

An Experiment on Teaching the Mentally Retarded Children Using Phonics Method

Padoong Arrayavinyoo

Faculty of Education, Suan Dusit Rajabhat University

Email:padoong_a@hotmail.com

ABSTRACT

It is remarkably obvious that the students with mental retardation have marked difficulty in learning to read. It is, therefore, essential that the researchers seek effective strategies in teaching these youngsters so that their reading achievements can readily be improved.

The major purpose of this experimental study was to prove whether the phonics method was an effective strategy in helping the severely mentally retarded children improve their reading ability. The sample consisted of 6 school children with mental retardation whose I.Q, measured by registered psychologist using standardized test, ranged from 25 to 40; 3 male and 3 female students from Kawaila Anukul School in Chiangmai , Thailand, in the academic year 2004, chosen purposively. The instruments for the study included the Reading Test, the Phonics Reading Exercise and the teaching plans. The experiments were carried out in 48 periods, 3 periods a week in 4 months in the 1st semester of the academic year 2004. The One Group-Pretest-Posttest Design was applied and the pretest posttest scores were compared employing nonparametric statistics-the Wilcoxon Matched Pairs Signs Ranked Test.

The findings confirmed that the phonics strategy was an effective method in helping the severely school students with severe mental retardation read basic words in Thai language. It was recommended that the technique be applied in teaching reading to these youngsters.

Introduction

In accordance with the principle of population distribution, there exist a number of people who are born with defects which include those of the mentally retarded children. These youngsters have the rights to receive proper and appropriate education services so that they would be able to improve their essential skills which will help them function independently in the community when they grow up.

The children with mental retardation encounter problems in several areas including fine motor and gross motor, emotional and social skills, behavior, communication-both verbal and nonverbal, academic skills-mathematics, comprehension, reading and writing, delay in language development-both receptive and expressive (Hickoon, 1995). This can be witnessed in many schools where these youngsters are educated with indicate they are all facing difficulties in reading and writing, among many other problems.

Reading is very important in opening the mind of the readers into the world of information, into the world of endless learning. For the children with mental retardation, reading is even more essential. It will not only help these children in the communication with the people around them, it will as well assist them to lead their lives more independently and meaningfully in the future after they leave their schools.

The mentally retarded children can be taught to read through a number of strategies. However, the emphasis of this study is the application of the phonics method to the teaching of Thai language for this technique stresses the sounds and the symbols of a language which will essentially help the students in encoding and decoding the words. (Gearheart, weishahn, and Gearheart, 1996)

The phonics method has been proved to be an effective strategy in helping the children to read English but it has not be applied to the Thai language for the children with mental retardation. If it is effective, then the schools may utilize this strategy in helping the children with mental retardation.

Purpose

The major purpose of this study was to experiment on teaching reading to the mentally retarded children using phonics method.

Hypothesis

The mentally retarded children produced higher reading achievement scores after the practice on phonics exercises than those prior to the experiment.

Methodology

Population. The trainable mentally retarded children in school.

Sample. The sample consisted of 6 trainable mentally retarded children from Kawila Anukul, Chiangmai, Thailand, 3 male and 3 female students, selected purposively in accordance with the criteria prescribed by the researcher. Their I.Q. ranged from 25 to 40, in the academic year 2004, with no other obvious handicapping conditions.

Instrument. Three instruments were utilize in this study. They were :

1. Phonics Drills. Consisting of 10 sets of drills, each with words with initial consonants and basic vowels which were rated by their teachers as the most difficult to articulate.

[k] [?] [s] [r] respectively.

The vowels were :

[a] [a:] [i] [i:] [w] [w:] [u] [u:]

When teaching a vowel, the teacher colored the vowel red (consistent throughout the drill).

Color, sound and shape were constituted into a word : For [a:] sound

Color : the same color such as red

Sound : long sound with mouth widely open

Shape : looks like a hook appearing on the right side of word

Thai word → ตา [ta:] มา [ma:] นา [na:]



Phonetic subscription.

The 12 set of Phonics Drills were examined by 3 experts, corrected in accordance with their suggestions, and tried out at another school for the mentally retarded children in the north. The improved versions were with sample.

2. Reading Test. Constructed by the researcher, used for testing reading of the words for single vowels; 4 short vowels and 4 long vowels, 5 words for each vowel. Five consonants, the most difficult for the children to articulate, were tested including [k] [r] [s] and [?]. There words were approved by 3 teachers of the Thai language and were tried out with the severely mentally retarded children. Some of the words were deleted in the process and only 60 words were finally chosen for reading test.

In testing, if the child pronounced the word correctly, one point was given.

If he was silent for 10 second or was unable to read, 0 point was given. The total scores were 60 and was later changed into percentage. The possible maximum range was 100 and the cut off point (passing) was 50 percent..

3. Lesson Plans. There were totally 12 lesson plans covering all the required vowels and consonants. They were inspected and corrected by 2 experts. All the lesson plans were repeated many times.

Procedure

The one group-pretest design was applied in the experimentation, which lasted for 4 month, 3 times a week, one hour each, totaling 48 hours. The subjects were tested twice, prior and after the experiment.

Data Analysis

1. The pretest and posttest scores were compared using Wilcoxon Matched Pairs Signed Ranks Test.

2. The performance score during the experiments were plotted and compare to determine the improvement.

Results

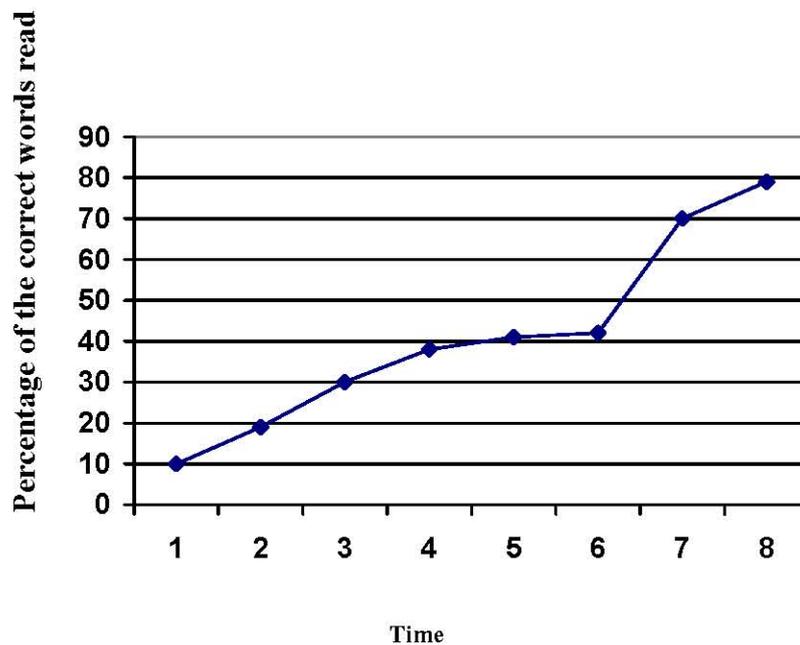
If was found the reading performance of the trainable mentally retarded children increases significantly at the .05 level as appeared in Table 1

Table 1. Comparison of Reading Score between Pretest and Posttest

Student	Pretest Score (X)	Posttest Score (Y)	Y - X	Difference	Plus Sign	Minus Si gh	T
1	9	47	38	3	+3	-0	T = 0
2	0	19	19	5	+5	-0	
3	10	58	48	2	+2	-0	
4	0	7	7	6	+6	-0	
5	1	38	37	4	+4	-0	
6	2	60	58	1	+1	-0	
Total	X = 3.66	X = 38.16		Total	+21	-0	

$$T \quad n=6 \quad p \leq .05 = 2$$

When reading scores during the experiments were compared it found that the reading ability of the TMR students improved as appeared in Figures 1 – 6.

**Figure 1.** Reading Development of Student 1

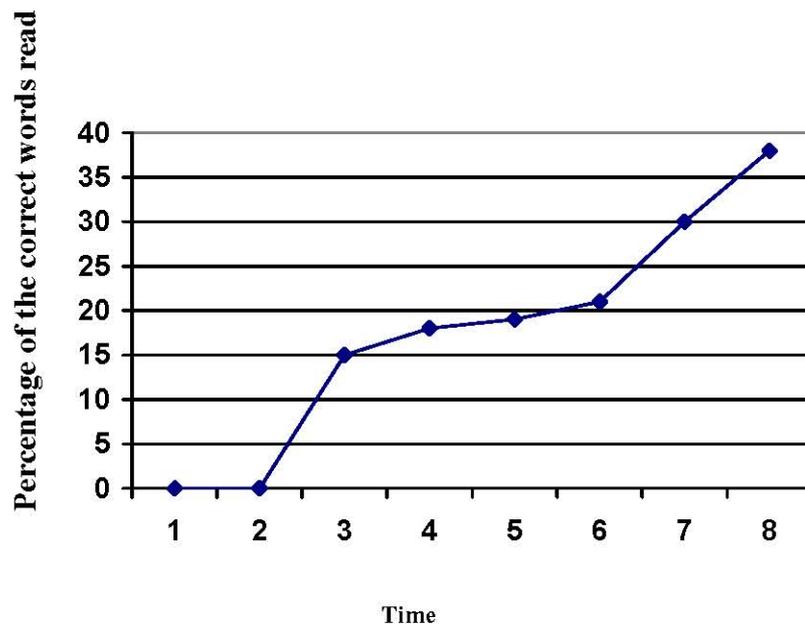


Figure 2. Reading Development of Student 2

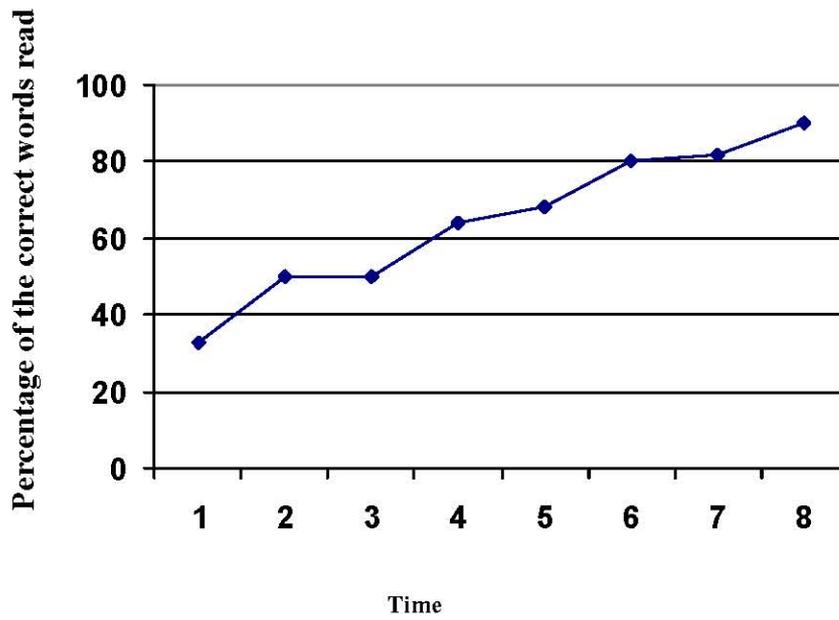


Figure 3. Reading Development of Student 3

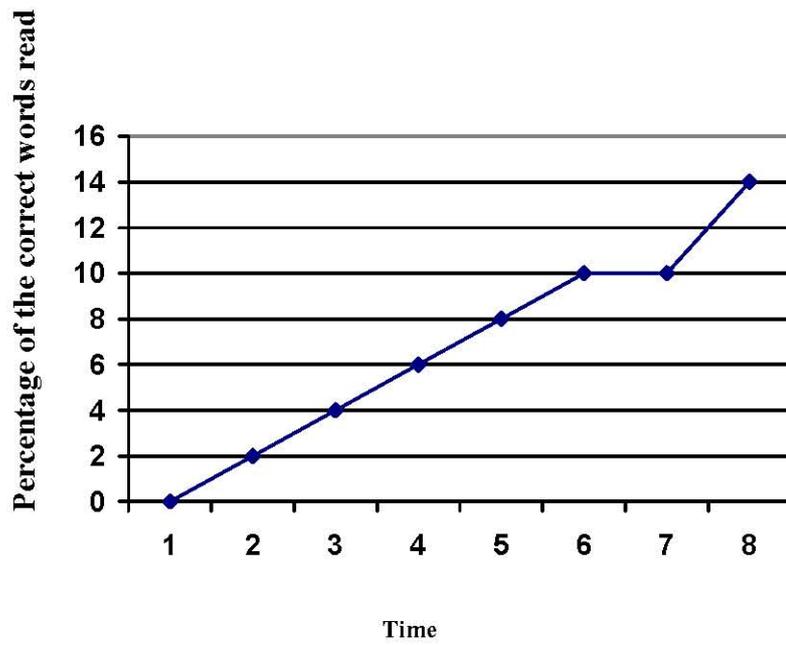


Figure 4. Reading Development of Student 4

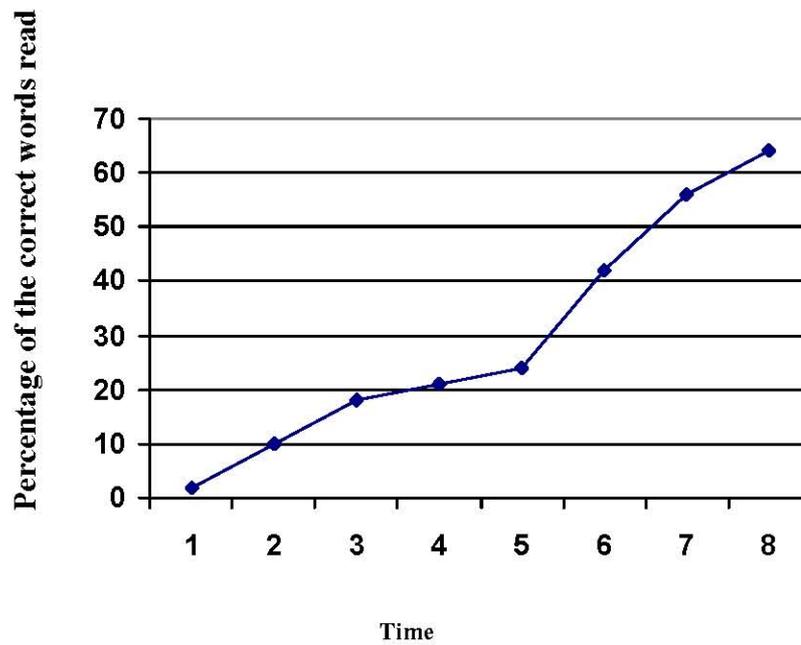


Figure 5. Reading Development of Student 5

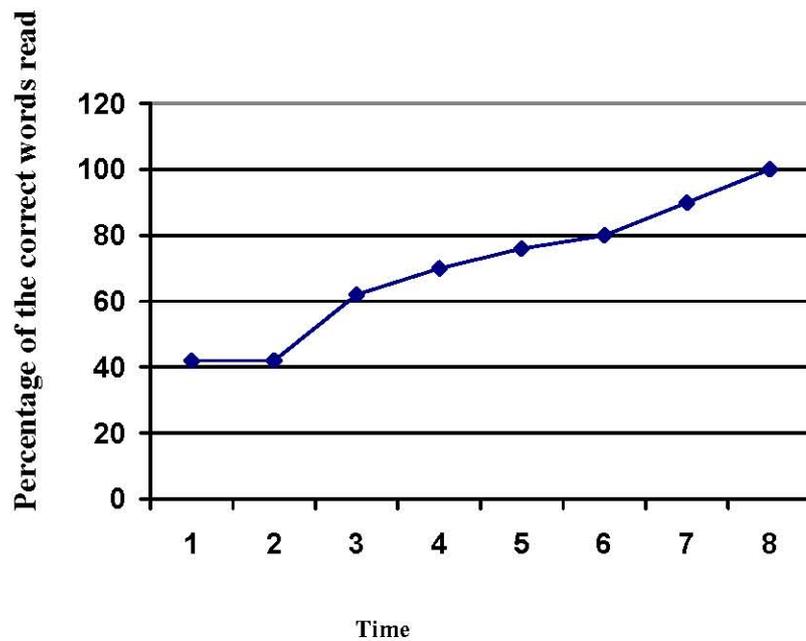


Figure 5. Reading Development of Student 5

Discussion

The findings of the study was significantly satisfactory to the researcher on the ground that the trainable mentally retarded children might seem to be difficult, to some extent, to be thought to read using phonics method, though we firmly believed that their counterparts, the educable mentally retarded children might be more possible to be taught to read more easily. Eventually, however, it was proved that children with the IQ from 25 – 40 were able to pronounce basic words in Thai language using phonics method. Moreover, some of the subjects possessed the IQ. Of 25 – 28, which were lower than the category of trainable mental retardation with the range of an IQ. From 30 – 50. It was, therefore, evident that children with severe mental retardation could be taught to read by using by using phonics method for the Thai language.

As a matter of fact, teaching the children with mental retardation to read words printed on white sheets of paper many seem to be boring, particularly the words without any specific meaning such as [pa] [pha/] [pha] [ma]. From the observation during the experiment, it was noted that the subjects seemed to become off the tasks quite often. But for the meaningful words, there youngsters showed more interest in reading them. They seemed to be even more interested in

reading the words with colorful pictures. It was evident that in providing reading experience for the mentally retarded children, the words should be quite large, with color-coded consonants and/or vowels, meaningful words and with illustrated pictures.

It was also observed from the experiment that the children with severe mental retardation seemed to be more interested in learning to read through hand-on learning activities including playing with word cards, through computer monitors, or through color activities. This implied that the teacher prepared a number of reading activities concerning phonics strategy so that the children could move from one reading activity to the others which would certainly enhance learning.

Another feature worth mentioning in teaching these youngsters to read was that color and size seemed to play significant roles in learning. It was observed from the study that the children played with cards longer when the latter were large in size. The same behavior was observed in print. When the words which were printed on the white sheet of paper were quite small, the children found it difficult to read than which were larger. When the words were printed quite close to one another, the children found it hard to read than those with large print and with some empty space from one another. The children could read the words better where the words were colored black. When the words were printed on the 5 x 8 inch card and were colored in accordance with phonic principles, the children were able to read the words more easily.

Illustrated picture was another important element to be considered in providing learning experience for the children with severe mental retardation. Both researchers conducting this study agreed that if the target words were accompanied by colorful pictures, the children seemed to be more interested and became longer engaged in the learning activities.

The phonics method itself had been proved to be effective in teaching the children with severe mental retardation to read. It would be much better if the method was further strengthened by learning experience which employed large word cards, words with colors, words with meaning rather than nonsense words. Size, color, and picture should be considered when planning reading activities for these children

Biography

- Baker, B., Brightman. (2004). [Online]. Available : **A Step to Independence : Teaching Every
ay Skills to Children with Special Needs.** Baitimare, Paul H. Brookes, 2004.
- Florida Department of Education. (1994). **The Adult Beginning Reader Guide : Activities.**
overnment Clearing House. Washing Lon, D.C.
- Golf, P. (1998). **Where in Phonics ? “Making” Case for Direct and Systematic Instruction.**
the Reading Teachers”. 52} 138-141.
- Hendrick, W.B. et. Al. (1991). **“Implementing a Multimethod, Multilevel Literacy. Program
or Students with Mental Retardation.** Focus and Autism and Other Developmental
isabilities. 14, 231-239, 1999.
http://www.psychnet-uk.com/dsm_iv/mental_rctardation.htm. Retrieved December5,2004.
http://www.early-reading.com/home/research/phonics_vs_whole.html. Retrieved December10,2004.
- Joseph, L.M. and Scary, M.E.(2004). **Where is the phonics. Remedial and Special Education
5, 88-99.**
- Lane, S.D. of Critchfield, T.S.(1998). **“Classification of Vowels and Consonants by individuals
ith Moderns Retardation”** Journal of Applied Behavior Analysis. 31 (1), 21-41.
- Smith, Joseph. (2004). [Online]. Available : <http://www.chelibrary.org/micromedA005655.html>.
Medical Library. Retrieved November 22, 2004.
- U.S. Department of Education. (2002). **Twenty Fourth Annual Report to Congress. of
Resources Level 0-3.9.** rlando, Bureau of Aduet and community Education.
- World Health Organization. (2004).** [Online]. Available <http://www.3.who.itn/icd/voll.htm>
2003/g170,htm. Retrieve 5, 2004.