# WORKING PAPERS: EXPANDED BASIC EDUCATION PROGRAM & EQUIP 1

# **School Readiness Program Evaluation:**

# Phase II

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You are worried about seeing him spend his early years in doing nothing. What! Is it nothing to be happy?

Nothing to skip, play, and run around all day long?

Never in his life will he be so busy again.

~ Jean-Jacques Rousseau, Emile, 1762 ~

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#### **EXECUTIVE SUMMARY**

This research report was commissioned by donors to assess the effectiveness of a program designed to promote school readiness skills among Grade 1 children. This intervention, known as the School Readiness Program (SRP), is seated in the broader context of the Ministry's Child Friendly School Initiative. Evaluators in this assessment concerned themselves primarily with reviewing changes in proficiencies in teaching among newly trained teachers. This assessment is the second in a series of evaluations that began last year when SRP was first piloted. The current report will be complemented by another research study that examines impact on children's terminal learning at the end of the academic year.

SRP is occurring in a context of skyrocketing repetition rates at Grade 1, hence the rationale for the program. In this respect, government reports that national repetition rates have increased from 17% to nearly 24% in the last 4 years. Because of the concerns that this has raised in the education sector, MoEYS has cooperated with donors to expand SRP rapidly since last year, leading to about 30% national coverage of all Grade 1 classes. This includes expansion in both donor-supported provinces and those that have no means of external support. This evaluation, however, has focused primarily on impacts in 4 donor-supported provinces only (Kampong Thom, Prey Veng, Kampong Cham, and Kratie).

The research approach used in this assessment relied on both quantitative and qualitative data collection methodologies. Quantitative data collection was generated by a standardized classroom observation tool developed collaboratively with MoEYS. This tool assessed 13 discrete proficiencies in teaching across three broad parametric areas including (i) Classroom Organization; (ii) Teaching & Learning; and (iii) Development of Key Skills. Impacts were determined based on change between a pre- and post-observation of classroom teaching. Qualitative data was compiled based on nine case studies that occurred simultaneously with quantitative data collection activities. The standards of assessment were slightly different from the proficiency areas mentioned above and included (i) Relevance and engaging nature of lessons; (ii) Opportunities for active choices and decision-making; (iii) Availability of creative and exploratory activities that stimulate children's interest; (iv) Encouragement of inquiry questions; and (v) Facilitation of collaborative work. The sample of teachers studied consisted of 48 individuals selected in a statistically randomized fashion. The sample comprised about 15% of the population of newly participating teachers in the four provinces identified above.

Research findings based on quantitative data collection activities indicated a high degree of impact over a majority of the 13 proficiency areas studied. As in last year's assessment, the overall trend in teacher proficiency was to increase between the first and second observations. The range within which this improvement occurred, however, was wide with score increments for some parameters of as little as 7% to as much as 33% from the pre-observation score. Improvement was statistically significant for all parameters except one where the threshold for significance was set at a very high level. The overall mean difference between the pre- and post-observation score across all parameters was +16%. Although this actually exceeded the mean difference registered in the pilot year, the range within which scores moved from lower to higher was much lower down the scale. That is, baseline scores for all parameters in absolute terms started at 50% in the current year while these were 63% for the pilot year. This outcome may have reflected the fact that fewer teachers with previous Child Friendly School training experience were members of the current research population. In terms of absolute performance scores, teachers registered the most improvement in performance parameters measuring Classroom Organization and the least improvement for Development of Key Skills. Performance scores for Teaching & Learning Parameters were somewhere in the middle. Of some concern in this respect was the average score for Pupil Engagement, which registered the lowest average score of any of the 13 parameters studied. To some extent, teachers were hampered in their ability to do well in this area by unrestricted availability of foodstuffs (e.g., candy and gum) on school grounds that promoted hyperactive and fidgety behavior among children.

With respect to teacher performance across each of the four provinces studied, three registered statistically significant improvements in performance. The one exception in this regard was Kratie Province where the registered change was not statistically significant. Researchers hypothesized that this outcome may have been due to the fact that Kratie had had no previous experience of Child Friendly School activities whereas the other three provinces have had the benefit of significant investment in this area over the last several years. Given the affinity in philosophy between the School Readiness Program and Child Friendly School activities, this could have been a key factor that depressed performance in this province.

Other treatment of quantitative data included a review of the increments in individual teachers' average performance scores between pre- and post-observations as well as an analysis of 'effect sizes'. With respect to the former, only about 10% of those observed demonstrated a post-observation average performance score that indicated marginal change, no change, or decline from the pre-observation score. However, this outcome was tempered by the observation that this was true for about a third of the teachers evaluated for the broad parametric area of Development of Key Skills. Effect size analyses indicated major impacts for proficiencies in Classroom Organization and Teaching & Learning but more moderate impacts for Development of Key Skills.

Qualitative data analyses concurred with research findings derived from quantitative data that teachers had shown the most progress in the area of Classroom Organization but that Development of Key Skills among children was lagging behind. However, other research findings springing from qualitative research methods diverged somewhat from the more sanguine assessments suggested by quantitative data collection in the area of Teaching & Learning. In this respect, researchers found that teachers preferred to focus on the acquisition of basic skills in literacy and numeracy where right/wrong questions and uni-dimensional task work tended to predominate. This limited the scope for children to engage in activities that emphasized inquiry or task work where more than one possible 'correct' answer was possible. In addition, qualitative research method researchers tended to conclude that although teachers had made great progress in increasing the amount of overall child-centered activity in the classroom (as indicated by the quantitative data), much of this activity was teacher directed. There were few opportunities for children to engage in task work where the outcomes were not already predetermined or where children, as opposed to the teacher, were making decisions about the direction of an activity. Finally, researchers found that although teachers had accepted and acted upon the need to boost the number and kind of activities that children did during class, they had not fully internalized why this was necessary other than the fact that doing so kept children engaged in the lesson. That is, they had not fully realized that learning is already implicit in such activities and that their purpose is not simply to keep children happy until they can get through the 'real' learning tasks. This often affected their ability to make what they considered to be real learning tasks stimulating and contextually meaningful (e.g., avoiding the use of nonsense syllables to teach reading skills).

Points of divergence between quantitative and qualitative research findings suggested the need for a two-tiered assessment of the School Readiness Program. At a very basic level where expectations are focused on the development of a pleasant learning environment, where children are leaning the 'basics' with respect to literacy and numeracy, and where teachers are preparing lesson plans and using learning aids with children, the program appears to be going very well. On a more 'maximalist' level where expectations are more focused on critical and creative thinking, student inquiry, opportunities for self-directed behavior, and the development of meaningful contextual learning, there is room for improvement in terms of what teachers are actually doing in the classroom. In a larger

sense, the need for a two-level assessment highlights a growing tension in the CFS framework to reconcile earlier themes of developing program models that promote higher-order thinking skills with nation-wide concerns to address the failure of many children to achieve basic literacy and numeracy skills, particularly in Grade 1. Thus, to some extent, the School Readiness Program can be forgiven for striving to achieve a more minimalist standard that focuses on the 'basics' in an environment where student repetition rates are sky-rocketing and children reach the end of Grade 1 with little or no ability to do basic arithmetic, read, or write. Notwithstanding these concerns, the above discussion does highlight the need to consider efforts to bring the School Readiness Program to the next level, particularly for more experienced program teachers.

Based on the above research findings, the assessment study concluded with the following recommendations:

<u>Recommendation 1</u>: Try to bring the School Readiness Program to the next level by organizing supplementary capacity-building activities for current SRP teachers with one year of experience or more. A primary purpose of this capacity-building should be to help teachers bring higher order thinking skills into the School Readiness Program.

Recommendation 2: Maintain a basic course for new SRP teachers that continues to focus on topics currently taught but with some tweaking in order to promote some of the capacity-building areas relating to promoting higher order thinking skills though on a more basic level.

<u>Recommendation 3</u>: Review school-based technical support systems to ensure that there is mentoring of new SRP teachers by more experienced ones.

Recommendation 4: Institute and enforce guidelines that try to control the foodstuffs that children can buy when on school grounds.

<u>Recommendation 5</u>: Shift the focus of SRP assessments of teacher proficiencies towards greater emphasis of in-depth case studies and reduce reliance on quantitative data collection methods as the primary basis of future evaluations.

#### 1. INTRODUCTION

# 1.1 Background and Context

The current evaluation has been commissioned by donors in order to assist the Ministry of Education, Youth, and Sport (MoEYS) to determine strengths and weaknesses in an initiative to improve the effectiveness of the teaching-learning process among Grade 1 children. This evaluation is the second in a round of assessments designed to provide information about how well the intervention is working. The intervention itself, known as the School Readiness Program (SRP), has been designed to provide a nurturing environment for young children who have not yet acquired the readiness skills needed to cope with a structured classroom environment. SRP has been put forward as one of several responses to confront skyrocketing repetition rates both at national level and in certain provinces (see Table 1.1). In this respect, it can be seen that national repetition rates have increased from 17.5% in the 2000/01 academic year to about 23.6% in the latest school year for which information is available. This represents an increase of

nearly 35% over the base year. In selected provinces where SRP interventions have been most concentrated. are rates often higher than national average and have reached nearly 30% in Kampong Cham and Prey Provinces. Veng Low levels of school efficiency such as these are clearly not sustainable.

**Table 1.1:** Student Repetition Patterns in Selected Provinces, 2000-03

Province	2000/01 (Base Yr)	2001/02	2002/03	2003/04	% Change from Base Year
Kampong Thom	13.3%	15.7%	17.1%	20.0%	+50.4%
Kampong Cham	21.3%	22.7%	24.9%	29.4%	+38.0%
Kratie	18.8%	16.2%	17.3%	21.9%	+16.5%
Prey Veng	24.5%	24.5%	26.1%	27.5%	+12.2%
National	17.5%	17.7%	19.0%	23.6%	+34.9%

Source: EMIS, 2000-05

SRP interventions were first instituted in 2004 in order to address quality-related factors within the classroom that lead to high repetition. The intervention, therefore, focused primarily on (i) promoting child-friendly teaching methodologies in classrooms; (ii) modifying curricular content during the first 8 weeks of the school year to focus more on readiness skills rather than academic content; (iii) upgrading classrooms (where possible); and (iv) enhancing the availability of learning aids for children. Initially, it was thought that if children acquired readiness skills during the first weeks of schooling, this would equip them with the pre-requisite skills necessary to enhance their ability to learn the formal curriculum. As the pilot unfolded, however, it was realized that there was a high probability that teachers would return to traditional classroom practices when it came to teaching the formal Grade 1 curriculum at the end of the 8-week course. This resulted in a modification in the program's design leading ultimately to the development of a bridging curriculum that combines approaches promoted by SRP and Grade 1 curricular guidelines, which tend to be highly academic and prone to teacher-centered methodologies. That is, teachers tend to have a fixed way of teaching the Grade 1 textbook that is not generally thought to be pedagogically sound. This includes the instruction of nonsense syllables, repetitive recitation, and general instruction of both literacy and numeracy in an unmeaningful context. Thus, School Readiness Program implementation in Year 2 is characterized by a yearlong focus on expanding the use of methodologies used intensively during the first 8 weeks of the school year to general curriculum content.

To be sure, spiraling repetition rates are not due solely to factors relating to classroom practice and the nature of the Grade 1 curriculum. Teacher shortages, high pupil teacher ratios, poor infrastructure, and attendance patterns among children, particularly in remote areas, all play an equally pernicious role.

Nevertheless, SRP is an intervention that attempts to make needed changes in classroom practice, which by themselves are perhaps not sufficient to reduce repetition but which nonetheless constitute a necessary set of interventions to do so. It should be noted too, however, that SRP interventions are generally (though not always) embedded in broader programs that attempt to deal with some of the non-classroom practice issues highlighted above. This refers in particular to the Child Friendly School Initiative (CFS) supported by UNICEF/Sida, Kampuchean Action for Primary Education (KAPE), and World Education/USAID in collaboration with MoEYS in nine provinces.

With positive indications reported in the program evaluation in 2004/05, MoEYS decided to begin the process of gradually expanding the SRP pilot into a national program. There has been close donor and NGO cooperation with Ministry in this respect to support SRP implementation over the last two years. Implementation first began with technical and material support from UNICEF/Sida, KAPE, and Save the Children Norway (SCN). In the current implementation year, these agencies have been joined by World Education/USAID. During Year 2 implementation, the School Readiness Program expanded rapidly from the original pilot in terms of the number of teachers reached and provinces covered. In this regard, the total number of SRP teachers trained increased from 544 in 2004 to the current number of 3.293 trained in 2005. This represents a six-fold increase from the previous year. In terms of total coverage of Grade 1 classes, MoEYS estimates that 30% of the country is currently covered by the School Readiness Program though it should be noted that 72% of this number has no donor affiliated support (see Table 1.2). Thus, some observers would question how substantive this coverage is, particularly with respect to the massive expansion that occurred in provinces such as Takeo and Kandal where there is a lack of intensive support networks for teachers and resourcing of classrooms. The latter observation is of particular concern given the resource-intensive nature of SRP implementation. In any case, the reader should be reminded that the current evaluation focuses only on areas with donor support.

**Table 1.2:** School Readiness Program Expansion & Coverage, 2004/5 - 2005/6

Province		SRP (	Associated Donor		
	Total	Total	Uncovered	Total	
	SRP	Grade 1	Classes*	Coverage	
	Teachers	Classes			
1. Battambang	20	1,176	1,156	17%	
2. Kampong Cham	120	1,779	1,659	7%	KAPE/UNICEF, World
					Education, SCN
3. Kampong Chhnang	22	426	404	5%	SCN
4. Kampong Speu	35	661	626	5%	UNICEF
5. Kampong Thom	236	670	434	35%	UNICEF
6. Kampot	562	627	65	9%	
7. Kandal	948	1,057	109	9%	
8. Kep	41	43	2	95%	
9. Kratie	25	n/a	n/a	n/a	World Education
10. Oddar Meanchey	27	150	123	18%	UNICEF
11. Phnom Penh	29	575	546	5%	SCN
12. Preah Vihear	21	285	264	7%	SCN
13. Prey Veng	229	960	731	24%	UNICEF
14. Pursat	17	437	420	4%	SCN
15. Siem Reap	24	865	841	3%	SCN
16. Stung Treng	90	131	41	69%	UNICEF
17. Svay Rieng	63	410	347	15%	UNICEF
18. Takeo	784	839	55	93%	
National	3,293	11,091	7,823	30%	

\*Assumes coverage of 1 class per teacher

Source: MoEYS, 2006

## 1.2 About the Current Assessment

As noted earlier, the current assessment follows a series of evaluations that were conducted in the previous academic year (2004/5) when SRP was first piloted. Outcomes of the first evaluation were highly positive. Among other things, the first phase assessment found that teaching practice in SRP classrooms had generally conformed with expectations; capacity building activities had been implemented well (i.e., incidences of lecture-style presentations were minimal); communities were reasonably receptive to the intervention; and perhaps most importantly, children in SRP classes were learning better than comparable groups in non-SRP schools. Indeed, the earlier study found that SRP interventions had acted as a surrogate pre-school experience that had leveled the playing field in terms of terminal learning achievement between former preschoolers and non-preschoolers.

The current evaluation focuses more narrowly on assessments of classroom practice among a sample of SRP teachers as well as student learning outcomes. The latter issue will be addressed in a complementary report to be issued at the end of the 2005/6 academic year. This later report will discuss the results of terminal achievement testing of SRP children in comparison to a control group of similar background. Thus, this year's evaluation takes in two rounds of assessment, the first focusing on teaching practice, and the second focusing on children's learning achievement. Unlike last year's assessment, current evaluation activities do not include a review of the implementation process (e.g., planning and implementation of workshops) or a content analysis of the SRP curriculum. In spite of its more narrow focus, however, the current evaluation has attempted to make up for deficits in the earlier evaluation design that relied heavily on quantitative data. Consequently, current research activities have included a number of in-depth case studies to generate qualitative data on classroom practice, particularly with respect to opportunities for creative thinking and inquiry – essential aspects of the CFS Initiative. Such qualitative information has helped to provide greater balance to the empirical information base that underpins the study's conclusions.

## 2. ASSESSMENT METHODOLOGY

## 2.1 Overall Assessment Design

General Considerations: As noted above, the current evaluation focuses primarily on classroom practice. The assessment results described take in both quantitative observation scores of a representative sample of teachers selected randomly as well as nine in-depth case studies. Insights from the case studies are intended to complement quantitative evaluation of the program that relies on standardized, numerical classroom observation instruments. In this way, it is hoped that the case studies can help to validate trends observed in the quantitative data and vice versa.

Site Selection: Research activities have been limited to four provinces affiliated with the donors who support SRP interventions there (i.e., UNICEF/Sida and World Education/USAID). These provinces include Prey Veng, Kampong Thom, Kampong Cham, and Kratie. To be sure, these provinces represent areas where SRP interventions were originally piloted (with the exception of Kratie Province) and which comprise the largest contingent of systematically supported SRP teachers in the country. They also represent Child Friendly School program sites and enable insights regarding the dynamics between the two programs. This is not to say that the School Readiness Program and Child Friendly School interventions are in any way parallel. Indeed, most program personnel in these provinces would argue that SRP is an integral part of the CFS Initiative and is subsumed by it.

Kratie province is unlike the other selected provinces both in terms of its programmatic history and exposure to donor-supported interventions. The decision to include Kratie Province in the study is partly driven by its association with a particular donor but also by its unique history. Unlike the other

three provinces, this is the first time that the province has experienced any sort of SRP intervention, or for that matter, a Child Friendly School intervention of any kind (until recently). Indeed, it is a province that has seen little investment in the education sector from donors over the last decade. For this reason, the effectiveness of program implementation there is of some added interest and may have implications for SRP expansion to other 'virgin' sites.

# 2.2 'Quantitative' Data Collection

<u>Data Collection and Instrumentation</u>: Quantitative data was generated from a pre-assessment observations of selected SRP teachers at the beginning of the academic year and a post-observation that was conducted approximately eight weeks after the first observation (i.e., at the end of the 'readiness' segment of the prescribed curriculum). Instrumentation used in this regard consisted of a standardized assessment tool developed collaboratively with the Ministry of Education, Youth, and Sport. This instrument, developed last year for the previous assessment, was reviewed early in the current year and revised slightly. The revised instrument now takes in 13 assessment criteria (an addition of one from last year when there were 12) each of which has a sliding scale of narrative

descriptors (see box). Observers also met for two days prior to pre-observations in order to reach consensus on the meanings of each parameter and calibrate assessments to minimize poor internal consistency between the observations made.

Special Design Considerations: There are also a number of special design considerations in the present research that require additional explanation. Although some pre-assessment observation scores have been used as a baseline, these observations did *not* occur prior to the training that teachers received. In addition, SRP researchers expected proficiency in the use of targeted methodologies to be greatest some weeks after the completion of training activities rather than immediately after the workshops that teachers attended. This is in contrast to most studies of change in classroom practice, which not only define the baseline as the pre-training environment but also expect the greatest proficiency in the use of targeted methodologies to occur shortly after the completion of training interventions. A number of structural considerations account for the inverse design characteristics in the current research. First, it was not possible to observe teachers before the training intervention occurred as the

#### **SRP Assessment Criteria**

# **Classroom Organization**

- Classroom Display
- Furniture Arrangements
- Cleanliness & Order

# Teaching & Learning

- o Time Management
- Lesson Preparation
- Questioning
- o Classroom Atmosphere
- Teaching Aids
- O Pupil Engagement

# Development of Key Skills

- Developing Coordination of Body Parts
- Cognitive Thinking Skills
- Use of the Senses
- Expression of Emotion, Values, and Feelings

SRP program begins implementation during the summer vacation months (i.e., teachers received training before the school year started). In addition, there was little expectation that teachers could evince well-managed classrooms using the targeted methodologies during the first weeks of school with children who have never been in a school setting before. It was only after children became acclimated to the new school environment that researchers expected proficiency to be greatest. To be sure, it was expected that SRP training would help teachers to accelerate the acclimation that children experienced. These considerations, then, provide the rationale for the apparent design characteristics of the present research.

Treatment of Data: Determinations of impact using quantitative data are based on comparisons of pre-

<sup>&</sup>lt;sup>1</sup> USAID, in collaboration with the American Institutes for Research and World Education, recently began implementation of a Child Friendly School Program in Kratie in 2005. The program, known as the Educational Support to Children in Underserved Populations program (ESCUP), is focused in particular on remote areas and assistance to minority groups.

and post assessment observation mean scores for each identified parameter. Pre/post observation comparisons (among teachers as a whole and by province) used a *t test* for paired samples of equal variance to determine whether any perceived differences in mean scores were significant at a relatively high threshold (i.e., p<.005). Researchers also calculated *effect sizes* to determine the magnitude of impact of SRP interventions from the time of the pre-assessment to that of the post-observation. Because even small variations in mean scores will often yield significant differences, some researchers have, recommended that studies such as this also include an analysis of the *magnitude* of mean differences between experimental and control groups, or in this case between pre- and post-assessment environments (e.g., Cohen, 1988). Such analyses, known as effect size, can give some indication of the practical importance of a study's findings and whether the impacts are major or minor. Effect size is generally calculated by establishing the size of a mean difference relative to the standard deviation of the comparison groups. This may involve taking an average of the standard deviations of two groups or the larger of the two. This study has opted for the latter approach. In general, effect sizes that constitute 80% or more of the selected standard deviation are considered major; those that constitute 50% are considered moderate; and those that constitute 20% or less are considered minor.

# 2.3 'Qualitative' Data Collection

General Design Considerations: The collection of qualitative data utilizing case study approaches represents a new element in this year's assessment that distinguishes it from what was done in previous studies. In this respect, researchers carried out nine case studies during the first two months of the school year. Information was collected over a month on five male and four female teachers. Descriptions of observations are included in the Results Section and in Annex 1 of this report. For purposes of space and economy, the case studies have not been provided in their entirety in the main body of the report. Rather, they have been presented in edited form in order to concisely highlight relevant themes and issues. These themes include the following areas of interest:

- o Relevance and engaging nature of lessons
- Opportunities for active choices and decision-making
- Availability of creative and exploratory activities that stimulate children's interest
- Encouragement of inquiry questions
- Facilitation of collaborative work

The areas of inquiry outlined above have been adopted from the International Baccalaureate Organization's definition of quality education (IBO, 2000) and complement the 13 assessment parameters set out by MoEYS and used in the collection of quantitative data. Clearly, however, these themes also try to go beyond the criteria used in quantitative data assessment tools, particularly with respect to teacher behavior that encourages exploration, creativity, and active inquiry. Amongst educationalists, the IBO is widely considered to be a model of best practice. It is hoped that this set of assessment criteria may also be of relevance to those organizations supporting the MoEYS' School Readiness Program, including KAPE, UNICEF, and World Education.

Ethical Considerations: With respect to ethical considerations, Stake (1994) is mindful that qualitative researchers are guests in people's worlds, so it is imperative that their manners are good and their code of ethics strict. The purpose of this case study research has been to encourage efforts that are already underway and to guide those that are being developed. Therefore, the successes of the programs studied have been highlighted and constructive recommendations are specific, measurable, achievable, and relevant. All nine teachers (as well as school directors) studied were aware of the fact that they were participants in the research and that the information that they provided would be documented and shared with interested parties.

<u>Constraints</u>: Case studies, as a research approach, have generally been considered less rigorous than quantitative experiments and surveys (Yin, 1994; Simons, 1996). Indeed, caution must be taken when applying insights from the particular to the general. How the researcher manages his/her attitudes,

expectations, and motivational factors can impact the validity of the study. However, case studies provide an opportunity to better understand complex human circumstances and inform a particular situation (Simons, 1996: 227). They are often of intrinsic value to those personally involved in the context under study and provide meaningful recommendations for those who have been observed. Stake (1994: 238) advocates for the case study to be recognized as a small step towards grand generalization.

<u>Validation</u>: As noted earlier, it is possible to strengthen the validity of case studies by using 'triangulation' to substantiate research for "if a variety of different sources of evidence lead to a broadly similar picture, one tends to have more confidence in their findings" (Johnson, 1994: 11). Similarly, Yin (1994: 92) states that case studies using various sources are better received in their overall quality than others that depend only on a single information source". To strengthen the validity of the case study methodologies employed in this study, researchers have drawn together common threads provided by documentary materials relating to program implementation, teachers' interviews, the insights of program staff, and researchers' observations.

# 2.4 Sampling Considerations

Quantitative Data Collection: A total of 48 teachers across four provinces were observed twice during the implementation of the research. This represents 15% of the population of newly participating SRP teachers. Teachers were selected using a simple random sampling technique from among 324 newly participating teachers as the source population. This led to a sample distribution of teachers by province of origin in which Prey Veng teachers were most highly represented, those from Kratie least represented, and those from Kampong Thom and Kampong Cham were somewhere in the middle.

Although these distributions roughly approximated distributions of teachers by province of origin in the source population, exact proportional representation was not achieved (Table 2.1).

 Table 2.1: Study Population and Sample

Province	Newly Participating SRP Teachers	Sample Size	Provincial Proportions of Total	% of Sample
			Population	
1. Prey Veng	163	16	50%	33%
2. Kampong Thom	69	12	21%	25%
3. Kampong Cham	67	12	21%	25%
4. Kratie	25	8	8%	17%
Total	324	48	100%	100%

Qualitative Data

Collection: The nine case

studies were selected from among the statistically randomized sample of 48 teachers. Teachers were selected using a non-probability sampling technique to represent a mix of teachers with respect to gender (four female and five male), localities (three new CFS sites and six previously established ones), and previous experience as a CFS classroom teacher (six new teachers and three with previous experience) (see Table 2.2). In general, the researchers were most interested in SRP practice among new CFS teachers in order to determine how difficult it is for new teachers to adopt such methods. This accounts for the high proportion that such teachers comprise of those selected. Nevertheless, some

**Table 2.2:** Case Study Subject Background

Case	Sex	Kind of	Previous CFS
Study		CFS Site	Classroom
			Experience
1	Male	New	No
2	Female	Old	Yes
3	Male	Old	No
4	Male	Old	Yes
5	Female	Old	No
6	Male	Old	Yes
7	Male	Old	No
8	Female	New	No
9	Male	New	No
Total	5 Male	3 New	6 New CFS Teachers
	4 Female	6 old	3 Old CFS Teachers

number of previously experienced CFS teachers was also included for comparison purposes.

# 3. RESEARCH RESULTS

# 3.1. Observed Changes in Teacher Practice along Selected Parameters

# 3.1.1 General Trends in Teacher Performance Scores

As in last year's assessment, the overall trend in teacher proficiency was to increase between the first and second observations. The range within which this improvement occurred was wide with score increments for some parameters of as little as 7% to as much as 33% from the pre-observation score. The overall mean difference (MD) across all parameters was +16% (see Table 3.1). Although this actually exceeded the mean difference registered in the pilot year (MD=12%), the range within which scores moved from lower to higher was much lower down the scale. That is, baseline scores for all parameters in absolute terms started at 50% in the current year while these were 63% for the pilot year. This difference in baseline magnitudes likely reflects the make-up of teachers in the current population where there were fewer individuals with previous experience in managing CFS classrooms than was true of last year. This observation suggests the close affinity in philosophy and practice between the two programs.

**Table 3.1:** Average Performance Scores for Teacher Performance along Selected Parameters (N=48)

Parameter Parameter		Kam	pong om		Veng		pong	Kra				Province	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Mean Diff	Signif. at p<.005
Classroom Organization	Classroom Display	44%	67%	33%	64%	47%	78%	47%	58%	40%	66%	+26%	Y es
	Furniture Arrangement	56%	92%	58%	80%	64%	81%	64%	67%	57%	81%	+24%	Yes
Cla Orga	Cleanliness & Order	61%	78%	50%	73%	58%	81%	58%	83%	59%	78%	+19%	Yes
	Subtotal	54%	<i>79</i> %	47%	73%	<i>56</i> %	<i>80</i> %	56%	<i>69</i> %	<i>52</i> %	71%	+19%	Yes
	Time Management	62%	78%	56%	75%	53%	78%	53%	75%	56%	77%	+21%	Yes
ing	Lesson Preparation	32%	82%	45%	83%	63%	82%	63%	75%	48%	81%	+33%	Yes
Learn	Teacher Questions	43%	68%	45%	75%	60%	70%	60%	65%	48%	70%	+22%	Yes
ing &	Teaching Aids	48%	80%	38%	69%	53%	72%	53%	60%	44%	71%	+27%	Yes
Teaching & Learning	Classroom Atmosphere	58%	78%	59%	75%	60%	73%	60%	75%	59%	75%	+16%	Yes
	Pupil Engagement	30%	53%	25%	60%	48%	57%	48%	40%	33%	54%	+21%	Yes
	Subtotal	<i>46</i> %	73%	45%	<i>73</i> %	<i>56</i> %	<i>72</i> %	<i>56</i> %	65%	<i>48</i> %	<i>67</i> %	+19%	Yes
ills	Developing Coordination	47%	57%	54%	59%	53%	65%	53%	40%	50%	57%	+7%	No
cey Slk	Cognitive Thinking	47%	68%	35%	67%	47%	68%	47%	60%	43%	66%	+23%	Yes
ıt of K	Use of the Senses	77%	75%	35%	68%	58%	72%	58%	63%	54%	70%	+16%	Yes
Development of Key Skills	Expression of Emotions/Va lues	52%	70%	54%	72%	60%	72%	60%	58%	54%	69%	+15%	Yes
	Subtotal	55%	68%	44%	66%	55%	69%	55%	55%	51%	62%	+11%	Yes
GRA	ND TOTAL	50%	72%	45%	71%	56%	72%	56%	62%	50%	66%	+16%	Yes

# 3.1.2 Overview of Mean Differences in Teacher Performance

In general, teachers showed statistically significant change across all performance parameters with the exception of Developing Coordination. This outcome held true even with a relatively high threshold for statistical significance set a p<.005. Those specific parametric areas that saw the greatest improvement included changes in Lesson Preparation (MD=+33%), Using Teaching Aids (MD=+27%), and Classroom Display (MD=26%). To be sure, these areas are indicative of somewhat mechanical behaviors that *may* facilitate children's learning and engagement but by no means are sufficient to ensure it. This may partly explain the observation that those areas with the least or no significant improvement included Developing Coordination (MD=+7%), Expression of Emotions/Values (MD=+15%), Classroom Atmosphere (MD=+16%), and Use of the Senses (+16%). Mean difference variations across all parameters are summarized in Figure 3.1 below.

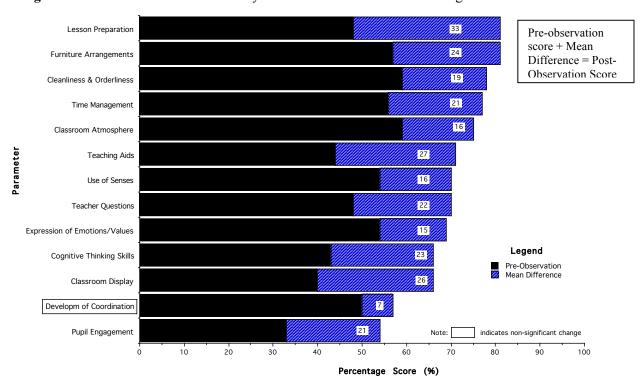


Figure 3.1: Ranked Teacher Proficiency Scores & Mean Differences along All Behavior Parameters

# 3.1.3 Classroom Organization

In terms of absolute levels of scoring, post-observation assessments indicated that teachers showed the highest parameters proficiencies for relating to Lesson Preparation (Absolute Score = 81%), Furniture Arrangement (Absolute Score =81%), and Cleanliness & Order (Absolute Score = 78%) (see Table 3.1). With respect to broad parametric areas, teachers performed best in terms of Classroom Organization (Absolute Score =71%) where the emphasis was on sitting arrangements for students, cleanliness, and stimulating classroom decoration. In this respect, observers frequently found children sitting in informal arrangements on mats or in



# <u>Case Study Excerpt (1)</u>: A Typical SRP Classroom Environment

The classroom has been cleared of desks and the class sits spread over five grass mats. There are a few traditional wooden desks in the corners for 'corner activities'. There are posters on the walls and some dusty work from last year, along with a teaching clock, height measuring chart and outline of curriculum areas. The walls desperately need a fresh coat of paint, but the room is otherwise spotlessly clean.

small groups around low tables. As was true in last year's investigation, the heavy wooden desks that often characterize most classrooms in Cambodia tended to be seen by teachers as an obstacle in implementing SRP principles (see Case Study Excerpt 1). In addition, classrooms were generally colorfully decorated with pictures and posters low down to the floor where children could see and touch them. Both case study observations as well as quantitative data collection results tended to concur that teachers had both understood and acted upon the principle that the classroom environments should try to emulate an informal setting similar to the one that children might

find at home. To be sure, teachers sometimes relied on student work done during the previous year to decorate classrooms rather than the development of materials in the current year. Nevertheless, the

overall impression of observers was that classroom environments had generally conformed to an expectation congruent with that promoted under the School Readiness Program.

# 3.1.4 Teaching & Learning/Development of Skills

<u>General Observations</u>: In contrast to the relative success demonstrated by SRP teachers in creating optimal physical learning environments, post-observation performance scores tended to be relatively lower in the broad parametric areas of Teaching & Learning (Absolute Score = 67%) and Development of Key Skills (Absolute Score = 61%). These



areas include proficiencies such as stimulating Pupil Engagement and developing Cognitive Thinking Skills, which are much less mechanical behaviors than implied by lesson preparation and classroom set-up. Such difficult to attain proficiencies nevertheless get to the heart of children's learning and development. It is not surprising then that teachers would have had the most difficulty in acquiring high proficiency these areas. In this respect, quantitative data collection activities registered the lowest post-observation scores in the areas of Pupil Engagement (Absolute Score =54%), Developing

Coordination Skills (Absolute Score = 57%), and developing Cognitive Thinking Skills (Absolute Score = 66%). These outcomes were more or less validated by case study observations and researcher interviews with a number of teachers. These are described in more detail below.

<u>Pupil Engagement</u>: Consideration of some of the case study observations carried out during the course of this assessment has helped to clarify some aspects of current SRP practice that relates to the depressed scoring in the performance parameters mentioned above. This applies in particular to proficiencies in Pupil Engagement where teachers scored lowest in the more formalized data collection assessment. A number of factors appear to impede pupil engagement, some of which are beyond the teacher's control. For example, children often buy sweets

Case Study Excerpt (2): Teacherdirected Activities & Pupil Engagement [A teacher] sings a song about birds. All the class listens intently but drift off again when she finishes. They try singing halfheartily. There is no leading energy or excitement. [A mother] at the window calls to her daughter to sing loudly. The teacher begins to teach some actions and asks the class to hold their left hand up. She takes 5 minutes to check if everyone has the correct arm raised. "What's the name of the other side?" Some children know "Right". The teacher calls out "Left, right" and the children raise their arms. The children follow the teacher but otherwise have little opportunity for self-directed

# <u>Case Study Excerpts (3)</u>: Successfully Keeping Pupils Engaged

The teacher asks the class to sit and moves over to a poster on the board – the body/shape from vesterday's lesson. The teacher goes through the shapes asking the class to chant their names. There is some hesitancy. She elicits answers from those that know and uses this to reinforce learning. A few children get picked to point to the various shapes. "Are they right?" she asks. "Right," the children answer. She makes eve contact with the students and moves around the room as she talks. She chooses people to answer from different groups, keeping the class on its toes. It is a demonstration of how effective teaching 'up close and personal' can be for the early years. When sitting at the big desks, attention is so easily lost

and candies during their recess breaks, which promotes fidgety and restless behavior. On the other hand, the way teachers approach SRP prescribed activities can also lead to muted engagement. That is, although many observed teachers were active in applying the activities learnt in the training workshops such as singing songs and playing games, observations indicated thev that frequently approached these activities in a very teacher-centered way. In this respect, the teacher was most often in control of choosing participants and leading the activity (see Case Study Excerpt 2). Groups mostly had identical materials and, therefore, created identical results. The emphasis was on copying rather than creating, often because teachers had given the answer before students had time to explore the task. Activities could be modified very simply to provide opportunities for students to self-generate answers and to think creatively. For example, a teacher might ask

students to "draw five objects – animals, flowers, shapes, anything you like" rather than holding up five fingers and asking students to "draw five dots" as was commonly observed. To be sure, many teachers also demonstrated an instinctive talent to empathetically engage with children by keeping their teaching 'up close' and 'personal' (see Case Study Excerpt 3).

Opportunities for Choice and Active Decision-making: Going hand in hand with the difficulty encountered to keep children engaged in learning, there also appeared to be little opportunity for choice or decision-making in many of the classes observed. In large classes, teachers often found it difficult to both offer these opportunities and manage the children's behavior. However, as students appeared to become more acclimated to the requirements of the school setting, classroom management became easier and the scope for such opportunities became wider. Opportunities for choice in learning can be very simple. They can include straightforward directions such as, "Today, We are learning about different kinds of fruit. Come sit at this table if you want to draw a banana, here for an orange

and here for a mango." Alternatively, these directions can be more complex: "This afternoon there are three activities to choose from – doing a role-play of buying fruit at the market; completing a puzzle on fruit; and making fruit salad. You can pick the activity you would like to do." In general, the reluctance of teachers to provide such learning opportunities appears to be linked with their desire to keep activities under their direct control as noted earlier. Thus, a big challenge in the future will be to enable teachers to feel comfortable in sharing control with the students as well as understanding that all students do not need to do the same activities in order to learn.

Relevant and Stimulating Activities: Several of the teachers observed clearly demonstrated an ability to relate lessons to children's lives, most frequently by asking them to consider their home or local environments (see Case Study Excerpt 4). A few

# <u>Case Study Excerpt (4)</u>: Putting Learning in a Context

[A teacher] sticks four lovely color pictures on the board of street scenes (if the class were sitting on the floor together they could see them more easily). She talks about road safety and asks the class to identify vehicles they can see. A child comes forward to describe the scenes in more detail. There is opportunity for an oral story here. Or what vehicles did you see on the way to school. Which scene (city, town, rural) is what you see? Or going outside to look at the road past the school. But the opportunity passes. The class begins to draw their own picture of roads, kneeling on the floor and leaning on the chairs in order to do so. [The teacher] decides that there isn't enough time to finish and that the children should complete this activity at home.

teachers asked students to share their previous knowledge with the class, thereby assisting students to engage in the lesson. Nevertheless, there was still a heavy and sometimes deadening focus on the 'basics' as this related to developing literacy and numeracy skills. In particular, observers found a strong tendency for teachers to revert back to traditional modes of teaching Khmer Language in which

the rote recitation of 'nonsense' syllables was a prominent element of classroom learning. To be sure, it is challenging for the most experienced teacher to make reading and writing relevant for a six-year old. Nevertheless, it is important to put learning into a meaningful context in order for it to be truly understood and remembered by a child.

During teacher interviews, it was clear that teachers understood well the need to make classroom activities 'fun' and interesting and that this was why the use of songs, games, and role-plays had such a prominent role in the SRP curriculum. Teachers realized too that such activities would encourage children to come and stay at



school. This was the major justification for SRP cited so frequently by teachers and school directors to visiting researchers. However, future training workshops may still need to emphasize the benefits of the various <u>learning</u> activities described in the SRP curriculum, which also happen to be fun. This is because many of the teachers interviewed still seemed to equate learning with reading, writing and listening to the teacher. The 'fun' activities prescribed under SRP were thought to be something one does to keep children engaged and happy at school when teachers were not teaching them 'real' learning tasks. In order for teachers to feel confident in using creative and 'fun' activities throughout the year, they need to have a better understanding of the learning that occurs whilst playing games, working in groups, and solving problems.

Encouragement of inquiry questions: Although children's questions were generally welcomed by all the teachers observed, researchers found that most of the questions asked by children pertained to the clarification of task instructions. It was very rare to find children asking substantive questions about subject content. This misses a key goal of child friendly school development, which is to encourage both inquiry and critical thinking. Though it may be unfair to blame teachers for the absence of such questioning behavior on the part of children, case study observations indicated that it is nevertheless true that teachers do little to encourage it. Open-ended questions from teachers, which might help children to model their own questions, appear to be infrequent. In addition, there is a strong tendency to ask questions with an expectation of a response that is either 'right' or 'wrong.' It is likely that frequent reinforcement of answering behavior of this nature promotes uni-dimensional thinking, which is largely inimical to inquiry behavior. To some extent, the tendency to ask close-ended questions with

right/wrong answers is partly driven by the focus on learning the 'basics' in literacy and numeracy where learning tasks are centered at the memory and/or possibly comprehension level only. In such instances, children are engaged in mechanical tasks such as identifying letters, counting objects, identifying positional language, and similar tasks. Teachers were not observed to engage in suppositional tasks that flow from 'what if' questions either because they do not know how or because they do not feel that the SRP curriculum requires such thinking tasks. Once again, this may be another area where capacity-building



activities in future SRP workshops could be focused.

Facilitation of collaborative work: observations indicated that children were provided with many opportunities to work together in small groups. Activities were usually greatly facilitated by the provision of low wooden tables or the organization of traditional wooden tables into groups. This fact notwithstanding, observers did find that there was still a strong emphasis on individual work, especially in those classes that focused on pre-writing or writing skills in their lessons. However, there were many instances of peer teaching occurring as students worked in close proximity to each other (see Case Study Excerpt 5). With respect to group work, observers generally found that greater supervision is sometimes needed by teachers to ensure that the same personalities are not dominating group tasks every time. In addition, the group work that does occur is frequently characterized by one or more passive observers who usually sit at the fringe of a group work activity. These are some areas in the organization of small groups where future capacitybuilding interventions might provide some trouble shooting strategies. For example, teachers might

# <u>Case Study Excerpt (5)</u>: Collaborative Work and Peer Teaching

The class is learning the vowel 'ae'. The teacher has introduced the lesson by making animal sounds with the children. The bird sound uses the 'sound of the day'. She writes the Khmer script in large print on the board. She sends the class off as individuals to find as many of these as they can around the room. They take some encouraging but eventually most of the class is up looking at the posters and previous years' work on the walls. There are exclamations of 'here, here'. In groups of 2/3 the children use their counting stones to make the vowel shape (an elongated oval). She sticks four letters on the board and revises these by asking a child to come and identify the 'ones we know' and the 'ones we don't know'. She writes 'g-ae' on the board carefully talking through the shapes. The class practices this letter on their slates. The teacher moves around as they write. Everyone is on task and there is peer teaching occurring incidentally. Groups then come and write their answers on the board.

encourage different groupings of children during the day/week rather than relying on fixed seating arrangements as one means to address some of the issues mentioned above. This could help to ensure that students experience working with different peers, practice negotiation of tasks, and turn-taking skills

## 3.2. Observed Changes in Teacher Practice by Province

Notwithstanding the wide range of variation in teacher performance described above, overall change in teacher performance (measured as the mean difference in scores between pre- and post- observations) registered double digit gains in three of the four provinces where data collection occurred (Table 3.2). These provinces included Prey Veng (MD=26%), Kampong Thom (MD=22%), and Kampong Cham (MD=16%). Improvements in Kratie were not statistically significant at the high threshold level of p<.005. The higher scoring in the other provinces may reflect the more established nature of CFS activities there and the fact that some of the new SRP teachers observed were in fact previously CFS classroom teachers with a significant amount of other capacity building experience behind them. In contrast, Kratie is a new province to join the CFS Initiative with no previous history

**Table 3.2:** Mean Difference between and Pre- and Post-Assessment Observation by Province (N=48)

Province	Mean	Significant
	Difference	at p<.005
Prey Veng	+26%	Yes
Kampong Thom	+22%	Yes
Kampong Cham	+16%	Yes
Kratie	+6%	No
All Provinces	+16%	Yes

of participation in School Readiness Program activities. Similarly, several of the clusters in Kampong Cham are also new CFS sites while others have a history of assistance under UNICEF/sida support. This mix between new and old sites may help to explain why mean difference improvements there tend to lag somewhat behind Prey Veng and Kampong Thom. In addition, it should be noted that MoEYS-led teacher training activities in Kratie started exceptionally late (mid-October), which may also have had some interference effect on the training itself as well as the acclimation of children during the period that their

teachers were being trained in the provincial capital.

# 3.3 Overall Trends in Improvement among Individual Teachers

An examination of the change in proficiency scores among teachers reveals some interesting trends in the areas where change was most and least profound. Overall, quantitative data analyses indicated that about 90% of teachers registered an improvement in proficiency scores of 5% or more across all parameters (see Table 3.3). These changes were most pronounced in Classroom Organization and Teaching & Learning Skills though the previous discussion suggests that proficiency in the latter was greatest in skill areas that are more mechanical (e.g., Lesson Planning) rather than those that are more complex areas such as Pupil Engagement. Where qualitative and quantitative data appears to be most in agreement relates to the observation that about one-third of the teachers observed showed no, marginal, or decreased proficiency in the area of Development of Key Skills (e.g., coordination, cognition, use of senses, etc.). In this respect, marginal proficiency has been arbitrarily set at a change in score of 5% or less. This observation echoes earlier assessments by case study observers that many teachers had not yet internalized a deep understanding of the manner in which children learn. That is, teachers were found to be diligent in implementing many of the fun and games advocated by SRP methodology but were not really sure how this promotes 'real' learning by children.

<b>Table 3.3:</b> Teachers Showing Improvement, Decline, or No Change in Performance Scores (N=4)	·8)
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	Percentage of Teachers Showing:							
Parameter	Improvement by more than 5%	Improvement by 5% or less	Decline	No Change	Decline, No Change, or Marginal Improvement			
Classroom Organization	89%	0%	0%	11%	11%			
Teaching & Learning	89%	6%	0%	4%	10%			
Development of Key Skills	68%	15%	9%	9%	33%			
Total Score	91%	9%	0%	0%	9%			

The above discussion of teacher performance based on aggregated numerical scores should not mask the wide variations in teacher performance that were observed. Observational data collected during this study suggests that whilst the program may encourage the adoption of quality teaching methodology, the extent to which this is implemented seems to vary greatly from classroom to classroom. Indeed, the overwhelming impression one gets from the qualitative data speaks to the incredible difference the individual teacher makes to the quality of lessons. Having had similar training opportunities, teaching the same curriculum, and working with similar access to limited resources, there are still vast differences in the quality of teaching and learning from classroom to classroom. Interviews with teachers observed as part of the nine case studies strongly suggests that motivation was a key difference among teachers, particularly in so far as it explained the reason that they had decided to become SRP teachers (see Case Study Excerpts 6). In this respect, some

# <u>Case Study Excerpts (6)</u>: Why Teachers Volunteered for SRP

- ... is excited by the program and can see that it will work.
- ... is trying to make the children comfortable in coming to school. Making school fun.
- ... eagerness to learn new techniques in keeping children interested and listening.
- ... decided to be a CFS and SRP teacher because she believes that this is the way of the future.
- ... wanted to give the students the attention and interest that they don't get at home.

teachers gave very thoughtful responses explaining their reasons while others gave standard responses such as the fact that everyone else was doing it or because the training was interesting. Motivation comes from many sources and whilst it is not possible to pinpoint what exactly is motivating these teachers, it seems clear that their levels of motivation significantly influence the creativity, energy, and commitment they bring to their classrooms.

# 3.4 Effect Sizes with respect to Changes in Teacher Performance

As noted above, the consideration of effect size is a convenient way to assess the magnitude of mean differences between average scores. Essentially, the effect size is a statement of the proportion of the standard deviation of a given set of scores that the mean difference comprises. Such analyses give some indication of the practical importance of observed differences between an experimental and control group, or in this case, between a pre- and post-observation set of scores. In this respect, the effect size has been calculated for each of the broad parametric performance areas studied as well as for the total average score across all parameters. Effect size outcomes are summarized in Table 3.4 below. In general, effect sizes that exceed 0.80 suggest major impact while those below 0.20 are considered minor. Based on this rule of thumb, impacts appear to have been large for proficiencies involving Classroom Organization and Teaching & Learning (Effect Size = 0.81 and 0.89, respectively). In a borderline sense, this was also true of the total average score across all parametric areas where the effect size was 0.79. In some contrast, the effect size for Development of Key Skills was more moderate at 0.54.

**Table 3.4:** Effect Size for Mean Differences between 1<sup>st</sup> & 2<sup>nd</sup> Round Observations, Selected Parameters/All Provinces (N=48)

Parameter	Mean	Standard	Effect
	Difference	Deviation	Size
		Used	
(1) Classroom Organization	+19.1%	23.5%	0.81
(2) Teaching & Learning	+18.9%	21.2%	0.89
(3) Development of Key Skills	+11.0%	20.2%	0.54
Grand Total	+16.2%	20.4%	0.79

Once again, the general trend in these findings is for impacts on teacher practice to be least where Development of Key Skills is concerned but much greater in the area of Classroom Organization. This more or less accords with findings related earlier. Nevertheless, it should be noted that the findings with respect to high impact in the area of Teaching & Learning seem to diverge from case study observations that suggest more muted change and considerable room for improvement. As was stated earlier, it is possible that high scores in proficiency areas that are somewhat more mechanical (e.g., lesson preparation) tended to inflate quantitative data scores, thereby contributing to the relatively rosy picture painted by the effect size analysis presented above.

# 4. DISCUSSION OF RESULTS AND CONCLUSIONS

# 4.1 General Overview and Commentary

Convergence and Divergence in Findings: Although research findings based on both quantitative and qualitative data tended to be convergent in what they suggested in many areas, particularly with respect to physical classroom environments, there occurred some divergence in those findings relating to proficiencies in Teaching & Learning. To be sure, both quantitative and qualitative data concurred that in a relative sense, teachers' proficiency in helping children to acquire key skills (e.g., in

cognition, expression etc.) had lagged behind proficiencies in creating suitable classroom learning environments. Nonetheless, it must be acknowledged that case study evidence suggests deficits in the ability of teachers to foster higher order thinking skills whereas quantitative data indicates that teachers had achieved minimum expectations with respect to basic proficiencies in lesson preparation, questioning behavior, use of teaching aids, etc. To some extent, these differences stem from differences in the way standards are defined, the general focus of inquiry, and the way data is collected. Nevertheless, these considerations imply an important need for considerable caution in the interpretation of research results.

Need for a Two-Tiered Assessment: In view of the above, the sometimes divergent nature of research findings in this assessment suggests the need to consider the effectiveness of the School Readiness Program on two levels. At a very basic level where expectations are focused on the development of a pleasant learning environment, where children are leaning the 'basics' with respect to literacy and numeracy, and where teachers are preparing lesson plans and using learning aids with children, the program appears to be going very well. In this respect, classroom observation data and effect size results indicated that SRP generally does create an environment that is welcoming to children regardless of their previous educational experiences and equips them with the skills they need to be successful in school (e.g., following instructions, working in groups, asking questions, etc.). Teaching aids are highly ubiquitous and children were found to engage in numerous activities such as singing songs and doing role-plays during each lesson. In addition, school staff members and teachers frequently stated their belief that the program contributed to reducing student failure and dropout and is generally supported by parents. Many teachers interviewed expressed the opinion that the school day was more 'fun' both for them and the students. Finally, although researchers did observe that some children tended to dominate the group work leading to the marginalization of less active children, most teachers were very diligent in moving back and forth between large and small group learning and tried to foster peer-teaching.

On a more 'maximalist' level where expectations are more focused on critical and creative thinking. student inquiry, opportunities for self-directed behavior, and the development of meaningful contextual learning, there is room for improvement in terms of what teachers are actually doing in the classroom. This assessment was most strongly reflected in the analysis of qualitative data collected during the case studies, as noted above. In this sense, researchers found that teachers preferred to focus on the acquisition of basic skills in literacy and numeracy where right/wrong questions and unidimensional task work tended to predominate. This limited the scope for children to engage in activities that emphasized inquiry or task work where more than one possible 'correct' answer was possible. In addition, researchers tended to conclude that although teachers had made great progress in increasing the amount of overall child-centered activity in the classroom, much of this activity was teacher directed. There were few opportunities for children to engage in task work where the outcomes were not already predetermined or where children, as opposed to the teacher, were making decisions about the direction of an activity. This teacher mind set was often reinforced by the predilection to structure identical activities in groups that used identical materials. The outcome was predictably homogeneous and derivative learning. Finally, researchers found that although teachers had accepted and acted upon the need to boost the number and kind of activities that children did during class, they had not fully internalized why this was necessary other than the fact that doing so kept children engaged in the lesson. That is, they had not fully realized that learning is already implicit in such activities and that their purpose is not simply to keep children happy until they can get through the 'real' learning tasks, which entail the usual drudgery of repetitive learning. This often affected their ability to make what they considered to be the real learning tasks stimulating and contextually meaningful. A common example of this was reflected in the tendency for many teachers to revert to traditional teaching patterns in Khmer Language where the use of nonsense syllables was prominent.

Broader Implications: The rationale for applying the higher level expectations discussed above stems from the frequently expressed desire to subsume the School Readiness Program under the MoEYS' Child Friendly School framework (where learning standards relating to critical and creative thinking are prominent), as well as the criteria defining 'quality education' set out by the International Baccalaureat Organization (IBO) that were described earlier (cf. p. 5). In a larger sense, the need for a two-level assessment described above highlights a growing tension in the CFS framework to reconcile earlier themes of developing program models that promote higher-order thinking skills with nation-wide concerns to address the failure of many children to achieve basic literacy and numeracy skills, particularly in Grade 1. Thus, to some extent, the School Readiness Program can be forgiven for striving to achieve a more minimalist standard that focuses on the basics in an environment where student repetition rates are sky-rocketing and children reach the end of Grade 1 with little or no ability to do basic arithmetic, read, or write. Notwithstanding these concerns, the above discussion does highlight the need to consider efforts to bring the School Readiness Program to the next level, particularly for more experienced program teachers.

## 4.2 Constraints to Consider in the Assessment

The decision to include a 'qualitative' data collection component in this year's assessment has demonstrated the many constraints that arise in trying to get a clear picture of how teacher proficiencies are developing with respect to SRP implementation. The wide variations in teacher performance that were observed by researchers in the case studies tend to act as a counterbalance to the aggregated performance scores generated by quantitative data collection analyses. To be sure, quantitative data assessments were based on 96 classroom visits or about 72 hours of observation in all, no mean sum. Ultimately, however, the areas of divergence in some of the findings reported suggest the difficulties in developing an assessment framework that can accommodate the many variations in performance among the teachers observed. It also highlights the need for caution in using quantitative data to generalize about what is happening in the classroom.

Another limitation of this research relates to the fact that teachers were not observed before SRP capacity-building activities or towards the end of the school year when one might expect the effects of the training to begin to dissipate. It is, therefore, difficult to assess what changes have occurred in teaching methodology prior to the program and whether these will be sustained over time. To be sure, anecdotal information indicated that teachers who were previous CFS teachers tended to be more conversant in their understanding of many of the learning principles underlying the School Readiness Program. This suggests that what has been learned by many teachers previously does have some staying power and provides a firm basis for capacity building activities in connection with SRP.

The research findings presented in this assessment should also be balanced against the rigorous demands required to carry out the classroom observations upon which the conclusions are primarily based. The data collection process was highly time and labor intensive with considerable numbers of constraints relating to the remoteness of schools, difficult road conditions, and short windows of opportunity to do the observations because of the shortness of the school day. In this regard, many schools were not in session during the afternoon and morning sessions generally end at 11 o'clock (and sometimes before). In addition, the use of different observers (from both the implementing agency and the Ministry) also increased the potential for discrepancies to arise when applying agreed assessment criteria. Although an attempt was made to calibrate assessment standards through pre-observation meetings and discussions, there were occasions when assumptions were made about certain proficiency areas that were not directly observed due to time constraints. There were also subtle yet important differences in judgment, such as, the nature of the materials displayed in the classroom. Although these were often colorful, clean and posted at a child's height, there were concerns about who had made them (student or teacher), whether they were from this year or recycled

from last year, and how frequently they were used in instruction.

## 4.3 Conclusions and Recommendations

# 4.3.1 Recapitulation

The School Readiness Program is built on sound educational theory, which is implemented with greatly varying degrees of success by individual teachers. The program's theoretical underpinning encourages teaching methodologies used in early childhood programs of quality worldwide. Amongst students, parents and teachers there is a feeling of excitement about SRP and a realization that education can be fun. In addition, SRP seems to have had a real effect on the success of the first months of formal education. In this respect, research findings indicated that the program had been most successful in its ability to create effective classroom learning environments. Using a very high standard for educational quality, it had some though more limited success in promoting proficiencies in the areas of teaching and learning. On one level, most teachers had been able to successfully develop an approach to their lessons where children engaged in numerous activities designed to promote basic literacy and numeracy. They were relatively conversant in organizing children to learn in both large and small groups and used teaching/learning aids effectively to implement activities. On another level, however, teachers had not yet fully internalized the program's philosophy about how children learn. This was particularly true with respect to their ability to provide opportunities for decision-making, self-directed behavior, inquiry, and contextually meaningful learning. As a result, they had more limited success in promoting higher-order thinking skills in their classrooms.

## 4.3.2 Suggested Recommendations

Based on the findings presented in this assessment and the above discussion, researchers would like to bring closure to this report with the following recommendations to make further improvements in the School Readiness Program.

Recommendation 1: Try to bring the School Readiness Program to the next level by organizing supplementary capacity-building activities for current SRP teachers with one year of experience or more. A primary purpose of this capacity-building should be to help teachers bring higher order thinking skills into the School Readiness Program. Accordingly, such training should focus on building additional capacity in the following areas:

- (a) <u>How Children Learn</u>: Teachers have generally construed many SRP activities to be strategies to keep pupils engaged in learning rather than as intrinsically useful in themselves as learning tasks. The usefulness of SRP activities should be reviewed with teachers to demonstrate their intrinsic value in promoting basic literacy and numeracy. For example, singing songs helps children to practice memory skills, internalize language structure, and learn vocabulary. They are not just a filler exercise to keep children 'engaged.'
- (b) Inquiry-based Learning and Self-directed Behavior: Including information on inquiry-based learning in training may increase the ability of teachers to encourage their students to use high-order thinking skills such as analysis and questioning. Eliciting student questions before a learning activity is a simple teaching strategy that teachers can use to encourage inquiry, e.g., "We are going to learn about fruit today. What would you like to know about fruit?" Teaching through inquiry requires teachers to provide materials for children to explore independently and allowing students time to devise their own conceptual frameworks. Inquiry-based learning requires children to ask questions and discover the answers with the aid of teachers rather than relying on teachers as the source of all knowledge to impart.
- (c) <u>Presenting Learning in a Meaningful Context</u>: Training activities should also try to review the need to put learning tasks in a meaningful context. This involves considering children's

- previous experience when designing such tasks. In particular, opportunities for additional learning in this area should review methodologies for teaching Khmer Language that are traditionally used by Cambodian teachers. This speaks in particular to the use of nonsense syllables as a key technique in teaching language and its inappropriateness in the School Readiness Program.
- (d) Trouble Shooting in Organizing Group Work: Although many teachers were generally proficient in facilitating group work, there were some observed problems that occurred including the marginalization of more passive children. A supplementary training course could present some relatively simple trouble shooting techniques to address these problems. Some of these have already been mentioned including the use of different groupings of children during the day/week rather than relying on fixed seating arrangements. Such techniques could help to ensure that students experience working with different peers, practice negotiation of tasks, and turn-taking skills.

Recommendation 2: Maintain a basic course for new SRP teachers that continues to focus on topics currently taught but with some tweaking in order to promote some of the capacity-building areas mentioned above though on a more basic level.

The current SRP training program has demonstrated that it is effective in meeting basic expectations to improve children's learning. With the exception of some tweaking described above, it might be best to keep new training and re-training activities separate in order to keep the focus for new SRP teachers on the basic proficiencies that the program has done so well in promoting. This will avoid a dilution of purpose and facilitate the development of training programs that are more closely pegged to the needs of individual teachers (i.e., novice SRP teachers and those that are more experienced).

<u>Recommendation 3</u>: Review school-based technical support systems to ensure that there is mentoring of new SRP teachers by more experienced ones.

It takes a great deal of time and energy to implement a quality early childhood education program. SRP teachers spent considerable amounts of their own personal time in preparing resources and planning creative learning activities. As teacher quality varies so greatly, even within schools, it is important to acknowledge the skills of experienced (and more motivated) teachers and establish a mentoring system for weaker teachers. It would, therefore, be valuable for program planners to review current cluster-based support and monitoring systems to ensure that there are clear guidelines that allow teachers to regularly come together, observe each other's classes, and share their experiences. In many clusters, this may already be happening under existing capacity-building arrangements. Nevertheless, it might still be useful to review, update, and encourage observation of these guidelines, especially in so far as Thursday technical days will be affected by new arrangements where teachers are paid to teach three out of four Thursdays per month.

<u>Recommendation 4</u>: Institute and enforce guidelines that try to control the foodstuffs that children can buy when on school grounds.

Classroom management is difficult enough for Cambodian teachers challenged by large class sizes and the lack of engaging materials for students without adding the element of small children on 'sugar-highs'. One of the largest distractions observed in classrooms was children eating sweets they had purchased during break, including bubble-gum and other sticky food they could play with. Directors should try to monitor the food selling enterprises on school grounds in order to ensure that appropriate snacks are sold (e.g., fruit, bread dumplings, and not sugar-filled sweets). Teachers then need to ensure that food is put away at the end of each break. As basic as this sounds, it would be a small change that would make a great difference to the teacher's ability to facilitate students' concentration (not to

mention a reduction in dental cavities!).

<u>Recommendation 5</u>: Shift the focus of SRP assessments of teacher proficiencies towards greater emphasis of in-depth case studies and reduce reliance on quantitative data collection methods as the primary basis of future evaluations.

The use of quantitative data collection methods has proven to be very useful to gauge the degree to which teachers demonstrate very 'basic' proficiencies in classroom organization, teaching & learning, and the development of key skills across a wide number of sites. This was particularly true when the program was brand new. However, if it is decided to refocus program assessments on helping to bring SRP to the next level where the acquisition of higher order thinking skills plays a more prominent role, it may be more appropriate to shift the focus of future data collection to more qualitative research methods that use interview-based, descriptive observation. Doing so may help to increase the relevance and accuracy of program evaluation in this new context. It may still be possible to conduct classroom observations that use quantitative data collection methods for other reporting purposes (e.g., site reports) but that this would no longer form the basis of formal external assessments such as this report.

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# **ANNEX 1: Case Study Notes**

<u>Case Study 1</u>: Chi Manh Primary School (new CFS site), Kampong Cham Province

**Teacher:** Chanthoeun (No previous CFS experience/male)

Children: 45

Visit Date: 18 October 2005

7:00-8.15 This is a new classroom, the first year it's in use. The teacher is still getting to know his class and is unsure exactly how many there are – around 45. They are still enrolling. Pleasant creamy paint and a breeze coming in through the window. A beautiful view over a well-kept grassy playing field with swings, bouncy tires and room for jump rope, the vista widens to rice fields bright green with growing rice. The floor is clean in the middle but the corners are filled with seeds and leaves. The children are too young to take responsibility for cleaning the classroom. The teacher is too busy. One laments the lost opportunity in the furnishings – new wooden desks but heavy and cumbersome. Certainly cannot be moved by the students. Difficult even for an



adult. Too large also for the Grade 1 students they service. The children must write at an angle above their shoulders. They have, however been arranged in a u-shape leaving a large area for mats in the middle.

The class moves quickly into groups on a mat. They have colored cards with their names written on them. They sort themselves out, arranging the grass mats and themselves to look expectantly at the teacher. Not a mean feat for day two of the year. Behind the teacher is the black board. On it is written today's date, October 18th, 2005 and a number line 0-30. The teacher has introduced the lesson by pointing to four colored shapes on the wall next to the wall and asking the class to call out their names. He moves on...

The teacher has a great energy. He knows where the lesson is heading and he has everyone's attention. Yesterday the class found shapes in the classroom and thought of shapes in their environments; today would be looking at shapes more closely. He moves between the mats lowering his body to be nearer their level. He holds some shape cards... "What's this?" "Circle!" "Which one's the square?" "That one!". Asking different children and keeping the class on their toes. Who will he ask next? Then back to the whole class they identify the shapes again. The teacher sticks each on the board. He could be helped by having the tape cut already, it's fiddly. Gradually the outline of a body emerges. "What have I made?"

Two children come out the front and identify shapes and body parts. With each statement the class shouts "Dtrou! Right!" and claps. There is joviality in the air. The children are confident and at ease.

In their four groups the class arranges some pre-cut shapes into a body that matches the teachers. The groups are large and not everyone contributes. The teacher starts to ask the groups to attach the shapes with tape and make a poster, but quickly realizes that with only one pair of scissors and roll of tape this will take too long. He thinks on his feet and asks the groups to tour the room instead, commenting on what they see. *This activity could be extended.... with more shapes groups could make their own geometric pictures to present or making shapes with their bodies individually or in a group.* 

Then they're up. Mats away and the class are quickly in a circle. Again I marvel at how responsive these children are on day two. I've seen it take months to learn how to make a line... "Close your eyes, no peeking". While their eyes are covered a black plastic bag comes soaring into the middle. "Now where did that come from??" Everybody laughs. The teacher runs through the instructions, thoroughly, making sure everyone has understood. Then they start singing, stamping their feet, clapping their hands and the ever present class clowns jump up and down as the bag goes round the circle. When the song finishes the child holding it comes into the middle and puts their hand in the bag. "What have you got?" "A rectangle". The class checks that they are right and clap again. Lots of clapping! Four or five songs later some others have had a turn. Next time, with some more in depth questioning, the class can consolidate their knowledge. Before revealing the shape the guesser could declare how many sides/corners there are allowing everyone to have a turn to imagine.

The class moves back into its seats and the teacher concludes the lesson. Referring back to the picture on the board children are asked to compare shapes and body parts. "How many rectangles are in our body?". Again lots of clapping when they get it right. I wonder whether there could be less emphasis on being right and more on having an idea. For example, the children could have done this in pairs, observing each other's bodies. The teacher is still learning that he doesn't always need to be the assessor.

There is five minutes left before the break. The teacher has some time-fillers up his sleeve. He stands in the middle of the u, turning as he talks making eye contact with all the class. A quick mime... picking and smelling a flower, drinking a cup (time for a health message) "Is it hot or cold? Hot water is safe and clean!". He picks up a plastic covered poster and calls out a child. "Can you find your name?" She looks on her colored card... and points. Every claps... again!

**Interview:** The break isn't long enough to provide feedback to this enthusiastic teacher. We leave his class stranded for 15mins, but no one seems in a hurry to let him go. The other SRP trained teacher joins us and they both share their experiences. They are excited by the programme and can see that it will work. A few parents were surprised they say. They expected their child to learn a letter yesterday. They explained that they are trying to make the children comfortable in coming to school. Making school fun. I point out that the children are also learning as they play. Learning to listen, to concentrate, and to work together. It may be a while before this is truly accepted... I ask him if this active teaching makes him feel more tired. He bemoans having to teach Grade 5 in the afternoon. This seems an inefficient use of his time and skills. Surely it would be better to teach the same well-planned lesson twice than two hurriedly planned ones?? I encourage him to share resources with his colleague. They'll need to encourage each other in order to keep the energy up.

Visit Date: 7 November 2005

#### 1.00-4.00

Chanthoeun has decorated the room a little since the last visit. The children have made two snakes with shape 'scales' and these are stuck on the wall. There are posters displaying colors and their names. He passes out their name cards as a way of taking the roll. He asks if anyone knows why 'so and so' are absent. He has the class's attention. We go outside and they act out a role play 'fetching water in the village'. He uses the natural obstacles

in the playground as rivers, hills etc they get to the school well and fetch their water... scramble home around the obstacles... and are about to drink... "is it hot?". They build a fire, blow on the steam... lots of giggling.

We come inside and sit at our desks. He goes over the date (quite a few times). The class has to provide the information though "What was yesterday? What's tomorrow?". He uses a calendar to reinforce the date. Children are invited forward.. two boys have a turn. He asks for a girl to volunteer. The children act as the teacher pointing to words on the board.



He numbers them off 1-4 and asks them to make a circle. These kids are empowered; they can sort themselves out and have opportunity to show responsibility. Sing the 'la la la' song. Thourn asks them to put their hands behind their backs. "Show me 3... etc" Everyone's participating. He lines two children up behind each other "How many are here?" "Who's in front?" (still not confident with their names). Uses the children to teach positional language (front, behind, next to). He uses the learning environment using posters on the wall and their pictures. He refers to the lesson plan appropriately (while the class is on task).

The groups sit down on mats and share a text book using pictures to identify position. There is lots of praise and encouragement. He draws a house scene on the board and asks the class to describe it: "Where is the house? What's next to the tree?"

We sing some songs – the kids are singing and dancing. He asks if they're happy "YES!" He instructs them to make a large circle and calls out half to play '3-1' a chasing games. It involves lots of children. He selects the first half by asking them to play 'scissor, paper, rock' and the loser gets the first go. After a while he swaps and

the others get a turn. Singing again – he is not afraid to act and joins in with big actions. He briefly revisits position and asks them to think about what is in front/behind/next to their house. (Could use peer-teaching and get them to tell each other in pairs, small groups).

After the break he teaches them a new song, which is about letter recognition (similar to ABCs). It is difficult and he goes through it line by line. But they are getting it. He points to a chart of the words as he goes along. He highlights a particular sound and asks various children to find it in the song sheet. He chooses children widely, keeping them on their toes. This session is more sedentary and they might focus on the song better sitting together as a large group. But they are fairly focused still.

**Interview:** Chanthoeun became a teacher because he likes children and it is respectable. He decided to 'try out the SRP to see if it works'. His school is trialing it (What a great attitude!). He wanted to learn more songs and games and he works at home to practice them. He arranged his desks differently because of the programme. He and the School Director decided to group all the drop-outs and repeaters together. About 30/33 are drop-outs although it would seem many of them were underage last year, because they all seem the right size! This is confirmed as the case. He teaches Grade 4 in the afternoons and is beginning to use some of the techniques with the older grade. The Director has asked him and the other SRP teacher to provide an hour's training every Thursday to the entire staff. He's enjoying this. The Director says that she can tell that the children are happier and learning things. There is some parental concern that they are not learning to read and write, but the children are singing songs at home. And some parents say that their child is more independent and confident. They are learning an alphabet song to sing for their parents.

<u>Case Study 2</u>: Damnup Prieng Primary School (old CFS site), Kampong Cham Province

Teacher: Vanny (previous CFS teacher/female)

**Children:** 48 (+ 12 younger siblings)

Visit Date: 19 October 2005

7.00 – 8.30 The class has sung the anthem and saluted the flag and are settling themselves down at their large square desks. The first 10mins are spent changing the date, practicing saying the days of the week and the teacher writing on the board. She asks a boy to come and read the date from the board; he can't yet. A taller girl comes out the front to help. The writing is very small and along the top of the board, it is difficult to see from where the children are sitting on the floor. There is lots of whole class repetition of the date. The teacher is concerned whether everyone is listening. She circles amongst the groups and encourages children to stop fiddling with bags. The classroom is decorated with work from last year. It is colorful and there are posters with animals, letters, and numbers stuck at child-height. But the room is warm already. It faces east and the sun is beating down on the wall, it must get warmer throughout the day. Alphabet posters are stuck on to the desktops and there is a large central space for playing games. The children hold onto name cards in different colors for each table.

The teacher seems unsure of what to do next. A child is brought in by her mother. She runs home whenever she can, it is the third day of school, and she looks terrified. Mum stays at the window for a while. The teacher smiles kindly and helps her find her seat. Another 5 minutes pass as the teacher encourages individual children to listen.

**Interview:** Vanny has an apologetic demeanor, and is unconfident. We give her some praise and she smiles shyly. "It's so hard with so many extra children in the class; there are a lot of underage children". She explains her eagerness to learn new techniques in keeping children



interested and listening. She is interested in trying out the new ideas she learnt at training. We talk some more about her teaching experiences. She's taught small children for 21 years.

Visit Date: 8 November 2005

1.00-1.55 The teacher is calling in the class arranging them at groups using name cards in a tin. It's Week 5 and

the class is still not stable. A new child turns up. Others come in irregularly. There are lots of under-age children in this class of 50. The Director has asked me not to tell the Department. He complains about how difficult it is to refuse admission to new students because parents get so angry. "He doesn't have to teach the class though!," the teacher remarks. The class is eventually organized and the children sort out what day it is. She points to the board where the date is already written. Some children get a turn of reading and pointing alone. She has great control at the moment. Their attention is fresh. Different children come forward – girls and boys. They are quiet and responsive. She speaks with a soft, encouraging voice. Volunteers are raising their hands not just pushing forward. Children then introduce themselves to her using their name card. "Morning Teacher, I'm called...". She reinforces their groups, works out who is missing, who is in the wrong place. They are sitting at low square tables on cool tiles. The tiles make such a different. Cleanable and cool. I wonder how much it costs to do this – could some building company somewhere could be persuaded to tile a classroom?? The first 40 minutes are spent on this administration.

She talks about caring for books – being gentle and clean. A child has fallen asleep. She points him out to me and laughs. He doesn't wake up.

2.10 – 3.00 The class play "Teacher Says". A student arrives late and muddy from the washed out road. The teacher helps her clean her feet and find a place. The class play the finger game "Show me..." then stand-up to sing a number play song. Good timing as they were getting restless and needed to stand and shake out bodies. The children sing confidently and mostly together. Some children come out the front to act the old person in the song.

She uses objects to demonstrate positional language (box/book). She repeats the same example though so children are just repeating each other's answers rather than solving a new problem. She changes objects (bottle/chair) and repeats the activity. There is no space to sit as a whole class and the class is distracted at their desks fiddling with marbles and bags. I take some marbles off the boys next to me. They're surprised! The tables are smaller and seat groups but they are being used in the same way as bigger tables. Children are sitting and passive for long amounts of time. This lesson would be more effective if they were sitting together as a whole-class as there are fewer distractions. The children refer to the textbook page on above/below and recite the examples given in the book. They place the book in relation to ourselves.



The next 20 minutes are unfocussed as we wait for the break. She wonders what to do for a while. Then eventually she asks the children to draw a line. 20 minutes are spent drawing a line (pre-writing) with a dot above it. Finally the bell gets rung.

**Interview:** Vanny thinks that the program is going well but that it is difficult to move through the concepts with so many small children in the class. She feels she spends a lot of time getting attention. She also feels she is falling behind in some of the work. The parents are happy because the children want to come to school. She seems very eager to do a good job but is a little overwhelmed by the challenges.

Case Study 3: Reul Primary School (old CFS site), Kampong Cham

**Teacher:** Due Mey (No previous CFS experience/male)

Children: 45

Visit Date: 18 October 2005

**10.00-11.00** In a large school about 30mins drive off the main road, down a shady palm lined dirt road with scattered houses there is a tidy community, poor but organized. The 45 children are dressed in a mottled collection of white shirts, navy skirts and trousers. This teacher is an older man who has been teaching for 15+ years. He decided to participate in the SRP to learn how to teach the small ones better. It's 40mins before lunch and the children are lethargic – hungry and tired. About 10 mothers and their toddlers hang through the class windows ready to pick their children up and interested in the 'new programme'.

The room is clean and decorated with posters from last year. Letter cards cut from poster hang off string bisecting the room. The curriculum areas are copied out in large writing and stuck on the back wall. The date, a number line and a large grid is on the board. This is a Child Friendly Classroom, the heavy desks have been arranged into groups. There are too many desks and if the extras went there'd be more room for group activities. There is space out the front, but this wasn't utilized by the teacher.

When we arrive, the shape/body was already stuck on the board. He picked up the lesson...

The groups organized their shapes into a body like that on the board. The children sitting down the end of the table had no hope of reaching the pieces or contributing. A representative from each group stuck their body on the board. Sticking them up took about 10mins with the teacher cutting and folding tape. The class was then encouraged to give each body a mark... "Who's is the best?" They were all identical.

The teacher seemed relieved by an interruption, "How many students are here today?" He returned to the voting. But no one was really interested. He went to the desk and referred to the SRP manual. He had a magic bag... and filled it with the pieces from the bodies on the board. He explained the game. Five children pushed forward volunteering to have a go. The teacher asked a range of questions encouraging the children to think about what they had in the bag. But only about 50% of the class was listening. Lunchtime was just around the corner. He shrugged in resignation. We smiled and said that he could finish the lesson if it was time to go.

A quick recap of the day's objective. The class called out the name of each shape when it was held up. They were told to remember these shapes when they went home and to remember them when they came back tomorrow. The whole school streams out into the large field as soon as Grade 1 does. It's time to go home.

**Interview** There are three SRP teachers at this school, all male. They look 40-50yrs old. They were eager to say that they enjoyed the training and had lots of good ideas to develop. It was new to them and different from what they'd usually do and have done for years. They'll wait and see the results before deciding whether to do it again next year.

Case Study 4: Lngieng Primary School (old CFS site), Kampong Cham Province

**Teacher:** Sokun (previous CFS teacher/male) **Children:** 57 + 5/10 younger siblings

Visit Date: 18 October 2005

This is a remote school in the rubber plantations. The road was bad and we arrived at 1.30pm. Grades 4 and 5 were hanging around on the balcony. One teacher and a cluster of other adults were gathered under a tree. Miscommunication... the Grade 1 teacher was expecting us tomorrow. He had to be fetched, as did the school director. The teacher works half days.

I encouraged the KAPE evaluator to request to see the classroom and talk through the lesson that he'd taught today. After greeting the Deputy-Director we unlocked the Child Friendly Classroom. Low square tables that could be moved around. They were spaced evenly throughout the room. The teacher said he does all his group work outside where the air is fresh. It's a dust bowl though and must get hot in April. Two seedlings have been planted to eventually provide some shade. The room is clean and decorated from previous years.

We spend about an hour talking in the administration room. Sharing it with sacks of rice and cans of fish. This school is a recipient of the School Breakfast Programme. The other teacher sat up the back and listened to us. His class was next door chattering. The missing one had turned up at about 1.45 and was teaching his class.

I asked him why he'd joined the SRP – he laughed "To learn more". He shared a bit of his career with us, acknowledging that he preferred teaching the older grades. The evaluator worked through his questionnaire, as we weren't going to be able to return tomorrow. I suggested that it was important to get an idea of what he'd taught today, to try and gather some information.

The teaching objective today was positional language. He had divided the class into six groups. One group came

out the front and was asked to describe their position in relation to each other "Front, middle, middle, middle, End". They turned around and tried from the other way "End, middle, middle, middle, Front". This was repeated with each group.

The next session was spent outside in physical education. They children moved their bodies like animals, isolating body parts "hands like a beak, arms like wings, body like a tail" nicely demonstrated to us by the teacher.

The third session was spent playing dominos, lotto and learning number shapes. I struggled to understand how this filled the day, but there were no further explanations.

We got talking to the Deputy-Director about the School Fair aiming to attract students to school. This was an exciting topic. There were sack races planned and prizes for quiz questions. I felt for the Grade 1 teacher. Was he wondering where he'd put the extra students they attracted? He was already coping with up to 70 children a day.

We thanked all the teachers for their time and excused ourselves. Walked passed the teacherless classroom and the next whose heads were buried in textbooks. On the way out through the plantation I observed people collecting rubber. "They work hard for their \$25 a month" said the driver. So do the teachers.

Case Study 5: Moahleap II Primary School – (old CFS site), Kampong Cham Province

**Teacher:** Seathun (new CFS teacher/female)

Children: 38

Visit Date: 19 October 2005

**9.00-10.00** Another Child-Friendly School, certainly the school is exceptionally clean. Well organized gardens (some being utilized to grow vegetables over the summer holidays), tidy verandas and there's no chanting to be heard from the classroom windows. The school shares its land with a Wat, also tidy. The Director and SRP teacher are women. The Director is also teaching Grade 1 while her Vice-Director (male) does the paper work. She declares how she likes a tidy school, "We have no plastic bags here."

A small class makes such a difference. The classroom has been cleared of desks and the class sits spread over five grass mats. There are a few traditional wooden desks in the corners for 'corner activities'. There are posters on the walls and some dusty work from last year, along with a teaching clock, height measuring chart and outline of curriculum areas. The walls desperately need a fresh coat of paint, but the room is otherwise spotlessly clean.

When we arrive the children are singing songs. They are standing up, doing actions. They act out a rhyme about old people walking. The teacher models the dramatics. She is obviously willing to perform.

The teacher asks the class to sit and moves over to a poster on the board – the body/shape from yesterday's lesson. She goes through the shapes asking the class to chant their names. There is some hesitancy. She elicits answers from those that know and uses this to reinforce learning. A few children get picked for turns at pointing to the shapes. "Are they right?" "Right". She makes eye contact with the students and moves around the room as she talks. She chooses people to answer from different groups, keeping the class on their toes. It is a demonstration of how effective teaching 'up close and personal' is for the early years. When sitting at big desks attention is so easily lost.

The teacher begins to get a bit lost. She looks at her lesson plan, which is on hand and is obviously fishing for things to do. She draws two shapes on the board. "What is this?" "A circle!" cries the class. "Is it inside or outside of the square?" "Inside!". She seems unsure of where this is going, so asks the children to open their textbooks. They start to name animals as they point to them.... Finally she stops, "I'm not feeling very well. I have typhoid and only came in today because you were traveling to observe me. Can I go home?" Of course! And naturally, so will the class, for there is no one else to teach them. Unless the Vice-Director can be persuaded? No, he is too busy doing his paper work.

Case Study 6: Reul Primary School – (old CFS site), Kampong Cham Province

**Teacher:** Ngorn (previous CFS teacher/female)

Children: 40

Visit Date: 7 November 2005

**7.20-8.00** We arrive 20mins late, as we got lost. We manage to sneak in up the back without making too much fuss about the 'visiting barang'. We are in a CFS classroom. Big metal tables with 8 children each. Two stools

short. The old heavy desks are around the edge of the room. They take up space so there is no room for mat work/games. *How easy the metal desks are to lift?* 

The class is learning the vowel 'ae'. The teacher has introduced the lesson by making animal sounds with the children. The bird sound uses the 'sound of the day'. She writes the Khmer script in large print on the board. She sends the class off as individuals to find as many of these as they can around the room. They take some encouraging but eventually most of the class is up looking at the posters and previous years' work on the walls. There are exclamations of 'here, here'. In groups of 2/3 the



children use their counting stones to make the vowel shape (an elongated oval). She

sticks four letters on the board and revises these by asking a child to come and identify the 'ones we know' and the 'ones we don't know'. She writes 'g-ae' on the board carefully talking through the shapes. The class practices this letter on their slates. The teacher moves around as they write. Everyone is on task, there is peer teaching occurring incidentally. Groups come and write on the board. This lasts for the rest of the hour.

8.15-9.30 The next session is maths. The teacher revises numbers 1-5. The class certainly can recite them 1,2,3,4,5. Can do it backwards? Can they count on? She sticks the numerals on the board and five children come forward and identify each one. This goes on for a while. The class has come back from break all wound up. She could have used a focusing activity when they came in to help herself. They need calming down. She has made a worksheet for each table group (5). Two columns with objects, numerals 1-5 that need matching up. Each group matches their columns – there is a dominant few in each group, and some non-participants. A great idea for when you can't photocopy. She could reuse her sheets by asking them to use stones to make lines instead of pencils. Then each group could try the different arrangements. There is also an opportunity for peer assessment here. A representative from each group sticks the sheets on the board and they go through the results. Only five children are involved in this... and there is a paper airplane flying around. Someone in the corner is blowing up a balloon. She turns around and begins to focus on writing number two. The children spend 10mins copying it on their slates. There are a few who don't participate in this - don't have a slate, don't have chalk, don't have any interest. There is not really very much happening. As they write she outlines the numeral on a piece of paper for each group to trace. Some groups are better than others when sharing the task. The groups are competing again to see whose is the best. This element of competition has been omnipresent in the lesson but there is no real reward when 'yours is best'. No clapping. I encourage some of the less pushy kids on the table near to me to participate. The teacher informs that they aren't as clever. Clever = being first and fast. The class is getting restless, as they've been sitting, writing and talking for nearly 70mins.

**9.45-11.00** The teacher teaches an action song. She nervously glances over towards us to see our reaction. We smile. After 60mins of practicing in groups, as individuals, and as a class about 3 children can sing the song independently. Chaos breaks out up the back and she goes to sort out the rough and tumble play. *The class needs to be standing up at least, jiggling about, doing big actions, standing in a circle... or something.* Finally, it's home time.

**Interview:** Ngorn isn't sure why she became a teacher, she likes kids. She's been teaching for 15 years. She decided to be a CFS and SRP teacher because she believes that this is the way of the future. The students are more involved, happier, relaxed and cooperate more easily as a result of the new methodology. But it takes time to prepare. She teaches half a day, does the housework, and feeds the pigs in the afternoons. She has two children of her own. She spends maybe 2 hours a week preparing her lessons. There are 8 repeaters in her class

who repeated because they are poor. She believes that to pass this year they need to pay better attention that is they are responsible for their learning.

Case Study 7: Moahleap 2 Primary School (old CFS site) Kampong Cham

Teacher: Thoun (new CFS teacher/male)

Children: 45

Visit Date: 8 November 2005

**7.30-11.00** Each school seems to have its own timetable of breaks and starting times. But we are there for the beginning of the day, which is nice. It seems hard to observe a full session whilst not being based in the village. There is a lot of travel time. Even leaving at 5.45 we struggle.

I sit on the floor up the back of the class. It is nice to be on their level. They make a train and trundle around the room 'choo-chooing'. A good warm-up as wait for the drifters to arrive.

The class sits down and we start on the date. This seems an important part of the day. It eventually gets written on the board. There is also a calendar here to refer to. There are lots of posters and work stuck on the walls – well stuck and clean. The room is also clean. The teacher writes on the board, modeling writing. He is organized and the things are in good condition. The five tables are handed cards of the day's names and are asked to sort them into order. Not everyone contributes. He plays a finger game "show me 5". Then moves onto the lesson – left and right. Three children form a line out the front asks individuals if they are on the left or the right.

There is much more room when you get rid of the heavy wooden desks. The children sit on small stools at low square tables seating 8 in a group. A few are left for storage of books and equipment but there is much more room for game playing. And I find out that the children can move them themselves! They are moved for 'elephant' miming. The children make a circle and three children make an elephant – one nose, one left/right ear. This could be much more fun. He doesn't seem to have energy when singing and playing games. The group watching could make boom boom sounds. And then you could have a room full of elephants at the end. There is definitely a need to be in control. Still teacher-controlled activities. What about asking, "Can you use your bodies to make an elephant? How many different ways are there?". Open-ended and inquiry questions.

The open walls make it a competition between classes and birds – who can be the loudest? We sing again, the 'la la la' song – he watches though. They return to their seats. He asks them to offer what's on the left/right of their houses. They haven't really learnt this concept though. We don't teach it until around 8yrs at home. It doesn't have any real meaning... needs to come within activities over time.

Then suddenly there's nothing. We're waiting, sitting, chatting with each other. We're waiting for the bell. But it doesn't come for another **35** minutes. Two boys take themselves off to look at the alphabet chart and try to sing and point to the names. If the teacher had moved them away from their seats and bags (constant fiddling) his extension might have worked. They needed somewhere to put their focus. The kids are constantly eating rubbish – sweets from the playground. He gains their attention by banging on the board or shouting, "listen to teacher". He hands out the names of the days again and asks them to sort them again. A few girls are interested... but most are waiting.

After the break there is a lesson on letter recognition. Children identify words with the sound 'ga' from a collection a real objects (glass, cup etc). Good to have some visuals. The teacher writes the suggestion on the board and they check for the letter. "Is it there?" He asks for a volunteer to find the letter. But it's the same couple of children coming forward every time. He doesn't ask for other volunteers. He uses the lesson plan to help generate words for the children to hear the sound. "Is it in this word?". Good aural practice. He has a great picture to illustrate the sounds. Nice and big. Everyone will be able to see it. We look around the room to find the letter. Groups rush around pointing to it in various posters and charts. We find it in the textbook. He uses an alphabet chart covered in plastic and asks volunteers to trace over the letter. (Great idea for reusing a resource). Same volunteers as before. It's survival of the fittest who can shove their way to the front first. Children get out their textbooks (some sharing with friends who don't have them) and open the 'ga' page and count how many 'ga' letters they can see on this page. The teacher writes it on the board. The children write it in the air. Then they trace it with their finger in the book. He gets out sand trays and shells to make the letter shape. What great resources. The children are pretty good at sharing. Then they have a try on their slates until it's time to go home.

Interview: He has been teaching for 19yrs. After the war there wasn't enough teachers so he decided to be one. He wanted to participate in this programme to gain new ideas. He is searching to understand the needs of children at this age and wants to match their learning to their ability and needs. He has taught Grade 1 for 13yrs. Since using child friendly methodology he has noticed the children learning better. Before children were forced but now the children don't even know that they're learning. They're having fun. His low standard of living makes it difficult to find time to prepare – maybe once a week he thinks about activities and resources. The Thursday is not enough/or not used. There are eight repeaters in his class and he tries to give them extra attention but he also encourages child-to-child learning by asking their siblings/older students to help them at home. But sometimes there is nothing that can be done, they're brains are just not good. The community has had a good response to the programme but they didn't understand it initially. They thought it was only fun. But they begin to see that it works and the children are learning. He comes across as a serious man – not a jovial kindergarten teacher. But is committed to this age group. Perhaps the programme will teach him also to play.

Case Study 8: Ponley Primary School (new CFS site), Prey Veng Province

**Teacher:** Peav (new CFS teacher/female)

Children: 30

Visit Date: 28 November 2005

This is a small satellite school of 3 classes. The classroom has been furnished with individual desks by the Japanese. They are lightweight and arranged in a u-shape. The room is clean. There are a few poster hung about 2m up the wall – difficult to see. Some other teacher-made number, color, day charts. No children's work.

**7.15** She starts by going through the days of the week. She uses the children's names to elicit the answers. She has made a calendar scroll and asks a child to turn the day, date, and month to reveal the date. The class is extremely disciplined. You could hear a pin drop. The sit feet together, hands in their lap on their chairs, raising



their hands to her questions. She goes over the importance of listening to the teacher – she seems to have got her point across in previous weeks. The class is very responsive.

**7.20** The children get out their slates from the bags on desks behind them and write a few letters and numbers. They rest their slates on their laps. *I wonder why they don't turn their chairs around*. They hold them up high for her to scan.

**7.30** Peav holds up her fingers and asks children how many she's displaying. She repeats the question 3 times before moving to another example. 6 children get a turn. The whole class could be involved towards the end or some children could give examples.

**7.35** The class can choose dots, lines, or circles to draw five. The examples on the board are all linear. They get their slates out again. One child has forgotten hers today; there are no spares so she sits taskless. They draw other amounts as instructed. Peav shows them using her fingers rather than saying the number. She is assessing their ability to copy amounts rather than generate them. She holds up four straws/pieces of chalk. How many are there? She moves on to teach handwriting '4'. Goes through it slowly using steps on the blackboard. The children have a turn on their slates she moves around the class helping those that need it.

**7.50-8.00** Break We continue the maths lesson. She holds up straws again, changing the amount asking children to match with their fingers. She tapes a number line to the board and reads through it with the class. Children are chosen to come forward and read it, pointing as they go. One child is told to hold the stick with his right hand after naturally grabbing it in his left. Another is corrected for saying bpram-pal not bpram-bpee. Other children read backwards 10-1. She covers up a number on the line "What's missing". *This could be made more gamelike; children could be in control of it.* 

8.15 The class begins a section on observation skills. She selects a girl and asks the class to look at her. They go

outside and return having changed something 3 times (put on shoes, changed bracelet hands etc). The kids are responsive but not eager, excited. They open their textbooks to a page on observation. Which out of the four is the same? Peav models on the board and the lets the children have a look for themselves and draw the answer on their slates. *Some independent work!* 

**8.25** The class sings some songs. They sing loud and strong (without the teacher). They are smiling but it feels like a performance rather than joyful.

#### 8.40- 8.50 Break

Peav sticks four lovely color pictures on the board of street scenes (if the class were sitting on the floor together they could see them more easily). She talks about road safety and asks the class to identify vehicles they can see. A child comes forward to describe the scenes in more detail. There is opportunity for an oral story here. Or what vehicles did you see on the way to school. Which scene (city, town, rural) is what you see? Or going outside to

look at the road past the school. The class begins to draw their own picture of roads, kneeling on the floor and leaning on the chairs. I wonder, again, why the desks aren't used? Is there some perception that they shouldn't? Peav decides that there isn't time to draw now and that the children should finish this at home.

**9.10** She teaches a song about respecting your teacher. She has a terrific singing voice. Strong and confident. The children rise to meet her and learn the song quickly. They perform it to each other in two groups.



# 9.40 - 9.50 Break

The class revises the new song again. Peav smiles awkwardly and says that she has finished her lesson plan for the day – do I want to leave? I ask what she will do for the next hour. She'll revise other lessons. I'd like to see this. She gets out large dice she's made. They look strong. And the children play a game in four groups using the letter snake from the textbook moving a stone along as they have their throw. The children automatically sort out who goes first by playing scissor, paper, rock. They've had experience organizing themselves and turn taking before. But then it is time to leave. I let the teacher know that it is fine to let children play these sort of games, she doesn't need to be leading all the time. She should not be embarrassed by this activity. And the children could draw at school b/c many don't have such quiet environments at home. We talk about how drawing strengthens muscles used in writing. The KAPE staff asks the teacher to buy straw mats for the children to sit on when they do group work like this. We say goodbye.

**Interview:** Peav has been teaching for 26yrs. 7yrs in Grade 1 because she likes the small children and cares for them as if they are her own. They start the most basic learning and she is the first teacher that they see. She volunteered for SRP because she wanted to give the students the attention and interest that they don't get at home. There are 3 repeaters in her class, which she will try and give extra attention. Her methodology has only changed a little after the course. The activities like singing are new, but the way of teaching is the same for her. She didn't know any songs to sing before but likes the ones that she learnt in the training. This is the first year she's sung in the classroom. The community has given positive feedback about the programme. The Director supports it but the PAP money has only just arrived so they haven't been able to buy much material. The parents like it as the children are happy.

Case Study 9: Sung Primary School, (new CFS site) Prey Veng

**Teacher:** Sokha (new CFS teacher/male)

Children: 45

Visit Date: 29 November 2005

7.15 We are in a tidy classroom; the teacher inspects it and asks children to take their collection of firewood outside. There are 45 kids in the class but a large age range. We start of by singing the "la la la" song with no actions. The kids are a ragged bunch with only a few in school uniform but they have spirit. Large wooden desks are arranged in four groups with space in the middle for playing games. We spend time sorting out seats and stragglers. The words of songs are around the room at child height. Snake number lines and a lovely poster of

animals and their names. The floor is clean but there are no mats to sit on.

**7.25** Children write the number '5' and hold it high. There are about 6 children without slates. Children are instructed to write number '6'. About 50% of the class is engaged – those who are doing it know their stuff. There is lots of laughter. The teacher is talking, teaching numerals, looking at one table (and they're the only ones listening). Write "cho" sound. A child points to the letter above the picture of a pig. There is constant screaming chatter from the children. Such a contrast to the quiet of yesterday. A child is asked to demonstrate on the board. The teacher has a nice demeanor but I'm not sure who is in control... lots of "yes, that's right, well done". I can't hear him very well over the noise. He revises vowel sounds on the board, teaching to one side



of the room. There are even fewer focused now. He stops to sing a song. The class sings loud and strong, the teacher also has a strong voice, they don't do actions. The teacher reminds them to wash their hands before eating at break.

#### 7.55-8.15 Break

The next session is addition. The teacher asks them to write 1+1 on their slates. Most children are eating sweets or fruit. He uses matchboxes to demonstrate addition and subtraction filling them with pebbles. There is now a balloon floating around the tables. He writes sums on the board. About 4 children practice them on their slates.

The little girl opposite me is trying hard to concentrate as her neighbors blow bubbles. The teacher spends about 10mins writing up the date and saying the date together. Almost 70% of the class is engaged again. They practice writing the date in their exercise books. Most of them can already write (are they repeaters or have they been learning this?). He marks their books at his table whilst they wait for him to finish. Nothing is happening. We appear to be waiting for break. Half the class has sneaked outside already.

#### 8.55-9.15 Break

The teacher practices writing again. He brainstorms words with 'ko' in them. One table near him is participating. The rest are off task. *Imagine spending every day like this*. He continues teaching to that one table. *He seems eager to teach and could be a fun teacher, he certainly has no problem sharing control. But he needs some help with classroom management*. Not a lot happens until the next break at 9.55

**10.15** I spend the last session watching the other two more experienced teachers. He has been teaching for 3yrs, they for almost 20. Their rooms are also physically attractive, decorated with work from last year. They both walk around with heavy sticks cracking them on tables or the board to get attention. The children jump, as do I.

**Interview** The teacher is not drawn in the interview, he gives short answers. He has been teaching for 3 years and decided to become a teacher because it is a good job. He remembers information from the trainings and says he is using it in his classroom. He would like more supplies to teach with. The Principal is supportive; the school receives money from UNICEF to improve its facilities. It is a good-looking school. Tidy and painted... I encourage the Principal to give the teacher some support with classroom management.