment into a calculation of unit costs is to adjust the \$9,552 estimated cost per center by sharing these costs for centers that have closed among the functioning centers.

If 20 percent of centers fail the capital investment rises from \$5,000 to 6,000 per center (20 percent) to spread the cost of infrastructure among the functioning centers. The annualized capital expenditure increases to \$969 per center.

Compensation to instructors does not continue after the center closes, however both instructors in closed centers did receive bicycles. Spreading this cost among remaining centers raises the per center annual compensation costs to \$764 per center. Instructional materials are generally provided in their entirety to centers when they are inaugurated. Accounting for the investment in materials for centers that close raises the annualized cost of materials per center to \$1,298.

Each closed center also represents an investment in initial training for instructors, COPE supervisors, and management committees. Incorporating these costs into annual training cost per operating center brings them to \$2,521.

Management structures costs are shared over fewer centers. Supervision costs per center increase because motorcycle costs are shared among fewer participating centers. The costs of initial mobilization activities are also distributed across fewer centers. Total management and supervision costs increase to \$5,121 per center.

Reestimating the cost per student year incorporating more accurate information regarding utilization yields a cost per completer of \$1,619. The estimated actual unit costs of COPE are 300 percent higher (\$1,619 vs. \$562) than unit costs estimated on the basis of planned levels of utilization.

Total costs with 20 percent failure rate	Annual cost per COPE center:	\$10,793
Cost category	Adjustment for closed centers	
• Infrastructure:	Cost of classroom increase 20 percent from \$5,000 to 6,000	\$969
• Instructors:	Capital cost of bicycles for instructors in closed centers included	\$764
• Instructional materials:	Materials cost distributed among remaining centers	\$1,418
• Training	Initial training costs for instructors, supervisors, management committees in closed centers	\$2,521
• Management and supervision:	Sharing central level management costs and supervisors' motorcycles over fewer centers	\$5,121
Unit Cost per completer (20) 3 years @ \$10,793		\$1,619

These estimated unit costs are sensitive to a multitude of assumptions. The intent has been to make those assumptions transparent to the reader. General UNICEF support for primary education (vehicles, cash assistance, etc.), for example, was excluded from estimated costs for COPE. It may be the case that expanding COPE or an alternative complementary program is dependent on general non-program specific support to education. In that case some proportion of general support to education would also need to be incorporated into the estimation of unit costs for COPE or any other complementary alternative. There are of course many other costs that have been excluded or included that would be subject to review given a different set of questions to address.

Even with this caveat in mind, these estimated unit costs provide a useful metric for analyzing programmatic and policy choices when combined with program outcomes. They will be used here to address the potential returns to investments in complementary approaches to reach UPE as well as to measure the potential benefits of design modifications to current complementary approaches.

3) The returns to investments in complementary approaches in primary education.

Complementary approaches like COPE emerged from concerns that large numbers of children were unable to enter and complete primary schooling despite significant investments in expanding primary education on the part of GoU. Government and NGOs were both well aware that despite the nominally “free” nature of primary education, poverty, gender, handicapping conditions, lack of adequate formal school places, etc. still conspired to exclude many children from school and to keep Uganda from reaching the goal of UPE.

While COPE and other initiatives have stressed their “complementary” nature to the formal education system, these programs are still often seen by both MoES and NGOs as separate, stand-alone efforts. In this section an economic framework will be used to demonstrate the actual and potential contributions of investments in complementary approaches to the overall efficiency of the primary education system. The framework used in this analysis is to conceptualize a COPE center and nearby formal primary school as a single entity that attempts to provide an opportunity for a primary education for all children who live in the community. When viewed in this manner policy and programmatic decisions in regards to either COPE or the formal school have immediate costs and benefits to both alternatives in terms of the numbers of children they can reach and retain and the resources necessary to provide a given quality of primary education.

As a component of the fieldwork in March and June of 2000 10 formal primary schools located close to COPE Centers were visited. The goal of these visits was to gather up to date enrollment (for 1999 and 2000), attendance by grade and age, and spending information at the school level. This information was to provide the basis for making rough estimates of unit costs for formal schools.

Our success in this endeavor was mixed. At a number of schools most students and teachers were away at district level activities or the head teacher was in the district office for a meeting. Most schools had current year enrollment and attendance but many were unable to provide a 1999 enrollment. MoES requires schools to display income and spending from the UPE capitation grant. Observers found this information displayed in about 60 percent of the schools visited.

Given the paucity of reliable information an attempt was made to supplement the information gathered with regularly published information. Unfortunately, basic information such as an accurate count of students enrolled has been routinely questioned both internally within MoES and by external observers. The short field-based period and the time consuming effort to visit COPE centers and formal schools in remote areas did not allow time for uncovering better sources for formal school spending and enrollment.

With the above caveats in mind, the unit costs of a "typical" formal primary school have been estimated. Some of the costs used are relatively transparent (building costs and teacher salaries for example), while others (central/district level non-instructional support and supervision costs, among many others) are educated guesses. When possible these educated guesses rely on data gathered from field visits.

While these estimated unit costs leave much to be desired, their relative imprecision is irrelevant to the analysis of how an initiative to provide complementary basic education opportunities for disadvantaged and excluded children affects the overall efficiency of an educational system attempting to provide UPE. What can be demonstrated or analyzed are the relative changes in costs and outcomes of alternative schemes for providing UPE. Once these relative changes are understood a more detailed subsequent analysis of formal primary school costs and outcomes can provide more precise estimates as to the nominal monetary value of costs and benefits.

a) Estimating unit costs for a "typical" formal primary school

Infrastructure costs for the typical formal primary school are estimated using the same base cost of \$5000 per two classroom block as used for the COPE center estimates. Annualized costs are estimated also using the same assumptions concerning the discount rate and the useful life of the structure.

The cost of instructors is estimated at \$50 per month for 13 instructors (12 instructors plus 1 head teacher) for 10 months per year. Instructional materials were estimated using an average cost of one textbook (\$3.50) in each of three subjects shared among 5 students. The current capitation grant of 5,000 Ugandan Shillings per student enrolled was also incorporated into the estimate for instructional materials.

Training costs were included in the global estimate of management and supervision costs. The estimates for these costs (management and supervision) are the most imprecise of the formal school cost estimate. Management and supervision costs were

estimated by adding an additional 35 percent to the sum of all of the other estimated costs.

The total annual cost for the typical formal primary school used in this analysis is \$17,948. This total represents an expenditure of \$29.91 for each child enrolled in the school. This \$29.91 figure can be thought of as the annual cost of providing a school place.

Total costs (600 students; 12 classrooms; 13 instructors including head teacher)	Annual cost for typical formal primary school (total):	\$17,948
Cost category	Per student attending:	\$29.91
• Infrastructure:	12 classrooms with 12-year useful life and 10 percent discount rate. 10 percent additional for maintenance.	\$4,450
• Instructors:	13 instructors @ 50 USD per month	\$6,500
• Instructional materials:	Texts in 3 subjects for 1 in 5 students as well as teachers texts discounted at 10 percent with a useful life of 5 years. (\$350 per year)	\$2,348
• Training	Other materials estimated at official capitation rate of 5,000 Ush per child (\$1,998 per year) (ongoing training included in management and supervision category)	
• Management and supervision:	Base cost plus 35 percent	\$4,650

About half of the 11 formal primary schools visited as part of the fieldwork for this analysis were able to provide 1999 grade by grade enrollment as well as the figures for 2000. Using these two points in time a grade by grade transition rate was estimated for each school that could provide enrollment data for both years. In two cases these calculations yielded transition rates at greater than 100 percent for many of the grades due to the influx of new students from other schools. With the two schools with the highest degree of in-migration eliminated the maximum transition rate from the four remaining schools was used to provide a base for constructing the grade to grade transition rate for the “typical” formal primary school used in this analysis.

In order to facilitate comparison as well as an analysis that incorporates investments in complementary approaches, estimated grade transition rates were used to calculate the total years of investment necessary to produce one P5 completer (Completing COPE is equivalent to finishing P5).

Using a hypothetical 100 students entering P1 and the estimated transition rates yields a total of 12 children who will complete P5. Since each child participating in a year of schooling in the various grades represents a year’s investment of resources, the

cost of producing one P5 completer can be estimated by summing the entire number of student years in the table below and dividing that sum by the number of students who complete P5 (12). Under these assumptions the cost of producing one P5 completer is 25.4 years.

To find the cost for producing one P5 completer it is necessary to multiply the number of years of investment necessary (25.4) by the annual cost for providing a school place (\$29.91). The result is figure of \$759.71 for each P5 completer.

Estimated Unit Cost for "Typical" Formal Primary School		
Utilization for "typical" primary school		
Cost category		Cost years to produce P5 completers
Enter grade 1: 100	transition rate 80%	100
Enter grade 2: 80	transition rate 80%	80
Enter grade 3: 64	transition rate 60%	64
Enter grade 4: 38	transition rate 60%	38
Enter grade 5: 23	transition rate 50%	23
Enter grade 6: 12	transition rate 40%	
		Total =305
		completers = 12
		Cost years per p5 completer = 25.4
Cost to produce one P5 completer	(\$29.91*25.4)	\$759.71

COPE was designed to provide the educational equivalent to that of a P5 completer in the formal system. Student testing in the formal schools and COPE centers visited strongly suggest that COPE students are comparable to their peers in the formal school.

The cost of providing a P5 education in the formal system was estimated at \$759.71. Earlier the cost per COPE completer (equivalent of P5) was estimated at \$1,619 using estimates of current utilization. That COPE would have higher unit costs than the formal school would be expected as the population of disadvantaged and excluded children is more difficult to reach and retain. It is also important to note that the COPE unit cost for producing a P5 completer as the program was designed were lower (\$562) than the estimate for the formal primary school.

b) Estimating the joint unit costs of formal primary schooling and COPE

The contribution of COPE to the overall efficiency of the primary education system can be examined by estimating a joint unit cost where COPE and the formal system work in a complementary manner. Information provided by COPE participants suggest that in most cases they would not attend the formal school if COPE were not

available.¹² Given this evidence that COPE is a complement rather than a substitute for the formal school estimating a joint unit cost for a hypothetical environment where a COPE center and a formal primary school served the same geographic area is a relatively straightforward task.

Students Entering	Formal	COPE	Total	Total Cost Formal¹	Total Cost COPE²
Year 1	100	70	170	2991	16310
Year 2	80	43	123	2392.8	10019
Year 3	64	25	89	1914.24	5825
Year 4	38		38	1136.58	
Year 5	23		23	687.93	
P5 completers	12	20	32	Total cost Formal & COPE	41276.55
Cost per P5 completer both COPE and formal school	\$1,290				
Cost per P5 completer formal school only	\$760				
¹ at 29.91 per student attending					
² at cost of 233 per participant attending					

If COPE participants would not otherwise enter primary school the joint unit cost estimate can be interpreted as the cost of producing one additional P5 completer (or equivalent). In other words given the estimates of the internal efficiency of both programs, implementing both programs in a given area would produce one P5 completer for every \$1,290 of additional expenditure. In this case there would be no reason to compare unit costs between a formal primary school and a COPE center, as all of the additional P5 completers from COPE would otherwise not enter a formal school.

This analysis provides information for addressing two relevant policy questions. The first question is whether the \$1,290 investment in producing a P5 completer is socially efficient. This question can be answered by looking that the additional benefits that accrue to society from this higher level of educational attainment and comparing that to the \$1,290 price. While that analysis is outside of the scope of this document, evidence from rates of return studies to education across different economies would strongly suggest that this investment would have significant positive returns.

The other relevant policy question is whether some kind of additional investment in the formal school, or modifications in the complementary program (COPE in this case) could produce P5 completers at a cost lower than \$1,290. Since this analysis focuses on complementary approaches, modifications to the formal school will be

¹² This is generally true given the age and previous educational experience of COPE participants. In Kamuli, however, many of the COPE participants were age appropriate for the formal school. In many of those cases the nearest formal school had very high enrollment levels raising the possibility that the crowding and subsequent low quality of the formal school would keep those children from entering.

largely ignored while changes in the cost structure due to potential modifications to of COPE will be explored.

c) Simulating alternative complementary strategies

While COPE is characterized as a complementary approach, the basic program design was completed before the implementation of the national policy on UPE that significantly lowered the costs born by households to send their children to formal primary school. Modifying some COPE practices to align them to this new policy environment offers potential efficiency gains to the system.

One modification with such potential is changing COPE enrollment from the current practice of enrolling three-year cohorts to one that allows a yearly enrollment of additional students. As participants drop out of the COPE program as they currently do the unit costs to provide service to those that remain increase. The costs of materials, infrastructure, instructors, etc. cannot be reduced and are shared across fewer participants and completers. By allowing additional enrollment each year to bring the number of participants closer to the designed capacity of the program (80), yearly cost per participant and the cost per program completer are reduced.

Unit Costs and Completion with COPE Annual Enrollment					
Program year	Calendar year				
	Year 1 enrolled	Year 2 enrolled	Year 3 Enrolled	Year 4 Enrolled	Year 5 enrolled
Year 1	70	30	30	30	30
Year 2		43	18	18	18
Year 3			25	15	15
Completers			20	9	9
Total enrolled	70	73	73	63	63
Cost per participant* with new enrollment	\$136.46	\$130.85	\$130.85	\$151.62	\$151.62
Cost per participant* without new enrollment	\$136.46	\$221.14	\$393.83	\$135.03	\$219.81
Total completers (5 years) with new enrollment	38				
Total completers (5 years) without new enrollment	20				
Cost per completer (3 years) with annual enrollment	\$1,146				
Cost per completer (3 years) without annual enrollment	\$1,433				

* using annual cost per center of \$9,552 (does not include cost associated with failed centers)

Permitting the annual enrollment of new COPE students can have additional positive effects on the efficiency of educational investments in the districts. When children desert the formal before completing a given level, say P5, they raise the districts' cost of

producing P5 completers^{13 14}. If new COPE students who come from the formal school manage to complete the P5 equivalency in COPE, then the earlier investments in formal school are not “wasted” when analyzed in terms of producing P5 completers.

Another significant efficiency gain could result from implementing an “open door” policy across both programs. In discussions with COPE participants and parents the shorter school day offered by COPE was often cited as a reason for choosing COPE over the formal school. It seems reasonable to assume that some significant number of formal school leavers do so because of the need to contribute labor to the household. In some of those cases these needs respond to changes in households that produce an acute need for labor for a given time period. However, the difficulty of dropping back in to the formal school after an absence of six months or one year are such that children who could return to the education system frequently abandon their education.

If these formal school students were able to drop-in to a COPE center for a year and then return to the formal school when conditions allowed, the efficiency gains would be measured by lower costs per P5 completer resulting from a lower formal school desertion rate. By reducing the formal school desertion rate just 20 percent, the estimated cost of producing a P5 completer falls to \$443 from \$760¹⁵. Adjusting for the higher cost of the year these “drop-ins” attend COPE the final figure would still result in a significant improvement to the \$760 figure.

4) COPE 2000 and beyond

The attempt here has been to demonstrate that a complementary program can make an indispensable contribution to achieving UPE. Estimated costs and outcomes from both COPE and the formal system were used to make the case that investments in complementary opportunities can provide an efficient means of progressing towards UPE.

The COPE experience also demonstrates that the program is not a sustainable complementary program as it is today. Costs per completer are more than three times that contemplated in the original design. In an environment where resources for planned formal school expansion are inadequate to keep up with the new policies and demographic growth, it is unlikely that the government would be able to assume the funding of COPE as it currently operates.

Some of the difference in costs between COPE as conceived in 1995 and how it operates in 2000 can be attributed to faulty assumptions in program design. The most pervasive of these faulty assumptions was that resources that did not appear as financial outlays on the

¹³ The same analysis applies to any level of education. P5 has been used in this analysis as COPE completion has an assumed equivalence with a P5 education in the formal system.

¹⁴ Children who desert the formal system before completing a given level raise the costs of producing completers of that level. For example, if 100 children begin P1, 50 children begin P2, and 25 children complete P2, the cost of producing the P2 completers includes the cost of providing the years of instruction received by their peers who did not complete P2.

¹⁵ Estimate based on schools surveyed in Bushenyi, Kamuli, Arua, Masaka districts (10).

part of UNICEF were “free.” As demonstrated by the difficulty in completing physical infrastructure by communities, the failure of COPE centers, and the generally inadequate level of supervision and support on the part of districts who assumed management of the program without receiving additional resources, shifting costs to the “community” did not in any sense reduce the real costs of those functions. In fact, these assumptions often shifted costs to those least prepared to bear them; the poorest communities.

This shifting of costs to those least prepared to bear them has been accompanied by an underinvestment at the community level. The logic of COPE is to substitute local involvement for financial resources resulting in a higher quality program than would have been possible given the available resources. Given this strategy, the relatively small investment in building community level capacity is perhaps the major shortcoming of the program as it is currently implemented. Supporting and monitoring the instructors, facilitating and encouraging students to enroll and persevere, advocating for the program at the district level, building relationships with local schools and district officials, and mobilizing parents and the wider community to support the program are among some of the most critical elements in the success of the program that depend on the energy and capacity members of the local community. The failure to adequately develop this resource has resulted in the high percentage of center failures and high levels of desertion from the program.

Despite explicit efforts in program design and management structures, COPE has evolved into a parallel primary education system. While COPE enjoys a relative advantage compared to the formal system in terms of spending per child, the significant benefits of a closer link to the formal system (see above) as a complement are not being realized. Operating as a parallel primary system also results in lower quality and higher costs for COPE. The high costs associated with failing centers and desertion of participants are directly related to management and support functions failing to keep up with program expansion¹⁶.

Notwithstanding these shortcomings, the COPE experience should be viewed as an unqualified success. While COPE management and supervision difficulties have contributed to an unacceptably high level of attrition, initial attendance and constant demand for expansion have demonstrated that disadvantaged and excluded children are attracted to a program consistent with the COPE model. That model includes a flexible school day and calendar, intensive use of quality materials that embody a more active learning style, relevant contents and skills, and instructors who receive ongoing support to strengthen their content knowledge and active teaching style.

More importantly, experience suggests that a mere expansion of current formal school places will fail to reach significant numbers of disadvantaged children. Maximizing the returns to the investment in COPE requires that the innovations that attract disadvantaged and excluded children be incorporated into the formal system. COPE has provided a testing grounds for demonstrating that a school day that recognizes the economic necessities of households can be combined with relevant content and an active teaching-

¹⁶ For example, the 1997 review of COPE emphasized the weakness of community development efforts.

learning method to provide a basic education to children the formal school can not currently reach or retain.

Maximizing the impact of the knowledge generated by COPE requires a reemphasis and reorientation of the “complementary” focus. In order to address the issues of access for disadvantaged and excluded children, this reorientation must also extend to policies and practices currently implemented in the formal primary system and schools. The focus of this reorientation should consider the following issues:

- Flexibility in delivery of basic education

The compressed instructional day was frequently cited as a reason for participation in COPE. The shorter school day permitted disadvantaged and excluded children to combine household tasks and income generating activities with continuing education. Efforts should be made to build on the experience in COPE to examine changes in formal school policy that would result in a more condensed school day in the formal primary schools.

Changes in public policy in the area of financing education to provide for more flexibility will also be necessary to meet the needs of disadvantaged and excluded children. Even a somewhat shortened school day will still exclude the most seriously disadvantaged children. These children will continue to need an alternative to the formal primary school. This group of seriously disadvantaged and unreachable children is large and present throughout Uganda. Expanding complementary opportunities to all of Uganda’s most disadvantaged children cannot happen without significant commitment on the part of the Ugandan government. While non-governmental and community organizations may be crucial to implementing the program more widely, a genuine incorporation of a complementary program into the national educational system requires an equal footing for complementary program students in regards to funding through the capitation grants and facilities grants. Including all children in the head count of students in a district will also eliminate the incentives for formal schools and complementary programs to compete for students and encourage closer cooperation between the two forms of primary education.

Meeting the needs of significant numbers of disadvantaged and excluded children also requires flexibility in the nature of complementary opportunities available. Many children experience acute difficulties that temporarily make attendance in the formal school impossible. These children require a program that can meet their needs to continue their education until conditions allow them to return to the formal school. “Open door” mechanisms that allowed children to attend a complementary program during these times would permit children who would have otherwise become deserters to finish their formal education.

This “open door” complementary approach requires more explicit mechanisms of cooperation and management between the complementary opportunities and the formal primary schools. Allowing children to shift back into the formal system will

require the establishment of simple basic placement tests for primary grades (mathematics, English and mother tongue)¹⁷. Students who want to regain entry into the formal system would be placed back in the formal system on the basis of these placement tests. Strengthening linkages at the local level by linking entities that provide complementary opportunities directly to nearby formal schools under direction of the formal school head teacher would facilitate the movement of students across the two programs as needed.

The dynamics of exclusion from the formal primary school varies by community. While an ongoing general complementary program that includes an open door modality can meet the needs of many communities, some specific needs emerged from visits to current COPE programs. One such special need is in areas of greater geographic isolation. In some cases households who want to send children to the formal primary school are uncomfortable with the distances that their youngest children need to travel to attend school. A “satellite” complementary program would permit the youngest and most isolated children to keep up with their peers until they were able to travel to the nearest school.

A complementary program exclusively for girls who had deserted the formal school because of early marriage is another potentially viable choice from a menu of complementary approaches. Such a program would permit girls to continue their basic education despite the strong traditions that keep them isolated in the home.

More urban areas also present special opportunities for reaching children with complementary primary education. In this case children who work in commercial activities (markets, construction, etc.) represent a population where an accelerated basic education program with a practically oriented curriculum and lively materials could advance the progress towards UPE.

Another possibility would be to link a complementary program to existing opportunities for technical and vocational education. Many vocational/technical programs require basic literacy and numeracy (or primary completion) as a prerequisite. Providing the opportunity for quickly meeting the prerequisite conditions, or some type of dual enrollment in the vocational program along with a complementary primary education program, could provide a powerful incentive to completing a primary education.

Management of a menu of complementary approaches requires that local officials work with communities to carefully assess the district’s needs and prioritize the use of available resources. Each of these complementary approaches also requires close (and formal) management linkages at the community level; between formal schools and complementary opportunities serving the same communities.

¹⁷ The focus of these tests would be minimum requirements to enter a given grade. They do not require standardization and could be developed by district officials.

- A meaningful curriculum and child-centered methods

While economic necessities are the principal force excluding children from formal schooling, a curriculum that is perceived as removed from the immediate needs of poor children and methods and materials consistent with patterns of socialization that do not apply to many of Uganda's new school population (i.e. children whose parents did not attend school and/or who do not have need for literacy and numeracy in their economic activities) are also forces pushing children away from formal schooling. Rather than an obstacle, the incorporation of previously excluded children presents an opportunity to revitalize a curriculum to meet the needs of Uganda (and Africa) and to develop methods and materials that promote a new generation of active critical thinking men and women.

COPE has made significant investments in developing a curriculum and materials that provide a relevant education in a manner that involves students more actively in their learning. Anecdotal evidence and the results from limited informal testing suggest that COPE is providing an "equivalent" education. Many parents, local officials, and COPE participants indicated that the quality of the materials and the nature of the classroom practices influenced their decision to attend COPE rather than the formal primary school. A thorough analysis of the COPE experience and incorporation of the best practices into the formal primary system can provide a beginning framework to build an appropriate curriculum for South Africa for 2000 and beyond.

If the COPE experience can inform the changes in the formal school, the nature of complementary opportunities will also need to evolve from the current COPE model. In addition to accepting children much more frequently than the current three-year cohort model, the curriculum and methods must also meet the needs of children at various levels in their education in the same classroom environment. This requires that the next evolution of curriculum and materials for complementary approaches be more oriented towards self-paced materials and multi-aged/ multi-level teaching methods.

- An emphasis on the wider community

Just how to incorporate the lessons from COPE into the formal system is a political rather than technical question. In all societies choices about how schooling is organized as well as its contents are the result of a multitude of cultural and historical factors. Perhaps the most important factor in successfully providing a basic education to all children in Uganda is how effectively the wider community can be engaged in decision making regarding all aspects of education in the community.

The more a complementary program is consistent with the needs of excluded and disadvantaged children in the community, the more likely children are to enroll and persevere in that program. Choosing the appropriate program and making it available in the right place and the right time requires detailed local knowledge and action. The

high rate of desertion and the number of COPE centers that have closed demonstrate the costs of underinvestment in local capacity.

Deciding what kind of complementary program is needed and where, as well as the support and encouragement necessary to keep children in that program, requires the participation of a much wider group than district education and complementary program management officials. This wider participation can only happen in an effective and genuine manner if resources are allocated to developing local capacity. While this is an expensive and time-consuming task the COPE experience suggests that the value of strengthening and supporting local decision making capacity can be a wise investment. The three-fold difference in cost per program completer between COPE as it was planned and the estimated cost per completer as currently implemented (\$1,619 vs. \$562) suggests the potential magnitude of returns to greater investments in strengthening local decision making and support capacity. An underinvestment in this component will seriously threaten the viability of any evolution of initiatives to reach and retain more children.