

Haiti Goat Project  
Phase Two Blended Learning Solution  
Train the Trainer: Goat Care

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## Part A: Blended Learning Analysis

### **Client Organization**

**NEW WORLD MISSION SCHOOL, CHAMEAU, HAITI**

**PASTOR NOEL, SCHOOL PRINCIPAL & NATIONAL DIRECTOR FOR THE HAITI GOAT PROJECT**

New World Mission School (“School”) is the client organization and is located in Chameau, Haiti, a mountain village approximately 20 miles north of Port Au Prince, Haiti. Nearly 800 children, ages 5 to 19, attend this school from 8:00am to 5:00pm. Pastor Noel is the school’s principal and the National Director for the Haiti Goat Project (“HGP”). He is the primary contact for this project. In 2010, the school received a donation of approximately 100 goats for a sustainability program to improve the overall wellbeing of the school children. The intent of the program is that the goats can be raised, bred, and sold in order to pay for school books, supplies, uniforms, and lunches. These items enrich the children’s development in the classroom, which consequently improves the health and economic position of the students, their families, and their community.

### **OTHER STAKEHOLDERS**

#### *New World Mission*

New World Mission is a Haitian-based, non-government organization credited for granting the goats to the school children of New World Mission Schools.

#### *Vineyard Metro West*

Vineyard Metro West (“Vineyard”) is a faith-based organization of approximately ten volunteers, including Chris Hopwood, that travels to Haiti periodically to assist the School with its goat program and to promote awareness of the needs for economic and health improvements in Haiti. The volunteers are from various organizations including Life Way Development, a local

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non profit organization, and Crossroads, a ministry of CCM World Missions. When faced with selecting a school in Haiti to develop the pilot HGP, Vineyard chose the school in Chameau because of Vineyard's relationship with its principal Pastor Noel, his position as the National Director for the HGP, and because of his dedication to the School and the children. Additionally, this school was a likely candidate because of the abundant green space found in Chameau. There was also a decreased risk of the goats being stolen according the Principal Noel.

### *IPT Students, Boise State University*

Both Chris Hopwood and Denise Rothwell are IPT graduate students at Boise State University who are currently working in the Fall 2011 semester to find training solutions for Phase Two of the HGP, "Train the Trainer: Goat Care." Previously during the summer 2011 semester, Chris Hopwood collaborated with two IPT graduate students, Carol Gonzalez, and Travis Strutchen, on a training project for Phase One of the HGP. (See Performance Need for a description of the project.)

## **Performance Need**

### **BACKGROUND**

To improve the overall effectiveness of the HGP, goat milk must be exploited to its full potential. Most of the children at the School are malnourished and consuming the goat milk would greatly benefit their wellbeing. Goat's milk is a valuable by-product, but the milk was being wasted. Since this animal is relatively new to the region, the school children did not understand how to milk a goat or how to use the milk. Therefore, HGP's Phase One training was "Wipe, Strip, Milk, and Dip," which focused on teaching the correct procedure to milk a goat and use proper sanitization and equipment during the milking process. This training was introduced to the children in July, 2011 and was well received.

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### **CURRENT NEED – ETRAIN THE TRAINER: GOAT CARE”**

Unfortunately, it was observed during a post evaluation that many of the goats were in poor health. For that reason, it is now necessary to create a second training module, “Train the Trainer: Goat Care” (“Goat Care”) on proper goat care, where the trainers are two Haitian educators at the school, who strongly support the HGP. According to a subject matter expert who was interviewed, a healthy milking goat should produce about one gallon of milk in an eight hour time period. However, the goats are currently producing an average of one to two cups of milk in an eight our cycle. Improving the care and health of the animals will increase milk production and the quality of the milk produced.

This second training phase will focus on a blended learning solution for a Train the Trainer module in order to equip the two Haitian educators with the tools, supplies, and skills to practice proper goat care. The goal is that educators will use their new knowledge and skills to create lessons in goat care for their students at the School. Volunteers from Vineyard will facilitate the training, which will occur over the course of ten days during school hours. Best practices will cover environmental and nutritional factors. Based on feedback from the director of the program, the training will not include goat disease troubleshooting.

### **FUTURE NEEDS**

It is worth noting that the HGP will require ongoing training support. As the HGP evolves and as Vineyard becomes more familiar with the school’s needs and begins witnessing HGP’s impact, it is inevitable that additional training needs will be identified. Future training phases that have already been identified include addressing cultural barriers to using goat milk for human consumption and using goat milk to produce alternate revenue streams. Cultural

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barriers will not be addressed in the goat care phase as they are not necessary to successfully complete the goat care objectives.

### **Learning Analysis – “Train the Trainer: Goat Care”**

#### **ORGANIZATIONAL CULTURE**

The educators, parents, and community are all very supportive of any program that would help raise the standard of living. As the New World Mission School is located in a third-world country, the infrastructure to support advanced technology is not in place. However, the School is very open to new technologies and new media for teaching. The School’s lessons are taught in French.

The School lacks the structure and discipline in the classrooms that we are accustomed to in the United States. Although the students in the HGP (approximately 120) are varied in age, the school system does not separate children into age categories or grades like in the United States. They do not speak English, and some are illiterate. All of the children sit together in a small school house with a kitchen. In general, the children desire a sense of belonging and empowerment. They enjoy playing games and being outside with friends. Each educator is responsible for about 40 to 60 students at a time. The educators often rely on song and creative movement to teach the children new concepts. Because of the differences in educational philosophy, classroom management, and teaching methods it will be the Haitian educators’ responsibility (not Vineyard’s responsibility) to create their own lessons to communicate goat care practices to the school children.

The conditions in Haiti can be discouraging. Part of the reason for Vineyard’s success with past projects in this region is that the projects were implemented face-to-face. Carrying out the missions on site and working alongside the Haitian people infuses an enormous amount of

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encouragement in the community and revitalizes their sense of solidarity. For this reason, the organization has requested that Goat Care be conducted face-to-face.

### **PROGRAM GOALS**

The goal of Goat Care is to ensure educators have the tools to maintain the proper health of a goat so the animal will produce one gallon of milk safe for human consumption according to an eight-hour milking cycle. The two Haitian educators will then teach their students the proper methods to care for their goats so the animals will produce one gallon of milk fit for human consumption according to an eight-hour milking cycle.

### **AUDIENCE**

Goat Care's audience will include the principal and two full-time, Haitian educators. Both educators are young, strong men who are receptive to the idea of drinking goat's milk, are supportive of the HGP, and are open to new technologies and new teaching media. Their native tongue is French and Creole with their second language in English at the beginner level. In general, the educators are extremely committed to youth at risk but are discouraged by the current conditions in Haiti. They tend to not plan ahead and display a limited attention to detail. Due to this observation, an apprenticeship approach will be designed to allow for some of the flexibility that the educators are accustomed to, while a workbook is created to help organize information and keep the educators on task.

### **RESOURCES**

#### *Human*

Goat Care will be designed and facilitated by the volunteers of Vineyard. It will be maintained by Pastor Noel and his two educators. The volunteers, who are based primarily in Massachusetts, will develop all of the content for the instructional lessons in English. A

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volunteer will then translate the material to French. Goat Care will be led by Vineyard's Pastor Craig Thompson.

### *Animal*

Nubian milking goats are sent to the School. Vineyard and New World Mission are working together with a resource in the Dominican Republic to ensure the correct type of milking goat is donated.

### *Monetary*

The implementation of Goat Care is heavily dependent on charitable donations. Vineyard is currently applying for grant money in order to purchase training materials for the School. Currently, the volunteers provide their own travel expenses.

### **TIME**

Vineyard visits Haiti two to three times per year. A team is scheduled for February 2012. The goal is implement Goat Care during the February visit. The training for Goat Care will take 10 days and will be provided for two Haitian educators in the mountain school in Chameau.

### **CONTENT**

#### *Environmental*

- Safety & Security – Goats in other areas closer to Port Au Prince are stolen frequently. Theft is less of an issue at this particular school in the mountains, but we feel goat safety and security is still important to address.
- Open space – The school owns open, green space to house the goats and to grow grain to feed them. Goats were previously observed tied to trees. The importance of roaming will be addressed.

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- Central location- To ensure proper goat care, it will be important to house the goats at the school to monitor goat care and best practices in goat milking until the children have been awarded with a certificate for completing the goat training program. Currently, the goats are housed at the homes of the children attending the program.
- Shelter - The participants will learn how to build proper shelter for the goats especially the baby goats.

### *Nutritional*

- Water – Address importance of keeping goats hydrated with safe drinking water.
- Food – What do goats eat? What should goats not eat?

## **TECHNOLOGY**

Intermittent electricity and connectivity as well as outdated computer hardware and software are obstacles in Haiti. The school owns a generator to help during power outages. Grants and donations will be used to purchase equipment for any virtual components of the Goat Care training. Because security is always a concern, we feel that desktop computers are assets that are more durable and easier to lock and secure than laptops or notepads which are easier to conceal, lose or break. Because Haiti and the School in particular offer limited materials, tools and infrastructure, each learning medium has advantages and disadvantages. The following table is a library of the most viable media options for the training blend for Goat Care.

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<b>Medium or Equipment</b>	<b>Advantage</b>	<b>Disadvantage</b>
Classroom	Quicker to develop and enables instructor ability to provide immediate feedback and flexibility in adjusting instructional tactics	Volunteers' travel is limited to 2-3 times per year
Video Conference	Volunteers continue facilitation and support between face-to-face visits	Time zone accommodations and internet connectivity
Workbook	Access lessons, notes, assessments, and answer keys in one location	Funds to produce workbooks rely on donations
Narrated Slide Show (DVD)	Would not rely on internet connection	Redevelopment and delivery to Haiti are more time consuming
Narrated Slide Show (Web)	Redevelopment and uploading are quicker	Relies on internet connection
iPad	Mobility allows educators to learn outside with the animal	Sporadic connectivity and is easy to conceal
Cell Phone	Provide updates and support without creating a detailed lecture	None of the educators have smart phones

## Part B: Blended Solution Design

### **Objectives & Design Approaches**

#### **Objective 1**

Given tools and supplies educators will build a durable shelter for a goat within seven consecutive days.

##### **Objective 1.1**

Educators will identify tools and supplies used to build a goat shelter.

##### **Objective 1.2**

Educators will build a goat shelter on their own by the seventh consecutive day.

#### **Design Approach**

The content for this objective will be presented face-to-face (F2F) and will be designed as an apprenticeship. A short, hands-on tutorial will be delivered on the tools and supplies to be used for the construction. A graphic-only job aid will be given in a workbook that shows the procedure for building a durable shelter for a goat. Educators will follow the job aid as they observe the facilitation team build a shelter. Then, with the guidance of the facilitation team, the educators will take over the construction.

#### **Impact on Participants**

The tutorial at the beginning will give the educators the opportunity to hold the equipment, feel the supplies, and ask questions about the tools and supplies concepts. Since the job aid will only include graphics, it eliminates any language barrier. The apprenticeship style allows educators the time to observe the modeling and receive the scaffolding and fading support so they are able to master the skill over seven days.

### **Impact on Design**

The design team will collaborate with the construction/facilitation team on collecting the construction tools prior to traveling to Haiti. The design team will create a graphic-only job aid on the procedure to build a shelter. This job aid eliminates the need for any translation.

Therefore, it can be readily distributed not only to the educators but to the school children later on. The development for the F2F training will require creating a schedule to guide the apprenticeship stages (modeling, scaffolding, fading, and coaching) over the course of seven days. The apprenticeship style allows for a certain level of flexibility in the schedule so the educators have a sufficient amount of time to practice and master the new skills.

### **Impact on Facilitation Team**

This objective requires the facilitation team to be onsite at the School for seven consecutive days. Therefore, the facilitation team will need to raise a minimum of \$1500 per person to carry out this objective. Each team member must plan to get medication to prevent Cholera prior to travel. The construction team will also travel with the building tools to Haiti. The apprenticeship requires the facilitation team to provide modeling, scaffolding, fading and coaching skills to the educators. The facilitation team will need to plan for bringing dehydrated protein lunches and sealed bottled water on site as the Haitian culture does not eat three meals a day.

### **Impact on the Organization**

Vineyard will need to coordinate with the School prior to travel. Money will be raised for tools and supplies. In addition, Vineyard will need to hire a French translator to accompany the facilitation team on the mission.

### **Impact on the Job**

The apprenticeship closely emulates what the learners will need to do on the job with the school children. At the end of their apprenticeship, they will become the masters and the school children will become the apprentices.

### **Assessment Plan**

During the tutorial, the educators make a list of the tools and supplies used. On the final day, the educators refer back to that list and place a mark next to the tools that worked the best for them. By the sixth and seventh days, the facilitation team will use an observation checklist to observe the learners building a shelter on their own. The learners must shift from being an observer (day 1) to being a builder and delegator (days 6 & 7).

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### **Objective 2**

Educators will apply browsing and grazing concepts to the school grounds.

#### **Objective 2.1**

Educators will describe the differences between browsing and grazing.

#### **Objective 2.2**

Educators will accurately identify browsing and grazing areas with visible markers within the school grounds.

#### **Objective 2.3**

Educators will identify a browsing and grazing schedule for the goats based on browsing and grazing concepts.

### **Design Approach**

The facilitation team will teach a F2F session for this objective, which will include a workbook.

The team will begin by teaching the concepts of browsing and grazing. The workbook will include the concept information so the educators can follow along and take additional notes.

Once the concept information is delivered, the educators will draw a diagram in their workbooks of the school grounds, labeling structures, fields, goat shelters, etc. The facilitation team will tour the grounds with the educators to gain additional information about the grounds and to consider the areas they defined on their drawings for qualities of good grazing areas. When the best areas have been identified the educators will label those areas on their maps. The educators and the team will also mark the grounds in such a way (painted sticks in the ground or marks on trees) that everyone can identify those areas as browsing and grazing areas. Finally, the educators will work as a group to propose a schedule to allow the goats to browse and graze daily. They will document the schedule in their workbooks.

### **Impact on Participants**

Using the workbook for note taking and activities will engage the learners and they will be able to refer to the workbook after training has been completed. The tour is also a chance for the team to expand on the concepts and for the educators to develop their understanding of the concepts as they apply to the school grounds. The tour will also provide flexibility for the educators to ask questions and receive immediate feedback.

### **Impact on Design**

This objective will be delivered within the same seven day period as Objective 1. The design team will recommend which day to break for Objective 2. The design team will create a workbook that will be translated in French.

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### **Impact on Facilitation Team**

This objective requires a tour around the school grounds. The terrain will be unknown to the team until they arrive at the school. Therefore, the team should prepare to bring the proper garments for a hike: insect repellent, hat, sunscreen, bottled water, small first aid kit, and hand sanitizer. A French translator is also necessary for the tour and discussion.

### **Impact on the Organization**

Vineyard will need to prepare the workbooks to be sent with the facilitation team. Donations are required for the printing fees and possible translation fees. Pastor Noel and local school leaders should be present during this tour to ensure safety of the team.

### **Impact on the Job**

The activities for this objective allow the educators to easily follow a routine on the job by setting a schedule for the goats' browsing and grazing.

### **Assessment Plan**

This objective will be assessed by oral questions throughout the discussions as well as observations. The areas and the schedule that the educators recommend for browsing and grazing will allow the facilitation team to gauge their understanding of the concepts.

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## **Objective 3**

Educators will provide the nutritional ingredients of a goat's 24-hour diet every day of the week given proper grain and nutritional supplies.

### **Objective 3.1**

Educators will define the nutritional ingredients of a goat's 24-hour diet.

**Objective 3.2**

Given a list of grains in a goat's diet and a list of grain growth cycles, educators will match each grain to its appropriate growth cycle.

**Objective 3.3**

Educators will identify an area on the school grounds to grow grain and they will plant the grains according to their growth cycle.

**Objective 3.4**

Educators will feed the appropriate amount of grains to five goats.

**Design Approach**

This objective will be taught over three days and will entail teaching the necessities of a goat's diet, planting grains for the goats to eat, and feeding donated grains to the goats. (Local grains will be donated to supplement the animals' diet until the newly planted grains begin to grow.) The workbook will include a list of all the necessary nutritional ingredients of a goat's diet and a daily feeding schedule to follow. The examples given in the workbook will include graphics. In addition, samples of grains and their seeds will be provided. The facilitation team will discuss the growth cycle of the grains. Using the map that the educators sketched earlier, they will collaborate to identify an area to plant new grains for the goats to eat. They will mark this area on the map along with an area for the goats' water source. The team and educators will then plant the grains in the identified area. Finally, the educators, with guidance from the facilitation team, will distribute enough of the donated grains to feed five goats.

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### **Impact on Participants**

The feeding schedule will help to build a routine for the educators. The F2F and collaborative style of this objective will help the planting effort and allow the educators to work alongside the facilitation team. This will allow opportunities to ask questions and receive immediate feedback. In addition, the educators can use the workbook as a reference for all local grains.

### **Impact on Design**

The design team will rely on a subject matter expert (SME) to identify grains that are local and will grow well in the mountains. The design team will create a lesson in the workbook that includes graphics of the grains and a feeding schedule. All written material will be translated in French.

### **Impact on Facilitation Team**

The facilitation team will need to coordinate with other volunteers in the group and with the educators to develop a strategy to complete the task of planting the grains on school grounds. They will also need a French translator. They will also need to gain understanding about how to secure the grain from being stolen.

### **Impact on the Organization**

The organization will identify and coordinate with a local supplier to procure local grains and seeds. The grains that are readily available to feed to the goats will be used to supplement their diet until the grains start growing on the school grounds. The organization will also coordinate to ensure the school has the proper planting tools. Donations will be raised to cover the cost of the grains.

### **Impact on the Job**

The activities for this objective closely emulate what the educators will do on the job. Planting and maintaining the grains as well as identifying the feeding schedule both transfer directly to the job. Additionally, the activity of feeding five goats for three days will allow the educators to practice the feeding routine, which relates directly to the job.

### **Assessment Plan**

The facilitation team will ask questions to gauge the educators' understanding of the goats' diet. Next, the workbook will include a one-page quiz that asks the educators to match a grain to its growth cycle. The educators will identify an area to grow new grains and explain their rationale for selecting that area. Finally, the facilitation team will observe the educators feeding five goats over a 3 day period using an observation checklist.

**Recommended Blended Design**

	<b>Time Required</b>	<b>Asynchronous</b>	<b>Synchronous</b>	<b>Resources Required</b>
<i>Day 1</i>				
1. Ob1.1: Present hands-on tutorial of tools and supplies used for building a goat shelter. Educators refer to the workbook and take notes as needed.	2 hours		X	Building tools Building supplies Workbook Translator
2. Ob1.2: The two Haitian educators are paired with a facilitator to begin the apprenticeship. Facilitators model how to build a goat shelter and the educator observes and follows along with a job aid in the workbook.	4 hours		X	Building tools Building supplies Workbook Translator
<i>Day 2</i>				
1. Ob1.2: Facilitators and educators continue with apprenticeship. Facilitators begin scaffolding phase.	4 hours		X	Building tools Building supplies Workbook Translator
<i>Day 3</i>				
1. Ob1.2: Facilitators and educators continue with apprenticeship. Facilitators continue with scaffolding phase.	4 hours		X	Building tools Building supplies Workbook Translator
<i>Day 4</i>				
1. Ob1.2: Facilitators and educators continue with apprenticeship. Facilitators begin the fading phase.	1 hour		X	Building tools Building supplies Workbook Translator
2. Ob2.1: Facilitators lead a discussion to teach the concepts of browsing and grazing using the workbook as a guide.	1 hour		X	Workbook Translator
3. Ob2.2: Educators draw a map of the school grounds in their workbooks. They label where all the structures, fields, and travel routes are located.	30 min		X	Workbook Pencils Translator

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<p>4. Ob2.2: Facilitators and educators use the sketched maps to tour the school grounds. Educators use their understanding of the concepts of browsing and grazing to suggest areas for the goats to browse and graze.</p>	<p>1 hour</p>		<p>X</p>	<p>Workbook Hiking supplies Translator</p>
<p>5. Ob2.2: Once areas have been identified for browsing and grazing, educators mark the physical areas. They also note the areas on their maps.</p>	<p>1 hour</p>		<p>X</p>	<p>Workbook Materials to mark grazing areas such as colored stakes for the ground or colored markings or tied fabric scraps on trees</p>
<p>6. Ob2.3: The educators collaborate to create a schedule for the goats to browse and graze daily</p>	<p>30 min</p>		<p>X</p>	<p>Workbook</p>
<p><i>Day 5</i></p>				
<p>1. Ob1.2: Facilitators and educators continue with apprenticeship. Facilitators continue the fading phase.</p>	<p>4 hours</p>		<p>X</p>	<p>Building tools Building supplies Workbook Translator</p>
<p><i>Day 6</i></p>				
<p>1. Ob1.2: Facilitators and educators continue with apprenticeship. Facilitators begin the coaching phase and observations.</p>	<p>3 hours</p>		<p>X</p>	<p>Building tools Building supplies Workbook Translator Observation Checklist</p>
<p><i>Day 7</i></p>				
<p>1. Ob1.2: Facilitators and educators conclude the apprenticeship. Facilitators assess the educators using an observation checklist.</p>	<p>3 hours</p>		<p>X</p>	<p>Building tools Building supplies Workbook Translator Observation Checklist</p>
<p><i>Day 8</i></p>				
<p>1. Ob3.1: Facilitators conduct a demonstration to introduce the necessary food and water for a goat's diet. Educators will follow along in their workbooks. Facilitators will have grains for the educators to examine as they explain each one.</p>	<p>1-2 hours</p>		<p>X</p>	<p>Grains Workbook Translator</p>

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<p>2. Ob3.2: The facilitators use the workbook to teach the growth cycle of local grains used in a goat’s diet. Learning is assessed by taking a quiz in the workbooks.</p>	<p>2 hours</p>		<p>X</p>	<p>Workbook Translator</p>
<p>3. Ob3.3: The facilitators discuss the importance of growing grain on the school grounds to sustain the goats’ nutrition and health. Using their sketched maps, educators are asked to collaborate to identify an area on the school grounds to plant new grain for the goats.</p>	<p>1 hour</p>		<p>X</p>	<p>Workbook Translator</p>
<p>4. Ob3.4: The facilitators discuss the daily feeding schedule listed in the workbook and lead a Q&amp;A discussion with the educators about the schedule. Educators then distribute enough of the donated grain to feed five goats.</p>	<p>1 hour</p>		<p>X</p>	<p>Grains Goats Translator</p>
<i>Day 9</i>				
<p>1. Ob3.3: The facilitators and the educators examine the physical area of the school grounds that has been identified to grow new grains. The educators explain their rationale for selecting that area.</p>	<p>1 hour</p>		<p>X</p>	<p>Workbook Hiking supplies Translator</p>
<p>2. Ob3.3: The facilitators and the educators begin planting new grains in the designated area.</p>	<p>3 hours</p>		<p>X</p>	<p>Planting equipment Grains/seeds Translator</p>
<p>3. Ob3.4: Educators distribute enough of the donated grain to feed five goats.</p>	<p>1 hour</p>		<p>X</p>	<p>Grains Goats Translator</p>
<i>Day 10</i>				
<p>1. Ob3.3: The facilitators and educators complete planting new grains in the designated area.</p>	<p>4 hours</p>		<p>X</p>	<p>Planting equipment Grains/seeds Translator</p>
<p>2. Ob3.4: Educators distribute enough of the donated grain to feed five goats. The facilitators use an observation checklist to assess the educators in feeding the goats.</p>	<p>1 hour</p>			<p>Grains Goats Translator</p>