![International Reading Association logo]

Observations and Suggested Literacy Activities

for

Room to Read © Bangladesh

Technical Consultant:
Dr. William Edwards

Management Team:
Sakil Malik
Janeen Haase

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From January 3 through January 16, 2010, a volunteer for the International Reading Association (IRA) undertook a site visit of the Room to Read © program in Dhaka, Bangladesh. The volunteer was a tenured associate professor in literacy at an accredited teacher training university program located in the Midwestern United States. The IRA volunteer has had a variety of educational experiences over the past thirty years. Program staff provided a thorough briefing on the mission and service areas of the Room to Read non-governmental organization (NGO). Non-governmental organizations in Bangladesh have been active in providing primary and basic education over the past twenty years (Nath & Mahbub, 2008). While Room to Read has had a relatively recent history of providing literacy services in Bangladesh they are well-organized with strong leadership, staff commitment, and a wide donor base necessary to fund program activities in their service areas located throughout South Asia and Africa.

The suggested IRA recommendations are based on a variety of sources: briefings over the two week period by Room to Read program managers and staff; visits with community leaders in the NGO service area; stakeholders; government officials, educational officials; head teachers, teachers, parents, along with site visits to a number of elementary schools and classrooms, grades 1-5 in the rural communities under the service scope of Room to Read. The majority of the program observations were in the Sirajgonj district of Rajshahi division of Bangladesh. This also included visits to two rural schools in an outlying char community.

The language of instruction in the Bangladesh schools is in the mother tongue of Bangla. Second-language learning is not a consideration of these recommendations. However, a few instructional recommendations are offered in English with the understanding that several of the Room to Read staff are skilled in both English and Bangla and can adapt the concepts offered to the native tongue. The preliminary recommendations for literacy improvement are research -based while the delivery approaches are based on first-hand observations in the rural schools of the primary education cycle (grades 1-5), visited by the IRA volunteer. Recommendations for implementation of the approaches are based on the IRA volunteer's training and experiences along with input from Room to Read staff.

EDUCATION and CURRICULUM:

Bangladesh has one of the largest primary education systems in the world with an estimated 18 million primary school aged children, 6 to10 years, and 320,000 teachers in more than 78,000 schools. The

Primary Education Compulsory Act passed in 1990 made primary education free and compulsory for all children up to Grade 5. However, the number of contact hours students spend at school is limited. Grade one and two students in formal school attend class for 2.5 hours a day. Grades 3, 4 and 5 attend four hours a day in formal school. The annual contact time is fewer than 590 hours, one of the lowest in the world (UNICEF, 2009).

The Bangladesh national curriculum is based on a revised curriculum model introduced in 2003. There are twenty-two aims and objectives to be acquired during the course of the five year primary educational cycle. The primary curriculum (grades 1-5) is detailed and thorough in its construction. Terminal competencies covered in the national curriculum are: Listening, Speaking, Writing, and Reading. However, evaluation of these competencies by the Ministry of Education is limited by financial realities. Discussions with research officers employed by the Bangladesh Ministry of Education indicate that budget restraints have forced the agency to only evaluate the terminal competencies in the area of Writing.

PRIMARY CYCLE TEXTBOOKS:

The National Curriculum and Textbook Board (NCTB) ranks among the world's largest producer of educational textbooks. The textbooks produced by the Primary Curriculum Wing of the Bangladesh are generally printed using basic four colors on durable paper. The texts used in Bangladesh classrooms are linked to a well-developed and balanced spiral curriculum model. The curriculum-based textbooks are designed to support student learning in Bangla, English, and Mathematics in grades one and two. The text supports these three core areas throughout the entire Primary cycle in grades one to five. Beginning in grade three, students are introduced to Social Science and General Science curriculum and supporting textbooks. Student learning in the area of religious study is supported by text for the religions of Islam, Hindu, Buddhist, and Christian.

Table1: **Overview of Textbooks Used to Support Instruction**

Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Bangla	Bangla	Bangla	Bangla	Bangla
English For Today	English For Today	English For Today	English For Today	English For Today
Mathematics	Mathematics	Mathematics	Mathematics	Mathematics
		Social Science	Social Science	Social Science
		General Science	General Science	General Science
		Islamic Studies	Islamic Studies	Islamic Studies
		Hindu Religious Studies	Hindu Religious Studies	Hindu Religious Studies
		Buddhist Religious Studies	Buddhist Religious Studies	Buddhist Religious Studies
		Christian Religious Studies	Christian Religious Studies	Christian Religious Studies

TEACHER GUIDES

The textbooks are directly linked to curricular goals and objectives and are supported through a series of teacher guides for each subject and grade. The Bangladesh Education Ministry also provides accompanying Teacher Guides to support teachers in their instructional efforts. In design, the national curriculum identifies that the Ministry of Education prepare teachers guides and learning materials. These teaching guides and learning materials are distributed to the local levels through the divisional deputy directors, district and education officers. At the school level the classroom teachers utilize the teachers' guide and learning materials in the classroom (UNESCO, 1998).

Discussions with Room to Read program staff indicated that the Ministry of Education Teacher Guides were available to teachers but their experience was that the guides were typically not used by teachers as a resource for implementing classroom instruction. Length and complexity of detail were the primary reasons given as to why the teacher guides were not better utilized by classroom teachers. On a related note, the teacher guides and syllabi have recently gained the attention of the Bangladesh Prime Minister Sheikh Hasina. The Prime Minister provided the keynote address at the opening ceremony of the National Primary Education Week on January 7, 2010 where she publically challenged the Educational Ministry officials to "... think about how the syllabuses could be downsized and the quality improved (pp.1)" (UNB, Dhaka 2010).

In any regard, despite the criticisms regarding the utility of the guides, these guides constitute available curriculum support for teachers to plan their instruction. The reasons as to why more teachers do not utilize this available instructional resource are beyond the scope of this report. While teacher guides were listed on the Ministry of Education website, they could not be accessed for review. Without access to the guides, any International Reading Association recommendations and suggestions on incorporating the existing guides as an element of Room to Read teacher support cannot be provided in this report. Given that the directive issued by the Prime Minister will, in all likelihood, result in streamlining of the guides, any recommendations related to the existing teacher guides would be short-lived.

COMMUNITY INPUT:

Room to Read staff did an excellent job in arranging interviews with a variety of community members, education administrators, government leaders, merchants, and community stakeholders. Most enlightening were three separate interviews with fourteen supporting members of the Sirajgonj library community group, half-dozen members of the Sirajgonj Press Club, and a local artist and merchant who produced signs and banners. A common theme heard from the participants in these three groups was that teachers were not effectively educating the next generation of Bangladesh citizens. The most consistent criticism voiced by these concerned members of the community was that, in their opinion, Bangladeshi children were not being taught to read effectively or to understand what they were reading. Community criticisms were directly focused toward the classroom teachers or the teacher training process. School administration or other educational leaders were not criticized in the community discussions.

CLASSROOM OBSERVATIONS:

Physical Environment: Site visits to approximately a dozen Primary Cycle classrooms in grades 1-5 were undertaken in the rural communities served by Room to Read. During the visits to the rural schools, the school structures were typically tin-roofed, of substantial brick and mortar construction, and consistent with other buildings in the region. Classrooms had large windows on the outer walls with solid walls between classrooms. Classroom noise from the adjoining classrooms was well insulated by the walls between and did not distract students in the classroom.

Inside the classrooms, there was a chalkboard of moderate size for writing as well as a small table and chair for the teacher. Classrooms were large but given the amount of students attending, the

classrooms were filled to capacity, limiting movement by the teacher. Walls were painted and clean. However, all the government classrooms that were observed lacked any educational materials or decorations on the wall. Educational posters and charts were readily available in the head teacher's office, often hanging on the walls. Non-use of classroom posters or charts appears to be an accepted practice in Bangladesh public schools. An editorial by MD Massum Billah, a senior manager of the Bangladesh Rural Advancement Committee (BRAC)advocated for a strategic use of posting student work and educational posters. The editorial was published Jan 13, 2010 in the Dhaka Independent. The opinion article may help explain the reasoning as to the observation that primary classroom walls had no educational posters or student work "...certainly a classroom comes to life with word walls, bulletin boards, and posters but for many students visual stimulants like these are very distracting... (pp. 7)"

In terms of classroom resources, the Room to Read project has done an excellent job negotiating with the Education Ministry to permanently place Room to Read bookshelves containing a wide range of grade-specific, high-quality picture books in each classroom. The books and the attractive bookshelves brighten the room and the picture books appear to be well-accepted by the teachers and students in the classrooms visited.

Teacher-Student Observations: Observations of teacher instruction, student-teacher interaction, and course content were noted. The average classroom size averaged approximately 45:1 student to teacher ratio. Teachers taught two shifts of students. One shift covered the morning and the other shift covered the afternoon. Actual classroom populations ranged from a low of 37 to a high of 53. Numbers appeared equal for both morning and afternoon shifts. Students in the primary grades observed, sat three children to a table desk. Each table desk had its own bench. Book sharing at each table was generally common. In some classrooms all students had books, in others there were one or two for each table.

Depending on the classroom visited, either the class was in session or the students were waiting on the teacher. In the latter situation, the classroom teacher would enter the classroom and begin instruction typically within a few minutes. The predominant teaching method appeared to be a direct lecture method. The favored instructional approach observed tended to be repetition-based and in some cases the teachers would check for understanding through the use of student recitation. On a few occasions, students were asked to come to the front of the room to do work at the chalk board. In every case, these students were selected from the first two rows of tables. In all classrooms, instruction was

designed for the entire class. Differentiated instruction to children at different knowledge levels was not observed. In those classrooms, instruction by teachers encompassed whole classroom teaching. While the direct lecture method was clearly the predominant teaching methodology observed there was one exception. In one upper primary classroom, the teacher used an interactive approach with the students. He spoke in a much softer voice and encouraged students to articulate answers to his probing questions. When doing this, the classroom teacher made good eye contact with the students when they answered and he effectively used non-verbal communication to acknowledge what the students were saying. He moved around the room between the tables and helped students on follow-up assignments. The engagement of the students on the task at hand was very high. Except for this one classroom, in all the other classrooms observed, instruction was teacher-directed, repetitive drill for the approximately 30-45 minutes that the subject was being taught.

It was noted that in several classrooms at more than one school, the teacher left immediately following the lesson but would return about 45 minutes later and begin another subject. During the interim, students were left without instruction or assignments. These substantial periods of time without a teacher were explained by Room to Read staff. Due to teacher absences, classes had to be covered by other teachers at that school. This is not to imply that teachers were absent without valid reasons. Teacher absences were often necessary to attend mandatory training. Absence for training meant attending necessary civil-service functions required of teachers such as elections and census training. This meant that the remaining teachers had to cover the other classes at the expense of their own classes. This was accomplished by splitting their subject teaching time to approximately thirty to forty-five minute sessions for the subject periods.

At least on the days of observation, students were left without a teacher for a substantial percentage of their school shift. However, this observation should be balanced within the overall context of the Bangladesh school year. With only a few days of observation over a two week period, the observation of teacher absences may or may not be representative of the entire school year. Of note, during one period of time with no classroom teacher, the accompanying Room to Read staff member read to the children using some of the books provided by the classroom Room to Read library. He asked the children to predict what the story might be about. Their interest and engagement in the reading was very high. The children enjoyed being read to by a skilled and fluent narrator and were eager to learn.

During classroom observations with the regular classroom teachers, no incidences involving disrespectful, disruptive or unruly students were noted. Students in the rural primary level classrooms were respectful of their teachers. Classroom management did not appear to be an issue despite the large numbers of students being taught by one teacher. Unfortunately, this respect for the classroom teacher did not appear to tangibly translate into engaged student or effective use of valuable classroom time. Student time on task appeared minimal in the classrooms observed.

However, it is important to qualify this observation. The weather in Bangladesh during the observations was unseasonably cold. This cold weather was not simply unpleasant. A substantial number of Bangladesh citizens without shelter or adequate clothes perished in Dhaka as well as the rural areas during this sustained cold period. The cold weather may have had a negative effect on student performance and attention to task. On warmer, more pleasant days, students may be better able to stay on task. However, during class observations, student engagement was low. During the observations it was noted that student engagement was directly related to the proximity of the teacher to the students. Given the close proximity of the desks to each other in order to accommodate the large number of students, most classroom teachers were physically prevented from moving around to help students in the middle and back rows. Through close observation of student behavior during the lessons, it was evident that many of the students, especially at the tables furthest from the teacher, were only partially on task. When the teacher was talking or working directly with a student at the front of the class, many students spent time quietly looking around the room. Students did not chat with their seatmates or other students. However, very few of the students stayed engaged in those classrooms where the transmission of knowledge was imparting by the teacher through lecture.

Observation Summary: During observations in schools visited, there appears to be a gap between observed instructional practices and subsequent student learning observed in the classrooms. From a literacy perspective, the majority of the teachers observed focused their instruction on lower order learning that emphasized rote learning through repetition and memorization. This observation of teacher instruction is consistent with the UNICEF Second Primary Education Development Programme or PEDP-II (2009). The findings in the report identify similar weaknesses observed in the teaching process. "... The quality of the teaching process, the school environment and children's learning achievements also remain as major challenges. For example, the traditional, dominant way of teaching tends to focus on memorizing of facts..." (pp. 2).

The reasons for this dynamic could be related to several causes: large student to teacher ratios, double shifts for teachers. Other related issues not observed but identified by Room to Read staff include issues related to teacher training, low salaries, and teaching as part of other civil service functions. Furthermore, in the larger context, Hossain & Jahan (1998) identified the need to increase the current five year primary cycle for primary education to eight years if literacy rates are to substantially improve in Bangladesh. "The current five year cycle for completing primary education is an insufficient amount of time for students to obtain the requisite level of literacy, knowledge, abilities, attitudes and values for solving problems of everyday life (pp. 64)"

The observation that the five year primary cycle is too short to adequately develop student literacy and reasoning skills may ultimately be the critical factor for long-term success in improving overall literacy in Bangladesh. In any regard, all of the issues cited are far beyond the scope of the NGO charter of Room to Read - Bangladesh or the International Reading Association to affect change. Therefore, the following recommendations have been developed to support the existing primary education model. The suggested research-based literacy approaches provide an overview of research-based findings in literacy, followed by implementation strategies for Room to Read staff to consider implementing in the schools being served.

SUGGESTED RESEARCH-BASED
LITERACY APPROACHES

Introduction

There are many factors related to the reading process. Certainly, the main elements listed below are essential to the reading process. However, the International Reading Association IRA) recognizes the need to teach children reading skills after they have learned these basic elements. As a matter of policy, the IRA recommends several additional items to any formal reading programs. These include classroom organization, differentiated instruction, expert intensive tutoring, motivational engagement, writing, and spoken language. Strategies for increasing literacy development should focus not only on improving the reading elements below, but also on developing the higher-order thinking skills that enable students to comprehend, analyze, and communicate about ideas. Well-designed literacy programs provide students with frequent opportunities to use language not only for reading but also for writing, listening, and speaking.

Bear, et. al. (2008) compares the acquisition of reading to that of braids that comprise a rope. Likewise, the braids or components of literacy support each other and interweave to build a solid foundation of linguistic understanding for the reader. During the primary years, children acquire word knowledge through listening to the language that surrounds them. Through listening to and talking about experiences in their everyday lives, children begin to make sense of their world and use language as a tool to negotiate and describe their world.

Key Components of the Reading Process Addressed:

I. ALPHABETICS

    A.   <u>Phonemic Awareness</u>: As defined by the International Reading Association and the National Association for the Education of Young Children (1998) "...phonemic awareness is a child's understanding and conscious awareness that speech is composed of identifiable units such as spoken words, syllables, and sounds" (pp. 30).

    B.   <u>Phonics</u>: Phonics is the association of letters or groups of letters with the sounds they represent. Harris and Hodges (1995) define phonics instruction as a way of teaching reading that stresses the acquisition of letter-sound correspondences and their use in reading and spelling.

II. FLUENCY & WIDE READING

    A.   <u>Fluency</u>: Kuhn, et. al. (2006) describes fluent reading as being typically defined by three constructs (Kuhn & Stahl, 2003). These constructs include quick and accurate word recognition (Jenkins, et. al., 2003). Prosody is also considered a construct when oral reading is involved (Cowie, et. al. 2002; Schwanenflugel, et. al., 2004). <u>Wide Reading</u>: Marzano & Pickering (2005) suggest wide reading of fiction or informational text by students to help them acquire high-frequency words.

III. COMPREHENSION

        A.   <u>Comprehension</u>: is the main purpose of reading. Rose, et. al. (2000) describes

                          comprehension as an active process and based on the reader's ability "… to

                          retrieve the basic building blocks of sentences and relate the meaning within

                          them to scenes and stories from a text" (pp. 4).

        B.   <u>Vocabulary</u>:   Learning to read relies on the acquisition, understanding

                          and use of new words used appropriately in the correct context. Stahl (2005)

                          defines vocabulary as "Vocabulary knowledge is knowledge. The knowledge of

                          a word not only implies a definition, but also implies how that word fits into the

                          world ."

ALPHABETICS: PHONEMIC AWARENESS

What the Research Has Identified

Correlation studies have identified phonemic awareness and letter knowledge as the two best school-entry predictors of how well children will learn to read during the first two years of instruction (Share, et. al. 1984). Phonemic awareness is different from phonological awareness, which is an all-encompassing term that includes phoneme awareness as well as larger spoken units (e.g. syllables and rhyming words). The Report of the National Reading Panel: Teaching Children to Read (National Institute of Child Health and Human Development, 2000) examined 96 studies involving phoneme awareness through the use of meta-analyses. Each case was compared to a control group that received an alternative form of instruction or no special instruction. The Panel examined the effects on three main outcome variables: phoneme awareness, reading, and spelling. Phonemic Awareness training was found to be effective in teaching phonemic awareness to students.

The analysis of the data revealed that effect sizes were large immediately after training ($\underline{d}$ = 0.86), and they remained strong over the long term ($\underline{d}$ = 0.73). Phonemic Awareness training "… succeeded in teaching children various ways to manipulate phonemes, including segmentation, blending, and deletion" (pp. 2-28). Phonemic Awareness training also improved children's ability to read and spell in both the short and long term. The effect size was moderate following training on reading ($\underline{d}$ = 0.53) and on spelling ($\underline{d}$ = 0.59).

Implementation Recommendations for Room to Read Staff: Phonemic Awareness

Phonemic Awareness is essential to learning to read in any language that utilizes an alphabetic writing system, because letters represent sounds or phonemes in any alphabet-based language. Research in the area of phonemic awareness suggest that, as with many aspects of reading development, language support at home and in school is both appropriate and helpful to young children. In the schools, phonemic awareness should be taught *explicitly.* The instructional program must show children what they are expected to do. Teachers must model the specific skill they want children to learn before the children are asked to demonstrate that skill. In this regard, phonemic awareness is an *auditory skill,* but once children become familiar with the concept, teachers can introduce letters and demonstrate how these sounds can represent words.

Room to Read staff might consider providing training for pre-school and teachers of grade one specific to phonemic awareness. This training should be done to ensure that classroom teachers are familiar with the concept and how best to help develop their students' phonemic awareness skills. The scientific evidence that identifies the relationship between phonemic awareness and reading acquisition should be clearly emphasized to the pre-school and grade one teachers. The role of the Room to Read staff should be to introduce the concept of phonemic awareness and provide supporting activities to support pre-school and grade one faculty unsure of how to utilize instruction to teach this concept.   For those teachers already aware of the importance of phonemic awareness acquisition by Emergent Readers, the emphasis should be on reinforcing the concept and sharing new activities to use in the classroom. Encouraging teachers to share phonemic awareness ideas and activities they have already used or are considering implementing will help to establish a cooperative learning environment in the trainings. The end result should be that pre-school and grade one teachers are thoroughly familiar with the importance of developing phonemic awareness concepts with their young learners.

Student acquisition of this knowledge is an important factor related to their success with reading. Phonemic awareness is important for the following reasons: Emergent Readers begin to notice how letters represent sounds. Phonemic Awareness helps Emergent Readers understand the *Alphabetic Principle* or how the letters in words are systematically represented by sounds. Lastly, the sound units or phonemes are not inherently obvious and children need the guidance of a literate adult to develop these concepts. If a child lacks the understanding of necessary speech sound, then building later phonic associations will be difficult, delaying the child's reading development and fluency.

Suggested Classroom Activities: Phonemic Awareness

For children in pre-school and grade one, the research evidence suggests that the teachers of Emergent readers should provide an environment that encourages play with spoken language as part of a broader literacy program centered around Oral Language Development, Concept of Word, and Knowledge of Letter Names.

<u>Oral Language Development</u>: Oral language is the core braid of literacy. Through speaking and listening, people communicate thoughts, feelings, experiences, information, and opinions, and learn to understand themselves and others. Listening and speaking enable students to learn and explore ideas as well as to organize their experience and knowledge. Emergent readers benefit from many opportunities to listen and speak both informally and formally for a variety of purposes. Rhyming activities are good for initiating phonemic awareness. The reading and rereading of books along with clear, simple rhymes offer opportunities for instruction in rhyming and the beginnings of phonemic awareness.   Nursery rhymes, riddles, songs, poems, and read-aloud books that encourage children to manipulate sounds should be used to draw young learners' attention to the sounds of spoken language. Guessing games and riddles in which sounds are manipulated may help children become more sensitive to the sound structure of their language (International Reading Association, 1998).

<u>Concept of Word</u>: Children who have many experiences of being read to regularly may have developed a concept that the printed words and letters on a page refer to a specific word. This is known as concept of word (Bear et. al. 2008). Concept of word also identifies when emerging readers begin to recognize that printed words have meaning and understand the directionality of print. Once understood, these concepts are watershed moments in a child's literacy development and are important for success in learning to read (Adams, 1990). Those children who have had limited preschool experiences with printed language will need to be taught this concept. After reading a book to the children, the teacher should point to the title and ask "How many words are in the title?" and then assist the children in counting the words. The book should be reread by the teacher several times so the children are exposed to the cadence and flow of a fluent and expressive reader.   As the teacher rereads the book, he or she should point to the words as they are read. Instruction to help children develop a concept of word occurs within the context of entertaining reading activities. In other words, as the children listen to an entertaining story the teacher is also non-verbally instructing them in important information about reading such as the directionality of print and that each word contains specific meaning.

Knowledge of Letter Names: Research has determined that there is a strong correlation between knowledge of letter names and success in learning to read. Young children need to develop the concept that printed words are composed of letters. This does not mean that simply teaching children letter names in isolation will result in success in learning to read. Most preschool children learn letter names without difficulty. In a number of languages, many teachers introduce letter names by teaching emerging readers to sing the alphabet song. Thus, children often learn the names first and later associate them to the letter forms during reading instruction. Understanding the names of letters help facilitate the development of word-recognition skills. However, phonemic awareness is not a substitute for literacy instruction. Rather, it is a foundation skill. It would be developmentally inappropriate to teach letter names at the expense of other literacy activities. These activities should include oral vocabulary development, supported or shared reading with familiar books or materials, and beginning writing activities to children who have not yet learned letter names. Letter knowledge can be taught by using alphabet books, alphabet cards, alphabet songs and alphabet rhymes.

ALPHABETICS: PHONICS

Phonics Instruction: What the Research Has Identified

Research literature provides evidence that phonics instruction produces benefits for children from kindergarten through 6th grade as well as for children having difficulties learning to read (National Institute of Child Health and Human Development, 2000a). The greatest improvements in reading were seen from systematic phonics instruction. This referred to phonics instruction taught using a planned sequence of phonics elements, rather than highlighting elements as they happen to appear in a text. An analysis of phonics studies published since 1970 compared phonics instruction to other forms of instruction for their impact on reading ability. The initial electronic and manual searches identified 1,373 studies that appeared relevant to phonics instruction. These studies were evaluated to determine adherence to a predetermined research methodology criteria. Studies identified as meeting that criteria produced 38 studies from which 66 treatment-control group comparisons were derived. Data from these studies were used in a meta-analysis, including the calculation of effect sizes. Six types of outcomes assessing growth in reading or spelling were distinguished.

- Decoding of real words chosen to contain regular spelling to sound relationships.
- Reading nonsense or pseudowords to represent regular spelling to sound relationships.

- Word identification, primarily regular sound to spelling associations, but not in all cases.

- Spelling, either by developmental stages or number of words correct.

- Comprehension of reading, both silent and oral.

- Oral reading accuracy of connected text.

Each comparison could contribute a maximum of six effect sizes, one per outcome measure. However, few studies included measures of all the outcomes. The most commonly assessed outcome was word identification consisting of 59 effect sizes. The least common outcome was oral reading with 16 effect sizes. The other outcomes ranged from 30 to 40 effect sizes. Only 24% of the effect sizes involved text reading while the remaining 76% involved the reading or spelling of single words in isolation. While the researchers noted the imbalance, it was concluded that this imbalance was not surprising given that " ... [the purpose of] phonics instruction was aimed primarily at improving children's ability to read and spell words." (pp.2-111). In order to judge the strength of an effect size, researchers used values suggested by Cohen (1988). An effect size of 0.20 is considered small. A moderate effect size is 0.50. An effect size of 0.80 or above is large. An overall effect size was calculated for each of the 66 treatment-control group comparisons.

The overall mean effect size of phonics instruction on reading was d = 0.41when effects were tested at their conclusion. To obtain another index of effects, outcome measures either at the end of the program or the end of the first school year, whichever came first, were calculated. Results revealed an effect size of d = 0.44. The findings indicated that the effect produced by phonics instruction was moderate in size. The meta-analysis indicated that the effect sizes for all six measures were statistically greater than zero. This indicates that phonics instruction significantly improved performance on all the outcomes measured. The strongest effects occurred on measures of decoding regularly spelled words (d = 0.67) and pseudowords (d = 0.60). The researchers reported that "... this indicates that phonics was especially effective in teaching children to decode novel words, one of the main goals of phonics." (pp. 2-113). In conclusion, researchers found that systematic phonics instruction enhanced children's success in learning to read (International Reading Association, 2003). Furthermore, systematic phonics instruction was significantly more effective than instruction that teaches little or no phonics.

Implementation Recommendations for Room to Read Staff: Phonics Instruction

When working with classroom teachers, the Room to Read staff should emphasize that earning to read can be a complex task for beginning readers. These beginning readers must successfully coordinate many cognitive processes in order to read accurately and fluently. This includes recognizing words in print, constructing meaning from the text, and retaining the information read in memory. Classroom teachers need to be provided methods of meaningful phonics instruction that they can use to help their students become proficient readers. Room to Read led professional development in phonics instruction should emphasize the acquisition of letter-sound correspondences and their use in reading and spelling.

The primary focus of professional development in phonics instruction is to help teachers develop effective strategies to teach beginning readers that letters are linked to sounds or phonemes. Teacher development should focus on activities to help them teach letter-sound correspondences and spelling patterns.   Phonics instruction can be taught both systematically or incidentally. However, the research is clear that the greatest gains for beginning readers were through the use of a systematic phonics approach or program. Professional development for classroom teachers emphasizing phonics instruction can be taught through a variety of instructional approaches. The best approach for Room to Read staff to undertake with the classroom teachers will most likely be the method or methods that the Room to Read staff are most competent and comfortable teaching. All can be effective approaches to varying degrees when executed properly. The following methods are a brief overview of the recognized phonics methodologies recognized in reading instruction.

 Analogy Phonics is the method of teaching students unfamiliar words by analogy to known words. In other words, this is the recognition by the learner that the pattern of an unfamiliar word is identical to that of a familiar word. In English, this methodology would consist of helping the students blend the known rime or word family with the new word onset, such as reading the word brick by recognizing that the rime -ick is contained in the known word kick.

 Analytic Phonics is the instructional method of teaching students to analyze letter sound relations in previously learned words to avoid pronouncing sounds in isolation. Typically, the teacher writes the word on the board from the text, encourages the students to say the word several times. Once the word is familiar, then the teacher can introduce phonics concepts with that specific word.

Embedded Phonics is the instructional method of teaching students phonics skills by embedding phonics instruction within text reading. This is more of an implicit approach rather than explicit instruction. Embedded phonics instruction relies somewhat on incidental learning. In English, an example would be when the student encounters the word telephone. Students may not be familiar with the digraph –*ph*. In this case, the teacher would explain the phonics concept the –*ph* sound is pronounced as an –*f* sound. The teacher would then return back to the reading assignment.

Phonics through Spelling is the instructional method of teaching students to segment words into phonemes and to select letters for those phonemes. In other words, the classroom teacher helps students to spell words phonemically. In English, an example would be where the teacher would have the students spell the word shoe in its normal form as well as having students write the phonemic spelling as shoo . This is done to ensure that the students have mastered the underlying phonetic principal.

Synthetic Phonics is the original method of phonics instruction and dates back over 2,000 years to the ancient Phoenicians (Henderson, 1981). This instructional method is also referred to as the *Alphabet Method*. Classroom teachers help students to explicitly convert letters into sounds or phonemes and then systematically blend the sounds to form recognizable words. Students progress from applying single letters to vowels to two letters, etc. Students are encouraged to generate words from the letters and vowels they are memorizing.

Five principles of phonics instruction (DeVries, 2008) may be useful to share with the classroom teachers: (1) Base instruction on what students know; (2) provide systematic instruction; (3) provide explicit and extensive instruction; (4) use appropriate texts; (5) embed instruction in meaningful contexts.

Suggested Classroom Activities: Phonics Instruction

One effective approach to help students increase their knowledge of phonics patterns is to assist students in the examination of word pattern. This is the analogy method of phonics instruction or "word study" (Bear, et. al. 2008). The actual teaching of the phonics patterns is done through an instructional approach referred to as "word sorting". This instructional activity is very inexpensive and can be an effective strategy if taught systematically and explicitly to children. The underlying premise of word study is based on learning word patterns in a meaningful way rather than memorizing unrelated or

isolated words (Zutell, 1992). Henderson (1981) identified distinct stages in a child's spelling development. Henderson confirmed that student errors were a window into assessing that child's level of understanding of the *orthography* or amount of written language structure understood by that individual child (Bear et. al. 2004; Bear & Barone, 1989). These stages serve as a general but accurate guide to assist the teacher in understanding the level of word knowledge for each child in the classroom. From a teacher's perspective, children at increasingly more advanced stages of development consistently make more sophisticated errors in their spelling. Therefore, instruction needs to differentiated among the classroom students. In other words, children should be grouped in manageable numbers so the teacher can provide direct and explicit phonics instruction at the children's appropriate developmental level. Word study is useful in providing a method for students to examine and make sense of phonics patterns found within a word. Recognizing how these patterns interact within a word provides students a strategy to acquire and retain knowledge of this pattern and generalize that knowledge to new words (Henderson, 1992; Templeton, 1997).

Systematic word study instruction can greatly reduce the teaching of isolate phonics skills. This makes the acquisition of knowledge much more relevant and meaningful to the learner. Word study also aids students in building the word knowledge necessary for success in reading, spelling, and vocabulary. Practitioners of word study always closely tie their word study activities together with student reading. Students are encouraged to reread, identify and record specific patterns being examined from the stories they have previously read. In this manner, the teacher's instruction provides students with numerous opportunities to read, organize information, and make sense of new word encountered in their reading. In word study, the initial role of the teacher is to develop a sequence of instruction that is appropriate for the stage of development for each group of students. To implement word study effectively, teachers should teach as well as encourage their students to make sense of word patterns and their relationships to one another. Spelling "rules" or generalizations are not dictated by the teacher for students to memorize as in the traditional method of teaching. Instead, spelling patterns and generalizations are discovered by students. The instructional role of the teacher is to encourage students to compare and contrast features in words patterns the teacher has prepared to be examined.

An instructional example would be to have students sort words that compare two different phonics patterns. For very young children, sorts are initiated with pictures representing two initial phonics sounds. When sorting, the teacher asks the students to examine and separate the pictures with two patterns of sounds into two columns. Teacher responsibilities include selecting the appropriate phonics

pattern by choosing words or picture patterns for students to sort, encouraging students to discover the pattern in their reading and writing and to discuss and reflect on what they learned about that pattern. Teachers also should provide appropriate reinforcement activities to help students relate this pattern to the recently acquired word patterns and words that have been learned.

FLUENCY & WIDE READING

Fluency and Wide Reading: What the Research Has Identified

A number of researchers have found that once students are reading on their own, the amount of time they spend reading is one of the best predictors of their vocabulary size (Herman, et.al., 1987; Miller & Gildea, 1987). Cunningham and Stanovich (1991) observed that that even after controlling for general intelligence and decoding ability the amount of time spent reading contributed significantly to vocabulary knowledge for students in grades 4, 5, and 6. The researchers reasoned that if most vocabulary is acquired incidentally, then the only opportunity for acquiring new word meanings occur when they are exposed to new words, either written or oral, outside their existing school vocabulary. Hayes and Ahrens (1988) found that exposure to new words occurred more frequently as a result of reading rather than of engaging in most kinds of oral language activities.

Fluent readers are able to read orally with speed, accuracy, and proper expression. Fluency is an important factor necessary for efficient and effective reading comprehension. Despite its importance as a component of skilled reading, fluency is often neglected by many classroom teachers. If text is read in a slow and inefficient manner, it will be too laborious and difficult for a child to efficiently utilize the information read. The necessary task of remembering what was read and then relating the concepts in the text to his or her background knowledge will not occur or will occur inefficiently. Recent research on the role of fluency in reading has led to increased recognition of its importance in the classroom and to changes in instructional practices. There is general agreement that fluency develops from reading practice. What researchers have not agreed upon is the method or form that reading practice should take (Marzano & Pickering, 2005; National Institute of Child Health and Human Development, 2000).

Two instructional approaches, each of which has several variations, have been used to teach reading fluency. The first is guided, repeated oral reading. This approach encourages students to read passages out loud with guidance and explicit feedback from the teacher. The most popular programs in this category include: *repeated reading*, *neurological impress*, *paired reading*, *shared reading*, and *assisted*

reading. The other approach, also popular in classrooms, but providing less explicit teacher input, is independent silent reading. The programs in this category encourage students to read silently on their own, inside and outside the classroom, with minimal guidance or feedback. Examples of these types of programs include *Sustained Silent Reading (SSR)*, *Drop Everything and read (DEAR)*, *Accelerated Reader (AR)* and other similar incentive-based programs. Researchers Programs selected articles for analysis from two separate databases, the Educational Research Information Clearinghouse (ERIC) and Psychological Information (PsycINFO).

 Researchers wanted to quantify the differences in these two approaches. Selection of the articles first occurred by limiting research to articles after 1990. Ultimately, after meeting the initial criteria set by researchers, a total of 77 articles related to explicit, teacher supported fluency practice. These studies were conducted in a variety of classrooms, with good readers as well as those experiencing reading difficulties. In these studies, teachers used widely available instructional materials so the teaching impact could be assumed to be the direct teacher instruction and not the materials themselves. In the meta-analysis, the primary statistic used was effect size. This indicated the extent to which the performance of the treatment group is larger than the control group. An effect size of 1.0 indicated that the treatment group mean was one standard deviation higher than the control group mean. This would reveal the strength of the treatment. For example, an effect value of 0.20 is considered small, 0.50 is considered moderate, and 0.80 and above is considered large.

Overall, the meta-analysis found a weighted effect size average of 0.41. This suggests that guided oral reading has a moderate impact upon reading achievement. Analysis of the data revealed that repeated reading procedures had a clear impact on the reading ability of non-impaired readers through at least grade four. The highest impact was on reading accuracy, with a mean effect size of 0.55, the next was on reading fluency with a mean effect size of 0.44. The effect on comprehension was 0.35. These data revealed general support for instruction in guided oral reading. Researchers concluded that the instruction had a "... consistent and positive impact on word recognition, fluency, and comprehension as measured by the test instruments and at a range of grade levels" (pp. 3-3).

Researchers undertook a similar search process to determine the effectiveness of teacher encouragement on independent silent reading practice. The number of articles addressing this issue was reduced to 92 based on predetermined criteria established by the researchers. Further analysis reduced the articles to a final 14 which could be used in the meta-analysis. Researchers examined the

effects of independent reading programs that encouraged children to read on their own. Most of the studies selected from this small sample failed to find a positive relationship between encouraging reading and either the amount of reading or reading achievement. Confounding the analysis of the independent reading was the fact that few of the studies monitored the amount of reading students did in the study. It was unclear whether the interventions led to more reading or simply displaced other reading that the students might have done by the student. Researchers were left to conclude that the practice of encouraging students to read on their own might or might not be beneficial. However, other researchers such as Allington (2008), Marzano (2004) and Nagy & Anderson (1984) believe that sustained periods of silent reading by students can be an especially effective way to organize a school's commitment to the promotion of wide reading.

Implementation Recommendations for Room to Read Staff: Fluency and Wide Reading

Beginning Readers: Accuracy is a fundamental component of fluency. Therefore, teachers who work with beginning readers must focus significant amounts of instructional time on basic word recognition and word analysis skills. Teachers should be encouraged to present daily opportunities for students to learn to read words accurately. Emphasize to teachers that "pushing students to read faster" could result in student "guessing" at the expense of reading carefully. Research does not indicate precisely when teachers should formally begin encouraging beginning readers to increase their speed. However, in practice, teachers usually wait until about the middle of grade one. Stahl and Kuhn (2002) recommend that students be provided opportunities to read and re-read sentences until they begin showing confidence in their reading abilities. Teachers should frequently model fluent reading, demonstrating fluent, expressive, and accurate reading to these emergent readers. Books should be selected that follow a predictable text or a rhyming pattern. Room to Read staff will need to ensure that literate adults are regularly available to assist non-readers. Non-readers should be provided opportunities to read along with the teacher or literate adult in order to develop "concept of word" as earlier described in the phonemic awareness section. The assessment of concept of word will be elaborated upon more fully in the following paragraphs.

Concept of Word: Blackwell-Bullock, et. al. (2009) states that "Achieving a solid Concept of Word is actually the culmination of a student's automatic knowledge of letter sounds, their ability to isolate beginning consonant sounds, and their ability to remember words in isolation that were viewed previously in text . Therefore, incorporating Concept of Word instruction into daily literacy practice will

not only strengthen students' speech-to-print match, it will also develop students' alphabet knowledge, phonemic awareness, and knowledge of words in print" (pp.30).

If would be beneficial for Room to Read staff to train pre-school and grade one teachers to assess "concept of word." This training should raise teacher's awareness of the need for identifying if the individual emergent reader has grasped the concept that words on a page have directionality and individual meaning. To determine whether or not a child has acquired this important concept can be easily checked by the classroom teacher by means of a simple assessment (Bear, et. al. 2008). Children should first be asked to memorize a simple children's rhyme or passage consisting of several lines. Children can quickly memorize these types of passages. The pre-school or grade one teacher should already have the passage written on the board or a large piece of paper that is accessible to the child. Children should learn the rhyme orally and not through the use of any text. They should repeat the rhyme until they have it memorized "by heart". Once the child has demonstrated that they can orally recite the simple rhyme, the teacher should direct the child's attention to the written verses and ask the child to point to each word as they say the rhyming passage. The classroom teacher should observe to see if the child is pointing to the correct individual words and using appropriate directionality as they read. The teacher can further ask the child to point to several of the words in isolation. If the child can do these tasks correctly, then that particular child has successfully acquired a concept of word. If not, further oral experiences in reading and rereading predictable and familiar texts, identifying sound and letter correspondences, and rhyming activities are necessary to help further develop that child's concept of word.

Established Readers: During training with classroom teachers, Room to Read staff should emphasize to classroom teachers that personal reading by students should be part of the students' daily routine. Fluency is the reading of text with speed, accuracy, and expression. In this context, Speed refers to the number of words a person correctly reads per minute. Accuracy refers to reading the material with a high degree of accuracy. Johns and Lenski,(2005) recommend that if a reader's accuracy is at less than 90% of the words in a passage, then the text is too difficult for independent reading. Expression refers to the reader's effective use of phrasing, intonation, and pitch while reading text aloud. Both theory and common sense have long suggested that most words are learned from context, and recent research has verified that belief that word learning does take place in the context of normal reading. If students increase the efficiency of reading, the number of new words learned will surely increase. Therefore, one way to help students increase their vocabularies is to increase the amount of reading they do.

Room to Read staff can assist upper elementary teachers in those grades where students have begun to acquire more advanced literacy skills. Wide reading can be accomplished in these classrooms by encouraging teachers to provide students with regular and frequent opportunities to read and share. This might offer an opportunity for Room to Read staff to support the classroom teachers with wide reading follow-up activities. Room to read staff might consider initiating this process in a pilot class and gradually integrate it as part of the classroom routine. Students should be encouraged to share and talk about what they have read informally in small groups. Ideally, the classroom should offer a physical location in the room or close to the classroom for displaying of reading books. The Room to Read bookshelves serve that purpose.

Room to Read staff should help teachers define their role as a teacher that supports wide reading. The teacher role includes emphasized by Room to Read staff in professional development training is to encourage teachers to develop a mutual respect for the reader by valuing what the student chooses to read. For example, some children will limit their reading experiences in a too narrow area of interest. Teachers should be careful not to "push" children quickly to read more challenging books or venture into books they don't show an interest in reading. Room to Read staff should emphasize to teachers that they must exhibit patience when extending the type of books that a child reads and done with a respect for the young reader. Regular opportunities for students to read texts of their own choice within the classroom should be emphasized. As young readers grow in their abilities, they should be gently encouraged to extend their current choices of reading to include an ever widening range of texts and genres. Wide reading should include a variety of fiction/non-fiction selections that are available in the classroom or school library, if available.

Supporting teachers in establishing a wide reading program in the classroom or school can be a useful way to promote new books acquired for the classrooms by the Room to Read program. Arranging books in an attractive display is a good way to "invite" or entice children to look at the books and materials available for them to read. The Room to Read book shelves can be used to promote new reading books or materials by displaying books with colorful or attractive artwork on the cover. However, unless the students are provided time and encouraged to make regular and frequent use of the book resource area, students will not benefit from the time and effort to create a book center for wide reading.

Suggested Classroom Activities to Develop Fluency and Wide Reading

Beginning Readers: For those children not yet reading, they will need to listen to stories read by literate adults to know what fluent and expressive reading sounds like. Characters in the stories can be given distinctive voices by the narrator to help children actively listen as well as add enjoyment. Active listening helps young learners "paint a picture" in their minds. This will assist beginning readers in developing active comprehension skills. Reading to young children should occur regularly as part of the child's daily classroom routine. After the teacher has read the story aloud a few times, the children should be encouraged to read along with the teacher or support person. While reading, the teacher should point to each word in order to help children establish their concept of word. Even though children will have memorized the predictable story this memorization should not be discouraged. Emergent readers need to have repeated successes with beginning reading experiences. If the teacher attempts to move too quickly on to a new, more challenging story, it will most likely discourage young children. In terms of reading behavior, children early in their reading experiences will often "finger point" to the line of text in order to keep their place. This should also not be discouraged. With time and reading experiences, these young readers will outgrow this behavior. Another frequently observed behavior in young readers is the inability to read silently. These young readers typically subvocalize or "whisper read". As with finger pointing, this reading behavior will gradually diminish with successful reading experiences over time. Individual words should be pointed out by the teacher as he or she reads to the children. Sentences from the book can be written on the chalkboard and students should be encouraged to identify individual words by sight. Penmanship can be practiced by having students copy the sentences from the chalkboard onto a sheet of paper that can later be fastened together to create a personal writing and word study book.

Established Readers: For children already reading, a good starting point is to determine individual interests and abilities with students in the classroom. What appeals to one student may not be of interest to others. Young readers enjoy picture stories and situations where they can make a connection. Another way to build interest is by "hooking" readers to find out more. Books that have a high energy beginning can often maintain readers' interest enough for them to stay with the story to a successful conclusion. The classroom teacher should have read most of the books his or her students have available in the classroom or book resource area. Teachers should have read as many of the available classroom books as possible in order to assess whether the readers have grasped the author's meaning and intent .

Teachers should try and plan a regularly scheduled time for reading and not try to control the types of children books that the students can read. Room to Read materials are grouped by grade level and most will be appropriate for students at that grade level. Teachers should try and provide as much choice among selections as reasonable. Forcing students to read books selected by the classroom teacher can serve to decrease rather than increase student interest. Teachers should introduce a variety of picture books and easy beginning chapter books with picture and illustration support for beginning readers. An important instructional task for the classroom teacher or Room to Read staff is to plan time for student discussion and sharing. Clarification of the author's meaning can often occur through encouraging the child or young person to talk about the story. Ask the readers if they have any questions about the story they read or are reading. It is beneficial to offer immediate and positive feedback on student reading successes, no matter how small. It is also important for teachers or literate adults reading to children to model fluent and expressive reading and positive reading behavior. Whenever possible, classroom teachers should be seen reading by the students in order to emphasize the importance of reading.

Teachers or volunteers in the classroom should maintain a record of what is being read by each child. This is an activity that older primary students can do by themselves with teacher guidance. Students should be shown how to record information such as pages read, the date read, and their rating of what they read. This could include their interest in the book or a self assessment of how well they understood what they read. Teachers or initially Room to Read staff should try to schedule a few minutes of small group time with each table of children every few weeks. This scheduled time does not need to be lengthy. Five minutes or less is sufficient for the teacher, Room to Read staff, or trained volunteer to meet with the two or three students at each table. During this dialogue, the literate adult should ask a few questions to check whether students understand what they have read. Also, during the regularly scheduled student meetings, teachers or support staff should encourage their young readers to set goals for reading.

Another useful strategy is to encourage students to exchange ideas on texts with their seatmates. This can include the number and types of texts they will read before the next scheduled visit. How much reading a student should set as a goal depends on their reading ability and the types of books they are reading. If students are reading longer chapter books, they should set their goals specific to the number of chapters they plan to read before the next scheduled meeting. Older primary students should be encouraged to reflect both in speech and in writing on what they have read. The classroom teacher or support staff should provide regular feedback on these student reflections. Teachers are powerful role

models and should model sharing what they have read as well as reading aloud to the class to model fluent and expressive reading.

COMPREHENSION

Comprehension: What the Research Has Identified

Good readers are actively involved in their reading (Pressley & Afflerbach, 1995). Good readers are aware of why they are reading that particular text, they often scan the passage before reading as an overview strategy. Good readers make predictions to themselves or others about the text to be read, read selectively and efficiently and incorporate what they read in the text to what they already know. Good readers confirm or reject their initial predictions about the content and can revise their prior understanding and knowledge when new and possibly conflicting information is encountered in their reading. Good readers have strategies to determine the meanings and usage of unfamiliar vocabulary based on context clues. Good readers can remember key points and can strategize on new ideas might be useful in other contexts. In contrast to these skilled readers, immature and less skilled readers, lack many of these skills (Cordon & Day, 1996). Lehr, Osborn, and Heibert (2004) explain the self-fulfilling dynamic between good and poor readers.   "Because these students lack the necessary word knowledge to understand what they read, they often avoid reading … good readers read more, become better readers, and learn more words; poor readers read less, become poorer readers, and learn fewer words."

Reading researchers have identified several approaches that are effective in developing active reading through the use of comprehension strategies. These include strategies that generate questions while reading; strategies to help readers construct mental images of ideas; strategies to aid the reader in summarizing; and analyzing stories using setting, characters, problems encountered by characters; strategies that pursue an attempts at solving a situation or reaching a successful solution, and conclusion (Pearson & Dole, 1987; Pearson & Fielding, 1991; Pressley, et. al. ,1989). Skilled readers use these strategies together, not one at a time.   Also, skilled readers have internalized comprehension strategies and use them regularly in their reading, not only when teachers require them to be used.

These comprehension strategies began with Directed-Reading-Thinking Activities or DRTA (Stauffer, 1969) and have evolved into a variety of teacher directed approaches relying on teacher meta-cognitive explanations and teacher modeling of thinking strategies.   Instructional scaffolding, as a teacher

strategy to temporarily support student learning, was a cognitive strategies to aid the student during teacher instruction (Anderson, 1992; Brown, Pressley, Van Meter, & Schuder, 1996; Duffy et al., 1987; Pressley et al., 1992). The result has been that when these types of instructional strategies have been successfully used, student gains have been long term and have resulted in a substantial benefit to the learner (National Institute of Child Health and Human Development, 2000).

Implementation Recommendations for Room to Read Staff: Comprehension

Nagy & Anderson (1984) believes that the relationship of wide reading to vocabulary growth is critical. Teachers should support the goal of student acquisition of large numbers of different words. To do this independent reading should be encouraged as part of each school day (Scott and Nagy, 1994). However, the meaning that students' construct when reading as well as the depth of their reading will be shallow unless students are taught the strategies for learning new words on their own. Instruction to develop independent learning strategies is essential. If students are to become independent readers they must also become independent in acquiring new words. Teachers must model strategies to help them acquire new words that they encounter in their daily reading.

Modeling Explicit Comprehension Strategies: it would be beneficial for upper primary teachers to participate in professional development by Room to Read staff specific to teaching comprehension strategies. Room to read staff should emphasize that the explicit teaching of comprehension strategies is an important teacher responsibility for helping their students develop independence in acquiring new information. Explicit instruction means that the teachers must initially explain to readers why and when they should use comprehension strategies, what strategies to use, and how best to apply them. The steps of explicit instruction typically include direct explanation, teacher meta-cognitive modeling ("thinking aloud"), guided practice, and scaffolding. These terms are explained as follows: Direct explanation is when the teacher explains to students why the strategy helps comprehension and when to apply the strategy; Modeling occurs when the teacher demonstrates how to apply the strategy. This usually accomplished through the teacher explaining the steps through "thinking aloud" while reading the text so the students can follow the logic that the teacher is using; Guided practice is when the teacher generally assists students as they learn how and when to apply the strategy;   Scaffolding is diminishing teacher support to help students practice the strategy until the learner can apply it independently. Like a building under construction, the scaffold is a temporary support and is removed once the work is completed.

Recommended Classroom Activities to Develop Comprehension

Beginning Readers: Young readers can be introduced to a KWL instructional strategy that is used to guide students through a text (Ogle, 1986). Students begin by brainstorming everything they <u>know</u> about the teacher selected topic. This information is recorded in the K column of a KWL chart or matrix drawn on the chalkboard. Students then generate a list of questions about what they <u>want</u> to know about that subject. These questions are listed in the W column of the chart. The classroom teacher can elect to have students answer the questions during or after the assigned reading. Students then answer the questions identified in the W column. This new information <u>learned</u> is recorded by the teacher or literate adult in the L column of the KWL chart.   The KWL strategy helps young readers learn by encouraging students to express their prior knowledge of the topic of the text. The KWL strategy sets a focus and purpose for reading. The KWL strategy aids young readers in monitoring their comprehension and understanding of what they are reading. The KWL strategy provides these young readers an opportunity to individually assess their comprehension of the text. The KWL strategy provides teachers and young learners the opportunity to expand ideas beyond what is in the text.

Figure 2: Example of a completed KWL chart that students might complete if they were reading a text about mathematics.

Topic: ADDITION

K	W	L
We use it to add numbers. It tells us how much food costs. We use it to keep track of things.	How do we add up big numbers? What does the + sign mean?	Today we learned how to add numbers together. We learned that we can add numbers by using arithmetic like 2+2 and we learned what = means.

Established Readers: Upper primary classroom teachers should encourage cooperative learning among students in the class. This involves students working together as partners or in small groups on clearly defined tasks. Cooperative learning instruction has been used successfully to teach comprehension strategies. Students can work together to understand texts and to help each other learn and apply comprehension strategies. The demand on the teacher is reduces because students learn to work in groups and the classroom teacher can work with these small groups to provide modeling of the comprehension strategies.

Developing Purposes for Reading: The DRTA The goal of a Directed Reading-Thinking Activity is developing purposes for reading. The Directed Reading-Thinking Activity (Stauffer, 1969) engages students in a step-by-step process that guides them through informational text. It is well-suited for use with content text and is designed to help students efficiently and accurately read text that they may not be generally interest in reading. Initially, the teacher guides the process in order to help the learners integrate the strategy into their thinking. To introduce the strategy, the teacher gives examples of how to make predictions. Previewing the first section of a chapter or unit is done by having the students read the title and make predictions. Independent thinking is encouraged. Teachers should encourage the use of previously learned knowledge from earlier lessons when students are asked to make predictions about what the section they are about to read, is about. After reading the first selection, the teacher prompts the students with a few questions about specific information. The amount of reading done depends on the purpose and the difficulty of the content.

Skilled readers have learned to adjust their rate of reading according to the demands of the text and the reasons why they are reading. Through practice with the DRTA, literate but unskilled readers will begin to gradually adjust their reading to fit the demands of the text. Students should also be encouraged to examine the pictures and graphs in that section of the text in order to develop their prediction about the content of the text. Teachers are free to adapt the DRTA in such a way as to sample the most important elements of a narrative or expository text. For example, if the children are assigned a narrative or story to read, the teacher could base the DRTA on the important elements of the story These elements include setting, characters, initiating events, problems, attempts to solve problems, outcomes or resolutions (Beck & McKeown, 1981). The initial teaching of the DRTA takes practice until the reader has internalized the process. The role of the teacher should be to model the DRTA process and engage the students in higher order questioning related to what they have read.

Predictions made at the beginning of the lesson should be revisited by the teacher at the end of the lesson as a closure activity. This review offers students a chance to check their comprehension and understanding of what they read. Open-ended questions such as, "Were you correct in your prediction? or "Why or Why not?". These types of questions help students examine their predictions and to accept or reject their original predictions.

COMPREHENSION: VOCABULARY

Vocabulary: What the Research Has Identified

Vocabulary is critically important in reading instruction (National Institute of Child Health and Human Development, 2000). The importance of vocabulary knowledge has long been recognized in the development of reading skills. Whipple (1925) initiated seminal research that documented the relationship between growth in word knowledge and the growth in reading ability. Perhaps, one of the most persistent findings in reading research across the decades is that the extent of students' vocabulary knowledge relates strongly to their reading comprehension and overall academic success (Graves, 2000; White, Graves, &Slater, 1990; Beck, Perfetti, & Mckeown 1982,; Becker, 1977; Werner and Kaplan, 1952; Davis, 1942). The more a student reads the more word knowledge they acquire. To become proficient readers, students need a well developed lexicon of words in their speaking and reading vocabularies as well as having mastered a variety of strategies to acquire and retain the meanings of new words as they are learned. In this regard, beginning readers who have not yet developed a large vocabulary or lexicon of word meanings often struggle with understanding what they have read (Lehr, Osborne, & Heibert, 2004).

Furthermore, lack of vocabulary can be an underlying factor involved in the academic failure of disadvantaged students. Growing up in poverty can seriously restrict the vocabulary that children have an opportunity to learn before beginning school (Biemiller & Slonim, 2001). Research has found that disadvantaged students are likely to have substantially smaller vocabularies than their more advantaged classmates. In other words, children from families of advantage understand the meaning of many more words than children of poverty. The difference is substantial. Children of advantage learn two to three times as many words as children from disadvantaged homes because words used in daily conversation in the homes of disadvantaged children are less varied. Once these children of poverty enter school, the disadvantage continues. These children continue to lag behind in vocabulary development more so than socially advantaged children. These negative school experiences with reading set in motion a pattern of failure that continues throughout the formal schooling of these disadvantaged learners (Hart & Risley, 2003; Biemiller & Slonim, 2001; Snow et. al., 2000; Biemiller, et. al., 1990).

The hope that schools would offer children of poverty, the opportunity to close the gap on their advantaged peers is understandable. However, the available data is discouraging. Various studies suggest that by the end of grade two, the average child knows about 6,000 root word meanings. This

interpretation of root words by the researchers includes word forms with different meanings. Of note, this research was specific to English speaking children and due to the nature of English, many words have multiple meanings. In the case of English, the language contains many more word *meanings* than there are words. Biemiller & Slonin (2001) found that before grade three, children on average acquire 860 new root word meanings per year starting at about age one. During grades 3 to 6, children step up their acquisition of room word meanings to about 1,000 word meanings a year. By the end of grade 6, the average child understands about 10,000 root words. A number of studies have been used to estimate that the number of root and derived word meanings known between grades 4 and 12 is approximately 30,000.

Implementation Recommendations for Room to Read Staff: Vocabulary

If a word meaning is not well-known to the learner, it may not be any better understood by that individual than when they encounter it in print. For this reason, it is important that teachers understand that for students to become independent learners the classroom teachers must not only teach selected meanings of key vocabulary words but to also teach students a process so they can acquire new vocabulary words on their own. This is necessary for the students' understanding of what they have read and their continued growth in reading. This concept is important because there is strong evidence that supports the premise that teaching the vocabulary of a selection can markedly improve students' comprehension of that selection. Students learn approximately 3,000 to 4,000 words each year, accumulating a reading vocabulary of approximately 25,000 to 30,000 words by the end of grade six. Students must be able to rapidly acquire as well as organize new concepts and terms in a manner that allows effective recall and interaction with new information. Primary teachers cannot possibly teach the meanings of 25,000 words one-by-one. Therefore, students must be provided opportunities to learn strategies to systematically acquire new vocabulary throughout their productive lives. If learners fail to develop effective and efficient vocabulary acquisition strategies, the fluency and efficiency of their reading and text comprehension will be greatly slowed.

Room to Read staff should select vocabulary approaches consistent with the mother tongue of Bangla that will help classroom teachers provide systematic instruction to their students. It may be helpful for Room to read staff to encourage teachers to view their role as that of a guide. Their job as a guide is to help their students embark on a never-ending odyssey of learning. If the teachers do their job well, it is a journey of learning that they will never see to completion with their students. However, the teachers

will see progress toward that goal. For those students, it is a skill that is never fully mastered as the depth of knowledge expands and deepens over the course of lives. For the vocabulary journey to have a successful start, instruction must involve far more than the traditional approach of memorizing word meanings or looking up words in a dictionary and using the words in a sentence. Vocabulary is best learned when intentionally acquired through explicit instruction in specific words and word-learning strategies. For many teachers, the question often asked is "Why word learning strategies? Why not just teach vocabulary?" Room to Read staff must emphasize to the teachers that the reason for implementing word learning strategies is that research indicates that rote memorization of words and lists of spelling words does little to promote the development of vocabulary and subsequent student spelling skills. Often, the student who is a good speller has demonstrated good memorizations skills independent of rote learning introduced by the classroom teacher.

Suggested Classroom Activities to Develop Vocabulary

Teaching Individual Words: The traditional method long used by classroom teachers is to help students increase their vocabularies by teaching them individual words along with the related meaning. However, it is impossible to teach all the words children need to learn. For those teachers who prefer to teach individual words, vocabulary growth is the most effective when children are given both the definition along with the necessary contextual information. For this approach to be long-lasting for the student, the students need to actively process the new word meaning. The student also needs to be exposed to multiple encounters with the new words and their meaning for them to be retained. Students can effectively learn vocabulary when they are explicitly taught both individual words and word-learning strategies. Direct vocabulary instruction can be a useful aid for enhancing reading comprehension. Direct instruction can help students grasp difficult concepts that are not part of the students' everyday experiences. Direct instruction of vocabulary, relevant to the text being read, leads to a better reading comprehension. Introducing key vocabulary concepts before reading can help students both learn new words and comprehend the text. Children learn words best when they are provided with instruction over an extended period of time and when that instruction has them work actively with the words that have been introduced. The more students use new words and the more they use them in different contexts, the more likely they are to learn and retain the new vocabulary.

Fostering word consciousness: Word consciousness refers to an awareness of and an interest in words and their meanings. Word consciousness involves both a cognitive and an affective approach towards words. Word consciousness integrates meta-cognitive strategies about words and motivation for

learning words; motivation includes interest and enjoyment as well as a sense of purpose. Students who are word conscious are aware of the words around them. Those words may be words they read and heard as well as the words they write and speak. This awareness involves an appreciation and respect for the power of words. It also helps students understand why certain words are used instead of others in place of those selected by a writer or speaker. It involves an interest in the learning and usage of new words and becoming more skillful, precise, and articulate when students describe persons, places, or things in their world.

Maintaining a positive disposition toward the learning of vocabulary is crucial to the learner's success in developing a process of "learning how to learn". In this case, it is specific to developing a process to aid learners in acquiring new vocabulary throughout their lives. Word consciousness should be fostered among pre-schoolers as well as among students throughout their formal education. There are a number of approaches useful for fostering word consciousness among students. One example for young learners might be to informally ask a child to close the door because it is not quite closed. It can be restated to ask a child to close a door because it is *ajar.* When students hear unfamiliar words or terms used to describe something they have experience with, they easily integrate the new word into their vocabulary. They also learn that word choices to describe something can range from the vague to the very specific or that there may be several ways to express the same concept. Encouraging young learners to use new and interesting words in their own speech will lead to increased vocabulary and word consciousness. As with all teacher instruction, modeling of the appropriate skill is vital for student motivation and their proficiency in developing their word vocabulary.

Another example might be for the classroom teacher or support person to model and encourage increased vocabulary use. To do this, the literate adult can use a "word-of-the-day" approach. To do this, a word is selected, either by the teacher. Students can select words from books or other sources. A good starting point is for the literate adult to begin with selected words, and to present that word and its meaning, including a definition and some contextual information. Students can be encouraged to record these words in their personal notebook with their definition and a drawing of what the word represents. The literate adult should encourage students to record variations and alternate meanings of that word. Other words that can replace it should also be recorded. This is done so the word relates back in a meaningful way to the child. As previously stated, primary teachers cannot possibly explicitly teach the amount of words a child learns in their formal education. However, by modeling and

encouraging word consciousness, the teacher can guide students to value knowledge and the process of learning.

Operational Recommendations
Room to Read NGO Service Area

OVERVIEW: Bangladesh schools have shown marked improvement over the past twenty years. Commitment to education has been publicly acknowledged by the nation's leadership. Progress is occurring but given the challenges facing public education in Bangladesh, those working within the Bangladesh educational system are limited in their efforts to accomplish this task. The instructional approaches offered are hoped to offer strategies to improve reading among the schools and operate within the existing NGO charter for Room to Read – Bangladesh. UNICEF (2009) has identified the low number of contact hours for students in Bangladesh as among the lowest in the world. In this regard, there is much inefficiency in the student school day for a variety of reasons, travel distances, weather-related, etc. Teachers do not often start promptly on time and the financial realities of school funding do not permit redundancy in the educational system to any great extent. Room to Read management, with the authorization and support of school authorities, can make use of this lost time.

 PROPOSED STRATEGY: Room to Read - Bangladesh staff should identify a manageable number of pilot schools in the rural mainland communities that program staff can visit on a regular basis. The pilot schools can be grouped for efficiency of travel. Room to Read staff should interview literate adults that have graduated or have attended schooling well into the secondary level. Obviously, these para-professional must be have an acceptable degree of literacy skills. The decision of compensation rests with Room to Read program management to determine how best to compensate, if at all.   A consideration is whether the introduction of a para-professional can be supported for the long-term. In the event, that is not possible, a less effective but manageable solution is to develop a cadre of literate volunteers to assist in the classroom. In this regard, the Room to Read staff will have to take on additional planning duties of scheduling volunteers at the schools.

Clearly, a small stipend is a strong motivator to be at their assigned school in time for classes and to be in attendance every day rather than relying on volunteers to attend whenever they can.   It will be these front-line para-professionals or the volunteers who will be providing first hand literacy experiences for grades 1-5 in the primary schools served by Room to Read. The model envisioned is the utilization of the cascade approach. This is where a relatively few Room to Read staff train para-professionals and

volunteers who, in time, can train other para-professionals and volunteers until a sufficient cadre of support staff is large enough to make a substantial impact on the existing educational system served by the Room to Read NGO.

ROLE OF THE PARA-TEACHER: The Room to Read para-professional or volunteer would be responsible for working in the primary schools and move from classroom to classroom as needed. This would require a high degree of coordination with the head teacher and should be done in a manner that is non-threatening to teachers. For example, if a teacher in grade one must cover another class, the para-professional could be prepared to come into class and read stories to the children from the Room to Read library. With appropriate training, the role of the para-professional can be further defined to include student discussion related to the story. Writing activities to support the text or teacher instruction could be added as needed. Ultimately, the para-professional could also be trained to give simple literacy assessments. For example, these assessments could be used in the early grades to identify which children lack any knowledge of written Bangla, those who have a working knowledge of some of the symbols, and a third group who has demonstrated basic competencies with letter identification. Students could then be roughly grouped into three groups to work with the para-professional on activities that are instructionally appropriate for each child. Over a period of time the para-professional can be trained in a variety of strategies outlined in this report or other Room to Read literacy trainings undertaken in all or many of the Room to Read programs around the world.

ROLE OF THE ROOM TO READ PROGRAM MANAGERS: Other possible roles for the para-professional is best determined by the Room to Read program managers. These managers are in charge of the schools and are closest to the day to day operations with a full understanding of the strengths and limitations of the Bangladesh educational system. Training for para-professionals should be supportive and on-going.

As the pilot project evolves the managers of the different pilot schools should work together on the best approaches for utilizing the para-professionals. Issues not resolved should either be given to the overall program director for a decision or allow both approaches to continue until it may be possible to make a decision. It should be the responsibility of the program staff to create a para-professional/volunteer manual that outlines the role and expectations of the para-professional or volunteers by Room to Read - Bangladesh. Once the initial project is past the pilot stage then project managers should require that the training/ operating manual be reviewed and updated on a regular basis to reflect changing

conditions in the school and the teacher/student population. A suggested starting point should be every two years.

Once the Room to Read staff and managers are in agreement that the pilot is working to expectations, then steps should be taken to expand the project to more schools. There are always competing needs and financial realities to be addressed. Reports to funders must be written with substantial information on what their funding has accomplished. However, the risk of pushing ahead too fast in implementing full coverage of the service area may cause setbacks and create "brushfires" that consume much of the program managers time in non-productive ways.

Suggestions for Implementation

Step 1: Determine the number and location of schools to pilot test this strategy. Are they representative of the overall schools being served by Room to Read - Bangladesh?

Step 2: Determine the initial role of the para-professional or volunteer? What will be the duties of the para-professional? If paid, how long is the work day? What future roles are envisioned for the para? (e.g. writing, learning strategies)? What interview questions are to be asked of candidates? What are the literacy criteria (reading fluency and writing) considered the minimum level for a successful candidate or volunteer?

If volunteers are to be used, how will the volunteer time be determined? Many volunteers can Volunteer for few hours but not for an entire day on a regular basis. What is the minimum amount of time the program can ask of volunteers as a time commitment (e.g. two hours)?

Step 3: Interview and hire/select literate adults. In the case of volunteers, how will they be screened or selected?   Should the school administrator have a role in the selection process? Does the candidate/volunteer live within a reasonable travel distance of the school being served?   How well will the successful candidate or volunteers fit in with the school faculty? How willing is the candidate or volunteers in adapting to changing responsibilities as the program develops to maturity?

Step 4: Project staff should plan and schedule on-site visits to train the para-professionals or volunteers.

Introduction of the support staff to the head teacher and school faculty. A suggestion is that the para- professionals or volunteers keep a journal record of what worked and what didn't with their students when they begin working in the schools. It also provides an opportunity for Room to Read staff to assess the spelling and writing skills of para-professional or volunteers,

Scheduling and coordination of para-professionals or volunteers should be the responsibility of Room to Read staff. Using the example of volunteers, if coverage will not extend the entire school day because of inadequate numbers of volunteers, how will the school be notified? What is the notification procedure for when volunteers or para-professional will be absent?

Step 5: Develop a process of collecting regular feedback from the para-professional or volunteers. This information may be helpful for program development. Information related to student responses may be useful as anecdotal information in potential discussions with education officials or teachers. Comments by students on the stories they read, how they view learning and reading using new strategies may be helpful as a support record for the project.

Step 6: Project staff should be responsible for identifying and sharing information on how the project is operating at their school site. This includes staff observations, feedback from the para-professionals volunteers, as well as feedback from the head teachers and teacher faculty at the schools.

Step 7: Room to Read staff should develop a series of on-going trainings for para-professionals or volunteers. This should involve reducing the discussions from steps 4 through 6 into writing and putting the resulting information into an initial training and procedure manual. Over time, the manual can become more detailed based on experiences learned. Staff should consider developing either a literacy tutoring section in the training manual or create a stand alone document. Both will be useful for orientation and training of new para-professionals or volunteers

Step 8: The training and operations manual, once approved by the Room to Read managers, should be

reproduced for expansion of the pilot to other schools served by Room to Read - Bangladesh. The manual should become standard operating procedure for program duties and professional development of para-professionals and volunteers. In the event of Room to Read staff changes, promotions, and departures, an institutional memory of the program procedures will remain.

Step 9: Program staff and managers should decide on the extent of project expansion from a pilot to operational phase. Discussions should include how many schools to bring on-line, the timeline for hiring of para-professionals or recruiting of volunteers, updated interview questions based on the pilot project, and an an-site training schedule by program staff to orient new para-professionals or volunteers on their responsibilities**.**

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