

Education for Sustainability in Galapagos A Public-Private Partnership for Transforming Education in Galapagos

ABSTRACT

The Fundación Scalesia (FS) and Galapagos Conservancy (GC) are working to raise approximately \$3.75M over five years to fund a public-private partnership with Ecuador's Ministry of Education (MinEduc) and the Galapagos Governing Council (GGC). This partnership will transform Galapagos education to bolster long-term conservation efforts in the Islands. **The project's goal is to improve education for the 7,500 school age children in Galapagos by strengthening the teaching skills of the 470 teachers in the 22 K-12 schools on the Islands.** Project activities will include the creation of an educational leadership team that will conduct professional development workshops, and coach and mentor Galapagos teachers. A rigorous metrics and evaluation component will ensure that when our teachers' skills increase from this attention, student performance will also excel. Once successful, we expect this project will serve as a model for education reform in the rest of Ecuador, and hope to see it replicated in other parts of the world.

PROJECT NEED

Galapagos is the best-preserved tropical archipelago in the world, but its rich biodiversity is at risk if current social and economic trends and practices continue. Long-term protection of the islands will be possible only when local residents become champions for conservation. This is possible only when residents possess the knowledge, skills, values, and desire to pursue lifestyles and livelihoods that are consistent with protecting the fragile Galapagos environment. Education is an essential avenue towards this end. A progressive educational philosophy, an improved curriculum, well-trained teachers, innovative learning opportunities, and greater community-wide involvement have the potential to ensure that Galapagos youth are engaged—and grow to lead—exceptional stewardship of the environment.

Historically, Galapagos education has faced chronic challenges: teachers are often poorly trained; instruction relies heavily on rote memorization; and past curricula failed to develop competencies required in the local work place or for university study. A central concern is that the Galapagos education system has made little use of its own locale. There is a tremendous opportunity for schools to integrate Galapagos' physical surroundings as a natural laboratory to teach and apply the natural sciences, social sciences, and service-based learning. This project seeks to provide teachers with the skills to leverage that opportunity.



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Concern about the state of education has been voiced by several sectors over the decades:

- In 1993, concerned community members on Santa Cruz established the Fundación Scalesia to develop a new educational model more suited to needs and conditions in the Islands. The following year they founded the Tomás de Berlanga (TdB) School, with the idea that it will become a model for what could and should occur in every school in Galapagos.
- In the Special Law of 1998, community members pushed for changes in Galapagos education, including a special curriculum for Galapagos, greater local authority over education, and higher salaries for Galapagos teachers.
- In 2007, when UNESCO was considering placing Galapagos on the list of World Heritage Sites in Danger, its Mission Report identified 12 areas, including education, in need of urgent attention. UNESCO noted a lack of attention in the current educational system to prepare Galapagueños for employment opportunities. Non-residents often filled these jobs.
- In its 2010 Mission Report, UNESCO noted progress on many areas. But it could not point to any significant improvements in the area of education.

Over the past several years, national exams in 4th and 7th grade (the MinEduc's *Ser Estudiante* exam), and the national university entrance exam (ENES) show that the performance of Galapagos students is below the national norm.

ABOUT OUR ORGANIZATIONAL PARTNERS: BUILDING BLOCKS FOR CHANGE

Fortunately, education in Galapagos and the rest of Ecuador is changing in positive ways and the three main partners in this undertaking are well positioned to act.

Ecuador's **Ministry of Education (MinEduc)** is in the process of implementing ambitious education reform on a national scale. Since 2006, the Ministry's 10 Year Education Plan has tripled public expenditures in education to more than 3% of GNP and has made important advances that include the development of a new, innovative national curriculum; the establishment of the first national system for evaluating students, teachers, school leaders and schools; and efforts to raise the profile of the teaching profession through improved working conditions and merit-based pay. These investments appear to have an impact on a national level. UNESCO's recently released its Third Regional Comparative and Explanatory Study on education in Latin America, which compared the state of education in 15 countries in the region. By various measures, such as enrollment rates and student mastery of core subjects, education quality is improving faster in Ecuador than anywhere else in the region.

The **Galapagos Governing Council (GGC)** is responsible for administration of the Province and planning and management of its resources in ways that promote the principles of good life (*buen vivir*) and ensure that Galapagos is preserved as a World Heritage Site. The GGC is also responsible for strengthening human resources in the Province and has a specific program unit focused on such work. The GGC seeks to promote dialogue and collaboration among the various actors involved in formal and informal education in the Islands, to ensure the coherence, coordination, and sustainability of related programs.

The Galapagos-based **Fundación Scalesia (FS)** was established in 1992 by concerned community leaders who identified quality education as a prerequisite to long-term conservation of the Galapagos Islands. Today, the Foundation's General Assembly and Board are comprised of leaders in the science, conservation, and tourism sectors. In 1993 the Foundation established the Unidad Educativa Tomás de Berlanga (UETDB)—a Ministry-authorized school on the island of Santa Cruz—with the vision that it would become an example for other schools in the Islands. The FS Board is committed to ensuring that the UETDB becomes a world-class model of education that supports conservation and sustainable development. The UETDB campus will be used in this program as a training site for educators from throughout Galapagos and as a demonstration site of proven practices in action.

The US-based **Galapagos Conservancy (GC)** is a non-profit conservation organization that believes in the power of collaboration, networks, and investments in local capacity. GC favors investments in local and national organizations that, in the long run, will have the authority and responsibility to protect this extraordinary world treasure. Conservancy staff have prior experience in the establishment of a model school and outreach program. It has also successfully built a network in the US and Latin America of skilled educators committed to sharing their knowledge and expertise with Galapagos educators.



ORIGINS OF THE PROGRAM

In 2010, during a weeklong multi-sector visioning workshop funded by the Helmsley Charitable Trust, the FS, GC, the MinEduc and members of the Galapagos education community began to discuss ways to work together to strengthen education in the Islands. These initial conversations led to a 2012 visit of Ecuador's Minister of Education to the US, sponsored by GC and Stanford University, to discuss the reform process in Ecuador and opportunities for collaboration in Galapagos. While this dialogue generated ideas and enthusiasm, all parties agreed that external expertise was needed to help define the best path forward.

The program will seek to integrate learning inside and outside of the classroom. © Fundación Scalesia archives.

In June 2014, in consultation with the Ministry of Education, SF and GC organized and funded a five-day observation and data collection process (known as the "Listening Phase") designed to make an initial assessment of the state of education in Galapagos and to identify specific areas for collaboration on educational improvements. Through this process, education experts from Ecuador, the United States, and Mexico spent one week collecting and analyzing the ideas and concerns of teachers, school directors, students, parents, and community leaders. While in Galapagos the team was led by a consultant from the Consortium for Policy Research in Education (CPRE)—an organization whose members have considerable experience in educational reform and school improvement programs in different parts of the world.



As suggested by CPRE, the team used a framework for data collection and analysis that focused on seven areas identified as critical to school effectiveness. These included: educational leadership; professional capacity of school staff; relationships within the school; relationships of the school with the community; helpful mechanisms (professional development, access to student and staff evaluation data, etc.); incentives; and schools' external environment.¹ Based on MinEduc priorities, special attention was given to the following subject areas: English language instruction, natural sciences, mathematics, language arts, and *buen vivir* (the concept of "good living" associated with the Quechuan concept of *Sumak Kawsay*—a cross-cutting theme of the Ecuadorian national curriculum).

Main recommendations of the Listening Team included:

- **Educational leadership.** In most cases, the relationship between school directors and their staff is highly vertical, as is the decision-making process. Most Galapagos school directors see their role as that of administrator, responsible for reporting and other mandates of the Ministry, as opposed to advancing and assuring quality of education within their school. In most cases, directors rarely enter the classroom; most do not consider this part of their job. Some say they would like to spend more time in the classroom, but don't have the time to do so. Intensive, multi-year professional development is needed to transform the role of school directors into the kind of inclusive, quality-focused role that research has shown to be key to education quality and school effectiveness.
- **Professional capacity of staff.** Listeners observed several classes, especially science at the International Baccalaureate program at the Colegio Galápagos and English instruction at the Unidad Educativa Tomás de Berlanga, that would compare favorably to excellent classes offered anywhere in the world. However, a very traditional, teacher-centered, memorization-focused model of instruction was the norm. Listeners observed few activities in the classroom that would develop higher-level thinking skills. Teachers, in general, expressed a lack of confidence regarding their ability to teach the new curriculum and repeatedly asked for quality professional development designed by subject area and grade level.
- **Helpful Mechanisms.** The listeners noted that since a period of intensive teacher training in 2011 associated with the new national curriculum, there has been no professional development offered in the Islands. Since that time, the Ministry shifted from internally-provided training (through and arm known as SIPROFE) to on-line training and training provided by partner universities. This kind of training is simply not available in Galapagos. Teachers reported gaps in the availability of texts and teacher guides and lack of access to student performance data. While the Ministry has a robust student evaluation system, the results are not made available to directors and teachers in ways that allow them to change the way they work. For example, results are aggregated by school, islands, or grade level.
- **External context.** Listeners noted that one of the greatest external factors affecting the quality of education is the electronic and physical isolation of Galapagos. This has a significant impact on education quality. The slow



The Educational Leadership component of the program will help school leaders understand their central role in ensuring educational quality in their schools. © Dan Sherman.

¹ This framework suggested by CPRE was adapted from Marvin Weisbord's Six Box Model for analyzing organizations and the research of Tony Bryk et al. regarding drivers of educational quality and school effectiveness. See the Listening Phase Report for more details.

and unreliable internet connection available in the islands makes on-line professional development impractical. The physical isolation of the Islands makes it costly for teachers to attend training on the mainland, or for the Ministry to mobilize trainers in the Islands. Listeners also noted that this isolation accentuates the need of a local partner for the Ministry to help advance reform. Listeners pointed to the important role of “middle tier organizations” to promote reform. These tend to be non-profit organizations that work between schools and central governments. The Listeners explained that these organizations have played an important role in many reform efforts.

A major observation of the Listeners was that the relatively small size of the Archipelago (22 schools, 470 teachers and 7,500 primary and secondary students) should make deep change a reachable and practical goal.

FROM OBSERVATIONS TO ACTION: THE PROPOSED PROGRAM

Based on the findings of the Listening Process, the FS, GC and the MinEduc have agreed to work on an intensive, multi-year professional-development program to strengthen the capacity of all K-12 school directors and teachers.

In order to address the challenges associated with the isolation of Galapagos and the Ministry’s need of a local middle-tier partner, the program will establish an Education Support Team that will be managed and supported by the FS. This team will consist of approximately 5-7 full-time educators with extensive experience in delivering high-quality professional development that includes conducting workshops, and coaching and mentoring teachers one on one.

The Education Support Team will provide professional development and technical support in the following areas:

1. **Educational Leadership.** School leadership will be strengthened through an instructional leadership program for directors and by developing a culture of continuous improvement in the schools through leadership teams that include directors and teacher leaders. These teams will set and act on priorities for improvement in each school.
2. **Subject-specific professional development.** Improved instruction in math, science, language arts, social studies and English language will be achieved through subject-specific professional development, including workshops and ongoing mentoring that follow the directives of the Ecuadorian curriculum. Coaches will encourage the formation of professional learning communities among teachers of each subject, both within and among schools.
3. **Extra-curricular education related to the environment and *buen vivir*.** Technical assistance will be provided to extracurricular education initiatives of schools (i.e. Ministry-mandated extracurricular clubs) and NGOs (especially those offering “alternativas”—extracurricular activities associated with high school graduation



The program will result in improved classroom instruction, greater student achievement, and higher levels of environmental literacy throughout Galapagos. © Jennifer Davidson

requirements) in order to optimize out-of-classroom learning and to connect these activities with the learning objectives of the formal curriculum.

Professional development activities will build on MinEduc priorities and initiatives and will be designed based on evidence collected from numerous research studies over several decades. This research has identified characteristics of professional development that can maximize impact on teacher practices. Training will scaffold over time the content knowledge and pedagogical skills the Ministry and program leaders determine essential for teacher effectiveness. A metrics and evaluation methodology will be developed to optimize program delivery, to document the program's impact on teacher and director practices, and to document impact on student learning.

The Education Support Team will be led by the Educational Leadership Coach (ELC), who will report to the Board of the Fundación Scalesia. He/she will consult regularly with members of GC's and SF's Education Advisory Board, which is comprised of expert educators in each subject area. The ELC will also serve as the primary program liaison with the Ministry of Education. A job description for this position is appended to this document.

Training will enable educators to meet the 330 hours of professional development required by the Ministry of Education for teachers to advance in their careers. These 330 hours will consist of a combination of workshops (130 hours), self-study (70 hours) and practicum/coaching (30 hours), plus 100 hours of training in a cross cutting area (*buen vivir* or a similar topic which links social and environmental issues). For K-8 teachers, these requirements will be distributed across different subject areas. For high school teachers, training will focus on their specialty subject.

Intensive, multi-day workshops will be offered by coaches and external experts in October and April-May, when teachers are in schools but students are on vacation. Additional workshops and coaching will be offered by the Galapagos-based coaches during the afternoons, throughout the school year. The program will be designed to allow dedicated educators to complete the 330 hours within 2-3 years.

Representatives of SF, GC, MinEduc and each Program Advisory will meet for a two-day workshop before the end of 2015 to ensure philosophical alignment of all team members and to finalize implementation strategies and the evaluation methodology.

PROGRAM REACH AND IMPACT

Over the initial five-year project timeframe, professional development (coaching, training, and mentoring) will be provided to all 470 teachers in the islands, to improve education outcomes for all 7,500 students in Galapagos.

Anticipated project impact includes:

- Stronger educational leadership and classroom instruction, as measured by:
 - teacher and principal questionnaires and workshop surveys;
 - analysis of lesson plans and related student work;
 - MinEduc's teacher, director, and school evaluations; and
 - annual site visits of external evaluators.

- Greater student achievement, as measured by:
 - performance on the MinEduc's *Ser Estudiante* standardized tests (grades 4, 7 and 10);
 - the *ENES* high school graduation exams; and
 - college admission/graduate rates.

- Greater environmental literacy as measured by:
 - the Middle School Environmental Literacy Instrument², which has been developed to assess environmental literacy at the middle-school level. This metric was administered in Galapagos in July 2014 and measures an individual's ability to think critically about the environment's condition and develop actions to better it.

Baseline data will be collected prior to initiating training and mentoring activities in each subject area.

BUDGET

The annual estimated cost for training, coaching, and mentoring in each subject area (educational leadership, natural science, mathematics, language arts and social studies) is approximately \$150,000. For a team of five trainer/coaches, this necessitates an annual budget of \$750,000 or a five-year budget of \$3.75M.

CONCLUSION

This program has been developed as a direct response to the weak educational system in Galapagos that has failed to provide its youth with the knowledge, skills, values, and attitudes needed to become architects and members of a sustainable society in one of the world's most magnificent World Heritage sites. It embraces and supports the ambitious education reform process underway in Ecuador, builds Scalesia Foundation's 20 years of education experience in Galapagos, and Galapagos Conservancy's growing network of education experts. We feel this is an exceptional opportunity to ignite the talent and passion of Galapagos students by providing teachers with the support they need to inspire student success. We are deeply convinced that when the impact is measured year after year, our winning strategies can be leveraged throughout Ecuador and used as a model the world over, for education reform.