



# Does daily reading make a difference?

## Results of a study of Sustained Silent Reading (SSR) in Lao primary schools, 2013-2014

A detailed, 30-page report of this study, telling more about each test, testing and scoring methods, and with some of our more tentative observations and conclusions, is also available. On our website menu, please click “What We Do” then scroll down to “Evaluations.”

**Big Brother Mouse :: Laos :: June 2014**

[www.BigBrotherMouse.com](http://www.BigBrotherMouse.com)



# Sustained Silent Reading in Laos

**In Sept. 2013, Big Brother Mouse began a new program in Laos.**

We hold a half-day book party at a rural primary school, as we've been doing for nearly 7 years. We get kids excited about books and reading, and let every child choose a book of their own, nearly always the first book they ever owned.

Then, we do something new: We give a set of books to each classroom, so they can have a daily reading period. This is the first time we've had enough books to promote daily reading, a technique often called "Sustained Silent Reading" (SSR).

**We did something else new in 2013:** We began a controlled, randomized evaluation to compare reading improvement in schools that got this program, with schools that did not.

**And we did something unusual:** We announced that we were doing this study, and provided details of how we were doing it. (That information is still available, as part of our longer report.; see page 1 to get it.) Most studies don't get announced until after results are in. If the results aren't what was wanted, you aren't likely to hear them.

## Sustained Silent Reading

Sustained Silent Reading (SSR) is the most common name for the practice of having students read every day. SSR is often offered, and studied, in developed countries; we have not found any examples from less-developed countries.

The work of Stephen D. Krashen, a retired professor at the University of So. California and a strong advocate of SSR, provided guidance as we made plans.

SSR typically includes certain key characteristics:

- It takes place at the same time every day, usually for about 15 minutes.
- Students choose for themselves what to read. Many schools let students read anything at all, including comic books.
- The goal is that they read for enjoyment, build up reading skills, and acquire a habit of daily reading.
- Teachers are encouraged to sit at their desk and read something they themselves enjoy, setting an example.



16 Sept. 2014: This was the very first day we introduced SSR anywhere in Laos.

- Students are not tested on what they read, nor are they required to write or report about it.

Prof. Krashen's useful book *Free Voluntary Reading* summarizes many studies of SSR. He found:

- Overall, SSR is successful: 51 of 54 studies found that SSR students did as well or better than comparison students.
- Long-term programs were most successful: In 8 of 10 such studies, the SSR students did better; the other 2 studies found no difference.
- It is most effective for students who have some reading skills but who are not strong readers.

## Overview of the study

In September and October 2013, we sent a team of 7 people into a total of 40 schools in 3 districts in 3 provinces, to test reading levels. These were in villages that are broadly representative of the rural villages that make up most of Laos, although they have a higher average minority population.

Minority levels are significant because these students speak an ethnic language at home. School is taught entirely in Lao, but ethnic minority students usually enter school unable to speak or understand Lao.

This was a controlled, randomized evaluation. **Controlled** means there was a control group of schools where we tested reading levels but did not leave any books or start the SSR program, to provide a comparison with those that did get the program. **Randomized** means we randomly chose which got SSR and which did not.

## Our first observations

In the past we were not directly involved in everyday school activities. We let students choose what to read; we never tried to test reading levels of each grade. Teachers often told us: “Students in second grade can read a word, but not a sentence.”

From our baseline tests in September and October, we got some valuable new insights:

Reading levels in these 40 schools were lower than that. In the 40 schools we tested, only 19% of students entering 3rd grade could read a single word.

These numbers vary greatly between schools. In 5 schools, at least 50% of third-graders could read a word. In 17 schools, less than 10% could do so.

Language is an issue, but less than we might have expected. Some all-minority schools had very good scores.

## Three groups of schools

We divided schools into three groups:

**Group A:** We held a book party, and started the reading program, then had a workshop for teachers in January to provide more books, encouragement, and get feedback.

**Group B:** We held the book party and started the reading program, but had no further contact.

**Group C:** We did not give these schools any books yet. After the baseline testing, we had no further contact.

# Testing and measurement techniques

We used 8 tests, which broadly fall into 3 categories. Details of these tests and how we administered them are in the full report.

**Oral test:** Identify a number, letter, or word. For grades 1 and 2, we hold up a large card with a number, letter, or common one-syllable word printed on it. We count how many students can identify the character or read the word.

**Multiple choice:** We use several types of multiple-choice test to measure reading ability, vocabulary, and comprehension.

**Reading aloud:** Students stand in turn, and read aloud for one minute. The class score represents how many lines the average student can read in one minute. If they can't read, we don't make them stand there for a minute, but the score is calculated as if that minute were used.

## Implementation issues

In January we returned to the 3 districts. We held day-long workshops for teachers in “Group A” schools that were getting extra attention.

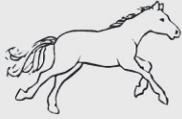


Identify a letter. Students standing behind our team member have already identified a letter. She'll keep going until those left cannot do so.

**ຮູບ**

ຈົ່ງໝາຍຕົກເອົາຂໍ້ທີ່ຖືກຕ້ອງຕາມຮູບພາບ

1.



- ມ້າ
- ໝູ
- ສາມ
- ຕາ

2.



- ປູ
- ເຫັດ
- ໃບໄມ້
- ເຮືອ

3.



- ຊື່
- ຈຸດ
- ເມຍ
- ໂມງ

4.



- ກ້ອນ
- ຮ່າງກາຍ
- ກະຕ່າຍ
- ລິງ

5.



**Example of Picture-Vocabulary test**

Percentages show:

1. How many students chose the right answer out of all those who saw the question (including those who left it blank);

2: How many got it right out of those who checked exactly one answer. By chance, 25% of this group should have gotten it right.

**1. (Horse picture)**

- \_Horse
- \_Pig
- \_Three
- \_Eye

[56%, 65%. Scores were even higher for most other very simple words, such as fish, house, and chicken. Some children may not have seen a horse; they've all seen chickens.]

**2. (Leaf picture)**

- \_Crab
- \_Mushroom
- \_Leaf
- \_Boat

[35%, 43%. This is a word they should all know, but the Lao word for leaf has two syllables. From the very quick analysis we've done so far, that seems to be why it scored lower.]

**3. (Clock picture)**

- \_Name
- \_Point
- \_Wife
- \_Clock

[26%; 32%. We had wondered if all children would recognize this object. These low scores suggest that some do not.]

**4. (Rabbit picture)**

- \_Block
- \_Body
- \_Rabbit
- \_Monkey

[33%; 39%. This is also a two-syllable word, with a slightly complex letter pattern.]

At the workshop, we found that teachers loved having the books. Children sometimes came to school early to read, or would read during play time. But we soon realized that many teachers weren't doing SSR as a part of the daily class routine.

They grew up in a world in which "education" meant a teacher and a blackboard. They knew reading skills were weak, but that was all the more reason not to give up true teaching time - a teacher and a blackboard - for reading, which was seen as recreation.

We had expected to see this attitude occasionally, but not on such a widespread basis. District education officials were at the workshop and helped us emphasize that teachers should provide reading time, but we had lost half of the school year. We had chosen scattered schools, a 4 to 6 hour trip for our office, and monitoring them more closely wasn't an option, so we have only a broad sense of how good the implementation actually was. We know that it was generally slow and haphazard, and that it was better in the second semester, and better in Group A than in Group B. For most schools we have what we believe is a reliable report that they did institute the SSR program in January, if not sooner; in some cases, we aren't sure.

## **Follow-up tests**

We returned to these 40 schools for follow-up testing, in late April and May, 2014.

## **Results**

Briefly: For grades 3 to 5, reading abilities in Group A increased 26% more than in Group C. Group B was in between.

In grades 1 and 2, the program made no measurable difference. Nor did we expect it to after we saw reading scores from these schools. Only 4% of the children entering second grade could even read a simple word. That's why, in January, we began creating our new "I Can Read!" series: So the teachers will get some help as students learn to read.

## **Our comments:**

First, we should all understand that "26%" is an approximate measure of something that's difficult to quantify. Even with very accurate measurements, which we don't claim to have achieved, quantifying things like "reading ability" and "improvement" is different from counting beans in a jar. Different approaches will yield different numbers.

But it is an increase. We feel our study shows that SSR in Laos is a solid step in the right direction, for students with at least a minimal reading ability. At an average cost of about \$4 per student, it would be hard to find a better educational intervention for countries like ours. And our revised program will address those who cannot read yet.

We also think that 26% (or 20%, or 40%) is not enough. It's far less than what is

Lowest, Highest Range	0 97	14 86	5 57	12 69	0 70		
N	Oral Words	Picture Vocab	Information	Aesop	Read Aloud		
<b>A 14</b>	Raw data	17.8 48.3	43.7 61.4	21.5 35.3	42.4 54.1	21.7 42.1	
	Increase	30.5	17.7	13.8	11.7	20.4	94.0
	Adjusted	18.3 49.8	41.2 65.8	31.8 58.3	53.3 73.8	31.0 60.1	
	Increase	<b>31.4</b>	<b>24.6</b>	<b>26.5</b>	<b>20.6</b>	<b>29.1</b>	<b>132.1</b>
<b>B 13</b>	Raw data	17.4 48.5	43.2 57.1	25.1 37.0	42.8 50.7	18.0 40.0	
	Increase	31.1	13.9	11.9	7.8	22.0	86.8
	Adjusted	17.9 50.0	40.5 59.8	38.6 61.5	54.1 67.9	25.7 57.1	
	Increase	<b>32.0</b>	<b>19.3</b>	<b>22.9</b>	<b>13.8</b>	<b>31.4</b>	<b>119.5</b>
<b>C 13</b>	Raw data	17.0 42.8	39.9 55.5	22.9 31.3	37.0 48.9	22.5 36.2	
	Increase	25.8	15.6	8.4	11.9	13.6	75.3
	Adjusted	17.5 44.1	36.0 57.6	34.5 50.6	43.9 64.8	32.2 51.6	
	Increase	<b>26.6</b>	<b>21.6</b>	<b>16.1</b>	<b>20.9</b>	<b>19.5</b>	<b>104.7</b>

### Grades 3, 4, and 5

## TABLE OF RESULTS

The three rows represent the three groups we created: in Group A (14 schools) we left books for a reading program and gave extra support; Group B (13 schools) got books but no extra support; Group C (13 schools) got no books at all.

**Tests:** Tests are fully described in the full report. In the paired numbers for each test, the first number is the baseline score, in September-October 2013. The second number is the follow-up, in April-May 2014.

**Raw data:** For each group (A, B, C), the top line is the raw scores. For question #1, this number is the percentage of students who could read a common one-syllable word. For the multiple-choice tests (#2 through 5) these scores are the percentage of questions that were answered correctly. For question #5, it was how many short lines of a story were read aloud by 10 students, each of whom read for 1 minute, if they were able.

The single numbers on the next line show how much the raw scores increased. The number at the end of the line is the sum of these increases.

**Adjusted scores:** Using the raw data is simple and clear, but it gives too much weight to some tests. For example, “Oral Words” scores increased by 25 to 30 points, but “Information” scores never increased by more than 14 points. A one-point increase in an “Information” score represents more improvement than a 1-point increase in “Oral Words”. So we adjusted these numbers for a more useful comparison.

The gray numbers at the very top show the very lowest and highest school-wide average from all 40 schools in this test. The next line shows the “range”, defined as the difference between these two. Then we adjusted the raw data to show where they stood within this range, using the formula:

$$([\text{RawScore}] - [\text{Minimum}] * (100 / [\text{Range}]])$$

The third line for each group shows these adjusted scores. The increase in adjusted scores is on the fourth line, and the total increase in the last column.

Lowest, Highest Range		19 100	0 96	0 96				
		81	96	96				
N		39	38	39				
		Numbers	Consonants	Oral Words	Total			
<b>A 14</b>	Raw data	59.2	88.9	46.9	75.5	2.8	26.1	
	Increase		29.7		28.6		23.3	81.6
	Adjusted	49.6	86.3	48.8	78.6	2.9	27.2	
	Increase		<b>36.7</b>		<b>29.8</b>		<b>24.3</b>	<b>90.8</b>
<b>B 13</b>	Raw data	55.5	85.9	46.8	76.6	4.9	25.5	
	Increase		30.4		29.7		20.6	80.7
	Adjusted	45.1	82.6	48.8	79.8	5.1	26.6	
	Increase		<b>37.6</b>		<b>31.0</b>		<b>21.4</b>	<b>90.0</b>
<b>C 13</b>	Raw data	54.9	85.9	30.5	65.3	3.2	26.8	
	Increase		31.0		34.8		23.7	89.5
	Adjusted	44.3	82.6	31.8	68.1	3.3	28.0	
	Increase		<b>38.3</b>		<b>36.3</b>		<b>24.7</b>	<b>99.2</b>

### Grades 1 and 2

We originally expected to test grades 1 and 2 for reading ability, but our trial tests showed there was no point in doing so. Instead, for grade 1 we measured how many children could identify numbers and consonants. In grade 2 we tested consonants, and also measured how many could read a one-syllable word.

It seems clear that the program had no impact on reading levels in these grades. The third test, which was the only one that actually measured reading, was essentially flat. The control group got the largest total increase largely because by chance, at the beginning of the year far fewer students in group C knew the consonants than in groups A and B. They had a bigger increase, though they still ended up behind groups A and B.

Where reading levels are this low, we conclude that there is no benefit to introducing the reading program. We expect that our new “I Can Read” series will help these students, and we’ll continue these evaluations, to see if it does.



Traditionally, rural Lao children learn the alphabet from a teacher and a blackboard. It can be difficult to grasp just how rare books have been here but this picture makes the point: The girl in the middle is holding her book upside down, and doesn't seem to realize it yet.

needed, and less than what we think is possible.

**(A note on the “\$4 per student” figure:** It costs us \$350-370 to hold the book party and set up this program in a typical school (average 100-110 students). However, we also get sponsorships for the books that we print, which helps us keep down book prices. Without those sponsorships, the cost would be about \$440 per school. It gets further complicated because we could reduce costs by about 25% if we held a workshop for all the teachers in a district, then gave them books to take back. However, the book party gets students excited about books and creates “consumer demand”; we would want to test, to see how much difference that makes, before changing our system.)

## What's next

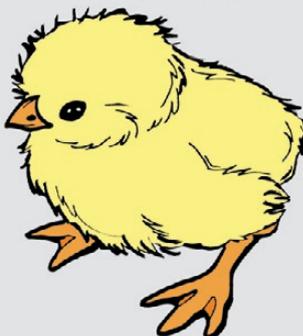
We've already made some improvements in the SSR program, and we're making more, based on what we've learned. Most notably:

- The best news is that with these numbers, we can show teachers that reading is not a “waste” of school time. Long-established habits and beliefs won't disappear immediately, but it should gradually become easier to convince teachers to give up the blackboard for 15 to 30 minutes, or more, each day.
- We'll focus more on implementation. We plan to only offer the program in districts where the education office says teachers should do it, and only in schools where the teachers agree to do it.
- We'll have a new series, the “I Can Read!” books, which offer a new way for students

to learn reading skills, letter by letter, with opportunities to enjoy reading right from the start. More than half the students we tested could not read a sentence, so they got little or no benefit from SSR.

- Home language obviously affects reading ability in the Lao language. For less obvious reasons, it also seems to affect the impact of SSR. Right now we ask how many students speak Lao at home. We may add a “Lao language” test when we evaluate. Knowing how many children can understand Lao, even if they don’t speak it at home, will help us better understand this factor.
- We will continue testing. With these results, we think we can get a district to allow a test in which more time is allowed for reading, perhaps as much as 30 minutes in the morning during reading lessons, and 30 minutes of free reading in the afternoon.
- We will revisit schools more often. We expect to go to fewer schools in the coming year than in the past year, and spend more time monitoring and adjusting the program to see what works best.

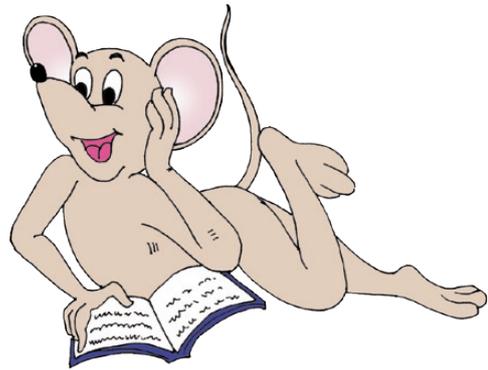
We’ll continue to report on what we learn. We feel confident that we’ll see bigger improvements next year. If this past year is any guide, we’ll also discover things that we didn’t expect and weren’t looking for, and will be able to further improve the program.

 <p>ລູກໄກ່ ມີ ຂົນ ສີ ເຫລືອງ</p>	 <p>ກົບ ນຸ່ງ ເຄື່ອງ ງາມ ກຶ້ງ ເຫັດ</p>
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The evaluation helped in unexpected ways: Lao has “complex” vowels, in which 2 or 3 of simple vowels combine to make a new sound.

Our tests revealed that these are a big stumbling block for children as they learn to read. So we made a last-minute change to our “I Can Read!” series. The vowel appears in red after it’s introduced, so the student can see that three characters are working together.

**Thank you!**



We're not done yet, but we feel this is an important milestone. We cannot thank all the supporters who have made it possible, but we'd like to highlight a few who not only provided significant and repeated financial support, but also understand what we're doing, and why it's important:

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Manoj Paul

Cubit Family

CLSA Chairman's Trust

Peggy Horn

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