



Chikuni Parish Taonga: **IRI School Assessment & Recommendations**

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About the Project

Origin of Action Research Project

This research was undertaken by the Center for Science, Technology, and Society at Santa Clara University at the request of its GSBI social enterprise partner Lifeline Energy. This research set out to evaluate the implementation of Lifeline Energy's technologies in Zambia, and the potential for developing agroforestry/energy poverty curriculum. Lifeline Energy provides technology solutions for off-grid learning. It makes solar powered and wind-up radios and media players for education.

Research Site Sponsor

Our team spent seven weeks in Zambia researching the interactive radio instruction (IRI) schools of Chikuni Parish, in the Monze District of the Southern Province. One of the Parish programs is the Chikuni Parish Taonga program, which oversees the seventeen IRI schools in the Parish. We worked in conjunction with the Chikuni Parish Taonga office to learn about barriers to rural education, the current training and monitoring systems in place, and find the best ways to support the schools and the communities they are a part of in order to create a positive and productive learning environment.

Global Social Benefit Fellowship

The Global Social Benefit Fellowship provides a comprehensive program of mentored, field-based study and action research for undergraduate juniors within the GSBI® worldwide network of social entrepreneurs. The fellowship combines a 6-7 week international summer field experience in the developing world with two quarters of academically rigorous research. It is a program of practical social justice, in the Jesuit educational tradition.

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Executive Summary

Like many other countries in Sub-Saharan Africa, Zambia struggles to provide quality, universal education to all of its citizens. Without significant infrastructure and funding, it is difficult to provide education for its rapidly growing population. The Zambian government spends only 1.4% of its GDP on education, one of the lowest rates in the world.¹ Due to little investment in education, thousands of children across the country do not have access to schooling. Even when communities do have schools, many children cannot afford to attend due to the various school fees they must pay. Rural villages are often too far from formal government schools for many children, and the roads can be treacherous, especially during the rainy season. The lack of infrastructure in the country compounds this problem because there are few paved roads in rural Zambia. Students who do go to formal schools may face problems at home, such as food insecurity, parents who do not value education, and lack of lighting for reading or doing their homework. Additionally, there is a shortage of trained teachers in Zambia. These problems make access to education difficult.

One solution to this problem has been interactive radio instruction (IRI) school programs. IRI schools broadcast lessons in a number of subjects taught through the instructions of a radio teacher. In Zambia, the Ministry of Education created an IRI program called *Learning at Taonga Market*, which serves students in grades one through seven. Radio schools that use the *Learning at Taonga Market* program have a local volunteer called a mentor listen to the broadcast with the students, translate the English instructions into the local language, and facilitate the lesson. Perhaps the best example of these *Learning at Taonga Market* schools can be found in the Monze district of the Southern Province of Zambia. Known as the Chikuni Parish Taonga, it has seventeen IRI schools in its surrounding areas. These schools serve over 1,500 children in 17 centers who would otherwise lack access to education.

Our research set out to accomplish three goals to evaluate and help improve the Chikuni Parish Taonga (CPT) program. The first goal was to understand the barriers to education. Our surveys asked teachers and community members the biggest challenges of children going to school. Understanding this problem is the first step to overcoming it. Our second goal was to outline and understand the training and monitoring system of both

¹ UN Data, 2013

the schools and the mentors. Our third goal was to find the best ways to support the mentors, schools, and communities to create a positive and productive learning environment.

To accomplish our goals, we created a survey to help us get quantitative and qualitative data from the local people. These surveys asked questions about the school system and students who attend these IRI schools. We conducted interviews of some of the mentors at the 14 schools we were able to visit and of some of the mentors from the remaining three schools at a mentor meeting. In total we interviewed 41 mentors, as well as 60 community members.

English is the national language in Zambia, and all of the mentors spoke English, which enabled us to conduct our mentor interviews without a translator. For the community interviews, Bornface Hangala, the agroforestry technician at Chikuni Parish Taonga, acted as our translator during our interviews of community members. We also used participant observation during our time at the schools by watching 10-15 classes while they were being taught to understand how the IRI programs worked and to observe some of the difficulties that the mentors face. Our research yielded productive results that will be used to provide recommendations, which may then be used to support funding requests.

The data we collected showed that there are both strengths and weaknesses to the Chikuni Parish Taonga program. Some of these recommendations will require resources from outside sources; others will not. The strengths of the community included the agroforestry program, the life skills training, and the school monitoring system that is in place. The weaknesses of the program included mentor training, organization of the programs, extra grade repetition for students who fail a grade, and an inflexible lesson start time. Our recommendations address these weaknesses, as well as provide support to continue and strengthen existing programs. We hope that Chikuni Parish Taonga and others who receive this report will find these recommendations appropriate and useful.



Background

The *Learning at Taonga Market* radio school program, created by the Ministry of Education and implemented by Chikuni Parish Taonga, is a comprehensive and effective educational tool for rural children. Chikuni Parish Taonga (CPT) has built an impressive program of 17 different schools which support underserved youth. The Chikuni Parish Taonga program reaches 1,684 students who would otherwise not be able to attend school. Student of all ages can participate in the program; the youngest is five and the oldest is sixty-three.² Though the material is explained in the local language until grade seven, all of the *Learning at Taonga Market* broadcasts are taught in English and offer a variety of academic subjects including math, science, writing, and history. There is also a section on life skills which aims to teach the students, many of whom are orphaned, how to live healthier lives. The CPT program takes these life skills lessons a step further with a commitment to environmental stewardship through the agroforestry garden program. The CPT vision is to have a “society in which children have the opportunities and skills to realize their dreams...a community that internalizes the value of education, environmental stewardship, and is self-reliant and self-sustaining”.

Chikuni Parish Taonga has been serving children since 2000 when USAID first sponsored a pilot project for the *Learning at Taonga Market* program.³ Many children from this area live a great distance from formal schools and cannot pay the fees associated with the formal government schools. The *Learning at Taonga Market* radio schools offer an alternative education to formal schools for students without this access. Everyday during the academic year, four grade levels of the *Learning at Taonga Market* program are broadcast throughout Chikuni Parish. A volunteer from the local community, known as a mentor, would listen to the broadcast with the pupils and assist the radio instructor during the lessons. As part of the radio lesson, mentors may be asked to re-explain instructions in the local language, draw figures on the chalkboard, or correct students’ work. While all of the mentors will have had some formal education, they would not necessarily need to be formally trained as a teacher. These schools range in size and structure, from a group of students sitting under a tree to formal classroom blocks.

In 2005, an agroforestry program was started which has now expanded to fourteen schools. Each of these schools has an agroforestry garden where children learn about environmental stewardship and agriculture. These gardens are monitored by the CPT

² Chikuni Parish Taonga Annual Report 2012

³ Ibid



agroforestry technician. He also teaches agroforestry lessons to the students. These students spread this new information to their parents and local community members.

Our research for Chikuni Taonga Program was designed to generate qualitative and quantitative data on the IRI schools in order to provide recommendations to CPT. We created and implemented a survey for the mentors designed to understand their experiences, their teaching needs, and the support they receive from the community. This survey also included questions about the students, including their participation and pace of learning. We asked the mentors these questions as the students do not yet have a high enough English level to comprehend the questions, though this may lead to ascertainment bias as the mentors might only want to show themselves and their teaching abilities in a positive light. Through this survey, we have identified strengths and weaknesses in the program. From our observations and our qualitative analysis, we have developed recommendations which may be used to improve the weak parts of CPT and to bolster its strengths. The motivation and rationale for each question of the survey can be found in the appendix.

In addition to this mentor survey, we asked questions about the Lifeplayer MP3 radio. These questions were included to help Lifeline Energy with product development and understanding how their new Lifeplayer MP3 Radio would be received in the field. These questions were designed with contribution from both Kristine Pearson, the CEO of Lifeline Energy, and Phil Goodwin, the product designer. The Lifeplayer is similar to the Prime and Freeplay radios with the added benefit of MP3 capabilities. The MP3 allows the mentors to play class content when they choose. It also allows mentors to rewind and replay certain sections of the broadcast or go over it again with slower students. This device also solves the problem of only broadcasting every other grade. If some students are held back a year they would have the option of repeating that same grade they just failed instead of going back two whole grade levels. The MP3 will be incredibly helpful for both the mentors and the students. Interactive radio instruction as a whole is also moving towards using MP3 models instead of broadcasting live radio programs. With MP3s, there

is no cost to broadcasting the programs, which can be substantial in order to reach the whole country. The only fees are constant production fees. The field of IRI education is also moving towards MP3s with the introduction of distance learning programs through computers and audio downloads.

Methods & Rationale

In order to learn more about how the CPT radio schools operate on a daily basis, we developed a survey to understand more about the mentors, the radios they use, the students, and the communities. Our goal was to determine specific strengths and weaknesses of the current system in order to make recommendations for improvement that can be included in the Parish's five year plan.

We visited 14 of the 17 CPT radio schools. We interviewed a total of 41 mentors out of approximately 60. There were two different settings where we interviewed mentors: in the field during school visits and at one of the monthly mentor meetings held at Chikuni Parish.

Our team was lucky enough to arrive just before the monthly mentor meeting. These meetings bring together all of the mentors from the 17 outstations to discuss current difficulties and successes, as well as to provide updates to Mr. Muntanga and Mr. Hangala, the academic and agroforestry technicians, respectively. Attendance is assured by paying the mentors their monthly stipend after this meeting. At this meeting we were introduced to the group of mentors by Mr. Muntanga. He explained our research in both English and Chitonga and encouraged the mentors to feel comfortable answering our questions—both at the mentor meeting and at the schools when we made future visits. We then demonstrated the Lifeplayer MP3 radio and had a group discussion on the advantages and disadvantage of this new technology. We ended the meeting by interviewing mentors from specific centers that we knew we would probably not be able to visit due to transportation constrictions.

An average of two mentors per school were present at the school the day we made our field visits. A few days before we travelled to each location, Mr. Hangala would play an announcement over Chikuni Community Radio station to alert the mentors of our upcoming arrival. When we arrived we sat down with as many mentors as available. Sometimes we performed group interviews, other times we interviewed each mentor separately, depending on their teaching schedules. Most of the mentors spoke adequate English or enough to get through the interview without too many problems. A few mentors spoke broken English which made the interviews difficult. Occasionally Bornface would

help us translate our interviews, especially during our first interviews. We learned how to alter our American accents to make our English easier to understand for the mentors. Some of the mentors we interviewed spoke English more fluently than others. The interviews with these mentors were incredibly helpful because these mentors would expand on their responses and give us information beyond our questions. After our initial interviews, we changed some of the questions slightly to adjust for British English vocabulary.

A rationale is included in the appendix for every question included in the Mentor Survey and Lifeplayer Survey. The rationale explains the goal of the question and its importance to our research. In the mentor section there are five sections: 1) mentor experience, 2) mentor feedback, 3) radio information, 4) student evaluation, 5) community involvement. The majority of the questions are open ended to allow mentors and community members to answer the question in a way that they feel comfortable and can add as much or as little information as they wish.



Findings

The Chikuni Parish Taonga program has been highly successful with its implementation of IRI programs. CPT's support programs for the schools provide favorable conditions to have such great success with the *Learning at Taonga Market* radio program. CPT excelled in many ways and this program is has been successful in educating over 1,500 students. The three primary strengths are the technician program, the agroforestry gardens, and the life skills training.

Strengths

The CPT office in Chikuni employs staff members who are competent and lend tremendous expertise and support to the outstation schools. John Muntanga and Bornface Hangala travel to each outstation at least once a month to check on the schools.

These “check-up” visits help to keep the program running smoothly in many ways. Mr. Muntanga keeps track of mentor attendance, performance, and academic progress.

Throughout the course of a month, Bornface Hangala checks on the different agroforestry gardens. Mr. Hangala teaches environmental education classes for the children and teaches them agricultural life skills. In addition to this, he will occasionally lead radio broadcasts about different agroforestry topics. Mr. Hangala is incredibly knowledgeable about Zambian agriculture, cattle, agroforestry and environmental stewardship. He inspires students, parents, and community members to take care of the earth and minimize the damaging impact they might have on it. He is cultivating a new generation of environmental stewards for Zambia, a country that suffers from severe deforestation.



These two technicians also gather data and report back to the CPT office in Chikuni once a week. We had the opportunity to sit in on a few staff meetings and hear Mr. Muntanga and Mr. Hangala report on their activities. During these meetings, we realized the vital importance of the technician role, and the key connection they provide between the IRI outstations and Chikuni's central management. Mr. Muntanga kept track of mentors, some of whom had records of behavior issues or did not perform up to the high standards of CPT. Mr. Hangala would report on each garden and the state of the participation of each community. Both technicians hold a high status in the villages and the Chikuni community. Everyone that we spoke with only said positive things about both men. Mr. Hangala's work with the agroforestry gardens has been especially well received.

According to the Ministry of Education , the agroforestry program at CPT is the only agroforestry curriculum in Zambia to be working in conjunction with an IRI school program. These agroforestry gardens are vital to the community. People can get by with growing corn in a subsistence farming culture; however, their diet is unbalanced and many people lack vital nutrients. The agroforestry gardens provide children with a safe space to learn without any outside pressures. After the radio programming, children play in the garden and learn how to cultivate small plants and trees.

Many mentors and community members we interviewed told us that the agroforestry program has helped to affect community change. Many people discussed how Mr. Hangala's environmental education and agroforestry radio programs have changed their perception of nature and changed their behavior towards nature. Some of the questions in the survey focused on deforestation and firewood. Many people said that they have started to plant trees after cutting down others for firewood. When we explored the topic more, almost everyone said that they planted trees because Mr. Hangala told them about how important it was or that their children had encouraged them to do so. The agroforestry and environmental education programs have already impacted the Parish community at large.

CPT's life skills acquisition program can be considered another strength, as it provides information that students can apply to their everyday lives. The *Learning at Taonga Market* instruction, produced by the Ministry of Education in Zambia, includes a life skills acquisition program. However, CPT goes above and beyond what the Ministry had produced. CPT teaches students personal hygiene, gardening, and environmental stewardship, along with other life skills within the *Learning at Taonga Market* curriculum. Going beyond traditional education to teach life skills prepares these students to be citizens that can affect change and be leaders in their communities.



Weaknesses

Although the CPT program has been able to provide access to education to children who otherwise would be left out of the education system, there is still room for improvement in providing an even better quality education to the students it serves. After analyzing our data from the mentor surveys and observations, we found four main areas of weakness. These were mentor training, organization, students repeating grades, and an inflexible start time.

Currently, mentors receive training during the holiday break times and the topic is chosen from a list of topics. With the new information from the surveys, these mentor trainings can now be tailored to the mentors needs. Every mentor except one that we

surveyed requested more training. Many mentors said that they felt unprepared or unskilled in their job. The vast majority of mentors asked for more Creative and Technology Studies (CTS) training, because it is the newest addition to the curricula. **Table 1** shows the mentor training topics requested in the mentor surveys. Our survey data can help Chikuni to make their trainings much more effective and applicable to the mentors.

Table 1: Types of Training Requested by Mentors

Requested Subject or Content of Training	Number of Times Requested
Agroforestry	6
CTS	21
English	9
Handwriting	1
IRI Methodology	2
Lesson Planning	2
Math	9
Sciences	4

Another weakness is the organization of the program, especially mentor meetings and stipend payments. This is an incredibly difficult problem to solve because of communication difficulties. Every mentor does not have a cell phone and there is no mail system that can reach all of the outstations in a timely manner. The mentor meetings are announced over the radio, a common avenue for disbursing important information, but that does not guarantee that every mentor will hear the announcement. Mentors walk, bike, or get a ride to the meetings from their various outstations; some travel large distances. The mentors from Kayola woke up at 4:00 a.m. to walk and catch rides in order to cover the 26 km distance to Chikuni. Other mentors walk long distances over rough terrain to come to the mentor meetings. Although there are many barriers to an organized communication system and planning of the mentor meeting, there could be improvements. Mentor meetings could be scheduled farther in advance. There also was confusion about who was to pay the mentors while they were in Chikuni. Many mentors ended up waiting around for hours to get their payments before beginning their long journeys home. Tasks must be delegated to Taonga staff members efficiently and these staff members must be held accountable for their appropriate tasks.

The next weakness involves the process a student goes through if they need to repeat a grade. Currently, if a student fails a grade, they must repeat two grades instead of just one. Due to the organization of the radio broadcasting, each year Chikuni Community Radio broadcasts either the odd or even numbered grades. For example, this year grades two, four, six, and seven were broadcast; next year grades one, three, five and seven will



be broadcast. (Grade seven is broadcast every year so that the maximum number of students can try to pass their grade seven exams in order to be eligible to go on to the next school level.) This alternating system causes a problem because if a child was to fail grade four, for example, they could not simply repeat grade four. They would need to go back to grade three, then take grade four the following year before moving on.

The last weakness is an inflexible start time of the *Learning at Taonga Market* radio program. In their survey responses, mentors said they wanted to be able to start in the morning like formal schools or wait until everyone in the class had arrived to begin the programming. A few years ago CPT decided that their schools should start at a later time to allow children to help their parents with daily chores. This later start time also allowed children who lived far away to walk to school, especially during the unpredictable weather during the rainy season. However, many mentors said that they would prefer to start earlier in the morning so they could be more similar to formal schools. Others spoke about the benefits of starting the lesson when it was most favorable to parents and community members. If a day was missed due to a mentor meeting, drastic weather, or a sick mentor, a mentor could choose to play two lessons in a day instead of just missing out on an entire lesson. Solving this problem may also decrease the number of children who must repeat grades.

These weaknesses are complicated and may not be easy fixes. However, it is important to strive for the best program for these children in order to give them a chance at a better future. Our recommendations attempt to address these problems in a strategic and streamlined manner.

Recommendations

As a result of these findings, we have developed four specific recommendations for the continued improvement of the Chikuni Parish Taonga school system. Our three goals

of this research project helped us develop these recommendations. Our goal of understanding barriers to education helped us to recommend different start times and the implementation of the Lifeplayer MP3. Our second goal of outlining and understanding the mentor training program and the responses to the mentor training questions in our survey led to our suggestions to streamline and improve the mentor training program. Finally, our final recommendations aims to address our goal of promoting a more positive and productive learning environment for children in the CPT program.

Our first recommendation is that CPT should further develop its agroforestry program into a full radio curriculum to complement Mr. Hangala's existing agroforestry programs. Many mentors and community members we spoke with told us that they had changed their agricultural practices to be more sustainable because of information they learned from the CPT agroforestry program. A complete radio curriculum would provide more people with access to this information - adults from the wider community in addition to the students in the schools. Children would be more inclined to adhere to sustainable environmental practices if the adults in their lives were already practicing them. Until a full curriculum can be developed, Mr. Hangala's current agroforestry broadcast should be further developed and expanded.

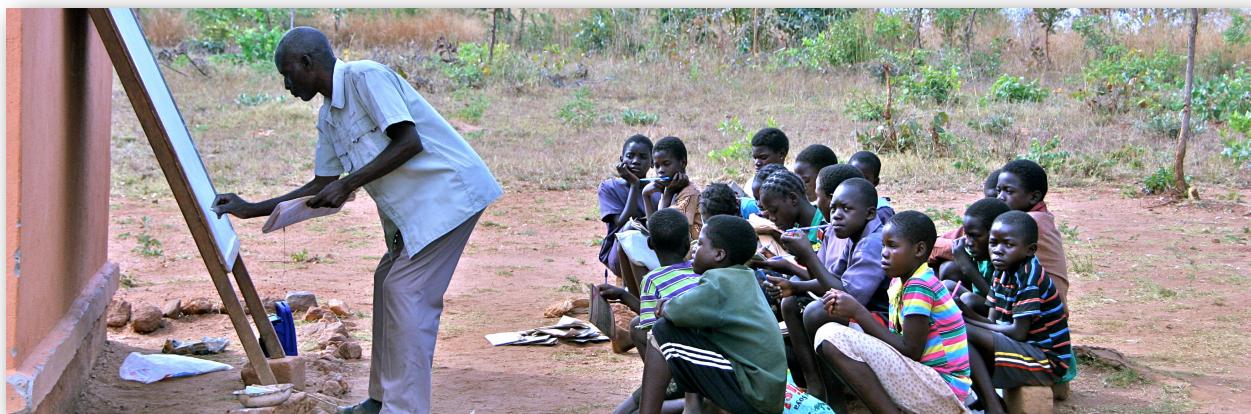


Our next recommendation has to do with the existing mentor training program associated with CPT. Of the 41 mentors we surveyed, 39 said they felt like they needed more training to learn new teaching techniques and widen their knowledge of different subjects. One of the two mentors who felt the current training program was sufficient responded as such because of his previous training as a government teacher. Many mentors mentioned that they had received the same training various times and that they felt they were lacking in some other areas. The most requested subjects trainings are listed above in **Table 1**.

The next recommendation is a possible solution to the challenges associated with an inflexible start time and to students having to move back two grades. There are a number of possible solutions to this problem. Chikuni Parish could sacrifice other

programming to broadcast all the grades. However, air time is expensive and it would cost Chikuni Parish more money to do that. Another solution, possibly a better solution, would be to use radios with MP3 capabilities, such as the Lifeplayer MP3 Radio. Radio education looks to be moving in the direction of universal use of MP3 radios. The Lifeplayers would allow mentors to broadcast any grade at any time, as well as to rewind, replay, and pause the lesson.

Finally, it is vitally important that the academic and agroforestry technicians continue to be supported in their efforts to monitor all the CPT schools. Their presence in the program is what makes CPT stand out among IRI schools, and they are largely responsible for maintaining relationships and communication between the mentors and the CPT management team, as well as between the wider community and the CPT management team.



Conclusion

Radio education has proved to be a successful form of alternative education in Zambia, particularly through the *Learning at Taonga Market* program for primary education. While Chikuni Parish Taonga might be the most ideal situation for an IRI school system in Zambia and has many strengths, it also has some areas that could be improved on. Based on our research, we recommend that the agroforestry and the mentor training programs be developed further, that MP3 radios be considered for widespread implementation, and that the academic and agroforestry technicians continue to be supported in their efforts to monitor the schools within Chikuni Parish Taonga.



Acknowledgments

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Appendix: Mentor Survey

Lifeline/Taonga Survey

Name: _____ Location: _____ M / F _____ Date: _____

Mentors:

- 1. How long have you been working as a mentor? What grade do you teach? Have you taught other grades?**

Mentor Experience—Rationale: This question is designed to understand the teaching experience of the mentor. Each year the mentors go through a series of trainings to help them teach their classes and help students learn.

Number of responses: 41/41

- 2. How long have you been using the Learning at Taonga Market program in the classroom?**

Mentor Experience—Rationale: This questions seeks to understand know how much, if any, prior teaching experience mentors had.

Number of responses: 41/41

- 3. What kind of training did you receive? Was it enough? Do you think you need more training in some subject? If yes, which ones?**

Mentor Experience—Rationale: Understand the opinions and successes of the mentor trainings. What subjects were lacking? What subjects did the mentors feel comfortable with? We wrote this question to understand what mentor training subjects would be the most helpful in the future.

Number of responses: 41/41

- 4. What kind of additional training would be helpful to you?**

Mentor Experience—Rationale: This question was designed to discover specifically what type of additional training would be most useful to the mentors as they strive to become a better mentor each year that they are teaching.

Number of responses: 41/41

- 5. What kind of radio do you use for the program? How old is it?**

Radio Information—Rationale: This question was for Lifeline Energy to see what kinds of radios the mentors used and how long they would last.

Number of responses: 40/41

- 6. How do you charge the radio? Who charges the radio?**

Radio Information—Rationale: This question is designed to understand how people use the radios in the field is important for Lifeline's product evolution. Learning how people charge the radio in the field is important because there have been mixed reviews on the solar charge function. Knowing who charges the radio is important because children and adults treat the radio differently. The radio is built to be rugged and robust in the hands of both adults and children.

Number of responses: 33/41

- 7. Have you had any problems with the radio? If yes, what kind of problems?**

Radio Information—Rationale: This question is designed to see how often the radios break down and what parts break down. This question also leads to product development.

Number of responses: 34/41

- 8. If the radio breaks down, who fixes it? How long does that take?**

Radio Information—Rationale: This question is designed to understand if the product is easy to fix and therefore durable and long-lasting. Asking how long it will take helps Chikuni find the average time to swap out and fix radios.

Number of responses: 34/41

9. What do you like most about the *Learning at Taonga Market* program?

Mentor Feedback—Rationale: This question was designed as an open question to find out different aspects of the radio program the each mentor enjoys teaching the most.

Number of responses: 40/41

10. What part of the radio program seems to work best? (i.e. songs, games, etc)

Mentor Feedback—Rationale: This question was designed to find out which specific teaching elements of the *Learning at Taonga Market* radio program are best received by the students.

Number of responses: 26/41

11. How does the program help you?

Mentor Feedback—Rationale: This question is designed to allow the mentors to elaborate on the various ways that *Learning at Taonga Market* helps them both in the classroom and everyday life.

Number of responses: 26/41

12. What would you like to change about the program to make it better?

Mentor Feedback—Rationale: This open ended question gives mentors an opportunity to critique *Learning at Taonga Market* and give us feedback on the program as a whole.

Number of responses: 38/41

13. Do the students arrive to school on time?

Student Evaluation—Rationale: This question begins the student section of the interview. We want to learn if the students come on time and what causes them to be late for class.

Number of responses: 41/41

14. Do you keep a register of the students' attendance?

Student Evaluation—Rationale: Chikuni Parish tries to keep track of students' attendance and taking role is the easiest way to do this.

Number of responses: 41/41

15. When children don't come to school, do you know why?

Student Evaluation—Rationale: This question is designed to understand why students miss school. What are the barriers and obstacles that children must overcome to go to school and how can we reduce these challenges.

Number of responses: 39/41

16. Do you ever miss class? If yes, why do you miss class? How often do you miss class? What happens if you miss class?

Mentor Feedback—Rationale: This question is designed to understand the world of mentor performance and to understand what happens to the students if a mentor cannot come to school.

Number of responses: 40/41

17. Do students pay attention and participate in class? Does every student participate? Do boys and girls participate equally?

Student Evaluation—Rationale: This question was designed to find out if all the students in the class—male or female—actively participates during the radio program, as the *Learning at Taonga Market* program is structured to be an interactive learning experience.

Number of responses: 36/41

18. What happens if a student learns faster or slower than the other students?

Student Evaluation—Rationale: This question was developed to determine what methods are taken to (or not taken) provide extra assistance for students who learn at varying rates.

Number of responses: 37/41

19. Do any of the students repeat grades? If so, do you have records of this?

Student Evaluation—Rationale: This question was developed to determine what happens to a student if they need to repeat a grade. This is important as Chikuni Community Radio broadcasts each grade of the *Learning at Taonga Market* program every other year, which would, for example, cause a student to drop back two grades if they failed a class.

Number of responses: 39/41

20. Do you know if students do homework at home?

Student Evaluation—Rationale: This question is designed to learn about students homework and their families investment in their future. Many mentors elaborated and described that challenge of illiterate and uneducated families or lack of lighting at night for homework.

Number of responses: 36/41

21. How does the community participate in the school?

Community Involvement—Rationale: This question hopes to gauge community participation and the various ways that the community may interact with the mentors and the school.

Number of responses: 34/41

22. When the school needs something, does the community provide for it? If yes, can you give an example?

Community Involvement—Rationale: This question seeks to understand beyond community participation. We want to understand if the community members are willing to sacrifice time and/or resources.

Number of responses: 28/41

23. Do you think the community could help more?

Community Involvement—Rationale: This question tries to gauge support of the mentors from the community.

Number of responses: 31/41

24. Do you know the parents of the students? Do you regularly meet with them to discuss the students? If so, how often?

Community Involvement—Rationale: This question attempts to understand how involved the parents are in the school program. We hoped to see if the mentors felt supported by parents and also to understand how invested parents were in their children's future.

Number of responses: 38/41

25. What could be done by the (local) ministry to provide more resources?

Community Involvement—Rationale: This question was designed to determine what resources the (local) Ministry of Education could provide the Chikuni Taonga Radio Schools in addition to the support the radio schools are already receiving from the Chikuni Taonga Office.

Number of responses: 39/41

Lifeplayer Questions:

To be asked after the Lifeplayer has been explained and demonstrated.

26. Do you think this product would be helpful? Why or why not?

Radio Information—Rationale: This question aims to find out what potential benefits the Lifeplayer would provide to the mentors. We want to know how this product could help them or cause problems for the mentors.

27. What do you like about this product? How could you see yourself using this product?

Radio Information—Rationale: The purpose of this question is to understand the potential benefits of the product and what the mentors think are the best aspects of the new design and functions. The second part aims to see how the Lifeplayer may change how the mentors teach or how they structure their lessons.

28. What about this product might cause problems or challenges? Please explain.

Radio Information—Rationale: This question aims to understand the potential drawbacks of the product and aspects of the product that the mentors may not like. The Lifeplayer might also cause new challenges for the mentors that the older radios did not have.

29. (If they don't see any problems) Do you think the students would come late to class or miss class more often since the program can start at any time and be replayed?

Radio Information—Rationale: Most of the mentors were resistant to discussing any potential problems or drawbacks to the product so this question is designed to prompt them. This prompt made them feel a little more comfortable criticizing the Lifeplayer.

30. This product is currently called the Lifeplayer MP3. Do you have any other suggestions for another name?

Radio Information—Rationale: Lifeline Energy was not decided on the name for this new product. The purpose of this question was to see if the mentors could come up with a different or better name.

**Some questions, were done as group interview and sometimes a mentor would elect to not answer*