

Reforming Education by Motivating Teachers

*A Case Study of the School System in
Guabuliga, Ghana*



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0. Executive Summary

The most sustainable pathway towards social development is through education. Yet, how can education itself be sustainably improved? We must thoroughly understand the threats to school systems and carefully decide on the best strategy to meet them.

The following evaluation carries on this work through a case study of the school system in Guabuliga, a rural village in Northern Ghana. A series of interviews with primary and secondary stakeholders were conducted to identify the major problems affecting the school system, their causes, and their impact. Stakeholders also shared their ideas as to a range of possible solutions. The evaluation systematizes their suggestions into a coherent plan for policy makers, with particular emphasis on practicality and sustainability.

The problems uncovered by the interviews are teacher absenteeism, a teacher shortage, the low social status of teachers and perceived value of education, irregular payment, lack of supervision, lack of in-service training, insufficient materials and inadequate infrastructure.

The solution provided by this evaluation focuses on working directly with teachers. Direct monetary contributions towards learning materials and infrastructure fail if qualified teachers are not available to utilize them. A lack of qualified teachers at school who regularly and punctually show up to work nullifies the benefits of other forms of aid.

Teacher absenteeism and teacher shortages share a common cause: teachers suffer from low motivation. People who decide to teach are placed before groups of up to one hundred children in run-down rooms with no electricity or furnishing besides perhaps a handful of broken desks. Their head teachers and district offer little supervision or support; their community shows them little gratitude or respect, failing to adequately or regularly pay them and even insulting them on the street. It's little wonder that the profession struggles to attract qualified workers and that those already teaching often lack the morale to properly carry out their duties.

It is therefore suggested that a Comprehensive Teacher Incentives Program be introduced in order to improve the currently unacceptable teaching conditions. CTIP includes six aspects: bonuses, monitoring, evaluations, in-service training, PTA collaboration, and infrastructure investment. If successful, CTIP would not only attract qualified and dedicated applicants to the teaching profession, but would transform the attitude teachers take towards their work, gradually and sustainably fostering an environment in which education is respected and actively supported.

The Comprehensive Teacher Incentives Program offers an affordable and sustainable procedure for Guabuliga and similar communities to drastically improve the quality of their school systems.

1. Introduction

A school is a complex sociocultural phenomenon. Parents, students, teachers, school leaders, community leaders, district employees, and external support facilities such as NGOs must all work together to ensure that learning takes place in classrooms. Potential threats to their successful cooperation must be carefully investigated and their social context thoroughly understood. The following evaluation is an

attempt to do just that. Through interviews conducted with primary and secondary stakeholders, the evaluation presents a comprehensive picture of all the various factors affecting Guabuliga's school system.

2. Project Background

2.1. Project Description

BRAVEAURORA, an Austrian-based NGO that has been working with orphans in Guabuliga since 2008, has observed the devastating impact of the teacher shortage and teacher absenteeism in Guabuligan schools. BRAVEAURORA has decided to respond with a program that should serve both to attract more teachers and to motivate the current teachers to come to work. To that end, interviews with primary and secondary stakeholders were held as the exploratory first step towards designing the program.

2.2. Stakeholders

The primary stakeholders in Guabuliga's school system are the teachers, the parents and the students. The secondary stakeholders are the school district (circuit supervisor) and the school leaders (head teacher).

2.3. Guabuliga School System

There are two schools in Guabuliga: St. Michael's Primary School and St. Michael's Junior Secondary School (JSS). The Primary School includes a kindergarten and six grades, P1 - P6. The Junior High School includes three grades, J1 - J3. To attend Senior Secondary School (SSS), students must go to Walewale.

There are three kinds of teachers in Guabuliga: trained teachers, assistant teachers or 'pupil teachers' hired through the National Youth Employment program, and volunteer teachers. The trained teachers have completed a three year program at a teacher training college. The assistant teachers are only temporarily employed; their position is dependent on changes in government. They have no formal training, but do receive a small monthly stipend. The volunteer teachers have no formal training and no official salary.

3. Evaluation

3.1. Goals

The evaluation should serve the following purposes.

First, the evaluation should complete the list of all the problems affecting Guabuliga's schools. As noted in the project description, two problems have already been identified: a teacher shortage and teacher absenteeism. The evaluation should reveal whether the stakeholders agree with this preconception and whether they can identify any other major problems.

Second, the evaluation should explore the severity, scope, causes and impact of each identified problem. While a larger quantitative study would be necessary to fully reach this goal, some limited progress may be made through the interviews.

Third, the evaluation should contribute ideas as to how these problems may be solved. Stakeholders should share their own ideas and BRAVEAURORA should build on their contribution in order to design its programs for the 2011 - 2012 school year. Since the programs are based on their own input, stakeholders should feel ownership of and responsibility for the final results.

Finally, the evaluation should help BRAVEAURORA to establish and improve relationships with all the major stakeholders. These relationships will most likely be vital to the ultimate success of any program.

3.2. Methodology

The interview process took place between July 13th and August 4th 2011. Following an introductory field access interview with a teacher, seventeen interviews were conducted. The interviewees included seven teachers, four parents, three students, the PTA chairman, the head teacher, and the circuit supervisor.

Depending on the stakeholder's fluency in English, interviews were conducted either in English or with a translator in Mampruli.

The interview concerned the overall state of the school system and the stakeholder's individual situation and role within that system. Stakeholders were also encouraged to share their ideas about what qualities make an excellent teacher. A semi-structured questionnaire was used to allow the stakeholders the space to bring up their own concerns and freely express their opinions.

4. Results

4.1 Overview of Identified Problems

The problems brought up in the interviews concern five factors: **teachers**, the **district**, **parents**, **students**, and **materials**. The following overview presents a fairly comprehensive list of the problems addressed by stakeholders in the interview process. There was largely consensus as to the major problems facing Guabuliga's schools, especially within stakeholder groups.

Teacher-related Problems

Nearly all parents and teachers complained about the **teacher shortage**, not only in Guabuliga, but throughout northern Ghana. As explained in the project description, this result was expected from the outset of the study. Parents and teachers complained, however, not only of the lack of qualified teachers, but also of the **lack of volunteer teachers**. They believed that more of the SSS grads in the village should volunteer at the school.

The other foreseen result was that **teacher absenteeism** poses a major problem. Parents and teachers did indeed mention the issue, although far less frequently than the shortage problem. A related issue was the **lack of supervision from the head teacher**. Due in part to his illness, the head teacher did not supervise the teachers or keep accurate attendance records.

Teachers themselves repeatedly drew attention to a **lack of encouragement and motivation**. Several identified it as a problem and nearly all pointed to encouragement and motivation as the best way to support teachers to excel.

District-related Problems

Youth employment teachers suffer from **irregular payment**. There is also a **lack of regular supervision from the district monitors** as well as a **lack of regular in-service training**.

Parent-related Problems

Both parents and teachers spoke of a problem with the parents' **attitude towards education**. They do not fully appreciate its importance. The consequences of this basic value issue are two further problems: parents **absent their children from school** and **fail to support the volunteer teachers** with monetary contributions.

Student-related Problems

As with the parents, it was said that the students do not have a positive **attitude towards education**; they do not take school seriously, particularly as regards the proper care of their uniform. Parents complained that the students are **not punctual**.

Material-related Problems

A lack of various materials affects Guabuliga's schools. Stakeholders from all groups named **furniture** and **books** as sorely needed materials. Teachers claimed that the lack of **transportation** negatively affected their ability to care for their own needs and sometimes contributed to their absences.

Summary: Teacher Motivation as a Common Theme

The two teacher-related problems identified before beginning the evaluation, teacher absenteeism and a teacher shortage, may both be understood as consequences of a lack of teacher motivation. If teachers enjoyed greater motivation then more would be attracted to the profession while those already teaching would be more likely to excel.

The other problems uncovered by the evaluation may collectively be understood as *contributing* to the lack of teacher motivation. The parents' negative attitude towards education and concomitant failure to support volunteer teachers obviously reduces the motivation for both active and prospective volunteers. Similarly, irregular payment from the district discourages the assistant teachers.

In a subtler way the lack of supervision and in-service training undermines teacher motivation as well. As expressed by teacher Salifu Yidana, if you "motivate them with paying a visit, see how they are working, this will tell them that people appreciate what they are doing." If no one takes the teachers' work seriously, monitoring their performance and encouraging them to improve, it is unlikely that the teachers themselves will independently find the motivation to do so. This situation thus results in teachers accepting their own poor performance rather than striving to excel.

A lack of materials and unruly disrespectful students also contribute to an unattractive environment for teachers, which in turn reduces their motivation to be in the profession or to come to work. Thus all of the identified problems contribute towards a lack of teacher motivation, which in turn results in teacher absenteeism and a teacher shortage.

4.2 Problem I: Teacher Absenteeism

4.2.1 Severity and Scope

Unfortunately, no reliable empirical data could be gathered as to the frequency and duration of teachers' absences. However, through the interviews we may roughly estimate that teachers are absent 1 - 3 times per week. Teachers also tend to start late after midday breaks and to leave early, particularly on Fridays. A study estimated that teachers in Ghana spent only 11 hours per week teaching in 1997.¹

4.2.2 Causes

The three most common reasons teachers gave for absences were sickness, distance learning programs, and a lack of motivation or laziness. Other common responses were family problems, working on their farm, and transportation.

When a teacher is sick, they may apply to the head teacher for sick leave and excuse their absence. Due to the minimal level of teacher supervision from the head teacher, this practice did not seem to be widely followed.

In principal, distance learning programs take place on weekends and vacations. However, given the difficulty in transportation to and from Guabuliga, teachers tend to be unable to return to class on time.

Family problems are an important issue for teachers, as they are often the breadwinner for their family and are expected to take care of any issues that arise.

Teachers are not always victims of circumstance; their own attitude plays a factor in causing absenteeism. "Sometimes they just lay around and do not want to come to work," claimed one teacher. Another said, "They come today; tomorrow they will not come, leaving their children to suffer for no reason." While no teacher admitted to a lack of motivation causing them to be absent from work, every teacher brought up regular attendance and punctuality when asked to describe a good teacher. This result demonstrates that teachers do not believe that most causes for absences are out of the teachers' control. On the contrary, they believe that a good teacher is able to overcome obstacles and make it to work every day on time or early.

4.2.3 Impact

A school cannot function without teachers. When the teachers are not there, the students do not learn. While there were isolated reports of students studying together when their teacher was absent, such study sessions are infrequent. It is also doubtful that they offer a satisfactory substitute for a teacher-led class. Low teacher attendance directly contributes to low test scores and poor quality education.

Other factors of the impact are difficult to empirically measure, but might play an important role in the overall situation. For example, when teachers are often absent, the community perception of the school is likely to worsen. As a result, parents would be less likely to give donations and students less likely to attend school. This result is particularly noxious as it contributes to a vicious cycle: when the community perception of the school is negative, the teachers are demotivated, which in turn leads to higher absenteeism and a worsening community perception of the school.

¹ Bennel, Paul. 2004. p. 29

4.3 Problem II: Teacher Shortage

4.3.1 Severity and Scope

The primary school should employ fourteen teachers, two for each class. Only five teachers were employed for the school year 2010-2011. One of these teachers is trained; the other four are assistant teachers. The shortage left the Kindergarten and P1 with no teacher and the remaining classes overfilled, with 64 - 101 students enrolled in each class.

The Junior Secondary School should employ five teachers for its three classes. In 2010-2011, enrollments were between 46 - 57 students. Only two teachers were employed, both of whom are trained. The JSS was further supported by three volunteer teachers.

4.3.2 Causes

The direct cause is a lack of teachers altogether. As the circuit supervisor said, "They are just not there."

The teacher shortage, then, is caused by a shortage of people who want to become teachers. The primary reason given for this trend is the low professional status of teaching, which is often seen as the "last resort" option for those who continue their studies; there are other higher paying and higher status jobs for talented SSS graduates to consider.²

Teachers avoid being deployed to rural locations and quickly apply for transfer. Guabuliga is particularly vulnerable, because it lacks convenient transportation to the next larger town (Walewale).

The teacher shortage in Ghana is usually described as a shortage of qualified teachers.³ Guabuliga suffers from this problem, but the stakeholders often spoke rather of the shortage of *volunteer* teachers. The cause for this shortage is the parent-related problem described below: the low social status of teachers and perceived value of education.

4.3.3 Impact

Fewer teachers mean larger class sizes. In 2011, there was an average teacher-student ratio of 1:84. Large classes make it difficult for teachers to use effective pedagogical methods. It is also a challenge for teachers to discipline such large groups, creating unruly environments in many classes. The large classes then overwhelm teachers and weaken their morale.

The Kindergarten and P1 have no teachers at all. These youngest students have no classes and simply play on the school yard during classtime. This leaves the children struggling as they attempt to begin P2 without ever having been taught the fundamentals. The P2 teacher described this dilemma and explained, "If the foundation is strong everything will be successful, but if the foundation is not strong you know it can't improve."

² Bennel, Paul. 2004. p. 4

³ See for example The World Bank, 2010. p. 24

4.4 Problem III: Low Social Status of Teachers and Perceived Value of Education

4.4.1 Severity and Scope

The community's attitude towards education is an important factor in Guabuliga's struggling schools, yet the severity and scope of the problem are difficult to ascertain. No parent expressed the desire that his or her children remain in Guabuliga or farm for a living. "What do they get from farming?" asked one mother. "School is more important than farming. You can always farm in addition. Farming with no knowledge is not good," explained another parent. One father described the benefits for him of having an educated child, "He or she will bring me a cedi, a jacket. He will give me loans. He will know how to approach people. When I am blind, he or she will lead me. When I am sick, she will go to the drugstore and understand which drug I should take."

Parents recognize that school leads to the kind of lives they want for their children. Thus, when questioned parents unanimously affirmed the importance of education. All the interviewed parents insisted that they expected their children to continue schooling until the highest level, after which they could find a well-paying job.

Such attitudes indicate a high perceived value of education in Guabuliga. However, teacher interviews present an entirely different picture. Teachers expressed their belief that most parents in Guabuliga do not value education. In fact, several described Guabuliga as having the lowest amount of community respect for teachers and support for education they had encountered in all their experience in Ghana. In their opinion, parents need to be educated about the importance of education. They also reported that they frequently received unprovoked insults from community members, just because they were teachers.

There may be a disconnect between a high perceived value of education and a low social status for teachers. On the other hand, the evaluation may have been unable to uncover the parents' true perception of the value of education. One father did stress the importance of farming and claimed that students should occasionally farm during class time, so that they can learn about agriculture. He quoted the proverb, "Have education is poison" and explained that people who go to school for a long time think they know everything, but are actually the biggest fools. More interviewees may only have refrained from expressing similar opinions thanks to their perception of what was the "right answer" in the eyes of the educated Western interviewer. On further questioning, even the father mentioned here quickly reverted back to insisting that education was extremely important and valuable.

4.4.2 Causes

It is difficult to ascertain the causes of the status problem, since no parents actually admitted to holding a low opinion of the schools or teachers. Nonetheless in a community that survives primarily on subsistence farming, it is easy to imagine why book learning might appear irrelevant or frivolous.

A further problem might be a vicious cycle between the parents' attitude towards the teachers and the teachers' poor performance at work, already mentioned in section 4.2. When the parents insult the teachers and fail to show respect for education, the teachers lack the support and motivation they need to perform well. When the teachers perform poorly, the parents have no reason to show them respect.

In addition, some rumors exist as to abusive relationships which have occurred in the past between teachers and students in Guabuliga. Such stories, whether truthful or not, lower the community's opinion of teachers and the school.

4.4.3 Impact

A low opinion of education will encourage parents to absent their children from school in order to have them help on the farm, which teachers identified as a recurring problem. In fact, teachers and the head teacher bring children to their own farms during school hours as well. A low perceived value of education seems then to impact both parents and school staff.

The parents' attitude also directly affects their children's' attitude, thus contributing to student-related problems. It is the parents' responsibility to foster recognition of the importance of school in their children and to assist them in keeping their uniforms clean.

It is widely recognized in the literature that a low social status of teachers discourages the attraction and retention of SSS graduates to the teaching profession, thus contributing to the teacher shortage problem. In Guabuliga, we may directly observe this process at work. In the third term of 2010, the parents decided in a PTA meeting to support volunteer teachers with a monthly donation of 20 pesewas per child. The following school year, no parent delivered the promised donation.⁴ In Guabuliga, the community does not value education or teachers highly enough to support them by offering donations to volunteer teachers. As a result, SSS graduates are not motivated to volunteer their time at the school. In this way, the low social status of teachers directly prevents a simple solution to the teacher shortage problem.

The parent's perception of the school may also contribute to the irregularity of PTA meetings. PTA meetings should be held three times a term. In reality, it is common for a term to end without a single meeting being held.

When the community does not actively work to support the school, it is nearly impossible to provide sustainable support to a school system. Only community leaders can ensure that reforms survive after an NGO has left.⁵

4.5 Problem IV: Irregular payment

4.5.1 Severity and scope

Assistant teachers do not regularly receive their salary. They should receive 75 Cedi per month. At the time of interviews in late July 2011, the assistant teachers had not received their salaries since May 2011.

4.5.2 Causes

Irregular payment is a problem throughout sub-Saharan Africa, thanks to inefficient management and organization. The Ghana Education Service is highly centralized, so this problem is difficult for local staff

⁴ Other communities in rural northern Ghana have managed to mobilize community support for their schools. The World Bank, 2010. p. 118.

⁵ USAID, 2005. p. 106

to address. The salaries must come from Accra to the district in Walewale, but sometimes simply does not arrive.

4.5.3 Impact

Assistant teachers admitted that when they do not receive their salary, they are not “encouraged to be better.” When asked what makes for a better teacher, they spoke mostly of coming to school punctually every day. Thus, the interviews suggest that an irregular salary contributes to the high teacher absenteeism. While empirical data concerning absenteeism is not available, anecdotal evidence supports the hypothesis that assistant teachers are indeed more often absent than the regularly paid trained teachers.

4.6 Problem IV: Lack of Supervision and In-service Training

4.6.1 Severity and scope

Supervision should come from the head teacher and the district. The head teacher was sick and absent for long periods of time. When he was present, he did not fulfill his duties. He was not even familiar with all of the teachers working at his schools.

Teachers should sign into the attendance book in the head teacher’s office every morning upon arrival, but the book had few signatures, despite the head teacher’s insistence that absenteeism was not a problem. Furthermore, there were reports of forgery in the attendance book.

The district monitors its schools by means of “brief visits.” On a brief visit, the monitor checks the attendance records, observes teachers, and offers in-service training. Subsequently, he provides follow-up visits to ensure that the identified issues have been addressed. These visits are not taking place.

Additional in-service training can be organized by the head teacher, who contacts GES to arrange for a trainer. Trainers offer a one day training for all the teachers. They expect some informal compensation in return, such as paying for fuel costs. No additional in-service training is being offered.

4.6.2 Causes

The head teacher’s failure to organize in-service training and to monitor his teachers is caused in part by his illness, which led to his death while this evaluation was being written. However, it would be a mistake to assume that there were no other contributing factors. Inefficient school leadership is a problem throughout Ghana and sub-Saharan Africa,⁶ suggesting that the Guabuligan head teacher’s poor performance was not an isolated incident. While he had a clear idea of what his duties ought to be, the head teacher had no in-service training, regular monitoring, or support group to assist him in filling them.

The district is prevented from offering regular supervision thanks to fuel problems. They are not given sufficient funds to cover the costs of monitoring all the schools in their zone. Thus, they tend to only monitor the schools closest to them.

⁶ World Bank, 2010. p. 120

4.6.3 Impact

Lack of supervision severely curtails teacher motivation, exacerbating teacher absenteeism and discouraging efforts to improve. Obviously, where there is no supervision, there are neither incentives nor penalties. The impact of regular supervision also extends beyond these instrumental benefits. The very presence of a supervisor encourages teachers to work harder. As expressed by teacher Salifu Yidana, if you “motivate them with paying a visit, see how they are working, this will tell them that people appreciate what they are doing.” If no one takes an interest in whether the teachers are up to par, it is unlikely that the teachers themselves will independently find the motivation to do so. This situation thus results in teachers accepting their own poor performance rather than striving to excel.

It is somewhat more complex to ascertain the impact of a lack of regular in-service training. The head teacher and several teachers stressed its importance. Indeed, since over half of the teaching staff has no training, it would be extremely important to offer in-service training. However, the form of in-service training currently provided in Ghana does not necessarily suffice to actually change classroom behavior. “Indeed, research indicates that [providing isolated training events to teachers] is an ineffective, inefficient and costly investment of human and fiscal resources. When the workshop is used in isolation, long-term improvement in the quality of teaching does not happen.”⁷ One isolated workshop cannot perform any miracles. Thus, while the lack of occasional in-service training workshops from GES may impact teacher motivation, it most likely does not have a great direct impact on the quality of teaching.

4.7 Problem VI: Insufficient Materials and Inadequate Infrastructure

4.7.1 Severity and Scope

Like many poor rural areas, Guabuliga suffers from a lack of learning materials and poor infrastructure. It is estimated that there is about one text book for every three children.

The classrooms do not have enough desks for all of the students. There are currently 113 desks for around 650 students, which means that another 212 desks would be needed for each student to have a place to sit. However, with the current large class sizes the classrooms would be too small for each child to have a desk anyway. In reality, the schools could use about 100 more desks.

Guabuliga has poor transportation infrastructure. There is public transportation (a tro-tro) that goes to Walewale, the region capital, on only one out of three days.

The head teacher also described the school as suffering from a lack of first-aid medical assistance and potable drinking water for students.

4.7.2 Causes

The district claims that the funds needed to provide adequate materials and infrastructure for Guabuliga’s schools are simply not available. At the start of the 2010-2011 school year, Guabuliga received 60 new desks. The planning officer explained that now Guabuliga must wait some years before receiving anything else, as other schools want their share from the district as well.

⁷ UNESCO, 2007. p. 103

4.7.3 Impact

When children do not have books, they cannot study at home. Inadequate furniture results in increased cheating, since children copy from one another during exams. The lack of transportation contributes to the teacher shortage, because teachers are more likely to apply for a transfer if they cannot easily access a larger town to purchase necessary goods.

5 Solutions

5.1 Comprehensive Teacher Incentives Program

The analysis of the evaluation's results demonstrates that the issues affecting Guabuliga's schools are interrelated. Any program aimed at solving only one problem may easily be undermined by a seemingly separate problem. For example, teacher absenteeism cannot be addressed without also attending to the lack of supervision.

This evaluation suggests the employment of a Comprehensive Teacher Incentives Program, CTIP. The CTIP involves introducing five interrelated strategies:

- Three Tier Incentives Package
- Monitoring and Evaluations
- In-service Training
- PTA Collaboration
- Investment in Materials and Infrastructure

By acting on all five fronts, the CTIP encourages teachers to excel and gives them the resources to do so. If the analysis is correct, successful implementation of the CTIP should address all the problems identified by the evaluation.

Each step of CTIP is designed to maximize simple practicability and long-term sustainability.

5.2 Incentives

5.2.1 Impact

The teachers in Guabuliga want motivation. Without any prompting, nearly all teachers complained that they were not receiving enough encouragement. As one teacher phrased it, in order to get more out of the teachers, someone has to "oil their pumps."

As described in section 4.2 above, the teacher absenteeism problem may be due in part to lack of motivation. If the possibility of receiving incentives increases teacher motivation, then that will ease the teacher absenteeism problem. However, some research shows that test score-based incentives do not affect teacher attendance rates.⁸ Thus, two of the criteria for receiving an incentive should be

⁸ World Bank, 2007. p. 26

attendance and punctuality. Teachers' decisions as to when and whether to come to work will then have direct consequences, which research shows does reduce teacher absenteeism.⁹

Guabuliga's rural location and poor transportation infrastructure deter teachers from desiring a post in its schools. An incentive program in Guabuliga should counterbalance those drawbacks and attract teachers to transfer to Guabuliga's schools. Volunteer teachers would also be included in the incentives program, which should attract SSS graduates to become volunteers. In these two ways, offering teacher incentives would solve the teacher shortage problem.

When a teacher certification course is provided as an incentive, as described below in 5.2.2, then the teacher shortage problem is directly addressed. "By providing a pathway to a qualification, in-service training can help to build capacity in the educationally disadvantaged communities, providing a longer-term response to the deployment problem."¹⁰ The response is particularly effective when the recipients are volunteers from Guabuliga. As volunteers, they have demonstrated their dedication to teaching, which increases the likelihood that they will remain in the profession, rather than using the training as a stepping stone to a better paid career. As Guabuligans, they are more likely to remain in the area, rather than transferring to another school. There are also advantages to having a female recipient. Encouraging women to become teachers helps improve the quality of girls' education overall, with profound long-term benefits to the entire community.¹¹

5.2.2 Execution

Most if not all teacher incentives programs throughout the world have relied on an identical model: offer one cash bonus at the end of the year. These programs have shown positive results, however they are not very sustainable. As soon as the bonus-offering organization leaves the area, the improvements tend to disappear.¹²

The teacher interviews conducted for this evaluation reveal that the traditional model in no way fully exhausts the possibilities for an incentive program. Teachers repeatedly expressed the wish that good teachers receive some kind of material reward. When asked to specify their desires, they offered the following suggestions:

- Food (maize, guinea fowl, rice)
- Money for soap
- Teaching materials (exercise books, paints, pens, calculators)
- Money to continue education
- Computer lessons
- Refrigerator/Deep freezer
- Bicycle
- Zinc to put on their family's houses

⁹ Duflo et. al., 2010.

¹⁰ World Bank, 2010. p. 91

¹¹ UN, 2005. p. 48, 201

¹² Glewwe et. al., 2004.

This list suggests two ways to change the traditional model in order to make it more sustainable. First, rather than offering cash bonuses, the bonuses could be small gifts, such as food or soap. One bonus should have a value of approximately 10 Ghana cedi (GHC). If possible, a local supplier should donate the gifts. In any case, the gifts should be locally bought, which links the incentives program to overall community development. Since these bonuses will be less expensive than the traditional cash bonus, the danger does arise that the teachers will not be sufficiently motivated. Thus, one should balance out the effect by offering the bonuses more often. That is, rather than a large yearly reward, a sustainable incentives program should offer small monthly rewards.

The projected cost of small monthly incentives should not exceed 100 GHC per year.

The second innovation to an incentives system suggested by the interviews is using education and training as an incentive. This strategy may be more expensive, but it too increases the sustainability of the program. Even if the incentives program eventually ends, the investments put into extra education will continue to pay off for as long as the recipient stays in the teaching profession. Once again, the training should involve local trainers and facilities as much as possible.

There are two ways to invest in training for teachers: small scale and large scale. A small scale investment in education would be, for example, a short computer course. Such a course costs around 10 GHC per teacher. Computer training is sorely needed by all teachers, since ICT is a course in Ghana's standard curriculum. Thus, it would be optimal if all teachers with satisfactory evaluations were eligible to receive this incentive. This small scale training incentive could be offered once a term.

Assuming that 3 - 6 teachers qualify per term, the projected cost of small scale training incentives should be between 90 - 120 GHC per year.

Large scale training incentives involve financing further education for teachers, for example, a scholarship for an in-service teacher certification course for untrained teachers. For Guabuligans, the closest in-service teacher certification course is that offered by the Jackson Education Complex in Walewale.¹³ The costs are comparable to other such courses in Northern Ghana at 800 GHC per year. In addition, the registration form costs 50 GHC and the entrance exam (necessary for those applicants with less than 24 passes at SSS) costs 20 GHC. The course takes place every other weekend for three years. The incentive should include all three years of training, contingent only on the recipient continuing to receive good evaluations. Due to higher costs, the large scale training incentive should be offered to only one teacher per year. Care should be taken to strike a balance between favoring untrained, local and/or female volunteers and avoiding frustration from those disadvantaged by this policy.

Assuming that each recipient continues to receive good evaluations and so gets the scholarship for all three years of the course, the costs of large scale training incentives are as follows:

- Year One: 876 GHC
- Year Two: 1676 GHC
- Year Three and following years: 2476 GHC

¹³ For more information, see <http://www.jackson.edu.gh>

To maximize sustainability and effectiveness, a comprehensive incentive package should include all three tiers: monthly bonuses, termly small scale training incentives, and yearly large scale training incentives.

The total projected cost of a comprehensive incentives package is 1066 - 2696 GHC per year.

5.3 Monitoring and Evaluations

5.3.1 Impact

An incentives package requires criteria for receiving the incentives, as well as the means to check which teacher has met the criteria. An effective monitoring system must be in place before any incentives may be awarded.

As described in section 4.6, supervision also directly motivates teachers, by demonstrating that their work is taken seriously by their colleagues and their community.

5.2.2 Execution

In the interest of promoting local collaboration, the chief executors of the evaluations should be the GES monitoring officers. In the interest of sustainability and simplicity, the evaluation model should resemble the models already used by the GES as much as possible.

The GES teacher evaluation model comprises eight categories:

- Lesson presentation
- Knowledge of subject matter
- Evaluation of learner ability
- Lesson planning
- Punctuality and attendance
- Relationships and co-curricular activities
- Communication skills
- Personality traits

The final two categories are not very helpful. The 'Communication Skills' category is vague, offering no specific criteria to be met. The 'Personality Traits' to be checked are either vague (initiative and foresight), not demonstrably linked to student performance (appearance), or inappropriate for a general evaluation (decency in relationships). A new evaluation system for Ghana's teachers should omit these categories.

The first three categories (Lesson Presentation; Knowledge of Subject Matter; Evaluation of Learner Ability) require a monitoring officer from GES to actually observe the teacher at work in the classroom.

The remaining categories (Lesson Planning; Punctuality and Attendance) do not require a monitoring officer's visit. They should be continuously monitored by the head teacher, who looks over their lesson plans and who takes care of the attendance book. In addition, one criterion from 'Evaluation of Learner Ability' may also be monitored without direct classroom observation: "develops assignments and awards marks/grades accurately". The head teacher may monitor compliance to this criterion by looking through the students' exercise books.

As explained in 5.2.2, small monthly incentives are desirable as part of a comprehensive incentives package. However, the entire GES evaluation cannot be performed every month. Given that schools are currently monitored less than once a year, it would be foolish to expect the monitoring officers to begin making monthly visits. Accordingly, a monthly evaluation should be based on the head teacher's continuous monitoring of Lesson Plans, Punctuality and Attendance, and Evaluation of Learner Ability.

The head teacher is primarily responsible for continuously monitoring these criteria. However, as described in 4.6.2, head teachers often do not fulfill their monitoring duties. Thus NGOs, student prefects and parents in the community must support the head teacher with the continuous monitoring.

- The teachers' lesson plans and the students' exercise books may be monitored once a month by the head teacher, with NGO support.
- The accuracy of the teacher attendance book should be regularly monitored throughout the month by the head teacher, NGOs, student prefects and parents in the community.

Beyond the funds needed by the NGO to support its employees and volunteers, the monthly evaluation has no running costs whatsoever.

The monthly evaluation in itself would bring significant improvement. However, it would be optimal for the teachers to receive a more complete evaluation once a term, i.e. three times a year. In addition to the criteria used for the monthly evaluation, the termly evaluation must include the first three classroom observation based categories (Lesson Presentation; Knowledge of Subject Matter; Evaluation of Learner Ability), as well as student performance on a standardized test.

- GES monitors should monitor teachers' classroom behavior once a term, with NGO support for fuel costs.
- The standardized test should be given by the GES, with NGO support for recruiting assistants to monitor the exam.

5.4 In-service Training

5.4.1 Impact

Evaluations show teachers where they need to improve. However, without extra training, the teachers may be unable to make the needed adjustments. Providing in-service training ensures that the evaluations don't serve as mere judgments from above, but also result in professional development.

5.4.2 Execution

In theory, the GES already follows up their evaluations with training. With some support for fuel costs from an NGO, they can actually execute this reasonable policy. At the beginning of the school year, teachers should perform self-evaluations. In a discussion based on the results of the self-evaluations, they should identify points in which they would desire an in-service training session. In-service training workshops should then be provided by the GES throughout the year as needed. As with the monitors, NGO funds should provide the transportation or pay the fuel costs for the trainer to ensure that they come as needed. The NGO may also help the head teacher to find alternative workshops, such as the

model classrooms set up by Tackling Education Needs Inclusively, a branch of Britain's Comic Relief with a base in the West Mamprusi District.

As described in 4.6.3, an occasional isolated workshop does not suffice to change the way a teacher works. Much better results have been achieved by using teacher-led training. When the teachers themselves are in charge, then the training can continue regularly throughout the school year. To magnify the effectiveness of the in-service training workshops, the teachers should hold teacher-led training sessions weekly or bimonthly. In these meetings, those who struggle should receive help from their peers. This system should be particularly effective, given the quantity of untrained teachers working at the school. Those individuals benefitting from the large-scale training incentives may also use these teacher-led meetings as an opportunity to share their benefits, which magnifies the payback of the NGOs investment. To encourage participation in the training sessions, the attendance to training sessions should be included under the Punctuality and Attendance for the monthly evaluation.

5.5 Community Collaboration

5.5.1 Impact

Successful collaboration with the Parent Teacher Association (PTA) and School Management Team (SMT) could have long-term benefits for the school situation. Community members might grow accustomed to not only holding teachers in high esteem and valuing education, but to actively proving that attitude through concrete contributions. Through collaboration, community members might become more likely to support the school in the following ways:

- Encouraging SSS graduates to become volunteer teachers
- Donating money for volunteer teachers
- Monitoring the school and complaining if teachers are absent
- Assisting their children with homework
- Encouraging their children to attend school

All of these actions would provide an environment in which both teachers and students were more motivated. As described in 4.4.3, encouragement and donations for volunteer teachers helps to solve the teacher shortage problem. Community monitoring would compensate for a lack of supervision. Finally, community collaboration ensures the sustainability of all other measures, since community leaders can carry on policy changes after an NGO has moved on.

5.5.2 Execution

Community collaboration is a sensitive matter with no quick fix. The first step is simply to establish contact with the parents of the community. As one parent said, "Consult them and you'll be united." A teacher also stressed the importance of meeting and working together, "If you are alone, you are talking nonsense."

In interviews, several stakeholders said that an NGO should approach the situation as a bargain. In a meeting with the PTA heads, the NGO should describe the kind of support they have provided and suggest what support they might be willing to provide in the future. They should then put a condition on their aid. The first two activities listed above are the easiest for the community to start right away and

also the easiest for the NGO to observe. So, if the community does not at least encourage SSS graduates to become volunteer teachers and donate money to support them afterwards, then the NGO should withhold further extra support, such as investment in infrastructure.

This bargaining attitude sends an important message to the community: the community, not any NGO, holds the primary responsibility for the quality of its schools. The attitude of the community may be further improved by education for the community. Several teachers suggested that the parents lacked the appropriate consciousness of the importance of education and that this lack should be remedied by education. A teacher advised, "Public education for the parents about education must be provided at the PTA meeting. The head teacher must lecture the parents about the situation in the school."

The NGO should encourage the PTA to hold regular meetings. At these meetings, the head teacher and respected community members may speak to parents about the importance of education.

The chief of Guabuliga cautioned that efforts be taken to maintain full transparency in all funds collected by the PTA. Thus the NGO should assist the PTA board in setting up a Teacher Fund, into which all parent donations are placed. Records must be kept as to who donated how much and made public at PTA meetings. This publicity serves a dual purpose: preventing inappropriate use of funds and providing social pressure to those parents who have not donated.

Beyond the funds needed by the NGO to support its employees and volunteers, collaborating with the community has no running costs whatsoever.

5.6 Investment in Materials and Infrastructure

5.6.1 Impact

By improving their working conditions, investments in infrastructure and materials help boost teacher motivation.

Investing in furniture can quickly have positive effects. It helps the teacher maintain discipline in the classroom and prevents cheating on tests. The latter benefit is also of use to the evaluation and monitoring system, which involves a termly standardized test.

Investing in a tro-tro has a long-term impact on the teacher shortage, since as explained in 4.7.1, it makes teachers more willing to remain in Guabuliga and so less likely to apply for a transfer. It could also help ease teacher absenteeism by making it easier for teachers to quickly return from trips.

Investing in books should wait until the teacher situation has improved. The usefulness of a book generally depends on having a good teacher present to teach its contents. Until this situation has been accomplished by the teacher incentives program, investment in learning materials might not result in a corresponding improvement in student learning.

5.6.2 Execution

As described in the previous section, investing in infrastructure is an important bargaining tool in collaboration with the community. Thus, NGO school involvement should not begin immediately with infrastructure investments, but should wait until the community and/or the teachers have demonstrated

their own efforts to improve the school situation. Only if the infrastructure is deemed so poor as to strongly affect student learning, is immediate investment the best option. In that case, the NGO should be sure to mention that aid in talks with the PTA as the visible proof of their assistance. No further investment should follow until the community has made the actions agreed upon.

The NGO should always purchase directly from the supplier and should arrange for its own transportation to avoid overcharging.

Conclusion

The Comprehensive Teacher Incentives Program (CTIP) suggested here should be implemented in Guabuliga. Its success must be tested by further interviews with stakeholders, observation of teacher attendance rates, and comparison of student test scores.

The problems of Guabuliga are not unique to rural developing countries. If CTIP is successful, it should be implemented in further schools. Given the trouble with government bureaucracy, it's recommendable that even under expansion, the implementation remain a cooperation between NGOs, circuit supervisors, head teachers and community leaders.

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