



**Study Title**

Learning and Growing in the Shadow of HIV/AIDS: A Prospective Randomized Evaluation of the Effects of *Escolinhas* on Young Children in Mozambique

**Name of project/intervention being evaluated**

Project/intervention	The Art of Learning ECD Project
Implementing agency	Save the Children Federation US
Project or agency website	<a href="http://www.savethechildren.org">http://www.savethechildren.org</a>
Country(ies) of implementation	Mozambique

**Contact person details**

Contact Name	Chloe O’Gara
Title	Associate Vice President for Education and Child Development, Save the Children Federation US

**Government approval** *(Please choose yes/No)*

Is government approval required?	<b>Yes</b>
If “yes”, is the approval document attached?	<b>Yes</b>

**Start Date and Duration**

a. Proposed start date	<input type="text" value="July 2009"/>	b. Duration of the grant (months)	<input type="text" value="18 months"/>
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**Principal Investigator(s)**

Name	Organisation	How many days will the investigator work on the project?
Damião Mungoi, Education Sector Coordinator, Gaza, Mozambique	Save the Children	11 (5 % LoE)
Domingos Mahangue, Field Operations Director, ECD Program, Gaza, Mozambique	Save the Children	22 (10% LoE)
Arsénia Rodriguez, M&E Officer, Gaza, Mozambique	Save the Children	11 (5% LoE)
Jodie Fonseca, Education and HIV/AIDS Advisor, Maputo, Mozambique	Save the Children	11 (5% LoE)
Chloe O’Gara, Vice President, Education and Child Development, Washington, DC	Save the Children	5.5 (2.5% LoE)
Pablo Stansbery, ECD Senior Advisor, Washington, DC	Save the Children	5.5 (2.5% LoE)
Barbara Bruns	World Bank	11 (5% LoE)
Sebastian Martinez	World Bank	11 (5% LoE)
Sophie Naudeau	World Bank	11 (5% LoE)
Vitor Pereira	World Bank	66 (30% LOE)

## Evaluation question(s)

List the main evaluation question(s) to be addressed by the proposed study

More than half a million children in Mozambique have been orphaned by HIV/AIDS. The epidemic and its effects are a serious threat to children's development in their early years and can prevent them from reaching their full potential in life. Save the Children's Early Childhood Development (ECD) project in Mozambique responds to these challenges by providing community mobilization and resources for the construction of "Escolinhas," or ECD centers that target orphans and vulnerable children (OVC) in selected communities. The Escolinhas are led by a team of community volunteers, including two "animadores" per classroom who are trained through experiential learning techniques to facilitate children's learning at the centers, with a curriculum focused on cognitive stimulation through games, art and music, as well as elementary math and reading (including introducing children to Portuguese, in preparation for elementary school). In addition, ECD centers encourage access to critical health care and psychological support.

This impact evaluation – a collaboration between Save the Children and the World Bank – aims to measure the causal effect of this ECD model on the cognitive and physical development, education and welfare of beneficiary children and their families. By evaluating the Save the Children ECD program in Mozambique, the evaluation seeks to accomplish a number of objectives, including: (1) measure the impact of the program on key outcomes (children's health, nutrition, cognitive development, social development and subsequent primary school performance); (2) Identify the causal chain through which the inputs and activities cause short- and long-term impacts on the life of children and their families; (3) identify ways to improve the program's design and effectiveness over time; (4) increase the evidence base for ECD in the region, and inform policy makers and development practitioners on the effectiveness and cost-effectiveness of such interventions in a rural African context; and (5) build capacity for the implementation and use of impact evaluations through collaboration of the Government of Mozambique, Save the Children, World Bank, and donor partners.

Specific questions to be addressed by the evaluation include: Does the intervention improve child development in terms of the following outcomes: Care and protection, as measured in child height, weight, and family hygiene and child care practices? Behavioral development, including personal and social outcomes? Language development, including the use of gestures, sounds and movements to communicate? Cognitive development, including working memory and executive function? Environmental exploration, measured using a test of gross and fine motor skills? In addition, does the ECD program improve parental care giving practices and child and family decision making? Does the intervention improve parents' productivity? Does the ECD program improve educational outcomes of older siblings? Does the ECD program facilitate a successful transition to primary school? Do children who attended Save the Children's ECD program have a higher probability of enrolment and completion of primary school? Do children who attended Save the Children's ECD programs have better academic performance at primary school in terms of grades and tests? Does the presence of the program alter levels of social capital or social interactions in the community? Does the intervention improve health outcomes of beneficiary children? Is there any spill-over effect of improved health from beneficiary children to non-beneficiary children? How does the intervention change the health and nutrition of children, as measured by height and weight (wasting and stunting), nutritional intake and preventive health seeking? What is the cost-benefit of this kind of program in the Mozambican context? What is the cost effectiveness of such programs? Is this model of pre-school sustainable for the long run? How could governments scale up these initiatives?

The empirical evidence on the effects of ECD programs on the life of children in Africa is scarce. This innovative model of ECD in the African context provides an important opportunity for learning the effectiveness and cost-effectiveness of ECD centers in improving the cognitive development, health and welfare of beneficiary children and their families. To our knowledge, this evaluation is the first prospective randomized impact evaluation of ECD to be conducted in Mozambique, and as such constitutes an opportunity for developing capacity in-country for the use of impact evaluation methods. Save the Children and the World Bank have already conducted the baseline (pre-intervention) design and data collection for this impact evaluation. Therefore, this expression of interest seeks funding for the first round of post-intervention funding (with approximately 2 years of exposure to treatment) and impact analysis and dissemination of findings.

In addition to the pre/post waves of data collection discussed in this expression of interest, the study has been designed to allow collection of additional longitudinal (panel) data that would provide valuable information on children's progress over time. For example, longitudinal data would allow us to follow children further into primary school to determine the effects of the ECD intervention on critical indicators such as survival and completion rates, further strengthening the evidence base on the value of ECD in Africa. With this in mind, the

partners may also pursue funding for a second round of post-intervention impact evaluation in the future, should this be of interest to 3ie or other donors.

## Summary

Describe the proposed study in simple terms in a way that could be publicised to a general audience [up to 400 words]

The earliest years of life are pivotal in forming the foundations for healthy development and providing children and their societies the opportunity to reach their full potential. Programs to promote early childhood development (ECD) are most critical in Africa, where children face the myriad risks of disease, malnutrition, conflict and low-quality education systems. Governments in Africa urgently need evidence about the effectiveness of ECD programs to help them make informed decisions about the allocation of resources in their struggle to meet basic needs and secure a better future for their citizens. In Mozambique in particular – where only about 4% of children access pre-school, and mostly in urban areas – the government is poised to take pro-active steps towards establishing a national ECD program. All that is missing is the right catalyst.

In response to this imperative for actionable evidence, Save the Children and the World Bank are collaborating with local partners to carry out a ground-breaking evaluation of an early childhood development (ECD) program in Gaza Province, Mozambique. This ECD program enrolls vulnerable children ages 3-5 – those living amidst high levels of poverty and/or affected by HIV/AIDS – and provides them with a high-quality but low-cost and fiscally scale-able model of pre-school education that helps build the foundation for lifelong learning.

This evaluation, which will be the first of its kind in Africa, will provide us with a thorough understanding of the benefits that the ECD program has for the intellectual, emotional, social and physical development of some of the most vulnerable and marginalized young children in the world. The evaluation utilizes a randomized control trial (RCT) methodology, that is seen as the gold standard in measuring causal impacts, and gathers detailed data on multiple aspects of children's development as well as the elements of family and community welfare that have the most potential for positive effects on children. Carefully designed RCTs such as this can provide exactly the standard of evidence needed to advocate effectively with governments and donor agencies about the best ways to invest scarce resources in ECD. Given the lack of rigorous evaluation evidence on ECD programs in Africa and other developing regions, this evaluation has the potential to raise awareness of the importance of ECD for children not only in Mozambique but also across the African continent and beyond.

## Target audience

Describe the intended primary target audience for the study

To maximize the reach and influence of this evaluation, the team is targeting audiences at three levels: Mozambican, African and global. Within **Mozambique**, the primary target audience is the government, and in particular the agencies most concerned with early childhood development: the Ministries of Women and Social Action; Education and Culture; and Health. Mozambique is currently in the process of developing its national ECD strategy and refining the institutional framework for ECD policy, financing, service delivery and oversight. These three ministries all have key roles to play in the sector and will benefit directly and substantially from the rigorous data which our impact evaluation will generate on cost-effective allocation of resources to promote early child development. Additional target audiences in Mozambique include the donor community, which also needs to make data-informed decisions about resource use amidst multiple competing priorities. Finally, civil society organizations and communities also desperately need evidence to help move the many small, ad-hoc pre-school programs that exist in Mozambique into the realm of more effective program design and higher national coverage, and above all services targeted to the most vulnerable children.

Within **Africa**, many governments have nascent ECD sectors and face the same questions and challenges that confront the Mozambican government. Evidence from the Mozambique program – both in terms of the impacts of the program but also related to the process for implementation – will be presented in a way that allows for generalization and adaptation to other similar contexts on the continent.

**Global** target audiences are complementary to the national and continental audiences described above. They include governments beyond Africa concerned with evidence about ECD; international donor and cooperation organizations active in ECD such as UNICEF and the World Bank, which have the ability to provide or mobilize significant resources in support of child development; international organizations similar to Save the Children that implement or support programs related to ECD; networks that share technical information and undertake

advocacy on ECD, such as the Consultative Group on Early Childhood Care and Education and the ECD working group of the Association for the Development of Education in Africa; and academic organizations or think tanks that will be able to use both the study instruments and findings for their own research purposes.

The communication plan below provides details on outreach activities that will be undertaken at the various levels.

**Staff Duties** Summarise the roles and responsibilities of each post for which funding is sought (give name where known, or state post, e.g. 'Research Assistant', where appointment is not yet made).

### **Save the Children**

**Damião Mungoi:** Liaison between project team and provincial and district government representatives; facilitation of linkages to and data collection in primary schools; dissemination of information at provincial and district levels.

**Domingos Mahangue:** Monitoring of research activities in project areas in Gaza Province; quality monitoring of project delivery to complement the data collected by the impact evaluation; liaison between data collection teams and project staff; dissemination of findings at the community level.

**Arsénia Rodrigues:** Maintenance of database; oversight of research and monitoring activities in program sites; ensuring articulation between World Bank data collection and project monitoring systems; support to reporting and dissemination of findings at community, district and province levels.

**Jodie Fonseca:** Technical input to research analysis and reporting; liaison between research partners in Mozambique and Washington, DC; in-country advocacy with the government, UN, donor and NGO partners and through leadership of the national-level ECD working group; dissemination of findings to other Save the Children offices in Africa.

**Chloe O'Gara:** Technical input to research analysis and reporting; dissemination of findings and advocacy with international ECD fora.

**Pablo Stansbery:** Technical input to research analysis and reporting; dissemination of findings and advocacy with international ECD networks as well as Africa-based networks such as the ADEA ECD working group (for which SC is the lead agency).

### **World Bank**

**Barbara Bruns:** Technical leadership of research design, analysis and reporting; Coordination with parallel studies in other countries; Mobilization of research funding; Advocacy with Donor, Ministry of Education of Mozambique, policy makers, academics and governments around the world. Overall responsibility for evaluation design, quality assurance, economic analysis of impact, and dissemination of results at economic and education conferences, as well as ECD and other educational networks, as ADEA, and CIES.

**Sebastian Martinez:** Technical leadership of research design, data collection, analysis and reporting; Overall responsibility for evaluation design and lead responsibility for instrument design, identification strategy and data collection and quality assurance. Communicating with key stakeholders and counterparts, organizing and participating in meetings and capacity development activities. Formulation of identification strategy, and outcome indicators. Reports, statistical and economical analysis. Advocacy with Donor, Ministry of Education of Mozambique, policy makers, academics and governments of around the world. Dissemination of results at academia and conferences (American Association Annual Meeting, Latin American Association Annual Meeting).

**Sophie Naudeau:** Technical input to research design, analysis and reporting; Lead responsibility for selection of child development outcome measures and adaptation/development of appropriate questionnaires and tests on vocabulary, cognitive, socio-emotional and physical development of children. Communicating with key stakeholders and counterparts, Advocacy with Ministry of Education of Mozambique, policy makers, academics and governments of around the world. Organizing and participating in meetings and capacity development activities. Reports and statistical analysis. Dissemination of findings at academia and conferences.

**Vitor Pereira:** Research field manager. Lead responsibility for planning and execution of impact evaluation logistics and data collection activities. Technical input to research design, analysis and reporting. Communicating with key stakeholders and counterparts, organizing and participating in meetings and capacity development activities. Research Support. Formulation of identification strategy, formulation of outcome indicators, power calculations, sampling framework and field procedures. Quality control for data collection and processing. Reports, statistical analysis, literature review. Drafting and formatting the survey instruments. Dissemination of findings within academia and conferences.

## Communications Plan and User Engagement

Describe plans to engage with potential users of the research, to communicate the results of the research to such users, and the potential value of the research to users outside the research community

The communications plan for this research project is closely linked to the target audiences described above and the capacity-building activities detailed below. Communications will be targeted at a range of audiences – from the local to the district/provincial and global levels – with a variety of objectives and means of communication used at each level, as described in this table:

Level	Audience	Communication Objective(s)	Format of Information	Means of Dissemination
Local	<ul style="list-style-type: none"> <li>▪ Community leaders</li> <li>▪ Pre-school teachers</li> <li>▪ Parents</li> </ul>	<p>To emphasize the importance of ECD interventions and galvanize action at the local level</p> <p>To use the information to strengthen the quality of Save the Children programs</p>	Study findings presented in simple graphical formats to be easily understood and acted upon at the community and pre-school levels	Community meetings, integration of information into routine monitoring activities, mentoring visits, teacher training and parenting training sessions, exchange visits with other communities
District / Province	<ul style="list-style-type: none"> <li>▪ District and Provincial departments of education, social welfare and health</li> </ul>	To share information about the status of child development in the area, raise awareness about the benefits of ECD, and galvanize action on the part of decision-makers at a decentralized level	Short reports with study findings presented in graphical and narrative formats	Dissemination meetings and workshops, field visits to program sites
National	<ul style="list-style-type: none"> <li>▪ Ministries of Education, Social Welfare and Health</li> <li>▪ ECD working group</li> <li>▪ Donor agencies</li> <li>▪ National and international NGOs</li> <li>▪ Mozambican print, radio and television media</li> </ul>	To share information about the status of child development in the country and advocate with decision-makers about resource allocation for ECD on a national scale	Reports, advocacy position papers, PowerPoint presentations, press releases	Official launch activities of reports tailored to audiences, dissemination meetings and workshops, media events, field visits to program sites
Global	<ul style="list-style-type: none"> <li>▪ ADEA ECD working group and the Consultative Group on Early Childhood Care and Development</li> <li>▪ CIES-Comparative International Educational Society</li> <li>▪ SIEF Impact Evaluations Regional Workshops</li> <li>▪ International AIDS Conference and</li> </ul>	To share information about the status of child development on the African continent and advocate with decision-makers about ECD resource allocation	Reports, advocacy position papers, PowerPoint presentations	Presentation of findings through reports, conferences and journal articles.

	other related groups <ul style="list-style-type: none"> <li>▪ Donor governments</li> <li>▪ UN agencies</li> <li>▪ International NGOs</li> </ul>			
Academic	<ul style="list-style-type: none"> <li>▪ National universities and researchers</li> <li>▪ Academic meetings and conferences</li> <li>▪ International academic institutions and think tanks</li> </ul>	To promote adaptation and replication of the research methodology and instruments	Articles published in top per-reviewed journals in economics and education, reports and PowerPoint presentations	Presentation of methodology and findings through reports, conferences and journal articles and research partnerships

### Ethical issues

Has consideration been given to any ethical matters raised by this proposal?	Yes
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Please explain what, if any, ethical issues you believe are relevant to the proposed research project, and which ethical approvals have been obtained, or will be sought if the project is funded? If you believe that an ethics review is not necessary, please explain your view.

The research partners have given consideration to several pertinent ethical issues, including child protection, beneficiary selection and the use of control communities, and the possibility of conflict of interest. In relation to **child protection**, Save the Children is committed to conducting its programs in a manner that is safe for the children it serves, and to helping protect the children with whom the organization is in contact. As a humanitarian agency, Save the Children is obliged to create and maintain an environment that prevents the sexual exploitation and abuse of children and promotes the implementation of its child safety policy. All the staff involved with the research, either from the World Bank, Save the Children or the Data Collection Survey Firm are obliged to sign and adhere to Save the Children's Child Safety Policy (attached). Any breach of this agreement is grounds for removal from the research study.

Ethical concerns related to **beneficiary selection** have also been addressed through the use of a lottery mechanism. With hundreds of eligible communities in the province, assignment of treatment through a lottery system provided the most ethical, accountable and transparent mechanism for selecting treatment and control communities. In cases of oversubscription of children, Save the Children has developed a transparent process, in consultation with communities, to select the neediest for participation.

The partnership between Save the Children and The World Bank for the purpose of this study has been approved by the legal departments of both organizations and has been contractually approved by both parties in a Memorandum of Understanding/Collaboration Arrangement that lays out the roles and responsibilities of each party. Since the Save the Children Early Childhood Program in Gaza Province is not financed by the World Bank, there are **no conflicts of interests** between any of the two parties in this collaboration with relation to influencing the results of the study.

Finally, all necessary **ethical approvals from Mozambican authorities** for the proposed data collection were already been obtained in 2008 for the baseline study and are valid for the next rounds of data collection. These approvals include the review of the Bioethics Committee of Mozambique and authorizations from local authorities (attached).

**Timetable** estimates of the start and end dates for the following stages:

Stage	Start date	End date
<b>Preparation and design work</b>		
Baseline (already completed)	September 2007	March 2008
Second Round (funding requested from 3ie)	July 2009	October 2009

<b>Fieldwork or material/information/data collection phase of study</b>		
Baseline (already completed)	March 2008	July 2008
Second Round (funding requested from 3ie)	November 2009	May 2010
<b>Analysis phase of study</b>	<b>May 2010</b>	<b>July 2010</b>
Writing-up of the research	August 2010	September 2010
Preparation of any new datasets for archiving	October 2010	December 2010
Dissemination	October 2010	December 2010

**Evaluation design:** outline the main features of the proposed evaluation design (up to 1,500 words). Refer to *3ie's Principles of Impact Evaluation*

Awareness of the importance of the early years in forming the foundations for healthy development and providing children the opportunities to reach their fully potential in life is growing among both academics and policy makers. In the past 15 years, at least 13 developing countries have instituted compulsory pre-primary programs, and by 2005, at least 30 developing countries had established official ECD policies. Programs to promote early childhood development (ECD) are most critical in Africa, where children face the myriad risks of disease, malnutrition, conflict and low-quality education systems. However, rigorous evidence of the **causal chains** of the impacts of ECD programs in the life of children and their families in Sub-Saharan Africa is scarce. In Mozambique, in particular, the government is poised to take pro-active steps towards establishing a national ECD program.

In order to estimate the **causal** relationship between the ECD intervention and the outcomes of interest, impact evaluation requires the construction of a counterfactual – that is, what would have happened to the target group in the absence of the intervention. This evaluation uses a **randomized experiment** to estimate the causal impacts of the ECD program on the outcomes of interest, generating a control group that is equivalent to the treatment group on every dimension (observed and unobserved) except for the intervention. Initially running in 12 communities, the ECD program of Save the Children was expanded to additional 30 communities at April of 2008. The 30 communities receiving the new design of Save's ECD program were randomly chosen among a universe of eligible communities, forming the treatment group at the community level, while the remaining 46 non selected communities form the control group. In addition to randomization at the community level, in 4 communities where the number of children applying for the program has been greater than the availability of places, Save the Children and the communities agreed to select children through a lottery system.

Random assignment of treatment to a sub-set of communities guarantees that, ex-ante, the treatment and comparison groups are equal, and thus that an appropriate counterfactual can be measured following the treatment. The use of a random control group also helps to prevent **selection bias**. For example, if a program targets communities that have favourable local conditions for implementation, such as strong leadership, strong community mobilization, a higher educated or wealthier population, etc., then areas that receive the intervention may be systematically different from areas that are considered less desirable for implementation, on both observable and unobservable dimensions. If a non-random control group is used for the evaluation, a comparison of treated and untreated areas **would confuse** the program impact with these observable and unobservable differences. A random control group helps avoid this bias by ensuring that the communities that receive the program are no different than those that do not.

The basic unit of analysis in this study is the child, but the research will also investigate the effects of the *escolinhas* on the life of children's families, as program interventions might affect the availability of labour among caregivers and older siblings, household productivity, household consumption and investments in health and education for family members. In order to investigate those effects, a panel dataset of 2000 households will be collected. The data size has been calculated to achieve a power of about 0.9 for the main outcomes being measured and accounts for sensible attrition rates. The baseline data was already collected in 2008. The same 2000 households will be followed in the data collection proposed for late 2009/early 2010. In addition, a school survey was collected in 2008 and will form a repeated cross section of first graders in order to investigate the effects of pre-school on the transition to primary school.

Although the evaluation design allow us attribute measurable differences in the average outcomes of treatment and control groups following the program implementation as the causal effect of the intervention, a

thorough statistical and econometric analysis using **multivariate regression models** will be performed to control for observable **confounding**. Indeed, the panel structure of the data allows us control for any fixed effects in the household and community level. All questionnaires have been designed to include as many observed factors as possible and contain a wide variety of characteristics of children and their families, as well as commodity prices and natural shocks.

**Spill-over effects** will be captured not only **inside the household**, but also at **the community level**. At each household, we will compare educational outcomes, labor availability and time use of siblings that might be affected by the pre-school exposure of one family member. This will be done by comparing siblings from households in treatment communities to siblings in control communities. We will also capture spill-over effects to other children at the community. As the *escolinhas* are built with a cement floor and provide clean water, deworming and teaching in basic notions of hygiene practices for children and parents, the intervention might have external benefits to non-enrolled children in the same community through reduced disease transmission. The random selection of enrolled children in communities with oversubscription gives us the ideal opportunity to estimate those effects by comparing health outcomes and anthropometric measurements of enrolled and non-enrolled children in the same community.

Another critical issue is the **contamination of control groups**. Children from control communities playing or studying with other children from treatment communities might benefit from better peer learning, better social and emotional development of friends or less disease transmission. In order to capture social connections and the degree of existing contact between communities, we inserted variables in the questionnaire to account for: a) Distances and time to travel to common facilities outside the communities, such as markets, shared schools and health posts; b) Contacts and address of relatives outside the community; and c) friends of each child outside the community. Administrative data at schools and health posts at both treatment and control communities, as well as the leader questionnaire will capture events such as teacher strikes, opening of new schools, roads, markets, installation of electricity or the construction of any other facility at the communities.

Quality control of activities is a main priority of Save the Children's ECD program. Save the Children collects routine monitoring data from the program, including attendance at parenting meetings, quality of instruction at the *escolinhas*, as well as basic demographic information about enrolled children, teachers and members of school management committees. All this information can be interacted with the estimation of the treatment effect, providing estimates of **heterogeneous impacts of the intervention**. All this data is routinely analyzed by Save the Children staff for the quality control of its program, generating quick feedback for decision-makers. Measures of heterogeneous impacts will help policy makers discriminate best practices, **what work or what does not work**, and will generate evidence to guide successful **scale-up of ECD programs**.

Moreover, as a routine practice, Save the Children registers every expenditure made in the program to have a very detailed control of its **budget**. This rich data will enable us to estimate costs under different circumstances, different number of children attended *escolinhas* and different training modules being implemented in order to inform advocacy efforts with the government and eventual scale-up of the program's interventions.

One of the main goals of the evaluation is to estimate the **cost-benefit of the intervention**. Using economic theory of family decision making, results of the econometrics estimate of the benefits of the program and other available estimates of elasticity of consumption, labor availability and occupational choice, we will calibrate **structural models** that will allow us to identify the causal chains from which the intervention operates and evaluate the long-term benefits of the program. The estimate of the return per dollar invested in the ECD program will allow us to compare how **cost effective** the intervention is, and will allow us to compare **returns from alternative investments** aimed to improve the quality of life of African children.

In order to make a complete and holistic evaluation of its program and capture effects that sometimes are not captured by quantitative analysis, Save the Children also collects **qualitative data** through detailed interviews with beneficiaries and non-beneficiaries. Prior to scaling up its program to additional 30 communities, Save the Children conducted a qualitative situation analysis of its existing ECD program in 12 communities in Gaza. This situation analysis was fundamental in shaping the model of the program for the new *escolinhas*. In addition, focus groups in 20 communities were performed during May and June of 2008 in order to gather information on parenting practices. Save the Children believes that one of the most successful ways to communicate and disseminate the results of its programs for non academic audiences is by describing real stories of changes in the life of its beneficiaries.

This evaluation will be the first of its kind in Africa and will provide us with a thorough understanding of the

benefits that the ECD program has for the development of some of the most vulnerable and marginalized young children in the world. Given the lack of systematic impact evaluations of ECD programs in Africa and other developing regions, this evaluation has the potential to raise awareness of the importance of ECD for children not only in Mozambique but also on the entire African continent and beyond.

## Data Collection

<p>Will the research proposed in this application produce new datasets? (If no, leave the remainder of this section blank)</p>	<p>Yes</p>
<p>Indicate how existing datasets have been reviewed and state why currently available datasets are inadequate for the proposed research.</p>	<p>No other impact evaluations of center-based ECD programs were identified in the region. Primary data collection for this evaluation is necessary to achieve geographic coverage of the program areas in the Gaza province, and to synchronize the timing of data collection with program operations. In addition, data include a rich set of measures of children's social, emotional and cognitive development, health conditions and social indicators of their families. Tests conducted include the Picture Peabody Vocabulary Tests (PPVT), Ages and Stages Questionnaire (ASQ), Education Development Index (EDI), and anthropometric measures of pre-school aged children in the sample</p> <p>The research team conducted a thorough review of the existing literature and available datasets in sub-Saharan Africa prior to carrying out the baseline phase of the Save the Children ECD impact evaluation in Mozambique. Prior to collecting the baseline, the research team conducted interviews with the Mozambican National Statistics Institute (INE) and donor agencies operating in the Gaza Province to determine availability of data sources.</p> <p>All the following datasets have been reviewed prior to the baseline data collection: Demographic and Health Survey of Mozambique (DHS), Multiple Indicators Cluster Survey of Mozambique (MICS3), Mozambican Household Expenditure Survey (IAF), Mozambican Labor Force Survey (IFTRAB), Analysis of Poverty and Social Impact of Mozambique (PSIA), Survey of Poverty and Gender at the Mozambican Provinces (IPGP) and the Mozambican Agrarian Survey (TIA).</p> <p>Many of the pre-tested questions of those surveys were adapted to the baseline questionnaires of the impact evaluation. However, no suitable options of existing databases were identified for this impact evaluation. None of these databases had the local detailed coverage at the operating districts in Gaza needed for the evaluation, nor the necessary measures to access the impact of pre-school on the life of children and their families.</p>
<p>Describe the design of the data collection (instruments, sample design and size, timing)</p>	<p><b>Impact Evaluation Strategy:</b> Starting in June 2008, Save the Children expanded its ECD operations in Gaza Province to include an additional 30 randomly assigned communities. This random assignment of the intervention to treatment and comparison communities generates a valid estimate of the counterfactual with which to estimate program impacts.</p> <p><b>Evaluation Sample:</b> The evaluation will use primary data collected through household and school level surveys, as well as Save the Children monitoring data. The universe of treatment sites is composed of 76 communities, randomly assigned to treatment (30 communities) and control (46 communities). A pre intervention baseline dataset</p>

was collected between April and July, 2008. The proposed data will form a panel data with the baseline data already collected in 2008, following each child and its family in at least two points in time, both in treatment and in control communities. This panel data also includes one interview with the community leader of each community in the sample. In addition, the evaluation will capture the effects of pre-school on the transition to primary school via a repeated cross section of first graders, at one school per each sampled community. One interview with the school principal and the teacher of the first grade is also carried out to form a complimentary data for the school level data.

**Household Sample:**

Within each community, a random representative sample of 23 households with children between the ages 36 and 59 months at 2008 were included at the baseline household survey. Those are the children who were eligible to enroll in the *Escolinha* once the facilities were in place, and would receive between 1 and 3 years of treatment on average.

At the 4 communities where the number of children applying to the program was greater than the available places and where a lottery took place, 86 households were randomly included. That give us a total sample of 2000 households. All those 2000 households will be followed at the proposed follow up data collection to form a panel data of households and children.

At each household, an extensive and detailed socio-economic questionnaire was applied to the child caregiver, collecting information about household size and composition, education, labor supply, time use, child health, parenting practices, among other topics. In addition, each child was tested on a vocabulary test, the TVIP (*Teste de Vocabulário por Figuras Peabody*) and on its motor, cognitive and socio emotional development via the ASQ (*ages and stages questionnaire*).

**School Sample:**

Primary Schools serving children at the sampled community will also be analyzed. In case there is more than one primary school serving children at the sampled community, we randomly pick one school. The principal is interviewed and one teacher of the first grade is randomly picked and is also interviewed. The school level survey also collects information on 20 children enrolled at the first grade (randomly picked) through the teacher, who responds to the Mozambican adaptation of the Early Development Index (EDI). Note that the school sample forms a repeated cross section and that at the baseline, those children were not eligible for the *escolinhas*. At the second round of data collection, some of the interviewed children will have been exposed to the *escolinha*.

**Instruments:**

**Socio- Economic Questionnaire:** A household questionnaire containing information on: a) Characteristics of each household member, such as age, education, marital status, health conditions, labor supply (including child labor) and time usage; b) Earnings, transfers, consumption, expenditures; c) assets, facilities, water usage ; child health, hygiene practices, health knowledge; parenting practices, pre-school learning, self satisfaction, future orient ness, social capital and anthropometric measures (height and weight of the child and the caregiver).

**TVIP:** The TVIP (Teste de Vocabulário por Imagens Peabody) is a test of “receptive language” or listening comprehension for the spoken world, and is an adaptation of the PPVT (Peabody Pictures Vocabulary Test). The PPVT was initially developed in English by Dr. Lloyd M. Dunn and Dr. Douglas M. Dunn and has been used in the in many countries throughout the world, including in China, France, Jamaica, South Africa, and Brazil. The TVIP has been adapted and normed for Spanish speaking populations in low-income settings and has been widely used in Latin America, and has been specially translated to Portuguese and adapted to the Mozambican context. In the test, the child is shown series of 4 pictures or items at a time (e.g., fork, table, dog, doll) and is asked to point at one of them. The test stops when the child makes 6 errors within 8 consecutive responses.

**ASQ:** The ASQ is a child monitoring system that is often used in the United States to assess whether children ages 3 months to 5 years have reached certain developmental milestones across domains (including in language, cognitive, gross motor, fine motor, and socio-emotional development). The ASQ was developed by Dr. Jane Squires, LaWanda Potter, and Dr. Diane Bricker from the Early Intervention Program of the Center on Human Development at the University of Oregon. It is often used by home visitors in the United States, and similar or adapted “milestones check lists” have been used in several contexts, including in Mexico, Ecuador, Nepal, and Jamaica. For the purpose of the impact evaluation of the Save the Children ECD program in Mozambique, 4 questionnaires of the ASQ Second Edition (i.e., 36 months, 42 months, 48 months, and 54 months) were translated into Portuguese, and some of the items were dropped or adapted to the local context.

**EDI:** The EDI is a population-based measure of school readiness (i.e., the child’s ability to meet the demands of school and to benefit from primary education) for communities. It assesses the development of children across domains, including physical, linguistic, cognitive, and socio-emotional. The EDI was initially developed by Dr. Dan Offord and Dr. Magdalena Janus, from the Offord Centre for Child Studies at McMaster University. It was first piloted in Canada in 1998 and has since been adapted and used in various contexts, including in Australia, the United States, Indonesia, Jamaica, Jordan, Moldova and now in Mozambique.

**Implementation and Timing:**

The impact evaluation is being led by Save the Children and the World Bank, in partnership with the Government of Mozambique and donor partners. Save the Children is primarily responsible for program management and operations. The World Bank provides technical assistance for the impact evaluation design and has provided funding for the baseline data collection through the Bank Netherlands Partnership Program (BNPP). Research, analytical work and dissemination of findings will be conducted jointly between the two institutions in collaboration with local research partners and with the involvement of government representatives from the Ministry of Education, the Ministry of Women and Social Action, and other relevant government bodies.

The evaluation design and baseline were completed in 2008. The training of enumerators and the pilot of questionnaires were taken in May. Data was collected between the end of May and the

August of 2009 and the first report on the baseline results is becoming available at April/ May of 2009.

We are requesting funding for the second round of data collection to be completed in late 2009 and early 2010. We expect final impact evaluation results and dissemination activities – including meetings with key stakeholders in the Mozambican government and beyond, as well as publication of peer reviewed articles – by the end of 2010.

### Deliverables (nature and due date)

Deliverable	Due date
- Second round evaluation design and field preparations	November 2009
- Second round database	July 2010
- Final impact evaluation report & dissemination	December 2010

### Capacity building

Will the study contribute toward capacity building?

Yes

No

If yes, describe it

Save the Children and the World Bank are dedicated to building the research, analysis, documentation and advocacy capacity of our partners, ensuring that knowledge and skills remain with the individuals and groups who have the most potential to promote long-term and large-scale positive impacts on the lives of children in need. The strength of the partnership lies in the two organizations' complementary perspectives in capacity-building, with Save the Children operating from the grassroots upwards and the World Bank working "upstream" with national governments. Taking advantage of those complementary strengths, capacity-building in this research project has occurred and will continue to occur at several mutually reinforcing levels.

The evaluation team will build capacity at the **national level** in Mozambique through four main mechanisms: Involvement of **Mozambican researchers** including capacity-building for a Mozambican research firm; constitution of an **advisory panel** for the research; and leadership on a national-level **ECD working group**. The research team has partnered with Mozambican researchers that include a child development and psychology expert, who provided input to the design of the survey instruments and trained data collectors on the most effective and ethical ways of working with children and families. In addition, we collaborated on anthropometric measures with a graduate-level professor in the department of physical education at the Universidade Eduardo Mondlane. These experts will continue to collaborate with the project, constituting a significant a local survey firm for collection of the baseline data.

In addition, the research team has built capacity for and will continue to collaborate with a local research firm to conduct data collection. Prior to this impact evaluation, little capacity existed in-country in the area of ECD research. By working with this Mozambican firm, the team has created a cadre of research managers and data collectors who have developed significant expertise in data collection in the areas of socio-emotional, cognitive and physical development of young children as well as household surveys in general. The endline data collection exercise will be a further opportunity to reinforce those skills in the research firm. This intensive collaboration with local actors has left a lasting legacy of capacity in ECD research that can be applied in other studies in-country, and in fact has already been utilized, as Save the Children recently worked with the same survey firm to conduct an evaluation of children's literacy that could have wider influence on policy in this area in Mozambique.

The advisory panel, made up primarily of members of the ECD Working Group, will provide guidance and oversight to the impact evaluation process, and provide feedback and dissemination of evaluation results when

they become available. In addition, Save the Children has formed an ECD Working Group made up of civil society representatives – including UN agencies and local and international NGOs – and the government of Mozambique that serves two purposes: Sharing best practices in ECD with wider audiences; and advocating with the government for improved ECD policies and increased resources. This Working Group will be involved in providing feedback on the design and use of the findings from the evaluation, particularly in influencing national ECD policy as described below.

Through both the working group and the advisory panel, the impact evaluation will feed into the policy dialogue about the national government's ECD policy. As an outgrowth of this advocacy work, the Minister of Education is seeking to create a pre-primary year for five-year-olds to strengthen children's acquisition of basic skills, improve their readiness for primary school, and ensure that the lower primary system is more welcoming to young children. The research design and instruments themselves will be shared with government and other stakeholders to inform the design of national-level ECD monitoring and evaluation systems, which the country currently lacks. In addition, results from the impact evaluation will provide an important input for the design of future ECD policy in Mozambique, building government capacity to analyze and utilize information to design effective policies and programs.

In addition to these national-level efforts, the research team is committed to capacity development at the **provincial and local levels** as a central component of the impact evaluation work. This will be achieved through two main avenues: Capacity-building for Save the Children staff and the involvement of government counterparts in the research. Within Save the Children, the research project has built and will continue to develop capacity for impact evaluation and M&E more broadly among local and international staff. This is achieved through training sessions with staff in the methods of impact evaluation, as well as involvement in the creation and adaptation of data collection instruments. In addition, through participation in data analysis and dissemination activities, the Save the Children team will strengthen its capacity to understand and use impact data for decision-making purposes, ultimately resulting in strengthened program implementation.

For government counterparts, which include District and Provincial officials in education, social action and health, the impact evaluation has already built and will build capacity through a few different means. This includes a one-day seminar on impact evaluation methods that was held in Gaza in 2008 for provincial government authorities from the ministries of education, health, and social welfare. For many of these counterparts, this was the first exposure to impact evaluation, and their levels of enthusiasm and participation were high. Additional training in evaluation methods and empirical research will be held at the local and national levels in 2009 and 2010. Beyond their participation in training these opportunities, government counterparts will also be integrated in project monitoring activities, developing their skills in monitoring and mentoring. This collaboration between the research team and government officials will promote long-term sustainability of project activities; develop a cadre of people familiar with impact evaluation; and give grass-roots decision-makers the information and tools they need to become more effective advocates for ECD at higher levels of government.