

# **Multisensory Teaching-Learning Approach in Reading for Pupils at Risk of Dropping Out (PARDO)**

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## **ABSTRACT**

The multisensory approach refers to any learning activity that combines two or more sensory strategies to take in or express information, and these have been particularly valuable in literacy and language learning. This study utilized a multisensory approach to reading to motivate visual, auditory, tactile, and kinesthetic (VAK) learners and assess the five-month reading intervention program for the pupils who are at risk of dropping out. It used documentary analysis, oral diagnostic tests for the Grade I Pupils At Risk of Dropping-Out (PARDO). Such were conducted on a one-on-one basis to assess the reading skills of the pupils, and results were subjected to a t-test. The normative-descriptive method was employing a self-made questionnaire to gather information regarding the facilitators' profile and their perceptions regarding the program. There was a significant leap in the performance of the subjects between the pretest and posttest. A significant improvement was observed in the performance of the pupils in the posttest. The program is very helpful to the young learners; it encourages them in continuing their studies especially those who are considered slow learners.

## **KEYWORDS**

Education, multisensory approach, normative-descriptive method, t-test, Tagbilaran City, Philippines

## INTRODUCTION

Reading is an essential life skill. It is crucial to a person's ability to receive and learn information, understand ideas, follow arguments or learn skills; it is critical to a person's achievement in whatever life venture one may lead. Proficiency and success in reading is a necessary motivation and stepping stone towards an excellent academic performance for children. As stipulated by the Department for Education and Skills (DfES) 2004, multi-sensory reading modality is the process of utilizing various combinations of modalities such as visual, auditory and kinesthetic to take in or express information. These are valuable in literacy and language learning (Jubran 2012). According to Kolb 1984, the combination of the past and present experiences come up with distinct orientations. Those provide different contexts for the four basic learning modes that are postulated in experiential learning theory (Sewall, 1986).

The matter of children learning how to read poses an enormous challenge to those involved in the education of the young learners. To note, learning to read may start at home with parents taking the reins in their child's learning. Children described as "at risk" are those who are in danger of failing to complete their primary education. These supports equipped them with the levels of skills and competencies. According to Slavin (1989), risk factors of dropping-out include low achievement, retention of grade, behavior problems, low socioeconomic status and attendance at school with large number of poor students. The researcher took on the challenge of educating the young, teaching them to read, and giving them opportunities to succeed. The researcher volunteered to design and implement a reading intervention/remediation program. Such intended to answer the call of saving the Grade I Pupils at Risk of Dropping-Out (PARDO). They were categorized as slow readers and non-readers at the Bunga Mar Elementary School, which is approximately two kilometers at the Southern part of Jagna, Bohol.

Teachers must maintain a high level of student motivation. In motivating students to learn to read or read to learn, teachers must employ sound teaching approaches that promote a positive attitude towards reading. Those methods cater to the different needs and learning styles of the students. According to Hermosa (1994), the learning environment can be redesigned, whether in school or at home, in order to respond to the children's preferred learning styles. Furthermore, Willis (2008) explains that although children have individual learning strengths (or preferred styles of learning), it is beneficial to all children to exercise multiple learning systems.

Howard Gardner's Theory of Multiple Intelligences 1985 in his book, *Frames of Mind: The Theory of Multiple Intelligences* describes seven separate intelligences. The following are as follows, linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal. The core of a cognitive model of MI theory which is the belief that (1) each person possesses seven intelligences, (2) The study made use of the theory on Visual Auditory and Kinesthetic (VAK) Learning Styles. The VAK Learning Style or Modality Theory uses the three primary sensory receivers: visual, auditory and kinesthetic (movement).

People from different ages can use different learning style: under four years of age – kinesthetic is very dominant, ages four to eight years old – visual is very distinct, nine years old and above are more auditory. Learning styles tends to shift to greater abstraction (Clark, 2000). When the teaching process considers individual learning styles, the children will learn and remember better and enjoy all the more the learning process (Cornett 1983 ). Multisensory approach utilization promotes the concept of using or combining different instructional materials within the learning environment as claimed by Canning-Wilson (2000). According to Honey, (2004) television is perceived to provide greater accommodation of diverse learning style. This is precisely the basis for the utilization of television medium for the intervention module aside from its availability.

The environment of this study is at Bunga Mar Elementary School, a barangay public elementary school. Such school recently faced a challenge being the fifth lowest rank among the twenty-one (21) elementary schools in the town of Jagna, Bohol in the National Achievement Test (NAT) taken by Grade VI pupils for the SY 2010- 2011. It had an average score of 60.20%. The passing rate is 75%. It placed low in Mathematics with 58.40%; Science, 50.26%; HEKASI, 61.29%; and English, 56.67%. In the Regional Achievement Test (RAT) taken by Grade I to VI pupils for SY 2010-2011, the school garnered an average score of 56.93% placing the school at the fourth lowest in ranking among twenty-one (21) elementary schools in the town. For Grade I, it scored 70.89%; Grade II, 64. 81%; Grade III, 47.45%; Grade IV, 46.41%; Grade V, 57.22%; and Grade VII with 54.80%.

Furthermore, another challenge was encountered when it identified a total of sixty-three (63) PARDOs; among them, fifteen (15) were Preschool pupils moved to Grade I who were considered slow and non-readers, thirty-nine (39) were regular Grade I slow and non-readers while seven (7) pupils from Grade II

and two (2) pupils from Grade VI averaged less than 75% in the Oral Reading Verification Test.

As the findings of Juel 1991 shows, kindergarten children or those in early part of the first grade who exhibited high degrees of phonemic awareness are more likely to be good readers throughout their elementary school careers” (Chard et al, 1998). Juel further implies that “graders who have poor phonemic awareness as early as Grade I have greater chances to be poor readers at the end of the year, unless their phonemic awareness has been developed either directly or indirectly during the school year” Chard et al., 1998. The Phonemic Awareness/Phonics Knowledge versus the Whole Word (Language)/Sight Word debate assumed that one approach must be relatively better than the other. According to Stahl and Miller (1989), both methods can be helpful in teaching children to read.

As pointed out by the K-12 Reader, Reading Instruction Resources, sight words build confidence as sight words give beginning readers the advantage when attempting to read new reading materials. The writer believes that it enhances ESL instruction as some English words do not follow standard rules, and the easy way to learn them is through memorization.

The study aims to answer the following queries:

1. What is the profile of the subjects in terms of:
  - 1.1. Personal
    - 1.1.1 Age
    - 1.1.2 Sex
    - 1.1.3 Pupils’ Classification
  - 1.2 Preschool Transferred to Grade I
    - 1.2.1 Grade I Slow and Non-Readers
    - 1.2.2 Grade I without Preschool Experience
    - 1.2.3 Grade I with Preschool Experience
  
2. What is the status of the Multisensory Approach in Reading Program implementation as perceived by the facilitators in the context of:
  - 2.1. The instructional material according to Frequency of Usage
    - 2.1.1 videos (VCD/DVD)
    - 2.1.2 worksheets
    - 2.1.3 pictures/flashcards
    - 2.1.4 storybooks (with Audio CD)
    - 2.1.5 chalkboard

2.2. Instructional materials according to Ease of Usage

2.2.1 videos (VCD/DVD)

2.2.2 worksheets

2.2.3 pictures/flashcards storybooks (with Audio CD)

2.2.4 chalkboard

2.3. Instructional materials according to its perceived impact on the pupils' attention and participation during the learning process

2.3.1 videos (VCD/DVD)

2.3.2 worksheets

2.3.3 pictures/flashcards

2.3.4 storybooks (with Audio CD)

2.3.5 chalkboard

3. What is the performance of the pupils in the diagnostic test during the pretest and the posttest?

4. Will it accept or reject the null hypothesis that there no significant difference between the performance of the pretest and the posttest?

## METHODOLOGY

Data mining and documentary analysis were employed as bases for the selection process for subjects to be included in the study. Introduction of an innovative intervention program using the Multisensory Approach to Reading designed to meet the reading competency of pupils at Preschool level considering that though they are in Grade I, the said subjects are considered slow readers and non-readers based on their school performance rating; it is an experimental method being employed using oral diagnostic tests for the Grade I PARDOs conducted individually for pupils to assess their reading skills. The module capsulized content and strategies of the learning process. This multisensory approach incorporated music, videos, pictures, flashcards, storybooks with audio guide, worksheets, dance, movement, and games in teaching. It further made use of normative-descriptive method employing a self-made questionnaire to gather information regarding the facilitators' profile and their perception regarding the program. Likewise, the documentary analysis was used to collect data regarding

the profile of the school and its pupils in general. The Grade I pupils of Bunga Mar Elementary School, who were classified as Pupils At Risk of Dropping-Out (PARDO) were the subjects of this study.

Research ethical protocols were followed in this research to ensure that there is no violation of children's rights.

## RESULTS AND DISCUSSION

Table 1. Profile of Subjects

AGES	f	%
Six years old	9	25.0
Seven years old	27	75.0
Total Number of Pupils	36	100.0
SEX	f	
Male	24	66.67
Female	12	33.33
Total Number of Pupils	36	100.0

Table 1 provides the profile of the subjects included in the study where the total number of subjects were the pupils who were most likely to become PARDOs. The total number is 36. Two-thirds of the number are males.

Table 2. Profile of the Subjects According to Pupils Classification

CLASSIFICATION	NO. OF CASES
Preschool Pupils Transferred to Grade I	9
Grade I Slow and Non-Readers:	
a) Grade I without Preschool Experience	18
b) Grade I with Preschool Experience	9
Total Number of Pupils	36

Table 2 illustrates that subjects were classified according to the following groups, those preschoolers moved to Grade 1, who were eight (8) in all; and Grade 1 who were slow and Non-Readers further classified into without preschool experience (18 and with preschool experience (9). Thirty-six (36) subjects in all.

Table 3. Frequency of Usage of Instructional Materials

Instructional Material	NA 1		S (Once a week) 2		O (2-3 times/ week) 3		VO (everyday) 4		WM	DV
	F	WM	F	WM	F	WM	F	WM		
a. videos (VCD/DVD)	0	0	0	0	0	0	4	16	4.0	VO
b. worksheets	0	0	0	0	0	0	4	16	4.0	VO
c. picture/ flashcards	0	0	0	0	0	0	4	16	4.0	VO
d. storybooks with Audio CD)	0	0	0	0	1	3	3	12	3.75	VO
e. chalkboard	0	0	0	0	0	0	4	16	4.0	VO
Composite Mean										VO

Scale:

Descriptive Value

4.2 – 5.0	Very Easy	(VE)
3.4 – 4.19	Easy	(E)
2.6 – 3.39	Moderate	(M)
1.8 – 2.59	Difficult	(D)
1.0 – 1.79	Very difficult	(VD)

Table 3 reflects the percentage of usage of the instructional materials rated by the facilitators. All the IMs such as videos, worksheets, flashcards, pictures, storybooks with audio CD and chalkboards were all used very often. This finding is in parallel with the claim of Canning-Wilson 2000 that Multisensory approach utilization promotes the concept of using or combining different instructional materials within the learning environment.

Table 4. Ease of Using IMs

Instructional Material	VD 1		D 2		M 3		E 4		VE 5		WM	DV
	F	WM	F	WM	F	WM	F	WM	F	WM		
a. videos (VCD/DVD)	0	0	0	0	0	0	0	0	4	20	5.00	VE
b. worksheets	0	0	0	0	0	0	3	12	1	5	4.25	VE
c. picture/flashcards	0	0	0	0	1	3	2	8	1	5	4.00	VE
d. storybooks (with Audio CD)	0	0	0	0	1	3	0	0	3	15	4.50	VE
e. chalkboard	0	0	0	0	1	3	2	8	1	5	4.00	VE
Composite Mean											4.35	VE

Based on the perceived ratings of the facilitators, Table 4 depicts the usage of the IMS was very easy. The highest weighted mean of 5.0 was the utilization of videos.

Table 5. Perceived impact of IMs used in terms of attention and participation

Instructional Material	VL 1		L 2		M 3		H 4		VH 5		WM	DV
	F	WM	F	WM	F	WM	F	WM	F	WM		
a. videos (VCD/DVD)	0	0	0	0	0	0	1	4	3	15	4.0	VH
b. worksheets	0	0	0	0	0	0	2	8	2	10	4.0	VH
c. picture/flashcards	0	0	0	0	0	0	1	4	3	15	4.0	VH
d. storybooks	0	0	0	0	1	3	0	0	3	15	3.75	VH
e. chalkboard	0	0	0	0	0	0	3	12	0	0	4.0	VH
Composite Mean											4.46	VH

**Scale:**

3.25 – 4.0

2.50 – 3.24

1.75 – 2.49

1.0 – 1.74

**Descriptive Value**

Very Often (VO)

Often (O)

Sometimes (S)

None At All (NA)



Table 5 provides the perceived impact of IMs used in terms of attention and participation with the embedding of games, dance, songs and movements, it gained the Very High rating of 4.46 as manifested by its composite mean. This affirms the study conducted by Dunn that when the teaching process considers individual learning styles, the children will learn and remember better and enjoy all the more the learning process (Dunn, cited by Cornett 1983). This data run parallel to the result of the study conducted by Clark, 2000 that visual is very distinct from 4-8 years of age.

Table 6. Results of Pre-Tests and Post-Tests

PUPILS	PRETEST	POSTTEST	D	D <sup>2</sup>
Pupil #1	46	65	-19	361
Pupil #2	48	65	-17	289
Pupil #3	38	66	-28	784
Pupil #4	42	63	-21	441
Pupil #5	57	66	-9	81
Pupil #6	51	65	-14	196
Pupil #7	42	66	-24	576
Pupil #8	11	54	-43	1849
Pupil #9	40	63	-23	529
Pupil #10	59	65	-6	36
Pupil #11	19	63	-44	1936
Pupil #12	44	58	-14	196
Pupil #13	31	60	-29	841
Pupil #14	46	60	-14	196
Pupil #15	40	66	-26	676
Pupil #16	43	66	-23	529
Pupil #17	45	65	-20	400
Pupil # 18	38	51	-13	169
Pupil #19	65	66	-1	1
Pupil #20	41	55	-14	196
Pupil #21	45	49	-4	16
Pupil #22	16	53	-37	1369
Pupil #23	43	65	-22	484

Pupil #24	35	55	-20	400
Pupil #25	42	57	-15	225
Pupil #26	37	55	-18	324
Pupil #27	49	49	0	0
Pupil #28	38	66	-28	784
Pupil #29	34	66	-32	1024
Pupil #30	41	65	-24	576
Pupil #31	37	58	-21	441
Pupil #32	19	33	-14	196
Pupil #33	41	56	-15	225
Pupil #34	41	60	-19	361
Pupil #35	50	66	-16	256
Pupil #36	37	65	-28	784
Total	1451	2166	-679	17747
Mean	40.31	60.17	Mean Difference	19.86

Table 6 depicts the comparative scores of the subjects during the pretest and the posttest. There was a significant leap in terms of performance evidently seen in the mean scores on the pretest that is 40.31, and 60.17 in the post-test. A mean difference of 19.86 is apparently shown.

Utilizing the T-test at 0.05 level of significance, the resultant t is 2.0315 at df 35. There was a significant increase in the performance of the pupils in the posttest. The mean gain of 19.86 or 20 from the mean of 40.31 in the pretest that to a mean of 60.17 in the posttest was very significant. Therefore, the Null Hypothesis was rejected. The results of the diagnostic tests proved that the implementation of a Multisensory Approach to Reading is effective.

## CONCLUSION

In conclusion, the intervention program utilizing the IMS designed with the VAK model was useful for the young learners who were PARDOs. The usability of the IMs were found very easy, and those IMs increased the attention and participation of pupils. A significant increase in their performance is evidently shown on the results of the pretest and posttest.

As an aftereffect of this study, it challenges the leaders of Department of Education to continue the program that was piloted in Bunga Mar Elementary School to other schools so that they may benefit of the said module.

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