

OFF TO A GOOD START: ENHANCING READING SKILLS IN THAI CHILDREN

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Abstract

This project, funded by the Australia Thailand Institute, is a collaborative project between Faculty of Education, Srinakharinwirot University, Thailand, and Faculty of Education and Social Work, University of Sydney, Australia, to promote reading skills in Thai children. Education is a fundamental human right. A key attribute in accessing an education is the skills of reading. Ensuring that a child has adequate reading skills allows the child to be able to learn independently from texts and other sources, to develop independent thinking, and to become a lifelong learner. This research project involved (1) examining the constructs that underpin learning to read in the Thailand language; (2) developing measures for assessing reading-related skills to monitor reading progresses in Thai primary students (i.e., onset awareness, non-word blending, non-word segmenting, letter knowledge, word reading, nonword reading, and passage reading measures); (3) developing a professional learning package for Thai teachers in develop a school-wide reading intervention model in their school; and (4) organizing workshops for teachers in order to introduce the instructional packages that focused instruction on key early skills. Twenty-Four teachers from the 12 public schools in Bangkok trialed the reading measures, participated in the workshops and field-tested the instructional packages. At the completion of the fieldwork teachers were interviewed to establish their understanding of the assessment tools, and instructional package. Results: The preliminary findings from the assessments and the interviews will be presented The data were examined in how they could assist teachers and schools to identify students at-risk in learning to read and interview data was used to establish how the instructional packages could be refined to better assist teachers use them in classrooms.

Keywords: Reading, Primary students, Thailand

Introduction

Thailand has made substantial progress on providing primary education for all Thai children, but quality of education is still a concern for the nation (Office of the National Economic and Social Development Board, 2009). In order for children to have access to quality education, ensuring that they have adequate reading skills needs to be of high priority. Reading is an important tool for learning. Without adequate learning skills, children will have difficulties

accessing information from printed sources, reducing opportunities for them to become independent learners, not only in school but throughout life.

In Thailand, the number of children with reading difficulties is not clearly known, due to differences in definitions, assessment tools, and research methods. Roongpriwan, Ruandaraganon, Visudhiphan, and Santikul (2002) reported that 6.3 percent of Thai primary school students had dyslexia. The researchers defined students with dyslexia as those who read at two-grade levels below their actual grades and had phonological awareness impairments. While there are approximately 4,817,764 primary school students in Thailand (Ministry of Education, 2010), the number of Thai students without grade appropriate reading skills could be substantial.

The differences between successful beginning readers and struggling beginning readers grows increasingly wider over the years. Stanovich described the phenomenon in 1986 as the Matthew Effect in reading. As reading difficulties also negatively affect vocabulary growth and learning motivation, children with reading difficulties tends to fall further behind their peers, not only in reading, but also in other academic areas, such as mathematics and social studies (Stanovich, 1986). If early reading progress is monitored, preventative strategies can be put in place to support students as soon as difficulties occur.

Studies have found that children with reading difficulties early in school are likely to continue to have reading difficulties unless they are provided with appropriate supports or interventions (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996; Juel, 1988). This project, therefore, aims at promoting reading ability in Thai primary school students, particularly Grade 1-2 students in Bangkok, through a number of activities in order to support teachers in setting up a school-wide system in monitoring reading progresses in the early years of schooling. The project is a collaboration between Faculty of Education and Social Work University of Sydney, and Faculty of Education, Srinakharinwirot University, funded by Australia Thailand Institute. It has also been made by possible by participating schools, school administrators, teachers, and Srinakharinwirot University graduate students.

About Off to a Good Start in Reading

This project, started in October 2012, was initially funded by Australia Thailand Institute, in order to strengthen the link between Faculty of Education and Social Work, University of Sydney in Australia and Faculty of Education, Srinakharinwiroj University in Thailand. It drew on the expertise of a school-wide approach to early intervention in reading from University of Sydney, and the expertise on the Thai language, Thai curriculum, and the Thai local contexts from Srinaharinwirot University. The project is also based on a framework by Vibulpatanavong (2012), who found that the Thai language, although previously considered a transparent language (i.e., a language with direct translation between letters and sounds), may have characteristics different from other transparent languages. Although letter knowledge is the strongest predictor of reading in Thai Grade 1 – Grade 3 students, phonological awareness continues to predict reading ability in the Thai language until at least Grade 3, contrary to the claim that phonological awareness predicts reading ability in transparent languages only in the first years of reading instruction. In addition, the phonological awareness measures including onset awareness, rime awareness, non-word blending, and non-word segmenting measures were of the same one factor construct, while the reading abilities measures including word reading,

non-word reading, passage reading, and reading comprehension measures were of the same one factor construct (Vibulpatanavong, 2012).

Twelve schools under Bangkok administration participated in the project. Nine schools were from inner Bangkok, and 3 were from the outskirts of Bangkok. The activities undertaken as of the project are described.

Activity 1: Assessment of reading related skills in Grade 1 – Grade 2 students. Six hundred thirty students Grade 1 and 2 classrooms from 12 Bangkok Metropolitan schools were assessed with one letter knowledge measure, three phonological awareness measures, and two three reading ability measures. Prior to the assessments, permissions were requested from the school directors and the parents. The students were assessed at their home school in a quiet room. The assessments were divided into two sessions, each of which lasted no longer than 10 minutes. The three phonological awareness measures were assessed in the same session, while the letter knowledge measure and the reading measures were assessed in the same session.

The measures were developed by Vibulpatanavong (2012) and reviewed by three university lecturers (i.e., one in Thai linguistics, one in Thai language teaching, one educational psychology), and nine teachers (i.e., three Grade 1 teachers, three Grade 2 teachers, three Grade 3 teachers). The internal consistency reliabilities established by Vibulpatanavong (2012) were over 0.7 or greater. Prior to this study, the letter knowledge measure and the three reading ability measures were the only timed measures; in this study, all measures were timed. The measures are briefly described as follows:

Onset awareness. The student was presented with four pictures. The examiner asked the student to identify, as many as possible in one minute, the picture that begins with the same sound as the word given by the examiner.

Non-word blending. The student, as many as possible in one minute, verbally blended sounds verbally given by the examiner into monosyllabic non-words

Non-word segmenting. The student, as many as possible in one minute, verbally produced all the sounds in monosyllabic non-words verbally given by the examiner.

Letter knowledge. The student named, as many as they could in one minute, consonant and vowel letters presented on paper.

Word reading. The student read, as many as they could, in one minute, Thai words presented on paper.

Non-word reading. The student read, as many as they could in one minute, Thai nonwords presented on paper.

Passage reading measure. The student read, as many words as they could in one minute, Thai words in a passage (3 passages).

All the measures were used to assess the Grade 1 and Grade 2 students, except the passage reading measure that was used to assess only the Grade 2 students. The data were examined for how they could assist teachers and schools to identify students at-risk in learning to read.

Activity 2: Development of professional learning package. Drawing on technical supports from researchers from University of Sydney, a professional learning package for Thai primary school teachers has been developed, consisting of 4 books:

HuaJaiKarnArn (Heart of reading). The book provides basic knowledge on early reading skills focusing phonological awareness, alphabetic principles, and decoding fluency.

Reading assessment tools and Instructions for using the tools. These two books contained instructions and tools for assessing reading, including seven measures: onset awareness, nonword blending, non-word segmenting, letter knowledge, word reading, non-word reading, and passage reading measures. The measures were the same as those described in the previous section.

PlearnArn (Enjoy Reading). The book activities for promoting reading, focusing on developing phonological awareness, alphabetic principles, and decoding fluency.

Activity 3: Organizations of two workshops. Twenty-five teachers from 12 Bangkok Metropolitan schools from 11 districts out of the total of 50 districts in Bangkok participated in the workshops (i.e., at least one Grade 1 teacher, and one Grade 2 teachers from each school). The first workshop was organized in order to introduce and distribute the learning package to teachers, and to encourage teachers to use the learning package as a tool in establishing a school-wide approach to early intervention in their schools. After the workshop, the teachers field-tested the instructional package. At the second workshops, the teachers were interviewed to establish their understanding of the assessment tools, and instructional package. The interview was a semi-structured group interview, using a predetermined set of questions as a guideline; the interview was audio recorded for later analysis.

Preliminary Findings

The preliminary findings from this project consist of two parts: quantitative data from the assessments, and qualitative data from the interviews.

Assessment Data.

The students assessed included 344 Grade 1 students (190 girls, 154 boys) and 286 Grade 2 students (158 girls, 138 boys). The average age of Grade 1 students was 7.3 years (SD 1.85), and the Grade 2 students 8.3 years (SD 1.72).

The data were standardized to assist gain information to help teachers determine the levels of supports students may need. The means scores on the measures are presented in Table 1. The mean word reading score per minute was 9.75 for Thai Grade 1 students and 31.07 for the Grade 2 student. However, the mean non-word reading score for Thai Grade 1 students and the Grade 2 student were 4.35 words and 14.2 words per minute respectively.

All the measures were significantly correlated for both the Grade 1 and Grade 2 group as shown in Table 2, and Table 3. All three passage reading measures were highly correlated with one another from .93-.94. The word reading and non-word measures were moderately correlated at .74 for the Grade 1 group, and .79 for the Grade 2 group. The letter knowledge measure was moderately correlated with all the reading ability measures from .57-.73. All the phonological awareness measures had small to moderate correlations with the reading ability measures from .21-.5.

The tentative five groups of scores for each measure were established based on percentiles:

Group 5 from 80th – 100th percentile, Group 4 from 60th - 79th percentile, Group 3 from 40th - 59th percentile, Group 4 from 20-39th percentile, Group 5 below 20th percentile. For the Grade 2 group, all of the students who scored below the 20th percentile on all three phonological awareness measures (8 students) also scored below 20th percentile on the letter knowledge and word reading, and non-word reading measures.

For the Grade 1 group, the eight students who scored below 20th percentile on all the three phonological awareness measures also scored below the 20th percentile on the letter knowledge and passage reading measures, while the other student scored below the 40th percentile. Seven students who scored below the 20th percentile on all the three phonological awareness measures also scored below the 20th percentile on the word reading, and non-word reading measures while two students scored below 40th percentile.

Table 1-Mean (and standard deviation) on each of the measures by grade level

	Grade 1		Grade 2	
	Mean	SD	Mean	SD
Onset (onsets per minute)	4.60	3.38	8.30	5.82
Blending (words per minute)	8.10	5.14	32.76	13.06
Segmenting (phonemes per minute)	36.56	13.31	79.01	25.33
Letter knowledge (letters per minute)	25.90	11.37	38.22	11.58
Word reading (words per minute)	9.75	11.05	31.07	19.03
Non-word reading (words per minute)	4.35	5.78	14.20	12.51
Reading Passage 1 (words per minute)	N/A	N/A	48.71	32.61
Reading Passage 2 (words per minute)	N/A	N/A	47.18	37.16
Reading Passage 3 (words per minute)	N/A	N/A	42.14	30.02

Table 2-Pearson's correlation for the Grade 1 Group

	Onset	Blending	Segmenting	Letter	Word	Non-word
Onset	1					
Blending	.120*	1				
Segmenting	.197**	.253**	1			
Letter	.272**	.224**	.385**	1		
Word	.397**	.217**	.427**	.575**	1	
Non-word	.431**	.294**	.428**	.644**	.743**	1

Table 3-Pearson's correlation for the Grade 2 Group

	Onset	Blending	Segmenting	Letter	Word	Nonword	Passage 1	Passage 2	Passage 3
Onset	1								
Blending	.15**	1							
Segmenting	.36**	.42**	1						
Letter	.41**	.39**	.42**	1					
Word	.50**	.34**	.42**	.73**	1				
Non-word	.47**	.33**	.40**	.63**	.79**	1			
Passage 1	.44**	.34**	.37**	.65**	.88**	.67**	1		
Passage 2	.44**	.30**	.36**	.62**	.86**	.72**	.93**	1	
Passage 3	.47**	.30**	.38**	.64**	.88**	.70**	.94**	.94**	1

Interview Date

The preliminary analysis of the group interview data revealed a number of suggestions from teachers that would enhance the project outcomes. The suggestions were as follows:

The introductory book (HuaJaiKarnArn) should also include content on reading comprehension.

The activity book (PlearnArn) should include more pictures in describing the activities as sometimes it was difficult to picture the activities from written descriptions.

Some activities should be provided with examples of tools that teachers can use, such as examples of reading passages or songs that are appropriate for enhancing a skill.

The format of the introductory book and the activity book should be revised, such as to reduce the size from A4 to pocket book size, to add more colors and pictures.

To use the measures for assessing all the students took considerable time, and supports for teachers may be needed, such as an assistant teacher who can take care of the classroom while assessments are being conducted by the teacher.

To use the measures effectively requires practice, particular in using the stop watch for timing.

Developing parallel forms of assessment materials for teachers to use would be helpful for regular monitoring of student progresses.

Additional measures that teachers thought may be useful included examining the ability to read words with final consonants, reading comprehension measures, and numeracy measures.

The project also received a number of encouraging comments from teachers such as it was important to promote reading in students, and the project helped them to identify the areas in which students need support. There was considerable support for the project to continue as they found it was useful in focusing their programs on key content.

Discussion and Conclusion

The preliminary findings for the assessments revealed a good prospect for using the phonological awareness measures in identifying reading difficulties. The majority of the students who scored below 20th percentile on all the three phonological awareness measures also scored below 20th percentile on the letter knowledge and the reading ability measures.

The comments of the teachers gave further direction for the project in revising the professional learning package. It seemed that one of main difficulties of the teachers is the lack of time and supports (e.g., support teachers) in carrying out the assessments. In revising the professional learning package, it is important to emphasize that teachers may not need to use all the measures, but to use a few appropriate measures first and use other measures later when they require further information. It will also be helpful to develop a number of quiet group activities for teachers to use in class, so that the teacher can assess students while the rest of the class carry out the activities. The next step of the project is to provide access for teachers to the professional learning package, and set up a system in supporting teachers in using the package.

Information gathered from these assessment tools can identify students at-risk of not achieving key reading skills, and provide timely intervention to prevent difficulties from persisting. In learning from research in other researchers (e.g., Fuchs & Fuchs, 2015; Al Otaiba & Fuchs, 2002), Thai schools will need to examine ways to provide intensive interventions that assist students to become skilled readers. While the literature has supported the use of these supplementary interventions (i.e., Tier 2 interventions) for students at-risk, they need to be comprehensive, evidence-based and intensive (Fuchs & Fuchs, 2015).

The preliminary results of this project highlight the need of ongoing professional learning for teachers. While teachers are keen to adopt the materials developed, some of the teachers interviewed were unfamiliar with the tools and the theory behind the tools. Ongoing supports for teachers are needed in order implement this new knowledge in their classroom.

The tools developed may also be used to monitor student progress. Progress monitoring using curriculum-based measures has been shown to assist teachers make timely decisions about the effectiveness of core classroom programs, and special interventions (Hosp, Hosp, & Howell, 2007). Prior to using these measures as a progress monitoring measure, further research on their predictive validity needs to be undertaken. Results to date, however, are promising.

Reading is an important skill for learning in school and in life. In conducting this project, it has been found although additional tools and supports may be helpful to teachers, there is a good prospect in setting up a school wide system for early intervention of reading difficulties in schools in Thailand.

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