

Level of Word Recognition and Reading Comprehension: A Basis for a Reading Program

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Abstract - The study determined the reading profile of all Jose Rizal Memorial School Grade IV pupils enrolled during the S.Y. 2013-2014 through their level of word recognition and level of reading comprehension which were the bases in designing a reading program. The data on word recognition was observed through pronunciation and oral reading speed using the Dolch's Basic sight words while the reading comprehension was through answering questions right after their silent reading. Based on the standard set by the Philippine Informal Reading Inventory (PHIL-IRI), the respondents were with mastery in reading the basic sight words; only few miscues were identified.

In terms of reading comprehension, majority of the respondents were considered under the instructional level which means that they would still benefit from further reading instructions since they are not pupils who refuse or withdraw themselves to read. They can read with assistance and with proper guidance and soon are expected to be independent readers. Thus, based on the findings, a reading profile was developed which served as the source for designing a reading program.

Keywords: word recognition, reading comprehension, instructional, informal reading inventory

I. INTRODUCTION

It is common knowledge that knowing how to read and write is an indicator that one is educated. It is also an accepted phenomenon that reading is a very relevant part in the development of an individual's whole being. Reading is said to be the training of the mind and the means to attain deeper meaning of reality.

Reading is a habit where students learn, gain knowledge and develop new skills (Olivar, 2014). Understanding the significance of reading and in line with the implementation of the K to 12 Basic Education Program, the Department of Education (DepEd) implemented "Every Child A Reader Program" (ECARP), through DepEd Memorandum No.402.s.2004 and Administrative Order No. 324. This aims to teach public elementary pupils with planned training in reading and writing to make them independent young readers and writers. Moreover, ECARP is also part of the ten-point education agenda of President Simeon Benigno Aquino III to ensure that the country's public schools produce well-equipped graduates who could cope to the different challenges in life.

In order to develop an effective design to educate public school pupils with reading skills, assessment is

done to find out the status of their reading proficiency. One of the assessment tool used is called Philippine Informal Reading Inventory (Phil-IRI). It measures the reading proficiency of pupils through word recognition and reading comprehension of pupils in English and in Filipino, specifically, by getting the percentage of word recognition accuracy and percentage of correct answers to comprehension questions based on the set of criteria for reading levels.

Based on the Phil-IRI scale, the students are categorized into four levels: Nonreader, frustration, instructional and independent. Pupil under the *frustration reading level* tends to withdraw himself to read by refusing it. In the *instructional reading level*, the pupil can only read when being guided while in the *Independent reading level*, the pupil can read alone with ease without the guidance of the teacher.

Flojo (2007) emphasized that based on the Philippine Informal Reading Inventory, determined the strengths and weaknesses of students. Her study was done to analyze the existing learners' difficulties in reading and defining the source of their difficulties in reading comprehension. The study revealed that learners should be guided to be more aware of their level of achievement as well as specific strengths and weaknesses in reading. With increased learners' awareness, the instruction becomes more effective. In addition, her study showed that repeated inventories at periodic intervals in the beginning and end of the school year would make it possible to determine changes in the level of reading achievement and in the development of more specific skills and strategies. In this manner, a clear measure of child's development and progress could be gained. Intervention programs were done to cater individually the needs of pupils with difficulty in reading.

According to Anderson (2000), all readings begin with recognition of words. In the early years of the child's growth, they learn to produce new words through letter-sound recognition and letter blending. As they mature and begin to spell longer and more complex words, they apply to their spelling the concepts of root words and affixes i.e. prefixes and suffixes. When a child is first taught to read, the emphasis is usually on decoding skills. This is the process whereby the written letters and words are translated into language. He is taught phonics and from learning the sounds of individual letters, he progresses to putting the sounds together to form words. Early-stage reading books usually contain a lot of repetition of these first simple words to encourage practice and the gradual building of a reading vocabulary. At this early stage, the child is, in

effect, learning the “code” behind the written words. In this sense, decoding skills are the building blocks of successful reading. It is in this level that reading accuracy and speed come into play. A child with good decoding skills is able to read with speed and accuracy, although not necessarily with good comprehension.

It is very important to know the reading performance of the pupils since this skill is considered the key for gaining knowledge. One reads to attain knowledge that is useful in constructing new knowledge. Comprehension refers to the creation and re-creation of meaning from the printed materials (Miller as cited by Alonzo, 2005). Today, there is much progress about the concept on reading comprehension. It is not only through semantic (word meaning), syntactic (word order), phonetic/gramphonic cues (sound-word relationship) but it takes place through the good interaction of the text, context or situation and the prior knowledge and experience of the reader.

The study of Monter (2011) revealed the reading comprehension level of Grade six pupils of Morning Star Montessori, Inc. through the use of the Scholastic Reading Inventory Program. Indicators, such as, pupils’ demographic profile, reading attitude and environmental factors i.e., teacher factor, school factor and home factor were used to find out the significant relationship with the reading performance of the pupils. It was found out that only the teacher factors did not significantly relate with the pupils’ performance.

In this current study, reading was measured by word recognition and reading comprehension. Word recognition was measured by the correct pronunciation and speed in reading the Dolch’s basic sight words, wherein, pronunciation deals with the correct letter-sound recognition and blending while reading speed is the time spent in orally reading the basic sight words. Reading comprehension was measured by getting the scores gained by the pupils in answering the four (4) levels of comprehension questions i.e. Test I, literal comprehension; Test II, interpretative comprehension; Test III, critical analysis; and Test IV, Application and creation level of comprehension (Villanueva & Delos Santos, 2008).

After identifying the reading levels of the participants in word recognition and reading comprehension, a reading program was designed tailored to the students’ reading needs. The information collected served as the bases in making decisions for planning an appropriate school-based teaching and learning instruction as well as a reading program to improve the performance of pupils. The assessment results are considered in the preparation of the school improvement plan.

Reading program is classified into goals like development or instructional reading program, the functional reading program, the recreational reading program or the independent reading program.

Correspondingly, the National Institute of Child Health and Human Development (NICHD) (2000) is the National Reading Panel that was created to assess the status of research-based knowledge about reading including the effectiveness of various approaches to teach the children. In gathering information for the

study, they followed three methods: first, they review variety of public data bases to determine what research had already been conducted on how children learn to read. Second, they gather information from public sources about their needs and understanding of reading research, and third, they consult leading education organization whose concern is in reading issues. Through the NICHD study, they concluded that vocabulary should be taught directly and indirectly. Repetition and seeing vocabulary words several times is also important. (www.nationalreadingpanel.org)

This current study determined the reading profile of the Grade IV pupils of Jose Rizal Memorial School based on the level of word recognition (in terms of correct pronunciation, reading speed, and reading miscues) and the level of reading comprehension (in terms of silent reading speed, literal, interpretive, critical analysis, and application and creation) to design a reading program best suited to their reading needs.

II. OBJECTIVES OF THE STUDY

Generally, the research aimed to develop a reading program for Grade IV pupils based on their reading profile. Specifically, this research aimed to determine the level of word recognition of the respondents using Dolch’s basic sight words; to identify the common reading miscues of the Grade IV pupils; to determine the level of comprehension of the respondents in terms of literal comprehension, interpretive comprehension, critical analysis, and application and creation; to determine the reading profile of the respondents based on word recognition and reading comprehension; and to develop, based on the reading profile, a reading program for Grade IV pupils.

III. METHODS

Research Design

The researcher used the descriptive method. Calmorin (2007) cited that this method seeks the real facts in relation to a current situation. Furthermore, this also involves describing, comparing, contrasting and interpreting conditions that exists.

The study investigated on the participants’ level of word recognition and reading comprehension to find out their reading profile which was the basis in designing a reading program that would cater to their reading needs.

Participants

The research was conducted at Jose Rizal Memorial School (Central I), one of the oldest yet considered prime public elementary school in Calamba City. It is located at the heart of the city, near the shrine of the known national hero of the Philippines. The school was founded to give tribute to the martyr hero, Dr. Jose Rizal.

The locale was chosen purposely due to its high regard with the standard of education and that all the necessary conditions that correspond with the conduct of the study were available in the mentioned school.

The participants of the study was the total population of Grade IV pupils’ of JRMS enrolled

during the school year 2013-2014 which came from 14 sections.

Table.1. Participants of the study

GRADE/SECTION	No. of participants in Word Recognition	No. of participants in Reading Comprehension
IV-Narra	37	28
IV-Spa	35	37
IV-Molave	46	41
IV-Yakal	37	36
IV-Mahogany	36	41
IV-Ipil	25	38
IV-Dao	37	37
IV- Mangrove	20	37
IV-Tindalo	28	36
IV-Pine	35	40
IV-Madre De Cacao	37	37
IV-Kamagong	36	38
IV-Lauan	33	41
IV-Gmelina	38	32
TOTAL	480	519

The total participants who took the word recognition test were 480 while in reading comprehension the total was 519. Generally, as per interview with the advisers, some of the students were absent due to sickness, financial problem, personal or family problem and other related reasons.

Instrument

The research instrument has two parts. Part I deals with word recognition in terms of pronunciation, miscues, and reading speed. Part II deals with reading comprehension.

For word recognition, the research instrument used was the Dolch's list of basic sight words with checklist for the pupils' response. For reading comprehension, there was a three page test composed of a 375 word reading selection which was read silently by the pupils; and the reading comprehension test which was used to measure the four levels of comprehension, specifically, the literal, interpretative, critical analysis and application and creation.

Procedure

Before the conduct of the study, the researcher met with the 14 advisers of Grade IV for the orientation on the data gathering procedure and schedule. In word recognition, each child was exposed to the Dolch's list of basic sight words. The response of the pupils were observed and listed in a checklist. Specifically, the checklist includes the pronunciation of the words, miscues, and the oral reading speed.

In measuring the reading comprehension, the adviser asked the pupil to silently read the selection. The teacher's role was to time the silent reading and to facilitate in answering the comprehension test which was known to the pupils as a quiz.

Data Analysis

Since the researcher considered the total population, it made use of the following:

1. frequency distribution which shows the different scores of the respondents in both tests in word recognition and reading comprehension;
2. the mean in order to give a summary of the characteristics of the reading level of the participants.
3. In computing the word recognition, reading speed and reading comprehension the following formulae were applied:

- a. For word recognition the formula was:

$$WR = \frac{\text{No. of miscues} \times 100}{\text{No. of words}}$$

The percentage of the number of miscues with the total number of basic sight words was computed. The number of miscues was the pupil's mispronounced words. It was needed to find out how many words were pronounced properly.

- b. For reading speed (RS) the formula were applied:

In Oral reading using the Dolch's Basic Sight Words

$$RS = \frac{\text{No. of words in the passage (220 words)}}{\text{Reading time (min)}}$$

In Silent reading:

$$RS = \frac{\text{No. of words in the passage (375 words)}}{\text{Reading time (min)}}$$

Reading speed was computed by dividing the total number of the words in the list of Basic sight words and the selection which are specifically, 220 words and 375 words respectively. This was done to measure the speed of reading by the individual participants.

Table 2. The criteria for reading speed (adapted from Phil-IRI)

Grade level	FAST	AVERAGE	SLOW
I	70-Above	31-69	30-below
II	100	61-99	60
III	120	91-119	90
IV	140	111-139	110
V	170	141-169	140
VI	190	161-189	160

Table 2 was used as the basis for the reading speed of Grade IV pupils. It is shown that a pupil who could read 140-above words per minute (WPM) is considered fast; 111-139, as average; and 110-below, as slow.

- c. Reading comprehension (RC) was computed using:

$$RC = \frac{\text{Total correct answer}}{\text{Total number of question}} \times 100$$

The reading comprehension of the participants was the percentage of the total correct answer versus the total number of items. This was done to find out the level of understanding of the participants in reading the selection according to the literal (Test I), interpretative (Test II), creative analysis (Test III) and application and creation (test IV) levels of comprehension.

The following tables are basis for interpreting the individual reading profile of the participants from the Philippine Informal Reading Inventory (Phil- IRI).

Table 3. The test criteria for word recognition and comprehension (adapted from Phil-IRI)

	Word Recognition	Comprehension
Independent	97-100	80-100
Instruction	90-96	59-79
Frustration	89-BELOW	58-BELOW

Table 3 is the basis for interpreting the scores garnered by the students from the word recognition (oral reading) and the reading comprehension (silent reading). Once the scores were interpreted, Table 4 was referred at to identify the reading level of the participants.

Table 4. The criteria for oral reading (adapted from Phil-IRI)

Word Recognition	Comprehension	Reading Level
Independent	Independent	Independent
Independent	Instructional	Instructional
Independent	Frustration	Frustration
Instructional	Independent	Independent
Instructional	Instructional	Instructional
Instructional	Frustration	Frustration
Frustration	Independent	Frustration
Frustration	Instructional	Frustration
Frustration	Frustration	Frustration

If the set of participants is **independent** in word recognition and **independent** also in comprehension then he or she is **independent** while if the set of participants is **independent** in word recognition and **instructional** in comprehension the participant is considered **instructional** in reading level and so on.

Table 5. The criteria for silent reading (adapted from Phil-IRI)

Reading Speed	Comprehension	Reading Level
Fast	Independent	Independent
Fast	Instructional	Instructional
Fast	Frustration	Frustration
Average	Independent	Independent
Average	Instructional	Instructional
Average	Frustration	Frustration
Slow	Independent	Instructional
Slow	Instructional	Instructional
Slow	Frustration	Frustration

In terms of silent reading , the reading level of the participants is based on the reading speed which was computed using the number of words read in a particular time and the reading comprehension which was based on the scores in the test.

If the reading speed is **fast** and the comprehension is **independent** then the participant is **independent**. If the participant is fast and his comprehension level is **instructional** then he/she is **instructional**.

RESULTS AND DISCUSSION

Table 6. Word Recognition Level of participants in terms of correct pronunciation

Words recognized (in %)	No of Participants	Percent (%)	Word Recognition Level
0-89	31	6.46	Frustration
90-96	6	1.25	Instruction
97-100	443	92.29	Independent
TOTAL	480	100	

In terms of pronunciation, 92.29% of the participants were considered independent. Only 6 (1.25%) were in the instructional category and 31(6.46%) were in the frustration level.

Table 7. The respondents' reading speed in using the Dolch's basic sight words

Reading speed wpm	No of Participants	Percent (%)	SPEED Level
0-110	479	99.79	Slow
111-139	0	0	Average
140-above	1	0.21	Fast
TOTAL	480	100	

In terms of reading speed, only one participant was considered fast reader having reached the level of 140-above words read per minute , the rest of the participants, specifically, 479 (99.79%) were considered slow with 73 words per minute(wpm) reading speed. No one was considered average reader.

Thus, in terms of the level of word recognition, out of 480 who were exposed to the list of words, the range of their scores in correct pronunciation is from 94(42%) to 220 (100%) with a mean of 210 which means that the common scores gained was 210 or 95.45% with a verbal interpretation of *instructional*.

In terms of miscues, out of 480 participants, 42 committed substitution, 296 committed mispronunciation and 91 committed both substitution and mispronunciation.

Table 8. The common reading miscues of the respondents

No of miscues	No of substitution	No. of mispronunciation	No of both Substitution & Mispronunciation	No of Respondents who committed miscues	Percent (%)
145 - above	0	0	0	0	0
100-144	3	2	5	10	2.08
50-99	0	0	1	1	0.21
10-49	23	88	33	144	30.00
1-9	16	206	52	274	57.08
0	0	0	0	51	10.63
TOTAL	42	296	91	480	100.00

Furthermore, out of 220 words, majority got 210 correctly pronounced words with a range of 1 to 10 miscues which means that most of the participants have mastery in reading the basic sight words.

Table 9. Level of reading comprehension of the participants in literal comprehension

Score	Grade (in %)	Frequency	Relative Frequency	Reading Comprehension Level
0	0	107	20.62	Frustration
1	20	196	37.76	Frustration
2	40	142	27.36	Frustration
3	60	60	11.56	Instruction
4	80	12	2.31	Independent
5	100	2	0.39	Independent
TOTAL		519	100	

Table 10. Level of Reading comprehension of participants in terms of interpretative and critical comprehension

Interpretative				
Score	Grade	Frequency	Relative Frequency	Reading comprehension Level
0	0	118	22.74	Frustration
1	20	126	24.28	Frustration
2	40	121	23.31	Frustration
3	60	76	14.64	Instruction
4	80	55	10.60	Independent
5	100	23	4.43	Independent
TOTAL		519	100	
Critical analysis				
Score	Grade	Frequency	Relative Frequency	Reading Comprehension Level
0	0	118	22.74	Frustration
1	20	73	14.07	Frustration
2	40	87	16.76	Frustration
3	60	161	31.02	Instruction
4	80	62	11.95	Independent
5	100	18	3.47	Independent
TOTAL		519	100	

The participants were considered in the *frustration* level since they got 0-2 points out of the 5 point item per comprehension test in the literal level, interpretative level, and critical analysis. However, in the application and creation, majority of the participants were in the independent level having 266 participants with 6-10 points out of 10 items.

Table 11. Level of reading comprehension of the participants in applied comprehension

Score	Grade	Frequency	Relative Frequency	Reading Comprehension Level
0	50	79	15.22	Frustration
1	55	14	2.70	Frustration
2	60	21	4.05	Instruction
3	65	22	4.24	Instruction
4	70	30	5.78	Instruction
5	75	87	16.76	Instruction
6	80	59	11.37	Independent
7	85	69	13.29	Independent
8	90	47	9.06	Independent
9	95	52	10.02	Independent
10	100	39	7.51	Independent
TOTAL		519	100	

Table 12. Reading profile based on the Participants' Individual Performance according to section

	Word Recognition Level			Reading comprehension		
	Frustration	Instrumental	Independent	Frustration	Instrumental	Independent
IV-Narra	1	6	30	2	14	22
IV-Spa	2	0	33	4	20	13
IV-Molave	2	0	44	2	23	16
IV-Yakal	4	0	33	8	18	10
IV-Mahogany	3	0	33	5	21	15
IV-Ipil	2	0	23	8	13	7

Table 12 (cont). Reading profile based on the Participants' Individual Performance according to section

	Word Recognition Level			Reading comprehension		
	Frustration	Instrumental	Independent	Frustration	Instrumental	Independent
IV-Dao	3	0	34	5	24	8
IV- Mangrove	1	0	19	6	26	5
IV-Tindalo	1	0	27	5	28	3
IV-Pine	4	0	31	6	30	4
IV-Madre De Cacao	3	0	34	4	30	3
IV-Kamagong	4	0	32	6	26	6
IV-Lauan	0	0	33	8	25	8
IV-Gmelina	1	0	37	11	15	6
Total	31	6	443	80	313	126
Percentage(%)	6.5	1.25	92.3	15	60.31	24.28

The reading profile of the participants in terms of word recognition, are in the independent level. However, in the reading comprehension, the participants are in the Instructional level.

The Reading Program

The reading program is comprised of four sections. Section I: Theme/ Content – This is composed of the unit number, theme, description, values, content and reading selections to be exposed to the pupils
Section II: Reading Teaching Approaches- This includes the approaches to be used by the teachers or

even the parents in teaching reading to the pupils. Strictly, they should follow the order set in the program, specifically, to setting/ discover first the theme followed by the Pre-reading activities, then the reading activities and finally the post reading activities.

Section III: Teaching Materials – This includes the reading materials to be prepared by the teacher to use the program

Section IV: Assessment – This includes the objectives and the non-objective tests to measure the progress of the child.in reading

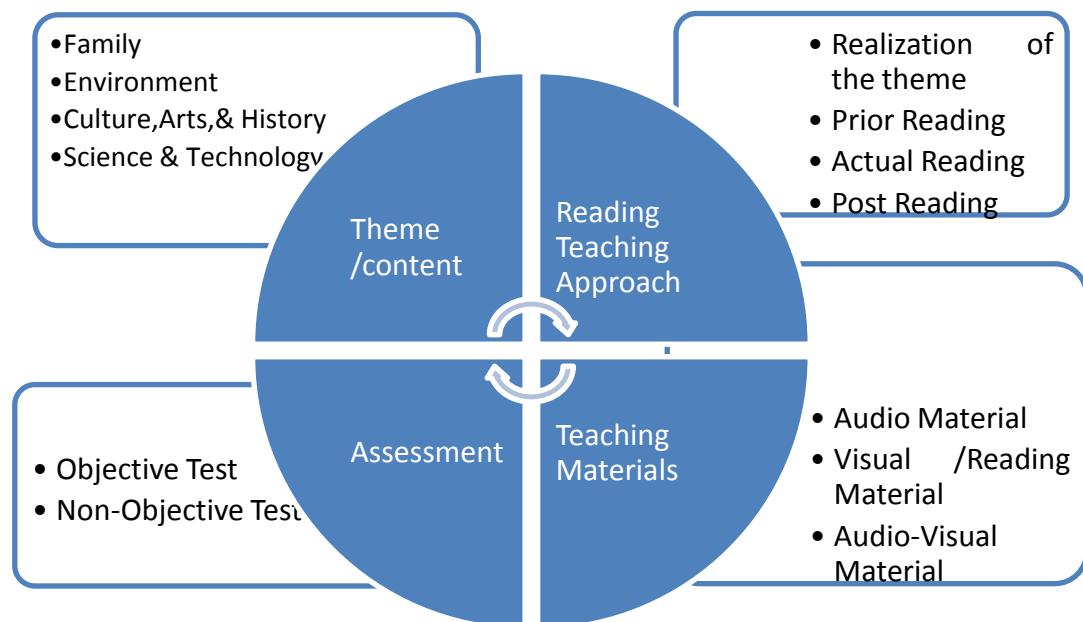


Figure 2. The Sections of the Reading Program

IV. CONCLUSIONS

Based on the standard set by the PHIL-IRI in terms of word recognition, the participants were but with mastery in reading the basic sight words since only few miscues were identified by the participants. In terms of reading speed, the participants were slow in speed. In terms of reading miscues, reading enrichment and intervention is needed by those pupils who committed substitution and mispronunciation. In terms of reading comprehension, majority of the participants were considered under the *instructional* level which means

that they would profit from the reading instruction. Although, they are not pupils who are refusing or withdrawing themselves to read. They can read with assistance. The product of this study was the reading profile of the students and the reading program designed based on the mentioned profile which is hoped to be a good instrument in the development or progress of the reading skills of the participants.

V. RECOMMENDATIONS

The participants need to be exposed to more instructional materials in reading like books, articles,

short reading selections. The participants need to be exposed to different teaching methods and strategies in reading to uplift their performance in reading and to enhance their confidence to read independently. The participants must be exposed to varied techniques, strategies, exercises in executing reading activities for them to be able to achieve the highest level of reading according to standards set by DepEd. The reading profile of this study should be considered as a basis of the school stakeholders to assess the reading performance of the participants. The proposed reading program is recommended to further enhance the reading performance of the participants.

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