



## **Core Education Skills for Liberian Youth (CESLY)**

### **Program Baseline Report**

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## **Introduction**

The CESLY program aims to achieve broad educational results in a relatively short timeframe. In an attempt to clarify and understand the starting point for various components of the program, considerable effort was made to collect and collate information that would serve as a starting point for the management team's strategy. The following report is a summary of this effort, containing an overview of the Liberian educational context, demographic details of CESLY areas of operation, as well as analysis of prior accelerated learning program content.

## **Educational System**

As a country recovering from the impact of a long civil war, education is one of many services that compete for attention and finance from the Liberian government. Inevitably, basic services such as water supply and health receive the most immediate focus, as these are essential to survival. According to the draft education sector plan currently under development by the Ministry of Education, the expenditure on education in 2007/08 corresponded to between 2.6% and 2.9% of GDP, less than most post conflict countries, with 29% of the total education budget allocated to primary education. This falls short of the 50% spending goal set forth in the government Fast Track Initiative. (p7, ESP) In Liberia, household expenditure on education is quite high, and cumulatively exceeds public spending (2009 CSR). This information indicates the importance of education to Liberian families. However, given the low income of families within Liberia, many parents cannot afford to support their children's education. In actuality, many children support income generation activities for the household, and their participation in school results in a net loss much greater than the actual cost of school fees and materials.

The Liberian Education System faces several challenges to effective operation. In the 2008 Poverty Reduction Strategy, the following were identified as some of the main obstacles:

- *Weak capacity for management and governance from central to the local level*
- *Outdated curriculum and inadequate textbooks, chairs, desks, and school supplies*
- *Insufficient school access that limits the ability of every child, including girls and persons with disabilities, to exercise his/her right to quality education*
- *Insufficient numbers of well trained, qualified and motivated teachers*

Also detailed within the PRS were the following strategic responses, relevant to primary education:

- *Strengthen the curriculum*
- *Improve access to quality, safe, and hygienic schools*

- *Recruit and train qualified teachers*
- *Improve learning achievement and school completion rates*
- *Strengthen governance, management, and financial basis of the system*

**Statistical Overview of CESLY Areas**

The total population for Liberia was reported as 3,476,608 in the 2008 National Census, with an annual growth rate of 2.1%. The overall sex ratio in the country is reported as 100.2, indicating a very slight excess in males. On average, the household size within the country is 5.1. The following table provides comparison information for the six counties where CESLY operates:

County	2008 Population				Household Size
	Total	Male	Female	Sex Ratio	
Bong	333,481	164,859	168,622	97.8	4.7
Grand Gedeh	125,258	64,994	60,264	107.8	6.8
Lofa	276,863	133,611	143,252	93.3	5.5
Maryland	135,938	70,855	65,083	108.9	7
Montserrado	1,118,241	549,733	568,508	96.7	4.8
Nimba	462,026	230,113	231,913	99.2	5.6

The key documents that provide guidance to the education sector in Liberia include the 2009 CSR—Country Status Report, The Poverty Reduction Strategy, produced in 2008 which creates a strategic framework for the next decade that is cross-sectoral, while relying heavily on progress in education and training. Key poverty issues identified within these documents are lack of access to education, lack of economic opportunity for Liberians and lack of skills required to earn a living. The Liberia Primary Education Recovery Program, or LPERP, is an action plan specifically targeting the education sector, with key language pertaining to the education of overage youth, increasing the capacity of teachers and the basic skills (reading and numeracy) of students. Currently under development is the ESP, or Education Sector Plan, referenced extensively here. This provides an extensive overview of the Liberian Education system and outlines both challenges and results presented thus far. Specifically targeting gender equity, the National Policy on Girls’ Education lays out plans, benchmarks, activities and time-tables for

improvement in this area. There is also a Girls Education Division at the MOE charged with ensuring gender equity in Liberian educational environments while also promoting teaching as a profession for female teachers.

Implementation of the plans and strategies described in all of the policy documents referenced above is heavily dependent on increased funding for the education sector. With approximately 13% of the national budget earmarked for education (one of the lowest rates in Africa) and declining world market prices of most of Liberia's key sources of foreign exchange (such as rubber and iron ore), Liberia will need to rely on an even higher level of donor support than what is currently receives if the Education Sector Plan and other national level strategies are to be achieved.

Other useful tools for work in this sector include the Liberia Education Sector Master Plan 2000 – 2010, EFA National Action Plan of 2004, MOE/UNICEF Rapid Assessment of Learning Spaces, 2004, Teacher Issues in Liberia, Jan 2008 World Bank/GOL, National School Census 2007.

The CESLY program is targeted to many of the gaps identified in the documents described above. Directly responding to the solutions identified in the Poverty Reduction Strategy, CESLY has strengthened the existing curriculum for the Accelerated Learning Program, and will work toward the development of a non formal curriculum that improves basic numeracy and literacy skills for Liberian youth, while also equipping them with essential work readiness training. Teachers and administrators will receive high quality training throughout the program, ensuring quality of teaching and effective oversight of education. These efforts combined will contribute to greater achievement among students and eventual increased completion.

### **Market Analysis**

A brief survey was conducted in counties where CESLY operates to determine general business trends and potential employment and training opportunities for youth. This information provides a starting point for programming staff in the design of appropriate curricula and eventual placement of CESLY graduates in post program options. A questionnaire was used to collect information on businesses and existing employment opportunities and service providers in each county. Buyers, vendors and local government authorities were interviewed, with CESLY Work Readiness/Career Guidance Facilitators facilitating the process.

The usefulness of the survey can be summarized as follows:

- Creation of links between CESLY and businesses to aid program participants in finding employment and/or apprenticeship placement.
- Identification of sectors to focus on for job readiness, placement and apprenticeship opportunities.
- Provide guidance to graduates who may want to go into small business to make an informed choice concerning product demand and competition.

According to the survey results, items with the greatest demand on a local level included:

- Food stuffs
- Used clothes
- Plastic materials
- Fire-coal
- Household utensils

Items with fewer vendors but with considerable demand included:

- Building materials
- Jewelries
- Arts and craft materials
- Mobile phones
- Electronic products
- Furniture

Based on our analysis, the following were considered the most active sectors of employment across Liberia:

- Agriculture (farming, rubber industry)
- Small business
- Transportation (motorcycle riding).

This finding is substantiated by the ESP, which states that “... agricultural productivity contributes approximately 42% to the GDP (2007 estimate).” (P2)

Sectors with the least reported employment in counties where CESLY operates included:

- Mining
- Other formal employment

Various companies have plans for expansion within Liberia. This represents an opportunity for CESLY youth graduates for potential training and employment. Some examples include:

- BHP Biliton, Garmu, Panta district, Bong county
- China Union, Fuamah district, Bong county
- Mital Steel, Nimba county
- Liberia cocoa Cooperation(LCC),ADA Agriculture Project in Lofa county
- Euro Logging, ICC Logging and Gebro Logging in Grand Geded County.

As a follow up to this survey, more detailed information will be collected to ensure appropriate planning by the CESLY team.

### **Schools**

The total number of CESLY programs is 266, with ALP Regular and Youth curricula taught at 216 sites around Liberia. 50 school locations offer both the Regular and Youth curricula options.

**Actual Number of Schools Running ALP Programs Per County**

<b>County</b>	<b>Number of Schools</b>
Montserrado	33
Bong	40
Lofa	31
Nimba	42
Grand Gedeh	41
Maryland	29
<b>Total</b>	<b>216</b>

**Number of Regular / Youth Program Schools Per County**

<b>County</b>	<b>ALP Regular</b>	<b>ALP Youth</b>
Montserrado	30	14
Bong	30	15
Lofa	30	15
Nimba	30	14
Grand Gedeh	30	14
Maryland	29	15
<b>Total</b>	<b>179</b>	<b>87</b>

**Number of Schools Running Combined ALP Programs**

<b>County</b>	<b>Number of Schools</b>
Montserrado	11
Bong	5
Lofa	14
Nimba	2
Grand Gedeh	3
Maryland	15
<b>Total</b>	<b>50</b>

In the Liberian public primary school system, the overall pupil to teacher ratio is 49. (p67 ESP) For the CESLY program, this ratio is 11.5 overall, with 11.2 students per teacher for the Regular program, and 8.7 for Youth.

**Teachers**

The amount of teachers currently involved in the CESLY program is 1166. The table below shows the breakdown of how many teachers teach ALP Regular, Youth, or are trained for both.

**Number of Teachers**

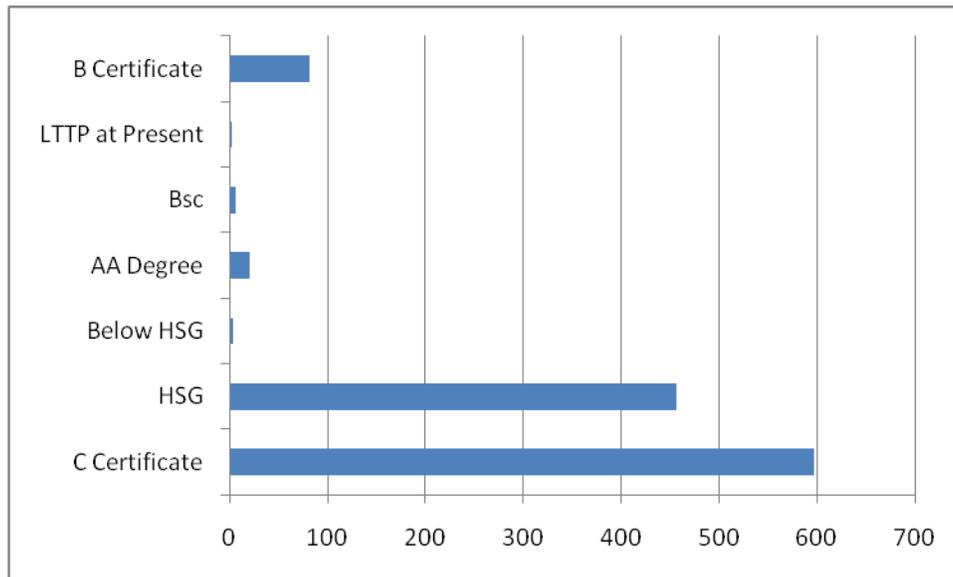
County	Head Count of Teachers	# Teaching Combined Program	# Teaching Regular	# Teaching Youth
Montserrado	208	7	159	56
Bong	215	10	150	75
Lofa	186	24	150	60
Nimba	215	5	150	70
Grand Gedeh	197	9	150	56
Maryland	145	60	145	60
<b>Total</b>	<b>1166</b>	<b>115</b>	<b>904</b>	<b>377</b>

A key factor in student performance within the CESLY program and in the Liberian education system overall, is the quality of teaching available to pupils. As said in the Education Sector Plan, “The teacher challenge in Liberia is not just one of getting more teachers into the system but also ensuring that those who are already in the system are of the caliber and quality that would bring about the desired improvement in the quality of primary school education.” (P51) The level of experience each teacher brings to the classroom as well as their own education history has a considerable impact on the classroom experience and subsequent academic outcomes. Within the CESLY teacher cohort, teachers reported diverse education backgrounds and years of experience as stated below:

**CESLY Teachers’ Level of Experience**

	<b>Avg. Years of Experience</b>
<b>Total Teachers</b>	<b>10</b>
<b>ALP Regular</b>	<b>8.7</b>
<b>ALP Youth</b>	<b>10.8</b>

### CESLY Teachers' Level of Training



The Liberia Poverty Reduction Strategy acknowledges that less than a quarter of primary school teachers possess the minimum C Certificate for teaching. Though from the graph above it is clear that the majority of the teachers involved in the ALP program do have this requirement, it is still necessary to account for those who don't and to make provisions for them as part of teacher training. There is little incentive for trained teachers to stay in isolated rural locations. Volunteers often stand in for qualified teaching personnel to fill gaps for local students. In the short-term, as an increase in qualified teaching staff will probably not be realized quickly, intensive training opportunities must be made available to active teachers, no matter their education background. By providing teachers with a common set of materials and skills, CESLY and the Ministry of Education take steps to ensure that students are exposed to essential primary education content in a manner conducive to their learning.

The majority of CESLY teachers have been exposed to ALP training. Each year, however, a percentage of teachers are transferred within the country. At the start of the 09 – 10 school year, 22% of teachers had not received the required training for the CESLY curriculum they were assigned to teach. This need was met through a quick response refresher training implemented during the first few weeks of the project.

As an additional qualitative measure for teachers, the CESLY team tested and administered the SCOPE evaluation tool in a randomly selected sample of 163 teachers around Liberia in classroom observations. The results of these observations were analysed in conjunction with evaluations (using the same tool) implemented prior to training of master trainers and teachers. The SCOPE evaluation has a double purpose, for evaluation of changes in teaching quality over time, and for use as a capacity building/supervisory tool within the education system. The main findings of the baseline SCOPE assessment were as follows:

Some examples of findings on a county level were that in Bong, teachers were responsible about following class schedules and utilizing provided manuals and lesson plans to guide coursework. Lofa

teachers were more likely to check to see if students understood lesson content, and were more rigorous in both lesson preparation and classroom management practices.

The results from the SCOPE pointed to a need for improvement in the following areas:

- On the topic of reading, teachers needed to raise student awareness of the sounds of letters and also needed to help students decode and recognize words
- Teachers did not often ask probing and open-ended questions to encourage critical thinking
- Marking homework and providing students with feedback were not common practices among teachers
- Closer monitoring by teachers/principals of tutoring and learner support sessions was identified as a priority area.

A summary of ratings associated with each question is detailed in the table below.

<b>SCOPE Question</b>	<b>Rating</b>
Is the teacher present in the classroom?	4.85
Does the class begin on schedule?	4.33
Does the teacher finish the lesson plan by the end of the period?	4.09
Is the teacher on schedule with regard to which lesson they should be teaching ?	4.80
Is the class finished at the proper time?	4.42
Does the teacher demonstrate mastery of the subject being taught?	4.20
Does the teacher make use of the EGRA Plus manual to teach reading?	4.02
Does the teacher make use of the Accelerated Learning curricular materials to teach core content?	4.51
When teaching reading, does the teacher make students aware of the sounds of letters?	3.90
When teaching reading-related content, does the teacher help students decode and recognize words?	3.83
When teaching reading-related content, does the teacher help students understand vocabulary?	3.83
When teaching reading-related content, does the teacher ask students to read out loud?	3.98

When teaching reading-related content, does the teacher check to see if students understand what they are reading?	4.05
Has the teacher engaged in lesson preparation and planning?	4.01
Does the teacher demonstrate effective classroom management skills?	4.08
Does the teacher strive to make learning interesting and relevant to students' lives?	4.03
Does the teacher use different instructional strategies or classroom tools to reinforce learning content?	3.68
Does the teacher ask probing and open-ended questions that encourage critical thinking?	3.65
When teaching, does the teacher assess to see if students have understood the content being delivered?	3.82
Does the teacher actively ensure the participation of all students in learning activities regardless of gender, achievement level, special needs, and other differences?	3.82
Does the teacher assign class work/homework with lessons?	3.57
Does the teacher mark or give feedback on homework?	3.68
Does the teacher conduct tutoring or learner support sessions?	3.06
Are instructional materials management managed effectively?	3.73
<b>AVERAGE OVERALL SCORE</b>	<b>4.00</b>

A need for further training of classroom observers was identified as having a possible impact on results. This may influence the overall quality of data, and affect comparability with future results. Despite this caveat, the tool has already proven incredibly useful in training activities with district Ministry staff as a supervisory tool, and with teachers as a platform of discussion for pedagogy.

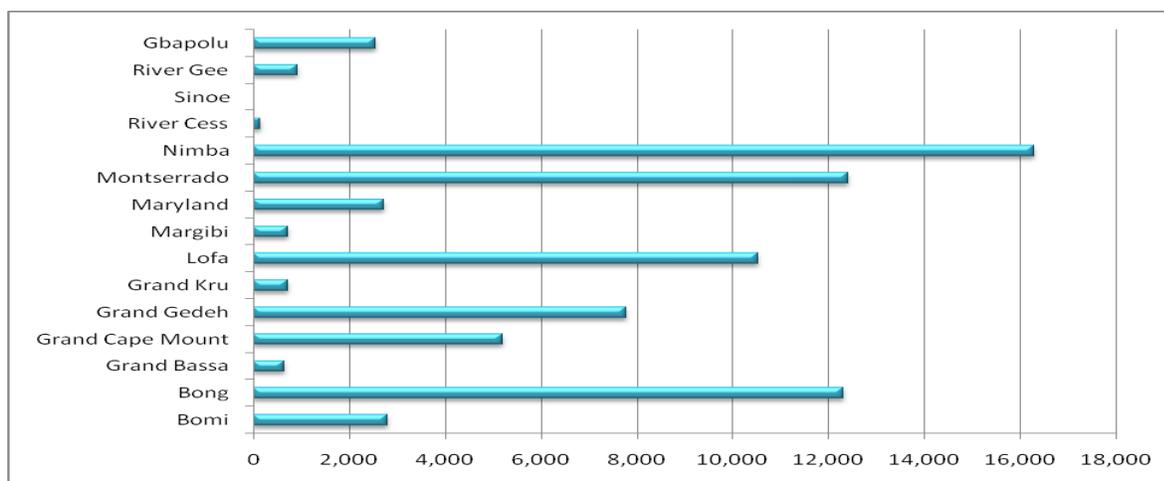
### ***Female Teacher Involvement***

Across counties, female representation in the teaching cohort is a particular challenge. Overall, there are 117 female teachers in the CESLY program, 10% of the total, with counties of particularly low representation including Maryland at 6% and Grand Gedeh at 8%. In Liberia, 22% of all primary school teachers are female (p109 ESP).

The Education Sector Plan cites several strategies for increasing gender equity among teachers at rural schools. These include, a) setting quotas at rural training institutes b) incentives for female teachers entering training programs c) targeted programs for female students in high schools to prepare and encourage them to enter the teaching profession d) potential female recruits to be given 'self-study' materials for one year in preparation for RTTI entrance exam (p111). These incentives are likely to generate results in the longer term, but will not have much early impact. The short term strategy, therefore, must be to retain those female teachers that are trained in target counties, taking their various needs into account.

**Student Characteristics**

The table below shows overall ALP enrollment in Liberia.



**ALP Student Enrollment, Data Source: MOE – 2007/08 National School Census Report**

Enrollment in the CESLY program according to verified baseline data collected in all 266 schools is 13,439.

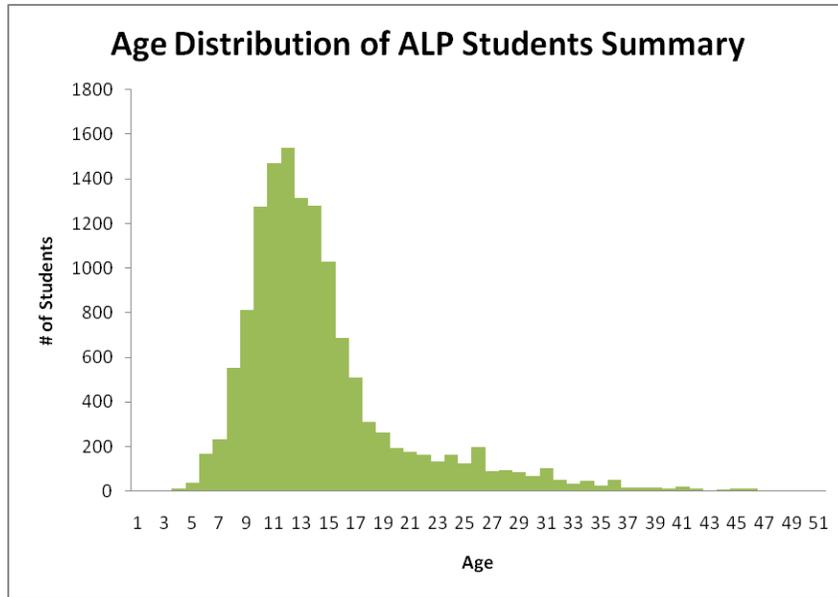
Program	ALP Regular	ALP Youth	Summary
Level II	5782	1727	<b>7509</b>
Level III	4360	1570	<b>5930</b>
Male	5743 (56%)	1323 (40%)	<b>7052 (53%)</b>
Female	4399 (44%)	1974 (60%)	<b>6357 (47%)</b>
Total	10142	3297	<b>13439</b>

The breakdown of enrollment by county is listed below:

County	Montserrado	Bong	Nimba	Lofa	Maryland	Grand Gedeh
Regular	1956	1992	1727	1781	1440	1246
Youth	571	586	717	403	492	528
Male	1147	1395	1,323	1210	1147	844
Female	1380	1183	1121	974	785	930
Total	2527	2578	2444	2184	1932	1774

Total enrollment in public primary schools 378,755 as reported in the 07/08 School Census Report with ALP public enrollment at 75,820 during the same time frame. (P67 ESP) 47% of all primary school students in Liberia are female, on par with the CESLY program. CESLY Regular programs have a lower percentage, at 44, while Youth programs boast a 60% female enrollment percentage.

The CESLY program targets students aged 10 – 35 through the ALP Regular and Youth programs. The schema below shows that most students in the CESLY program fall within the 9 – 17 age range. Compared to national primary school figures, 97% of CESLY students are over the age of 11, and 77% over the age of 15. 63% of students enrolled in primary schools in Liberia in 07 were above 11 years old. (p48 ESP) The average age of the CESLY student is 18.5, with the average for males at 18 and for females at 19. For CESLY Regular, the average age is 16.4 for the total population as well as for males and females. For the CESLY Youth program, the total average is 25, with 25 for males and 25.2 for females. It is clear that some students who are under 10 attend CESLY classes. While this is to be avoided, it must also be acknowledged that formal public schools are sometimes farther away and therefore much less convenient for local students of any age. Additionally parents sometimes perceive the compressed curriculum as a better investment of time, given the economic role children often play in the family. When we examine such factors as pupil to student ratios, it is clear that CESLY teachers have a lighter classroom burden than the average formal primary school educator.

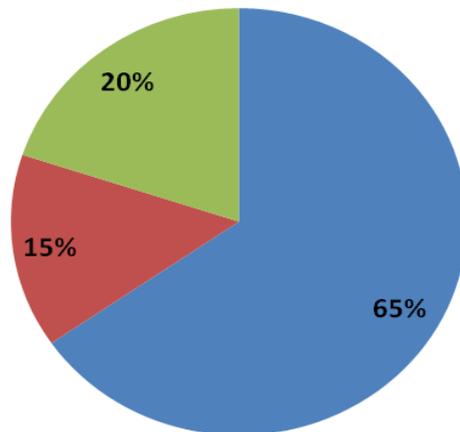


### Student Performance

Enrollment is an important element of the strategy for long term improvement in education outcomes. However, retention and completion of coursework poses a considerable challenge and is also supremely important. The diagram below shows the completion rates for the overall ALP program as captured in last year's program data.

### ALP Completion Summary

■ Total Promoted   
 ■ Total Retained/Failed   
 ■ Total Dropped Out



ALP Regular students had a higher promotion rate overall, at 66%, with 15% retained and 19% dropping out. The ALP Youth program reported a 27% drop out rate with 12% of students retained for a 61% promotion rate. The table below provides a breakdown by program and gender. National primary school completion rates are 62% as reported in the 07/08 School Census, with repeaters comprising 7% of the student population. (p 26 ESP)

<b>Total Promoted</b>		
Male	6189	57%
Female	4659	43%
<b>ALP Regular</b>	<b>10848</b>	
<b>Total Retained/Failed</b>		
Male	1241	43%
Female	1639	57%
<b>ALP Youth</b>	<b>2880</b>	
<b>Total Retained/Failed</b>		
Male	1253	50%
Female	1232	50%
<b>ALP Regular</b>	<b>2485</b>	
Male	245	42%
Female	336	58%
<b>ALP Youth</b>	<b>581</b>	
<b>Total Dropped Out</b>		
Male	1635	51%
Female	1541	49%
<b>ALP Regular</b>	<b>3176</b>	
Male	517	41%
Female	754	59%
<b>ALP Youth</b>	<b>1271</b>	

In Focus Group Discussions with teachers, students, and community members, the main drivers of student retention and subsequent completion were cited as:

- Family Support – young people needs encouragement, care and support from their parents/guardians, especially when it comes to acquiring education. A young student puts it this way, ***“right now the country hard and our parents ain’t get money to give to us to buy all the things we need to keep us in school so we get to look for it and it not easy.”***
- School Feeding Program – ***“an empty bag can’t stand.”*** If students do not have the means of providing food for themselves, they rather get engaged with activities that will find them food or money.
- Free Education – providing the basic educational materials and supplies helps both the teachers and the students alike. They are motivated to teach and students are enthusiastic to make use of these provisions
- Active PTA – ***“the PTA need to be active to help the teachers too, because the same parent in the community that the same teacher, so if we put our hand in this PTA business, the children will know say we serious about their education”***- quote from participant.

As mentioned in the Education Sector Plan, “Poor quality of education also contributes to inefficiency. If an individual daily attends a school where he/she has to sit on a stone, has no textbooks or writing material and a frequently absent, poor quality teacher or no teacher he/she is not motivated to attend, especially if already a young adult, and soon drops out. A number of respondents to the 2007 CWIQ survey indicated that the reason for a previously enrolled student not being in school was because they found school to be “useless/uninteresting.”P51 ESP

Communities attributed drop out in focus group discussions to the following causes:

- Lack of Parental Support – most parents, if not aged, are not in a position to cater to the economic needs of their children. As a result, young people are mostly left to fend for themselves. It then becomes the child’s choice to go to school or not. The long term benefits of schooling may not be as apparent to younger people.
- Peers Pressure – most young people are motivated by friends. There are tendencies in young people that make them quit schooling to follow after a friend whom they view as “open” to either business or material gains. For instance, a young person may tell a friend who is putting time into school and say, ***“my man, look at me, my one week hustle on the mine field finish putting my woman on her own market table.”***
- Having no Interest – ***“students got so many things to do for themselves at home like setting up their petty market tables or taking care of children before they can even think about coming to school.”*** Most teachers acknowledge that during most of the class time, young peoples’ minds are outside of the school completely.

Females also dealt with issues specific to their gender when faced with the challenge of completing their primary education:

- Gender issues – community members saw females as being vulnerable to male teachers. It was reported that sexual exploitation within the classroom was common and even expected, as an exchange for grades or promotion.
- Pregnancy – For females, this was cited as a main deterrent from school. Early marriages and the headache of being responsible for children while also attempting to perform well in school led many young women to dropout, without thoughts of returning.

Additional considerations included family pressure, a lack of financial support, lack of encouragement from teachers, and domestic responsibilities.

### **Curriculum Review**

Through RTI, experts in reading and math were engaged to provide review and input on the currently used accelerated learning curriculum.

#### ***Language Arts***

In terms of Language Arts, the review found that less than 15% of the lessons (total of 215 lessons) within the existing ALP curriculum address reading skills directly. The scope and sequence of skills is confusing with some simpler tasks occurring later in the program than easier tasks. For example, a lesson on Rhyming Words is Lesson 92, while earlier lessons address such skills as writing sentences, identifying blends and digraph.

The new NFE program will aim to develop language arts skills, including the following suggested strands:

1. Reading
2. Language arts including written expression
3. Life skills including telling time, public speaking, using a calendar, etc.

Current lessons are being rewritten to reflect an appropriate scope and sequence, with sequencing for reading skills aligned on a weekly basis.

The current ALP reading curriculum (Volumes II and III) includes procedures for instruction, but these do not include any standard instructional routines. The CESLY curriculum team has since selected a few research-based instructional models and use these models of instruction for all new skill instruction. Regular review of learned skills is also critically important and should be systematically incorporated into lesson routines in reading. Each day, there needs to be review of what has been learned. The new curriculum will provide explicit information to teachers about which skills to review and how to conduct the review.

Early reading skills will be taught early in the new NFE program. Phonemic awareness should be introduced early on, with teachers moving as soon as possible to the alphabetic principle

(letter/sounds). Teachers should not address environmental sounds or any sounds other than speech sounds. Because older students need accelerated instruction, phonemic awareness skills will likely not need to be extended beyond the early weeks of the program, while decoding skills will need to occur for some length of time.

Language Arts should be identified as a separate strand of instruction that focuses on writing instruction and grammar. While students should be writing early (provided they have materials to write with/on), early reading skill acquisition is critical to writing success. One set of strategies with a strong research base is “Self-regulated Strategy Development” model or SRSD. Curriculum-based measures that can be employed to measure progress in written expression. There are also spelling curriculum-based measures.

#### *Overall Comments on Levels II and III of ALP Language Arts Manual*

There is not a systematic scope and sequence of skills in these manuals. In Level III, one would expect that the emphasis would be on advanced word study, fluency, writing, vocabulary, and comprehension skills. Levels I and II should have provided the foundation in phonological/phonemic awareness and phonics skills. However, one sees in all levels a combination of beginning and advanced skill instruction in reading and language arts. Many of the lessons in these manuals address important skills, but need to be reorganized within a framework of a developmental scope and sequence.

#### **Mathematics**

In terms of Mathematics, the following recommendations were offered as improvement on the current curriculum:

#### *System Recommendations*

- 1) Attainment of mathematical understanding is strongly influenced by time-on-task. Factors involved are: (a) number of days in school; (b) number of hours in school; (c) amount of time allotted to mathematical instruction; and (d) smaller class size. It would be beneficial to take these factors into consideration with regard to systematic reform.
- 2) Teachers are the ultimate key to educational change. If change is to be expected in the classroom, change must be instituted at the teacher education level.
- 3) Particular attention should be paid to the difference between desired curriculum, implemented curriculum and achieved curriculum.

#### *Manual Recommendations*

- 1) Any updated manuals should be proofread with diligence. There are numerous textual errors in the 1999 manuals.
- 2) Related to the above, representations and graphics must be carefully rendered in the manuals.

- 3) Formative assessment is vitally important in measuring mathematical understanding. The current manuals provide a means to this formative assessment through their *Evaluation* sections at the end of each lesson.
- 4) Mathematical knowledge is built upon prior understanding. Assessment of incoming students is important in ascertaining their knowledge base. All of this suggests that a ratio of teacher to student that allows for teachers to gain such knowledge of individual students' current abilities should be encouraged and that tools for such assessment should be available.
- 5) Review of topics appears to be haphazard in the manuals. A comprehensive program of review based on formative assessment (assessing current knowledge with the purpose of guiding future instruction) is essential.

#### *Lesson Recommendations*

- 1) Lessons generally consist of a specified number of minutes (usually 40 minutes), regardless of the content. It is not uncommon to find a lesson that should take much less time.
- 2) It is not uncommon to find a lesson that would require much more than the allotted time.
- 3) Much of the seat work in Level I and II is individual. Helping teachers develop ways to support fruitful group work would be a beneficial addition to the manuals and teacher education programs.
- 4) Much of the chalkboard work in all levels is didactic – the teacher presents material and then asks students yes/no and right/wrong questions. Encouraging teachers to allow the students to solve the problems as a group and explore right and wrong answers, as well as multiple strategies, will help deepen the students' understanding.
- 5) Mathematical ideas are interconnected. Not only are they interrelated, but their interrelatedness is one of the fascinating aspects of mathematics and the understanding of that relatedness supports deep understanding of the concepts involved. All three manuals present the vast majority of the material as unique and separate entities and rarely show the connections. Structuring the lessons so that this connectedness is explicit would be highly beneficial and support understanding.
- 6) Instruction should always take into account the long-term consequences of strategies and explanations. An example of where this can go awry is in the description of multiplication as repeated addition (Level II, Lesson 54).
- 7) Two aspects that should be emphasized in the lessons are time-on-task related to homework and the use of mathematical language to articulate ideas. These are essential for deep mathematical understanding and an understanding of the utility of mathematics.

8) Representations are vitally important in illustrating mathematical concepts. A variety of representations is usually more beneficial than one.

#### *Curricular Scope and Sequence Recommendations*

Many of the lessons are sequentially appropriate. However, because both the scope and sequence could be improved upon, recommendations for improvement have been made in the areas of (a) Geometry (b) Formal set notation and language (c) counting and numeral reading and writing (d) Data analysis (e) A brief exploration of number bases (f) Multiplication, division, equivalent fractions, greatest common factors, (g) Story problems (h) Telling time (i) Even and odd number instruction

The use of the National Council of Teachers of Mathematics (NCTM) *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics* is recommended as a coherent and comprehensive plan for curriculum development.

The results of this review are being used by CESLY technical staff engaged in developing a new non formal education curriculum framework.

#### **EDC Systems**

The frequency and timeliness of teacher payments in Liberia has had an impact on teacher morale over the years. According to the draft Education Sector Plan, “Teachers are currently paid by check, and there is no system of electronic transfer. Generally, there is just one pay point in each county to which teachers must travel to collect their pay each month. For the remote schools the loss of time for salary collection can be significant. In the extreme cases, it can take up to a week to travel to collect pay, and many rural schools close for two to three days for salary collection.” (p107) To respond to these challenges, Creative Associates designed a system that improved upon this practice for payment of ALP teachers, and CESLY has continued to use the same. Rather than having teachers travel to receive their pay, the amount is brought in cash to each schools from Learning Resource Centers where it is signed for after the identity of each teacher is verified. This system is adhered to carefully, with disbursements carried out in a timely manner.

Learning Resource Centers can be described as the main point of contact for teachers and communities for training and sensitization efforts, as well as for library and IT services. Indeed, the Learning Resource Center is often the only reliable location for public internet access. The sustainability of these entities is therefore a priority for the long term education and development in Liberia. To this end, the CESLY management evaluated the structure of the LRCs at the start of the program and made key improvements to the organizational structure. The prior management structure of the LRC was horizontal, with no position having responsibility and authority for overall operations. To address this gap, the position of Team Leader was created. A second change was made in response to the sensitization needs of the program around the culture of reading combined with capacity building goals for PTAs and school administration. The Community Participation Officer in each LRC has experience in conducting mobilization and sensitization activities, and will be a key player for ensuring the

sustainability of operations into the long term. With work readiness and career counseling as components of an effective Non Formal Education curriculum, the YMCA staff includes positions focused on these outcomes. The other positions remain as before: M&E Officer for capturing/monitoring results of the CESLY program and working closely with district administration representatives in the interpretation and use of data for programming decisions, the Training Officer as the responsible party for training and outreach to the CESLY teaching cohort, and the Admin/Finance Officer for the financial and logistical concerns of each field office. The capacity of the LRC is also being boosted through provision of equipment and materials for operational and programming purposes, though procurement delays have hampered these developments.

### **Conclusion**

The elements introduced in the above report will inform the CESLY technical team and track their progress toward improved educational outcomes for Liberian youth. Additional data not included in this baseline will also play an important role in what will clearly be a formative process. It is understood that, only through a continual to understand the changing Liberian context and the emerging needs of the government and the youth it aims to serve can the CESLY program be effective.

### **References**

Education Sector Plan, 2009

Liberia Poverty Reduction Strategy, 2008

Ministry of Education 2007/8 School Census Report