

# Assessing Children's Basic Reading Skill in Dawro Zone: A Study on Mother Tongue Reading Competence of Grade 4 Students

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# Abstract

Reading is a fundamental skill for children to acquire. This study assessed grade 4 students reading competence in Dawro language with specific focus on the selected schools of Dawro zone, SNNPR. The study assessed the reading competence of grade 4 students and the factors that influence reading outcomes. It also assessed the involvement of parents in developing students' reading competence in the selected primary schools. Quantitative data were collected from sampled grade 4 students through standardized test questionnaires while qualitative data were collected from Dawro language teachers, parents and school principals through structured interview. The results indicated that the majority of students had serious problems in identifying Dawro language letters, decoding, dealing with new words encountered in texts and comprehending longer texts. It is thus recommended that Woreda education offices, Zone education department, schools principals and Dawro language teachers should take necessary measures to enable students to master the basic literacy skills before they join grade 4.

## 1. Introduction

### 1.1 Background of the study

Countries around the world have boosted primary school enrollments to historically unprecedented rates. Seeking to honor the commitments of the United Nations' 'Education for All (EFA)' campaign and Millennium Development Goals (MDGs), low-income countries, with international support, are enrolling children in primary schools at nearly the rates of high-income countries (UNESCO, 2010).

UNESCO in the same year tracked both enrollment and quality in its, "Education for All Development Index". Accordingly, the data show that many countries have achieved 97 % and above in enrollment rate but its quality lags considerably below 50 %. The World Bank also revealed that improvements in student's learning are lagging significantly behind improvements in access to schooling (World Bank: Independent Evaluation Group, 2006). As a result, the average number of student-learning in most low-income countries is quite low. This is because countries and the international education community have only focused on universal access but neglected education quality. And there had been very little information about student learning in the early grades in low income countries (RTI, 2014:1).

A research by Hanushek and Woessman (2007) forwarded that education quality affects individuals' earnings. However, different researches commented countries to pull back the effect of poor quality education in developing countries. Gove, A. and P. Cvelich (2010) stated that good reading skill is the strongest indicator to measure the basic element of educational outcome which is learning. Brown (2007) added that reading skill is one of the most basic skills and is a strongest indicator whether children are learning or not through school attendance.

Due to the mentioned pressures, these countries adopted a mechanism that gives information how children learn the foundation skills at primary schools. One of these assessments was Early Grade Reading Assessment (EGRA). This tool was developed and piloted in the low income countries since 2007 and then employed in dozens of countries and in many languages.

EGRA was developed to assess foundational reading skills. In the 1990s, the United Nations set Education for All (EFA) goals to meet the learning needs of all children, youth and adult by 2015. The EFA goals helped to increase classroom attendance, but this improvement in access did not guarantee quality learning. To shift the emphasis of education development from improved access to educational quality and pupil achievement, measuring literacy was identified as an important predictor of pupil's achievement. Strong reading and writing skills are essential for young pupils while they are attending primary schools and later throughout their lives. Also, a need to systematically review a pupil's literacy in developing countries was identified.

Ethiopia adopted EGRA in 2010 in six languages such as Amharic, Afan Oromo, Tigrigna, Sidama Afoo, Hararigna and Somali in Ethiopia. The assessment included 13,000 students who were in grade 2 and 3 at that fiscal year. This was the beginning of a tool to assess the status of children in early grades. EGRA subskills such as alphabetic principles, decoding skills, Oral reading fluency and comprehension of written and oral language were put in place.

Later in 2014, funded by USAID, RTI conducted another assessment on the children's initial reading skills. This was more modest in its scope that included both Wolaitatto and Hadiyyissa languages spoken in Wolaita and Hadiya zones respectively.

The study on these languages revealed that significant proportions of pupils assessed for this baseline study were found non-readers and were not able to read a single word correctly in the ORF (Oral Reading Fluency). Indeed, over one-half of the sampled students for Hadiyyisa in both Grades 2 and 3, as well as Grade 2 students for Wolayttatto, were found non-readers. Thus, this assessment helped students, teachers, parents, the local governments and other non-government organizations which work with education inform the level of children's reading competence.

Since the study area is adjacent to these areas where the study covered in the region, similar problem tends to be happening as the researchers were closer to it. Moreover, it is better to compute the mean of scores of children in all EGRA subtasks with the pertinent researches undertaken in either region or at country level. Therefore, this research is intended to fill this gap by assessing grade 4 students' reading competence in Dawuro Zone.

## **1.2 Statement of the Problem**

Reading is a fundamental skill for children to acquire because it is used throughout everyone's life. The key to learning is to start reading early because acquiring these skills becomes more difficult later in life. It is important for pupils to learn to read at a sufficient speed in order to progress to solid literacy skills.

Learning to read is an essential part of basic education. Reading, after all, is an important gateway to the other disciplines. It has been said that reading is the primary avenue to knowledge (Getachew, 2018).

Reading plays crucial roles in promoting learning and serving as an instrument by which students could study subjects in the curriculum. Moreover, students' general educational achievement depends mainly on

their ability to read (Wells, 2007). It is essential to succeed among the society. The ability to read is highly valued and important for social and economic advancement (RTI, 2009).

In order to have information on the children's reading skills, the MOE, including members of the Assessment Sub-Process in the Ethiopian Education Training Quality Assurance Agency (ETQAA) and partnering with RTI, undertook an EGRA in 2010.

EGRA was developed to provide a way to measure a child's initial reading skills. More specifically, it was constructed to assess the reading and language skills identified to be critical for students to become fluent readers and comprehend what they read.

Six projects were conducted in early grade literacy assessments in Ethiopia over the last 10 years. All six of them used the EGRA as their preferred assessment instrument. As part of the GEQIP 2 (MoE, 2008), the results showed that 36% out of the tested grade 3 students in the country were unable to correctly read a single word. Subsequently, Woldehanna et al (2011) reported that a literacy rate was of 15% among pupils aged 8 years. In 2010, a study by RTI found significant regional differences in the reading ability of grades 2 and 3 pupils (Piper, 2010). Although only 10% of grade 2 pupils in Addis Ababa were unable to correctly read a single word of the reading passage, the proportion was nearly seven times that in Sidama (69%). Regarding grade 3 pupils, zero scores similarly ranged from a low of 4% in Addis Ababa, to a high of 54% in Sidama (with all other regions scoring between 9% and 21% on this measure). These findings show the importance of producing more than just national-level results in a country with such wide variations in scores across regions.

Inlined with reading skills, Dawuro zone Education Department's annual report (2017) demonstrated that pupils in primary schools in Zone had a serious problem in reading. An assessment exam was prepared at cluster level and delivered to grade 3 and 4 students. Students were grouped in A, B, C and D ranks based on the results they scored. As a result, in both grade levels there are a large number of students at "D" rank, so the reading status of the students in Zone was quite low compared with regional benchmarks. Particularly, in government primary schools, the data shows that 108 students from grade 4 and 144 students from grade 3 were at "D" level and were unable to identify alphabets.

Though the report shows that reading is critical problem at foundational level, students are not tested in all EGRA subtasks like did in Hadiya and Wolaitta languages. Unless students are assessed over these EGRA subtasks, it is difficult to gain full information about students in merely pen and pencil tests. Assessing students with EGRA subskills helps to have relevant information about students, so this inturn helps to design and implement appropriate intervention schemes in areas of teacher preparation, continuous professional development and instruction design (Getachew, et al., 2018). Therefore, this research was intended to fill this gap by assessing the children's reading status at in grade 4 in Dawuro zone. Similarly it identified the major factors hindering the development of effective reading skills among these students. Thus, it sought to answer the following basic questions:

1. What is the level of grade 4 students in identifying Dawuro letters, familiar words, unfamiliar words, Oral Reading Fluency (ORF), reading and listening comprehension?

2. What are the determinant factors that impede reading skill development of grade 4 students?
3. To what extent do parents participate in enhancing the children's basic reading skill at this grade?

## 1.3 Objectives of the Study

This study was conducted with the aims of attaining the following general and specific objectives:

### 1.3.1 General Objective of the Study

The main Objective of this study was to assess the Dawro language reading proficiency in the primary schools, factors that hinder the development of effective literacy skills among the students and parents' involvement in enhancing Dawro language reading skill of their children.

### 1.3.2 Specific Objectives

The specific objectives of the study were to:-

1. Assess the the overall competence of grade 4 students at Dawro letter identification, familiar words, unfamiliar words, oral reading fluency, reading and listening comprehension;
2. Identify the determinant factors that impede reading skill development of grade 4 students in Dawuro zone; and
3. Assess the extent of parents' participation in promoting Dawuro language reading skill of their children.

## 1.4 Limitation of the study

A study of any scale would hardly end up without limitations. First, the researchers would like to note that due to scarcity of research budget, they were obliged to limit the study site to only thirty schools from four woredas and Tarcha City Administration. We were also forced to limit the informants to as few as about 480 students (approximately 16 students from each school), 60 teachers of Dawuro Language and 90 parents. Had it not been for the shortage of resources, it would have been better to reach more areas and more participants that would strengthen the dependability of the data and generalize ability of the results. Secondly, the researchers were able to realize that the respondents, particularly, some school principals were attempting to hide the reality with regards to the reading capacity of their students in the specified grade level in some schools. They tended to communicate only success stories and tried to conceal failures fearing that they would be accountable for.

## 1.5 Operational Definitions of Terms

### Determinants

Causes or factors that affects reading skills status.

### Educational outcomes

Educational results expected after accomplishing a specific formal grade level. It is a specific characteristics achieved after one passed through a specific formal educational level. (It may include ability to read, write, do some arithmetic skills as addition, subtraction, division and multiplication /

**Literacy skill:** the ability to read fluently and understand or comprehend a written text in Mother Tongue: In the context of formal education, the term mother tongue is normally used to refer to the language a child learned first and usually speaks best. In a very high percentage of cases, the first language a child learns and the language a child speaks best are one and the same.

### **Parental involvement**

the contribution of father, mother or other family members' direct or indirect influence on their children's learning throughout school.

**Reading skill:** -the ability to utter and interpret written words or content of a given text.

Utter and learn or understand from what one has seen in writing.

### **Reading status**

the level of one's reading ability or amount mostly number of words one reads within a minute and ability to understand words, sentences, and paragraphs.

## **2. Materials And Methods**

The purpose of this study was to assess children's basic reading skills in Dawuro zone through Early Grade Reading Assessment (EGRA). In addition, the study assesses the determinant factors that affect the reading proficiencies of the students along with the involvement of parents in promoting students' reading competence in grade 4. Thus, this part presents the design of the study, method of the study, sources of the data, population, sample and sampling techniques, data collection instruments and methods of data analysis.

### **2.1 Research Design**

To achieve the purpose of this study, a descriptive research design was employed. According to Yalaw (2006), this method describes the existing situation and also enables the researchers to access the opinions of large sample size.

In addition, both qualitative and quantitative approaches were used to consolidate the finding. In support of this, Creswell, J.W (2003) argues that combining quantitative and qualitative methods in educational research capitalizes the strength of each approach and counterbalance/ offset their different weaknesses. It also provides more comprehensive answers to the research questions, going beyond the limitation of a single approach.

The qualitative approach was employed through interviewing parents, school principals and subject teachers whereas quantitative approach was put in place to analyze the findings obtained from students through questionnaires. Eventually, findings obtained through these two approaches were brought together and triangulated.

## 2.2 Population and Sample

### 2.2.1 Population

The study population was Grade 4 students and teachers in Dawro Zone, South Nation Nationalities and People's Regional State. To determine the sample size for students, single population proportion was calculated using the following formula:  $n = \frac{Z^2 p q}{d^2}$  with assumptions of expected percentage (P) on reading skills of 0.5 (or 50%) to produce the largest sample size, 95% confidence level ( $Z-\alpha/2$ ) (1.96) and absolute precision (d) of 5%. This yielded a total sample size (n) of 385. Adding 1% non-response rate, the total sample size was 389. This sample size was allocated to the different selected Districts/Weredas based on equal proportion allocation method. All teachers who were teaching Dawro Language in the selected schools were included in the study.

### 2.2.2 Sampling Method

Sampling is finding research participants who represent the population to be studied. It allows for modification to the study during data collection. It also provides "information-rich" respondents.

Four woredas and one town administration namely Esera, Mareka, Loma and Tarcha Zuriya and Tarcha City Administration were selected from 11 Woredas found in Dawro Zone through simple random sampling technique. This method gave all Woredas the chance of being selected, so there was no bias.

Similarly, to make the study manageable, six primary schools were selected from each woredas and Tarcha City Administration through availability sampling. Thus, thirty primary schools were randomly selected. 16 students from grade 4, of whom 8 were females and 8 males were selected and included in the study were selected from each school through simple random sampling (lottery method). Among them, 240 were males and the rest 240 were female students. Besides, 2 language teachers, 1 principal and 3 student's parents from each school were selected and interviewed. Altogether, **480** students, **90** parents, **30** school principals and **60** Dawro language teachers were participated in the study.

## 2.3 Sources of Data

To achieve the objective of this study, both primary and secondary data sources were employed.

**2.3.1 Primary sources-** the primary sources of this study included responses obtained from students through questionnaires and responses got by interviewing school principals, subject teachers and parents. Besides, non-participatory school observation was also undertaken by the research team.

**2.3.2 Secondary sources** – Relevant data were collected as secondary sources. These were documents (annual abstracts) from REB, ZED, data bases from WEO and selected primary schools. Sources such as internet, books, research papers, abstracts and magazines were the used as secondary data.

## 2.4 Data Gathering Instruments

## 2.4.1 Questionnaires

The International Education Development Community conducts reading assessments using different reading tests to obtain school-level and district level data about children's foundational reading skills. In this study, however, the 'Early Grade Reading Assessment (EGRA)' tool was adapted and administered to assess the reading competence of grade 4 students. To do so, a series of tests assessing the competence of identifying letters, words, a story and comprehension tests. A series of tests was employed to assess the level of reading skill of grade 4 students on the essential elements of reading skill. The tool for the assessment was developed and translated in Dawuro language because it is the language of instruction at primary schools in Dawuro Zone. So the variables/subtasks included are the following:

- 1. Tests on Letter-naming/Dawro Letter Identification/:** a student's score for this subtask was calculated as the number of correct letters per minute. If the child completed all of the words before the given time ended, the time of completion was recorded for calculations based on that period. Enumerators marked any incorrect letters with a slash (/), placed brackets ([]) after the last letter named, and recorded the time remaining on the stopwatch at the completion of the exercise (variables are thus: total letters read, total incorrect responses and time remaining on stopwatch). Three data points were then used to calculate the total correct letters per minute (CLPM):  $CLPM = (Total\ letters\ read - Total\ incorrect\ responses) / [(60 - Time\ remaining\ on\ stopwatch) / 60]$ .
- 2. Tests on Familiar Words:** A student's score for each of the three dimensions of this part of test were the proportion of correct phonological awareness at syllabic level to each of the total phonological awareness of individual phone or phonetic level, phonemic level.
- 3. Test on unfamiliar word fluency:** The enumerators recorded the number of correct words per minute. If the child completed all of the words before the given time ended, the time of completion was recorded calculated. Correct words per minute were recorded and scored. The same three variables collected for the letter naming the same variables collected for the letter naming were collected for this part and the other timed exercises namely: total words read, total incorrect responses and the remaining on stopwatch.
- 4. Test on Oral Reading Fluency:** Students were scored on the number of correct vocabulary meaning they worked out as their answers (out of the total number of questions). To measure the students' vocabulary skill, a two-minute test (one minute for reading a passage and one minute for answering the vocabulary questions based on the passage) which assessed children's word-attack skills was administered. For this purpose, a simple story which was deemed familiar for the students was constructed and used. The passage contained about 60 words in which 5 vocabulary words were written in bold.
- 5. Test on Listening comprehension of a connected text:** Students were rated on the number of comprehension questions answered acceptably and then their scores for the comprehension of the connected text were the proportion of correct answers to the total items presented.

As adopted from various previous research works, EGRA is an orally administered assessment measuring the pre-reading and reading skills foundational to later reading (and academic success). It takes

approximately 15 minutes to administer and is often combined with a questionnaire measuring a variety of student background variables to help in explaining some of the reading outcomes.

Its components assess the number of letters recognized in isolation, the number of words read correctly in isolation and the number of words read correctly in context per minute. This was supported by Matthew Jukes (2006) that the number of words read correctly per minute was used as the measure of reading fluency; a recognized and forceful index of reading comprehension reliably differentiates strong and poor readers as demonstrated in the sampled students.

To summarize, the following table paraphrases the major subtasks employed by the research team for the purpose of this study.

Table 2.2  
EGRA's subtasks and subskills

No	Subtasks/Variables	Expected Early Reading Skill	Skill demonstrated by students' ability to:	The nature of time
1	Letter naming/Fidel identification	Letter recognition	Provide the name of upper and lower case letters presented in random order	1 minute
2.	Familiar Word Fluency	Automatic Word Reading	Read simple and common words	1 minute
3.	Non-familiar Word Fluency	Alphabetic Principle	Use knowledge of legal syllables and letter sound correspondence to read non-sense words	1 minute
4.	Oral Reading Fluency/vocabulary	Oral reading fluency	Read a passage about 60 words long, that tells story appropriate for students	1 minute
	Reading Comprehension	Comprehension	Answer comprehension questions based on the passage read	1 minute
5.	Listening comprehension	Comprehension	Respond correctly to literal and inferential questions about a text read to the student	Not timed

(Source: Adopted from Australian Council for Development, 2014)

Students' background surveys inquiring about schooling and home life and series of student reading tests were held following the reading tests on the outlined subtasks. The tests included CAP questions to assess pre-reading skills and student familiarity with printed texts and books. Accordingly, the economic status of the parents, the availability of reading materials in the schools and home, the literacy status of the parents, absenteeism and pre-schooling background of the students were assessed to exploit further information about the students.

## 2.4.2 Interview

Open-ended questions were employed to 30 school principals in order to get further information about the level of the reading skill of grade 4 students. Their perceptions and attitudes on the current level of students' reading skill and related factors that impeded reading skill at these grades were assessed through

questionnaires. In this case, 16 questions were prepared and used for interview. The questions were designed to answer all the basic questions addressed in this study. The questionnaire was prepared in Amharic language, so the interview was conducted in both Amharic and Dawro language to make the conversation more deepening and exhaustive.

With regarding to parents, 15 both open and close ended questions were prepared in Amharic and then translated into Dawro language by the reserachers since the parents did not speak Amharic well. All questions were open-ended, so the conversation deeply touched necessary information which is helpful to this study. The total number of parents involved in this study was 90.

An interview was also conducted with 60 Dawro language teachers. Very selected questions were included in the questionnaire, so this helped the researchers to get valuable information about the level of students in reading Dawro language, the determinant factors that impede reading development and the involvement of parents in boosting the students' reading literacy at grade 4.

### **2.4.3 Participant Observation**

The researchers observed all the sampled schools immediately after a consent letter was delivered to schools. During this visit, the availability of libraries, student-book ratio and other related issues which helped the researches to obtain further data were observed and the notes were taken for narration.

## **2.5 Data Analysis Techniques**

The collected data were cleaned, coded and entry was made on the Statistical Packages for Social Sciences /SPSS/ software. Data analysis was made using the same package software (**SPSS 20**) window. Mean scores were computed to indicate the average performance of children in the various reading skill tasks. Percentages at different points and benchmarks were computed. In addition, independent sample t-test was conducted to see difference on reading scores by the variables affecting Dawro language reading Skill. On the other hand, description and interpretation were used to analyze results obtained from qualitative data collection method.

## **2.6 Ethical Considerations**

Ethical issues pertaining to the legitimacy of this study and the rights of the human participants

were addressed in the following ways. First of all, a letter of cooperation obtained from the EducationDepartment of Dawro Zone. Secondly, a letter of permission secured from this department was submitted to the education offices of the respective woredas and Tarcha City Administration. Thirdly, permission letters were obtained from these offices and submitted to the administrations of the selected schools. Fourthly, the purpose and the procedures of the study were clearly explained to the principals of the schools who then allowed the team to conduct the study according to the planned protocol. Finally, the study participants received briefings on the purpose and the procedures of the study. The briefings emphasized that participation in the study was voluntary and anonymous. It was also stressed that the test was intended for the purpose of the study and not used to assign marks as part of classroom assessment. In addition, the data collected from them were kept securely and used only to fulfill the aim of the study.

### 3. Analysis, Discussion And Results Of The Study

This section analyzes the results quantitatively obtained from questionnaires to assess the level of reading proficiency at grade 4. Data collected via interview were narrated descriptively and then computed with results found through quantitatively. It also discusses the determinant factors that hindered the children's reading skill in the specified grade. Finally, it assesses the involvement of parents in enhancing the level of reading skill at grade 4.

#### 3.1 The Return Rate of Responses

In this study, three different tools namely questionnaires, interviews and participant observation were used in order to achieve its objective. The questionnaire to assess the reading proficiency was prepared in Dawuro language and employed to all 480 students of grade 4 students selected from 30 sampled primary schools. All targeted students actively participated and involved in the study. Thus, the return rate was 100%.

30 school principals were interviewed via questionnaires prepared in Amharic but 3 principals did not involve in the study because they were busy in other tasks. Thus, the return rate was about 90%. An interview was also planned to embody 60 Dawuro teachers but two of them engaged in other routines, so 58 Dawuro language teachers involved in the interview. In addition, from 90 parents planned to include in the study for an interview due to various reasons, 17 parents did not involve in the study and the return rate was 81%. To conclude, in all cases the return rate of the responses were successful and enabled the researchers to analyze the findings.

#### 3.2 Major Findings

##### 3.2.1 EGRA Findings

The students who were eligible to this study were categorized in 4 groups based on the results obtained through reading assessment. These categories represent a combination of both the oral reading fluency and reading comprehension subtasks. Accordingly, they were categorized as:

- **Non-readers**-Students who scored a zero on the ORF portion of the EGRA were classified as "non-readers";
- **Reading with limited comprehension**- students who scored between 1 up to 49% on the reading comprehension were classified as "reading with limited comprehension";
- **Moderate reading comprehension**, students who scored between 50% and 80% on the reading comprehension subtask were designated as "with moderate reading comprehension"; and
- **Reading fluently with comprehension**- students who score in a reading comprehension above 80% were categorized as "reading fluently with comprehension". Based on the above category, the following table summarizes the findings.

Based on the above categorization, the findings with the respect to variables to assess the proficiency of grade 4 students became the following.

### **1. Letter sound identification**

This assessment component measures the children's knowledge of alphabet in Dawuro language in grade 4. The randomly arranged letters were presented to students in order to investigate whether they identify the shape and sounds of letters based on the rote memorization of the order of letters like A, B, C, D,...However, the table 3.1 below depicts that only 30(6.25%) students identified and read letter sounds fluently as they identified and read letter sounds 80% and above. In contrary, 90 (18.75%) children fell under zero readers because they did not identify and read letter sounds. 261(54.375%) students read letter sounds between 1-49 letters per a minute. Thus, they fell under 'limited reading comprehension'. The remaining 99 (20.625%) students read letter sounds in between 50 and 79 letters per a minute, so these students fell under moderate readers.

Therefore, table 3.1 below shows that the majority of students in grade 4 were below the expected competency of letter-sound identification. The letter sound knowledge of the students did not meet the expected outcome forwarded by the Ministry of Education. Since identifying sounds and letters in a language is basis to show development in it for any child, it is hardly possible to expect that these students would be successful in any other subjects.

The following graph summarizes the findings of the letter sound competency of grade 4 students in percentages.

### **2. Familiar word reading**

This subtask assessed students' ability of reading a single word from the most common words given in the questionnaire. The words were extracted from student's text book of grade 4. Unlike the letter-sound identification subtask discussed above, this subtask also showed a high number of non-readers. Accordingly, 223(46.4%) students were remained under non-readers, so they were unable to read familiar words listed in the questionnaire. However, 184(38.4%) students understood the number of words ranged between 1 and 49. 43(8.9%) and 30 (6.2%) out of total respondents fell under moderate and fluent readers respectively. Students who remained under moderate reading comprehension read familiar words between 50 and 79 per a minute whereas fluent readers read above 80 words per a minute.

To sum up, the majority of the students at Grade 4 had difficulty in reading familiar words written in Dawuro language.

The following graph shows the percentages of students' result with respect to the category each fell.

### **3. Non-words reading**

As far as non-word reading competency subtask is concerned, students were assessed whether they could decode and read non-sense words. Accordingly, 240 (50%) of the students in the targeted schools scored

results labeled as non-readers whereas 154(32.1%) students scored per a minute. 47 (9.8%) students scored number of words between 50 and 79 and were moderate readers whereas 39(8%) students scores above 80 words per a minute, so they were under reading fluently with comprehension. Similarly, zero scores were as high as scores obtained in the competency of familiar word. As indicated in the fig and table 4.1 below, 50% of the students did not identify unfamiliar words whereas the number of students who were non readers in familiar word fluency was 46%. Thus, these results are relatively nearer.

#### **4. Oral Reading Fluency**

The oral reading fluency subtask required a child to read designed short passage and assessed his/her reading fluency based on the number of words he/she read correctly in a given minute. Accordingly, 227(47.3%) students were non-readers. This means that no student could read the passage orally in a given minute. 120(25%) students read words ranged between 1 and 49. This shows that their oral reading fluency within given minute fell under limited reading comprehension. On the other hand, 86(17.9%) students were moderate readers but the remaining 47(9.8%) students were fluent readers. These students read the passage fluently and found in the range above 80. Thus, it is possible to conclude that very few children in the sampled schools read the text fluently within the given time.

Similarly, after assessing the oral reading fluency of the children, their comprehension competency was also assessed. Accordingly, 236(49.1%) did not answer comprehension questions. Thus, they fell under nonreaders. 146(30.4%) students fell under limited reading comprehension. Whereas 68(14.3%) students answered words ranged between 50 and 79. But the remaining 30(6.2%) students were fluent readers as they read words ranged above 80 in the given minute.

#### **5. Listening comprehension**

Reading comprehension subskill was tailored for the respondents in the way that students listened to short passage and then made to answer for the designed questions. The respondents in this regard were provided with short passage which consisted of very familiar vocabulary. This is because reading without comprehension is just like talking something without understanding. Reading without comprehension is difficult for any readers.

Accordingly, comprehension assessment was provided to the students in order to examine their proficiency of comprehension subskill through questions that sought simple answers. In this regard both listening and writing skills of students were critically evaluated and recorded.

To this effect, 240(50%) students became nonreaders. They could not read the text and respond to all questions extracted from the passage. 137(28.6) students read words and answered questions which fell in between 1 and 49, so they were limited readers. 73(15.2) students fell under moderate reading comprehension. But 30(6.2%) students read the passage fluently and answered questions, so they answered questions more than 80.

With regard to writing competency, the score were recorded when they responded the answers. They were rated whether they responded the answers with correct spelling or not. Accordingly, 223(46.4%) students

wrote no answers for the questions raised. 154(32.1%) students wrote words ranged between 1 and 49. But 73(15.2%) students wrote answers ranged between 50 and 79. The remaining 30(6.2%) students wrote answers whose word spellings fell under reading fluently with comprehension greater than 80.

To conclude, the following table summarizes the EGRA’s findings based on the subtasks included in the study.

Table 3.1 The Summary of the Students’ competence in EGRA subtasks

Variables	Non readers		Limited reading compression(1-49)		Moderate reading compression (50-79)		reading fluently with comprehension greater than 80	
Letter sound identification	90	18.75%	261	54.375%	99	20.625%	30	6.25%
Familiar word reading	223	46.4%	184	38.4%	43	8.9%	30	6.2%
Non words reading	240	50.0%	154	32.1%	47	9.8%	39	8.0%
Oral reading fluency	227	47.3%	120	25.0%	86	17.9%	47	9.8%
Reading comprehension	236	49.1%	146	30.4%	68	14.3%	30	6.2%
Listening comprehension	240	50.0%	137	28.6%	73	15.2%	30	6.2%

### 3.2.2 EGRA’s result based on sex

Data from the assessed students determine whether a student’s sex has a significant effect on reading achievement, as measured by the EGRA subtasks. Specifically, average scores of male and female students were compared in order to ascertain whether statistically significant differences could be found or not in relation to the number of correct items.

Table 3.2: EGRA subtask results of male and female students

Subtasks	Grade	Sex	Non readers		Limited readers		Moderate readers		Fluent readers	
			In number	%	In number	%	number	%	In number	%
Letter sound identification	4	M	13	3.5	122	16	100	2.6	5	0.8
		F	18	0.8	121	16.9	94	9.8	7	1.6
Familiar word reading	4	M	130	12.5	95	8	8	0.8	7	1.6
		F	100	10.7	110	11.6	25	5.3	5	2.6
Non words reading	4	M	130	12.5	78	6.2	25	2.6	7	1.6
		F	100	9.8	112	13.4	18	0.8	10	5.3
Oral reading fluency	4	M	132	12.5	93	8	8	0.8	7	1.6
		F	105	10.7	75	9.8	54	9.8	6	3.5
Reading comprehension	4	M	131	11.6	87	8	17	1.6	7	1.6
		F	104	9.8	83	9.8	48	7.1	5	2.6
Listening comprehension	4	M	121	11.6	87	8	25	2.6	7	1.6
		F	104	9.8	63	9.8	48	7.1	5	2.6
Writing comprehension	4	M	130	12.5	85	7.1	17	1.7	8	1.6
		F	104	9.8	90	9.8	40	6.2	6	2.6

According to the data indicated in the above table, 5 (0.8%) boys and 7(16%) females were fluent readers in letter sound identification. While 13(3.5%) males and 18(0.8%) females were non-readers in the same grade level and sub-tasks. 122(16%) boys and 121(16.9%) females fell under limited reading comprehension. The remaining 100(2.6%) boys and 94(9.8%) girls achieved moderate reading comprehension.

Regarding familiar word reading, 130 (12.5%) boys and 100 (10.7%) girls were non-readers whereas 7 (1.6%) boys and 5(2.6%) girls were fluent readers in grade 4. But 95 (8%) males and 110 (11.6%) females fell into limited reading comprehension. The rest 8 boys and 25 females scored moderate reading comprehension. Thus, it is possible to conclude that the score difference between males and females was slight.

Boys and girls were computed in non-words reading proficiency. Accordingly, 130 (12.5%) boys and 100 (9.8%) girls scored non-readers. But 7 (1.6%) boys and 10 (5.3%) girls performed fluent reading comprehension. 78 (6.2%) boys and 112 (13.4%) girls scored limited comprehension whereas the last 25 (2.6%) boys and 18 (0.8%) girls were labeled in moderate comprehension. Like differences occurred in familiar word reading, the score difference in non-words reading was slight.

In oral reading fluency, 132 (12.5%) boys and 105 (10.7%) girls scored results categorized as non readers. But fluent reading proficiency of boys and girls accounted for 7 (1.6%) and 6 (3.5%) respectively. 93 (8%) male students and 75(9.8%) female students scored limited readers. The rest 8 (0.8%) boys and 54 (9.8%) female students fell in moderate reading comprehension level.

Regarding to reading comprehension, 131 (11.6%) boys and 104 (9.8%) female students scored below zero, so they were non readers. But when the sexes are compared in this regard, 7 (1.6%) boy students and 5 (2.6%) female students read words above 80, so they were fluent readers.

In the listening subtask, 121 (11.6%) boy students and 104 (9.8%) female students scored non reading results. On the other hand, 7 (1.6%) boy students and 5 (2.6%) female students read words above 80, so they were fluent readers.

### **3.2.3 Analysis of determinant factors to reading skill development of grade 4 students**

Students' socio-economic status, absenteeism from class, availability of textbooks, and access to newspapers, and parents' literacy were identified as variables that affect Dawro language reading achievement among the target students. Challenges faced in reading, pre-school attendance and repeating classes were also among these variables. Therefore, the following table shows how these factors influenced the competence of grade 4 students in the study area.

Table 3.3 Mean, t-test, significance level and mean differences on comprehension scores by variables affecting Dawro language reading skill

No	Variables	Indicator	Respondents		Mean	T test	Sig.	MD
			No.	%				
1	SES (Socio-Economic Status)	High	48	10	56.2	0.05	0.952	0.33
		Low	432	90	58.2			
2	Absenteeism	Yes	377	78.6	48.2	-1.93	0.005	-15.12
		No	103	21.4	53.1			
3	Did you attend Preschool at your locality?	Yes	133	27.7	55.9	3.62	0.001	13.56
		No	347	72.3	58.3			
4	Availability of Textbook	Yes	163	33.9	60.8	4.12	0.001	17.10
		No	317	66.1	45.2			
5	Availability of reading Materials like Newspaper	Yes	202	42	71.2	5.19	0.041	28.12
		No	278	58	50.2			
6	Do you face any challenge when you do homework?	Yes	150	31.2	67.1	-6.12	0.002	-20.23
		No	330	68.8	44.3			
7	Does your mother read and write?	Yes	227	47.3	60.1	2.12	0.000	9.23
		No	253	52.7	50.2			
8	Does your father read and write?	Yes	398	83	68.1	1.89	0.000	8.20
		No	82	17	39.7			
9	What was your grade level last year?	Grade 3	368	80.35	48.2	-3.025	0.001	-45.59
		Grade 4	94	19.65	20.32			

Accordingly, the independent sample t test indicated that the observed differences on comprehension scores between students who were absent from class regularly and those who attended class regularly ( $t=-1.93$ ,  $sig= .005$ ); students who had textbooks and those who had no text books ( $t=4.12$ ,  $sig= .001$ ); students who had access to newspapers and the ones who did not have access to newspapers ( $t=5.19$ ,  $sig= .041$ ), and students who were from literate parents and those who were from illiterate parents ( $t=2.12$ ,  $sig= .000$ ) were statistically significant. The same analysis indicated statistically significant differences between students who faced no challenges in reading and the ones who faced challenges ( $t=-5.667$ ,  $sig= .000$ ); students who had attended pre-schools and those who had not attended pre-schools ( $t=3.62$ ,  $sig= .001$ ), and students who repeated classes and the ones who had not repeated classes ( $t=-3.025$ ,  $sig= .001$ ).

Similarly, the research found out that students who had access to newspapers at home scored 28.12% more points on comprehension test than students who did not have newspapers; students who had textbooks scored 17.10% more points than students who had no textbooks and students who attended pre-schools

13.56% more points on comprehension test than students who did not attend pre-schools. On the other hand, while students who were regularly absent from class scored 15.12% lower than students who attended class regularly; students who needed help during reading scored 20.23% lower points than students who did not need help in reading, and students who repeated classes scored 45.59 lower points than students who did not repeat.

### 3.2.4 Analysis of Parents' Involvement in developing students' reading competence in Dawro language

73 parents involved in the study. Though they had different educational backgrounds, they were volunteers to give the responses to the study. To assess whether parents involve in activities that help students' reading proficiency in Dawro language, very basic questions were incorporated in the interview administered for parents.

**Table 3.4** the summary of Parents' involvement in the children's reading competence in the sampled schools

No	Variables	Indicator	Respondents	
			No.	%
1	Have you bought a text that helps your child improve reading proficiency this year?	Yes	18	24.6%
		No	55	75.4%
2	Do you help/let others help your child while he/she does homework in Dawro language?	Yes	20	27.4%
		No	53	72.6%
3	How often do you attend school meetings held by Parent-Teacher-Student-Union since last year?	Once	37	50.7%
		Two times	13	17.9%
		Three times	13	17.9%
		Four times	10	13.5%
4	Do you voluntarily come to school whenever your school calls you?	Yes	28	38%
		No	45	61.6%
5	Do you always follow-up your child's reading competencet at home?	Yes	23	31.5%
		No	50	68.5%

Based on the table above, the analysis is deduced as follows.

The parents were interviewed whether they bought texts that help students' reading proficiency in Dawro language. Accordingly, 18 (24.6%) parents replied that they bought texts that could help advance students' reading competence in Dawro language. But 55 (75.4%) parents responded that they did not buy books that help students' reading proficiency.

The parents' help to their children when students do their homework was interviewed and analyzed. Thus, 20 (27.4%) parents replied that they provide help to their children while they are doing their homework. While 53 (72.6%) replied that they do not provide help when the children are doing their homework at home.

It is clear that quality education is achieved through active involvement of parents. They are one of the owners who have the lion share in bringing better education for citizens. To assure this, the parents were interviewed how often they involved in the meetings held in the schools organized by Teacher-Parent-Student-Union. Accordingly, 37 (50.7%) parents replied that they attended only one time; 13 (17.9%) parents replied that they attended two times; 13 (17.9%) parents replied that they attended three times; and 10 (13.5%) parents replied that they attended four times last year.

The parents were asked whether they voluntarily come to schools whenever they are required. Thus, 28 (38%) parents told that they are volunteers and frequently come to schools when are needed. But 45(61.6%) parents replied that they do not come to schools though they were needed by schools.

Parents were interviewed whether they follow up or let others follow up their children's reading proficiency. In this regard, 23 (31.5%) parents forwarded that they follow up or let others follow up their children's Dawro language reading proficiency. But 50 (68.5%) parents responded that they did not follow up their children's reading proficiency in Dawro language.

### **3.2.5. Analysis of Dawro language Teachers' Responses**

As stated 60 Dawro subject teachers involved in the study. The structured questionnaires were carefully designed in Amharic and administered to them in order to make them easy to understand. Accordingly, the findings were paraphrased under three points as follows.

The teachers were asked to mention some the major challenges that impeded the practice of teaching reading skills in the foundation primary grades. In this case, about 38 (63%) teachers mentioned that there were shortage of Dawurogna texts and other reference books in their respective schools, so they failed to refer for classroom instruction. Due to this factor, children cannot practice exercises related to reading. Only few students own text books, so this hampers the reading competence of the children in grade 4.

18 (30%) teachers among the interviewees forwarded that the students' economic background pushed back the students' reading acquisition as they had no facilities to exercise reading skill at this early grade. While the last 4 (7%) teachers responded that the absence of pre-schooling hampered the competence of reading skill in their schools. This situation, they argued, made the practice very difficult and the outcome was not promising.

The teachers were also asked to rate their students' reading interest. Accordingly, the finding is positive. Almost all teachers responded that their students had good interest in reading texts.

To conclude, the shortage of text books written in the mother tongue other reference books, the students' economic background and the absence of pre-schooling in their localities were the major challenges identified according to the interview.

### 3.2.6 Analysis of the Principals' Responses

30 principals involved in this study. The questions were leading questions and some of them were open-ended. Very valuable information was obtained from the interview as they were rich in all information.

Accordingly, they mentioned that there were ample subject teachers in all sampled schools. In this case, they did not mention any problem. Similarly, student-class ratio of these schools was very medium as standard set by MOE.

With regard to students' interest to reading, only 3 principals responded that their students had very low interest in practicing the reading acquisition. But 8 principals forwarded that their students had very good interest in the reading skill while others rated that the students were medium.

Conversely, almost all principals responded that there was lack of Dawurogna text and reference books in their respective schools. They also added that no other non-governmental organizations aid the schools in providing the reading skills except school block grant.

Regarding co-curricular activities, 7 of them responded that their schools had clubs that promoted reading habits of the children at foundational grades. But others answered that their schools did not organize clubs that promote reading skill in primary schools.

## Discussion

Dawro language is the language of instruction in all primary school classrooms in Dawro Zone, SNNPR. Therefore, students in this context need to develop foundational literacy skills of the language in the early grades. Especially, by the time they reach Grade 4, they must have been able to identify letters, mastered the phonology and basic syntax of the language and developed threshold word attack skills. Moreover, they are expected to comprehend instructions, questions and longer texts written in this language. This enables them to tackle the various academic readings at this grade level and later in their schooling on the one hand and to develop real life reading skills on the other. Therefore, mastery of the basic reading skills by the time they join Grade 4 should be assessed and timely interventions made. The major findings of this study, conducted with this rationale, are discussed in the following paragraphs.

With the respect to zero readers in Dawro letter-sound identification, one child in 5 children could not identify any letter or sound in the study. But more than half children (54.375%) scored below 50 (1-49) letters per minute. This score is very severe when compared with grade 3 students scored in Wolaitatto in RTI, 2014. But result is contrary with the responses of Dawro language teachers as they told that their students are interested in reading Dawro letter. But in other subskills such as familiar word reading, Non-word reading, oral reading fluency, reading and listening comprehension, almost half of the students did not fulfill the required competence in grade 4. And significant number of students fell below 50% in all EGRA subtasks, though in oral reading fluency the competence is slightly better (25%). This result is also concided with the response obtained from school principals. This overall poor result depicts that students have low interest in Dawro reading skill.

Students' socio-economic status, absenteeism from class, availability of textbooks, and access to newspapers, and parents' literacy were identified as variables that affect Dawro language reading achievement among the target students. Challenges faced in reading, pre-school attendance and repeating classes were also among these variables. Absenteeism, pre-schooling attendance and availability of text book were very significant in hampering students' reading skill in grade 4.

The involvement of parents in developing students' reading skill was also the focus of this study. Education of a child does not meet a target if the stakeholders do not co-operate each other. Accordingly, parents' involvement in buying additional texts that develop reading skill, giving appropriate help while students undertake their homework and the joint working of sampled schools and the parents were very poor. Based on these findings and implications, the following conclusion can be drawn and recommendations are forwarded.

## **Conclusion And Recommendations**

### **4.1 Conclusion**

The main purpose of this study was to assess the children's basic reading skill of grade 4 students in Dawuro Zone. The study was worth coming because it contributes to academic knowledge, general public awareness and government policy regarding the status of reading skill in early grades as it assessed the key determinant factors that imperiled reading acquisitions in grade 4 in Dawuro Zone.

Overall, the study assumed that Dawro-speaking pupils are beginning to learn and develop necessary reading skills on Grade 4. However, a large number of students in grade 4 achieved below 50% in all EGRA subtasks. Though non-readers' share was slightly better in letter-sound identification, almost half of the sampled students in familiar word reading, non-word fluency, oral reading fluency, reading and listening comprehension scored below zero, so the reading skill in these schools was so poor. Among the sampled students, majority of the students fell under the category of a competence with limited reading comprehension. In this sub-skill, the number of students who scored 1-49 words per a minute exceeded other subtasks. With regard to fluent readers, the scores in all EGRA subtasks were below 10%.

Students' socio-economic status, absenteeism from class, availability of textbooks, and access to newspapers, and parents' literacy were identified as variables that affect Dawro language reading achievement among the target students. Challenges faced in reading, pre-school attendance and repeating classes were also among these variables. Absenteeism, pre-schooling attendance and availability of text book were very significant in hampering students' reading skill in grade 4.

The involvement of parents in developing students' reading skill was also the focus of this study. Education of a child does not meet a target if the stakeholders do not co-operate each other. Accordingly, parents' involvement in buying additional texts that develop reading skill, giving appropriate help while students undertake their homework and the joint working of sampled schools and the parents were very poor.

### **4.2 Recommendations**

Based on the above conclusions, the following recommendations are forwarded.

1. Dawro language is the language of instruction in primary school classrooms in the study setting. Therefore, students should develop foundational literacy skills in this language as early as possible. To this end, educational bureau officials, school administrators and Dawro language teachers should give due attention to students' early grade reading competence.
2. Schools need to ensure that students have mastered foundational readings skills in Dawro language before they are promoted to Grade 4. They should also devise strategies for identifying and mitigating early grade reading problems.
3. The study also revealed that challenges faced in reading, access to newspapers and pre-school attendance significantly predicted students' reading scores. Thus, Dawro language teachers and others concerned should take these variables into account in their instructions and intervention systems respectively.
4. School administrators and curriculum committees of the respective schools should take ability and interest into consideration in assigning Dawro language teachers to early grades.
5. The findings of this study are comparable with the findings of similar studies conducted elsewhere in Ethiopia. Therefore, school-based interventions must be aligned with regional and national intervention schemes to achieve a comprehensive solution.

## Abbreviations

CLPM:	Correct Letters per Minute
EFA:	Education for All
EGRA:	Early Grade Reading Assessment
ETQAA:	Education Training Quality Assurance Agency
GEQIP:	General Education Quality Improvement program
MDGs:	Millennium Development Goals
MOE:	Ministry of Education
ORF:	Oral Reading Fluency).
REB:	Regional Education Biro
SNNPRS:	South Nation Nationalities and People's Regional State
ZED:	Zone Education Department

## Declarations

I declare that this work is my original work; a part of the Manuscript has not been published in any other organizations and that all sources of materials used for the article have been duly acknowledged.

### **Availability of data and materials**

The data used and analyzed during the current study is available from the corresponding author on a reasonable request, without disclosure of the interviewees.

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### **Competing interests**

I declare that no competing interests, because the research is done by us with common understanding.

### **Authors' contributions**

Our contribution for this work is starting from designing study and data collection to finalizing the research. The authors read and approved the final manuscript.

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## Figures

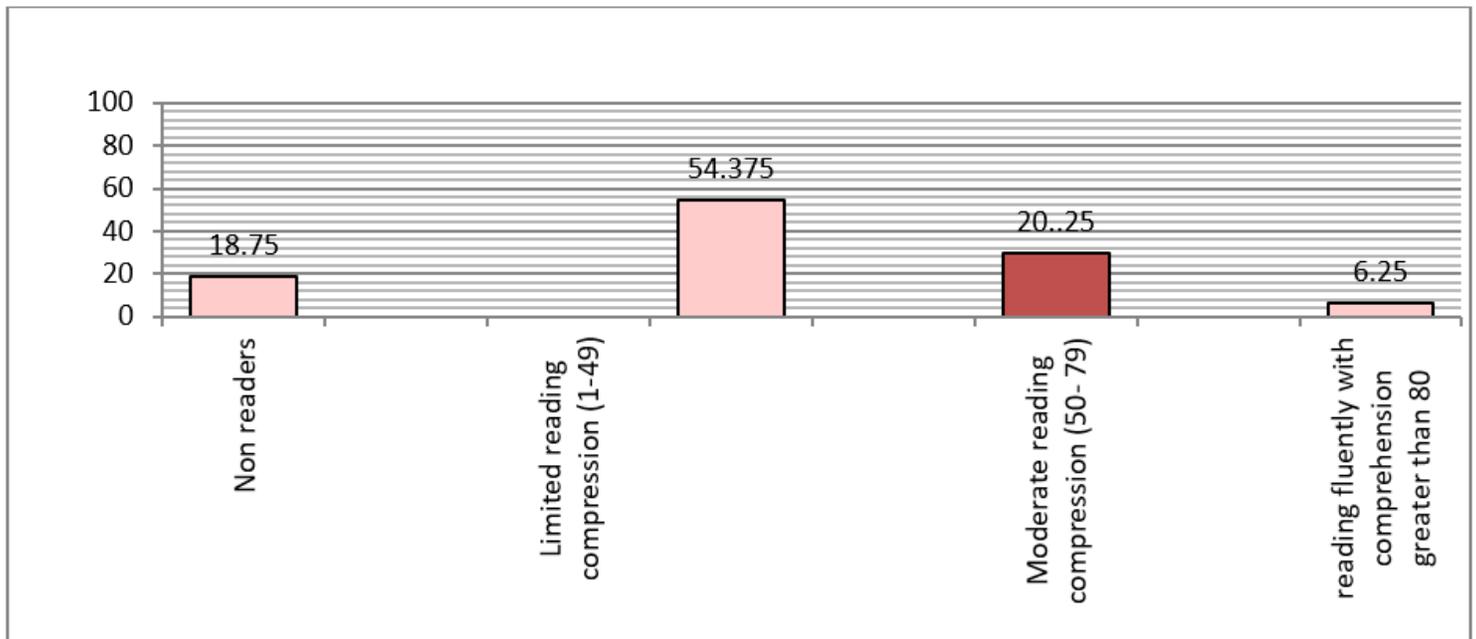
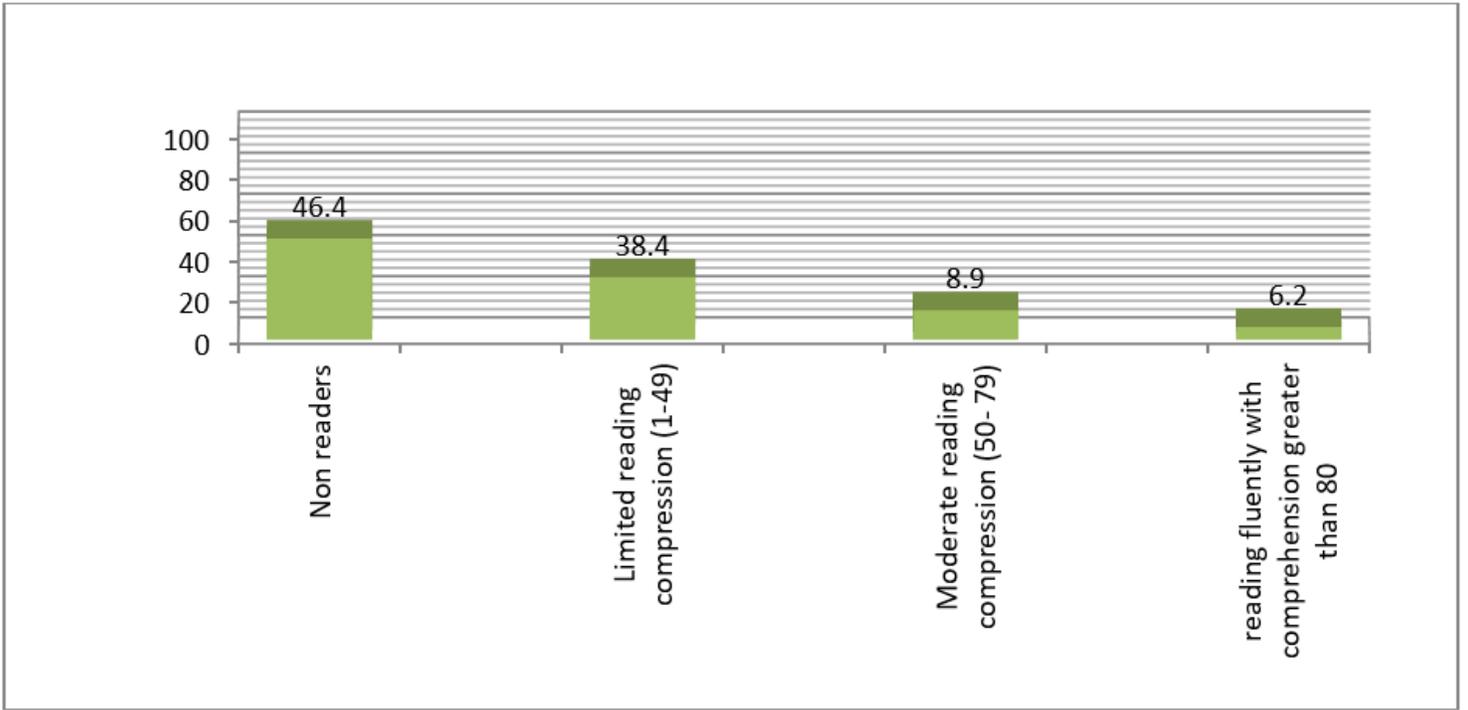


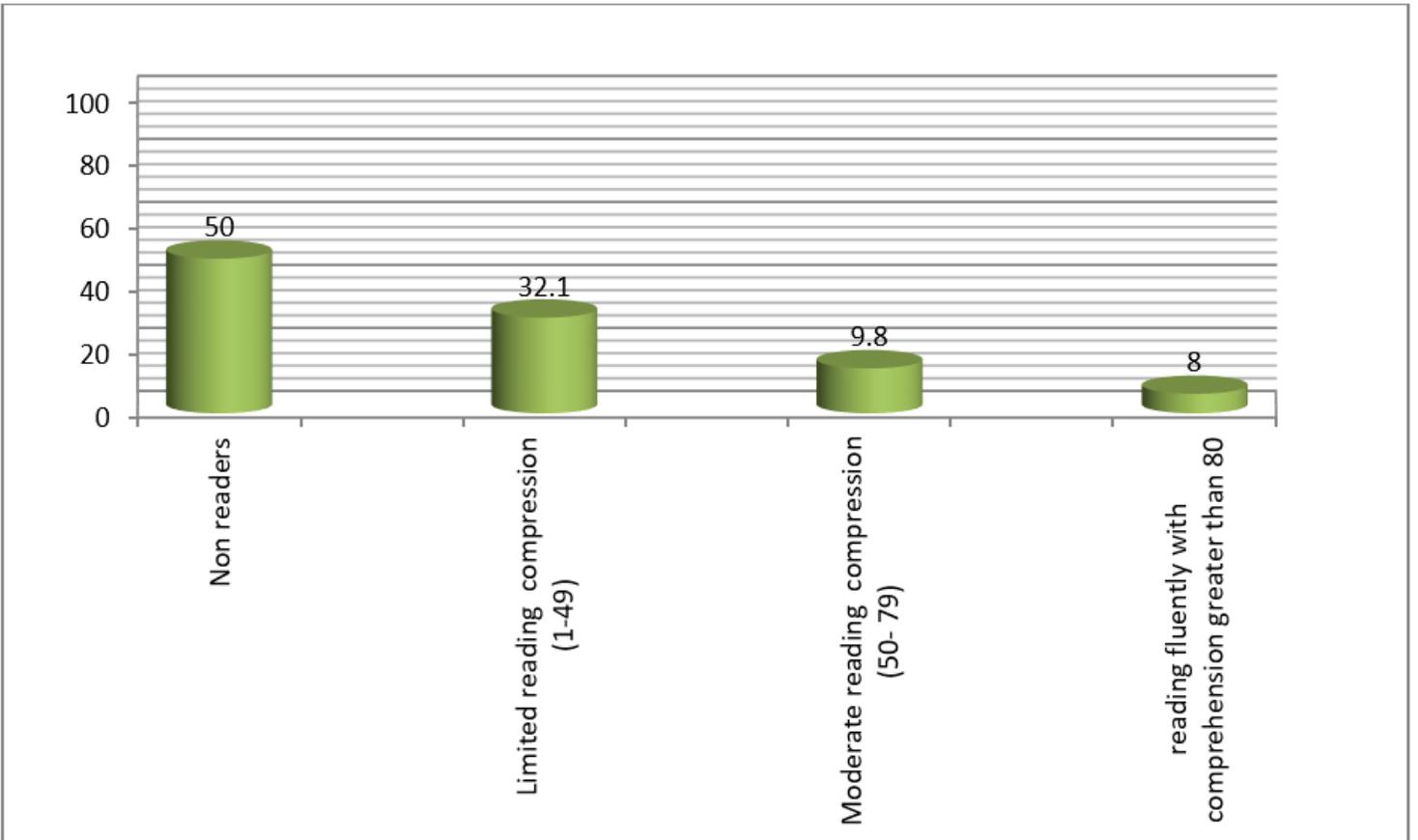
Figure 1

Percentage of students who named correctly letters at different performance markers



**Figure 2**

Percentage of students on phonological awareness at familiar word level



**Figure 3**

Percentage of students on non-word reading

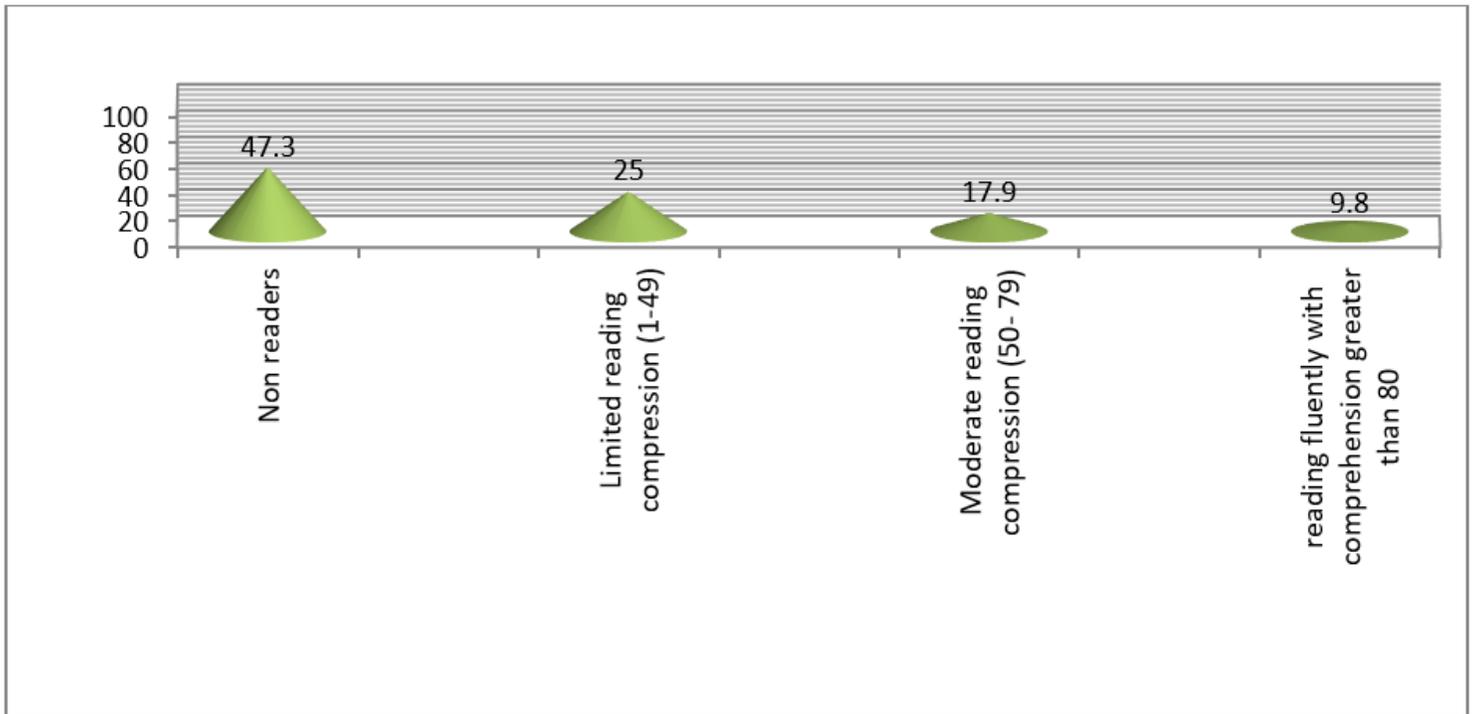


Figure 4

Percentage of students on vocabularies scores at different markers of performance

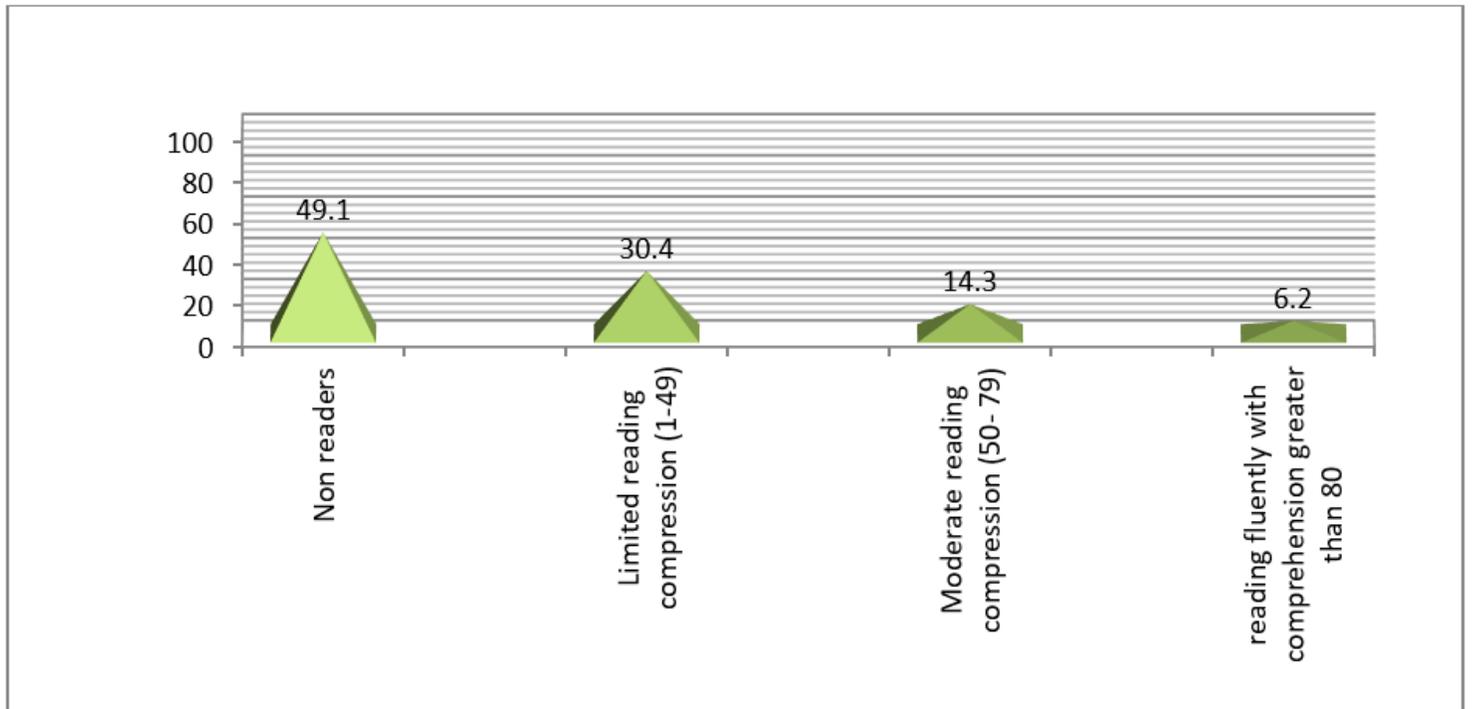


Figure 5

Percentage of students who answered correctly comprehension questions at different markers of performance