

**An Evaluation of Primary One Pupils' Performance in Basic Reading Skills
in Government Schools in Jos Metropolis, Plateau State**

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Abstract

Strong reading skills are one of the most important educational outcomes that predict future success. Many different skills must work together when reading a text, including oral language, print awareness, phonemic awareness, reading fluency, and comprehension. The purpose of this study was to evaluate the reading skills of pupils in government schools in Jos Metropolis. In a descriptive study, 185 primary one pupils completed an individually administered reading assessment in each reading skill. The results showed that pupils were proficient in oral language and aspects of print awareness. However, performance in phonemic awareness, reading fluency, and listening comprehension was very low. Knowledge of the reading skills that pupils have mastered is important so that teachers in early childhood classrooms can target instruction for those particular skills that are still weak. This study shows that additional instruction is needed in phonemic awareness, reading fluency and listening comprehension.

Introduction

One of the most important skills that young children must develop for future success in school and in society is strong reading skills (Strickland, 2010). Success in all school subjects rely on the foundational skill of reading (Chris-Okafor, 2014). A pupil who cannot read well will not be able to succeed in English, social studies, science, religious education, or even mathematics because all of these subjects require the ability to read in order to learn from the textbook and class notes. Therefore, fostering strong reading skills is perhaps the most important goal for education in the nursery and lower primary grades.

Strong reading skills are also important for longer-term social and economic outcomes. Children who cannot read well in primary three are very unlikely to graduate secondary school (Snow, Burns, & Griffin, 1998). Individuals with good reading abilities are more likely to get a job, have a higher salary, and are less likely to be involved in criminal activities (National Institute for Literacy, 2008). Research has even shown that children who

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have strong reading abilities by age seven have higher salaries, better houses, and better jobs at age 40 (Ritchie & Bates, 2013). In addition to being successful professionally, the ability to read is necessary to get information about important issues in health, society, and politics (Greaney, 1996). Reading can also be a source of enrichment and pleasure. At the societal level, strong reading skills are important to improve the national economy, civic participation, and national development (Wagner, 2000). In summary, the most important outcome of a good education is the development of reading skills (Greaney, 1996).

Reading is defined as the ability to obtain information from print (Oyetunde, 2009). Reading is not just the ability to pronounce words in a text, but more importantly includes the ability to understand what is being read. Recent research has provided substantial evidence about two critical aspects of learning how to read in childhood. First, the foundation for learning how to read begins very early in life, starting from infancy (Snow et al., 1998). This is called *emergent literacy*. Even though young children may not be able to read a text, they are developing foundational skills that will prepare them to read in the future. One of these prerequisite skills for reading is oral language (Roskos, Tabors, & Lenhart, 2009). Young children who can speak and understand language well will be better readers in the future. A second critical aspect of learning to read is that there are many different skills that must work together when reading a text. The National Reading Panel (2000) and National Institute for Literacy (2008) have identified many skills that are necessary for children to be good readers, including oral language skills, print awareness, phonemic awareness, reading fluency, and comprehension.

Oral language consists of speaking and listening skills (Roskos et al., 2009). There are two aspects of oral language that are important for future reading skills. First, young children need to develop their understanding of a wide range of vocabulary words (Roth, Speece, & Cooper, 2002). Young children should be exposed to at least two new words every day in

order to develop competency in oral language (Roskos et al., 2009). Second, young children must learn to understand what they are listening to (Hoover & Gough, 1990). The primary method for developing strong oral language skills is exposure to language in children's daily lives through participation in language-rich conversations with adults and other children. Structured activities such as storytelling, discussions about stories, shared reading, dramatic play, and word plays can also help children develop their oral language skills (Roskos et al., 2009).

Print awareness consists of knowledge about the nature of print (Enz & Morrow, 2009). For example, children need to know how to hold a book properly, understand that the text is read (as opposed to pictures), and identify the important elements of a book such as the title and author. Furthermore, children should understand that text is read from left to right and top to bottom, a book is read from front to back, and know the names of letters. Much of print awareness is developed naturally as children are exposed to adults and older children reading texts. However, parents and teachers can also purposefully teach concepts of print awareness by pointing out key concepts of print as they are reading with children.

Phonemic awareness is the skill of being able to identify the sounds in spoken words. For example, the word *dog* is made up of the sounds /d/ /o/ and /g/. Phonemic awareness helps children recognize that it is possible to break words into smaller units of sound. Phonemic awareness is the basis for reading because each sound identified through phonemic awareness is represented by a letter or letter combination (Morrow, 2005; Pang, Muaka, Berhendt, & Kamil, 2003). Thus, the skill of phonemic awareness is a prerequisite skill for learning sound-symbol correspondence – called phonics – that is necessary for reading (Morrow, 2005). Phonemic awareness can be taught by short five-minute group discussions using a playful game format where teachers guide children to identify the first and last sounds

in words, manipulate sounds in words by adding or removing sounds, or rhyming words (Tompkins, 2010).

Reading fluency is the ability to read a text accurately, quickly, and with expression (National Reading Panel, 2000). This means that a reader can recognize familiar words automatically and without conscious thought, and can quickly identify unfamiliar words (Tompkins, 2011). Reading fluency is important because quickly and accurately reading words allows the reader to spend more attention on understanding what is being read instead of spending time to decode each word in a text (Pang et al., 2003). A reader is identified as fluent if he or she can read at least 100 words per minute (Tompkins, 2011). Reading fluency can be taught by helping children learn to automatically recognize high-frequency words, also called sight words. These are the most common words that appear in texts, such as *the*, *and*, and *a* (Umolu & Mallam, 1985). Additionally, reading fluency is developed by practice reading and re-reading a text.

Comprehension is defined as extracting and constructing meaning from a text (RAND Reading Study Group, 2002). Simply put, this means understanding the message of a text (Pang et al., 2003). Comprehension is the essence of reading (National Reading Panel, 2000). Indeed, correctly pronouncing words in a sentence does not mean that a reader understands the meaning that is communicated by that sentence. Comprehension is an active process that requires the reader to use his or her knowledge of vocabulary words as well as think and reason about the overall message that the text is communicating (Pang et al., 2003).

Comprehension consists of both reading comprehension (understanding the meaning of a text that is read) and listening comprehension (understanding the meaning of oral text). This study was conducted with primary one pupils who had not yet developed reading fluency.

Therefore, listening comprehension, which requires individuals to understand a message communicated orally, was used to measure comprehension in this study.

In summary, the two critical aspects of learning to read, that children begin to learn to read very early in life and that there are many different skills working together when reading a text, have implications for instruction in early childhood classrooms. First, even before children are considered “ready” to learn how to formally read text, teachers can be providing strategic instruction in emergent literacy skills as a foundation for future reading success. Second, the teaching of reading requires purposeful, planned instruction in a variety of skills, particularly the skills of oral language, print awareness, phonemic awareness, reading fluency, and comprehension.

Purpose of Study

The purpose of this study was to evaluate the reading skills of pupils in primary one in government schools in Jos Metropolis. It is important to know which reading skills young pupils have mastered and which reading skills still need improvement so that teachers in early childhood classrooms can target instruction in those particular areas that are still weak. Specific objectives of the study include the following.

- Identify the level of performance in oral language of primary one pupils in Jos Metropolis government schools.
- Identify the level of performance in print awareness of primary one pupils in Jos Metropolis government schools.
- Identify the level of performance in phonemic awareness of primary one pupils in Jos Metropolis government schools.
- Identify the level of performance in reading fluency of primary one pupils in Jos Metropolis government schools.
- Identify the level of performance in listening comprehension of primary one pupils in Jos Metropolis government schools.

Research Questions

The research questions that guide the study are as follows.

- What is the level of performance in oral language by primary one pupils in Jos Metropolis government schools?
- What is the level of performance in print awareness by primary one pupils in Jos Metropolis government schools?
- What is the level of performance in phonemic awareness by primary one pupils in Jos Metropolis government schools?
- What is the level of performance in reading fluency by primary one pupils in Jos Metropolis government schools?
- What is the level of performance in listening comprehension by primary one pupils in Jos Metropolis government schools?

Methods

Research Design

This study used a descriptive research design. Descriptive designs are used to develop careful descriptions of educational phenomenon (Gall, Gall, & Borg, 2003). This research study was designed to describe the level of performance of primary one pupil in Jos Metropolis government schools on five key foundational skills for reading: oral language, print awareness, phonemic awareness, reading fluency, and listening comprehension

Target Population

The target population for this study included pupils in primary one at government schools in Jos Metropolis.

Sampling Technique

Multiple stage sampling was used for this study. In the first stage of sampling, five government schools in Jos were selected. At the second stage of sampling, a target of 40 pupils in each school were selected to participate in the study. However, not all selected

pupils in every school completed the entire assessment process due to absenteeism. The total sample size for this study was 185 pupils.

Sample

The total sample size for this study was 185 pupils. There were slightly more female (58%) than male (42%) pupils in the study and the average age was 7.50 years (SD = 1.59).

Instruments

A one-on-one comprehensive reading examination was developed by the researchers to measure each of the five foundational reading skills. Oral language was measured by one subtest with ten simple questions that pupils had to answer. Because fluency in any language, not just English, has been found to improve reading skills (Edele & Stanat, 2016), pupils were allowed to respond either in English or Hausa. For example, one question was, “How old are you?” Any reasonable answer was marked correct.

Print awareness was measured by three subtests. For the first subtest entitled Print Awareness, the teacher presented a book to the pupil, and the pupil was asked ten questions to demonstrate their awareness of print conventions. For example, the pupil was first asked to point to the title of the book. Another item asked the pupil to demonstrate knowledge of reading text from left to right. The other two subtests, Upper Case Letters and Lower Case Letters, asked pupils to correctly identify the 26 letters of the alphabet. Letters were printed on small pieces of cardboard and were randomly shuffled. Pupils received one point for each letter they correctly identified.

Phonemic awareness was measured by one subtest with ten items that asked pupils to identify sounds within words. For example, pupils were asked, “What is the first sound in the word dog?” Pupils were scored as correct if they identified the correct sound.

Reading fluency was measured by two subtests. In the first subtest, the pupil was given a list of the 100 high frequency words in English (Umolu & Mallam, 1985). Each pupil

was then given 60 seconds to read as many words as they could. In the second subtest, the pupil was given a reading passage with 118 simple words. They were given three minutes to read as many words as they could. The final score reflected the number of words correctly read in the given timeframe.

Listening comprehension was measured by two subtests with ten items each. For both subtests, pupils were asked to answer questions based on their understanding of a simple story. In the first subtest, Comprehension During Reading, pupils were read one or two sentences at a time from a traditional story about a rat who helped a lion. After one or two sentences, the pupil was asked a question to test their understanding of those few sentences. In the second subtest, Comprehension After Reading, the teacher read half of a story about a city and village mouse who each visited the other in their home. Halfway through the passage, pupils were asked five questions to assess their understanding of the passage. At the end of the passage, five more questions were asked for a total of ten questions.

A construct validity approach was taken to gather validity evidence for the overall literacy examination. First, the definitions of each of the variables were carefully studied from well-established research (e.g., National Reading Panel, 2000). Second, well-researched and commonly used instruments to measure each of the variables were reviewed. Pre-existing instruments could not be used because these instruments have strong cultural biases. Therefore, this instrument was modeled off of well-researched and commonly used instruments that have strong validity evidence, but modified to use culturally-relevant prompts. Experts in literacy, English education, and educational psychology reviewed the instruments to ensure both cultural relevance and adherence to the construct definitions of the literacy variables.

Procedure for Data Collection

Each pupil was tested individually in a quiet location in April, at the start of the third term of the academic year. The teacher first introduced him or herself to the pupil, and engaged in a small conversation to make the pupil feel comfortable. Then the teacher said that he or she wanted to play a game with the pupil. Once the pupil was ready, then the assessment began.

In order to avoid the fatigue effect, the reading assessment was administered on two separate days. On the first day, pupils completed the following subtests: Oral Language, Print Awareness, Upper Case Letters, Phonemic Awareness, and both Reading Fluency subtests. On the second day, pupils completed the Lower Case Letters and both listening comprehension tests. To ensure that low performing pupils did not get frustrated, the teachers stopped each subtest after a pupil answered three items incorrectly and then moved to the next subtest.

Method of Data Analysis

To answer the research questions, the overall performance was calculated through mean scores for each subtest. These mean scores were then divided by the maximum possible score for that subtest to get the average percentage of items correct. This percent correct was then converted to a letter grade based on the typical scoring scale of 70% and above as an A, 60-69% as a B, 50-59% as a C, 45-49% as a D, 40-44% as an E, and 39% and below as an F. This data, which represents the typical score of pupils in the study, is presented in Table 1.

A second way to analyse the performance of pupils on reading skills is to consider how many pupils would have passed each subtest. As such, 40% was considered a passing score on each subtest. The frequency and percentage of pupils who passed each subtest was calculated. Furthermore, the frequency and percentage of pupils who earned an A grade (scored 70% or higher on the subtest) was also calculated. This data is presented in Table 2.

Results

The first research question asked, what is the level of performance in oral language by primary one pupils in Jos Metropolis government schools. The results are presented in Table 1.

Table 1. Average Performance on Reading Skills.

Subtest	Maximum	Standard Mean Percent Mean			
	Score	Mean	Deviation	Correct	Grade
Oral Language	10	8.71	1.58	87.14%	A
Print Awareness	10	6.72	3.48	67.24%	B
Upper Case Letters	26	14.64	9.53	56.30%	C
Lower Case Letters	26	13.52	9.83	51.99%	C
Phonemic Awareness	10	2.41	3.49	24.11%	F
Fluency: Sight Words	100	2.20	3.74	2.20%	F
Fluency: Passage	118	2.69	5.61	2.28%	F
Comprehension During Reading	10	3.64	3.81	36.39%	F
Comprehension After Reading	10	2.87	3.35	28.72%	F

Table 2. Frequency and Percentage of Pupils Who Performed Well

Subtest	Passed		A Grade	
	Frequency	Percent	Frequency	Percent
Oral Language	182	98.38%	168	90.81%
Print Awareness	135	72.97%	116	62.70%
Upper Case Letters	110	59.46%	83	44.86%
Lower Case Letters	104	56.22%	74	40.00%

Phonemic Awareness	47	25.41%	28	15.14%
Fluency: Sight Words	0	0.00%	0	0.00%
Fluency: Passage	0	0.00%	0	0.00%
Comprehension During Reading	76	41.08%	50	27.03%
Comprehension After Reading	60	32.43%	36	19.46%

As can be seen from Table 1, pupils performed quite well on oral language, which corresponds to the average grade of a strong A. This means that the pupils in primary one government schools in Jos can communicate well using oral language. As seen from Table 2, almost all of the pupils passed the oral language test, and 90% scored an A grade.

The second research question asked, what is the level of performance in print awareness by primary one pupils in Jos Metropolis government schools. This question was answered by the subtests Print Awareness, Upper Case Letters, and Lower Case Letters. As can be seen from Table 1, pupils performed quite well on the Print Awareness subtest, scoring an average of a B. Table 2 shows that over half of the pupils scored an A grade on Print Awareness. Performance on Upper Case and Lower Case Letters was slightly lower, averaging a C grade on both subtests (see Table 1). From Table 2, slightly more than half of the pupils passed the two sub-tests on letters, and slightly under half earned an A. Thus, pupils are quite familiar with the conventions of print, but still have room for improvement on knowledge of letters.

The third research question asked, what is the level of performance in phonemic awareness by primary one pupils in Jos Metropolis government schools. The data in Table 1 demonstrate that pupils performed quite poorly, averaging only about two out of ten items correct on phonemic awareness. In Table 2, only one out of four pupils passed the phonemic awareness subtest.

The fourth research question asked, what is the level of performance in reading fluency of primary one pupils in Jos Metropolis government schools. This research question was answered by two sub-tests that measured the ability to read high-frequency sight words and the ability to read a passage. Table 1 demonstrates very low performance in reading fluency, whereby most pupils could only correctly identify two high frequency sight words out of 100 and only read two words in a passage. Table 2 supports this conclusion with no pupils passing the two reading fluency subtests.

The final research question asked, what is the level of performance in listening comprehension by primary one pupils in Jos Metropolis government schools. This research question was answered by performance on two sub-tests: comprehension during reading and comprehension after reading. Performance on listening comprehension was also very poor, with pupils answering only three or four items correct on both subtests. Only 41% of pupils passed the comprehension during listening subtest and only 32% passed the comprehension after listening subtest.

Discussion

The purpose of this study was to evaluate the reading skills of pupils in primary one in government schools in Jos Metropolis. The results demonstrated that the pupils were proficient in oral language and conventions of print. Many pupils also performed well in knowledge of upper case and lower case letters. However, performance in phonemic awareness, reading fluency, and listening comprehension was quite low.

Research has shown that the ability to successfully read requires children to integrate many different skills, particularly those skills evaluated in this paper (National Institute for Literacy, 2008; National Reading Panel, 2000). Because the children evaluated in this paper demonstrated very poor performance on three of the five important reading skills, these children are at high risk for reading failure and, as a result, poor academic performance,

lower paying jobs, and higher risk for criminal activities (National Institute for Literacy, 2008; Ritchie & Bates, 2013; Snow et al., 1998). Even though pupils in primary one at government schools currently demonstrate low performance on reading skills, there is still hope because reading skills are quite receptive to instruction. Indeed, Oyetunde, Ojo, Korb, and Babudoh (2016) found that a simple eight week literacy intervention program can greatly enhance pupils' reading skills.

Conclusion

Reading is a complex process that requires many skills to work together. Children start learning the foundational skills necessary for reading before they are able to recognize words from a text. This study found that pupils in primary one government schools in Jos Metropolis were proficient in oral language and conventions of print. Many pupils also performed well in knowledge of upper case and lower case letters. However, performance in phonemic awareness, reading fluency, and listening comprehension was appallingly low. Therefore, teachers need to intentionally engage in instructional activities that foster phonemic awareness, reading fluency, and listening comprehension.

Recommendations

This study found that pupils in primary one government schools in Jos Metropolis need considerable improvement in the reading skills of phonemic awareness, reading fluency, and listening comprehension and, to a lesser extent, recognition of letters. As such, the following recommendations are made.

- Phonemic awareness can be improved by short five to ten minute playful discussions with the pupils. Tompkins (2011) recommends phonemic awareness activities such as asking pupils to identify sounds in words (e.g., “What is the first sound in the word *mango*?”), categorize sounds in words (e.g., “What word does not start with the same sound as the others: *mama*, *mango*, *orange*, and *man*?”), and substituting sounds

(e.g., “If I add the /b/ sound to the word *and*, what word do I get?”). Every day, teachers in early childhood classrooms should lead group discussions that require pupils to identify sounds in words to foster their phonemic awareness skills.

- Reading fluency can be developed by teaching children to quickly identify high-frequency words. Researchers report that there are 100 words that are used most frequently in reading, accounting for more than half of the words that children write (e.g., Tompkins, 2011). Therefore, teaching children to quickly identify high frequency words will foster reading fluency. One strategy to improve children’s ability to quickly recognize sight words is to post the high frequency words on the wall of the classroom, called a “Word Wall,” and frequently ask children to identify the words throughout the day.
- Children improve their comprehension skills by listening to and discussing stories. Therefore, parents and teachers should frequently tell children stories, and then engage in a lively discussion about the characters, setting, plot, and theme after the story. Dialogic reading is another strategy to help children improve comprehension skills. In this teaching method, developed by Whitehurst, Arnold, Epstein, Angell, Smith, and Fischel (1994), a parent or teacher reads a storybook out loud to a child, but the reading reflects a dialogue more than a simple storytelling. The parent or teacher asks the child open-ended questions about the characters or plots in the story to help the child participate in the story. In this way, the parent or teacher enables the child to tell the story, which improves the child’s understanding of the story.
- Children can learn their letters when teachers present one letter a week throughout the school year. Children can practice identifying and writing both the lower case and capital letter, as well as identifying words that start with the sound of that letter.

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