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## The Effects of Aligning Reading Instruction with Bloom's Taxonomy of Cognitive Domain on Students' Reading Comprehension

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### Abstract

The purpose of this study was to examine the effects of aligning reading instruction with Bloom's taxonomy of cognitive domain on students' reading comprehension skills. The study had a quasi experimental design. The study employed one-group pretest-posttest design. The study considered 40 students from grade 11 of Wolaita Sodo Preparatory School as data sources. Dependent sample t test was computed to examine if there was a statistically significant difference between the students' pre and post test reading comprehension performances. The study participants were given a reading comprehension test before their exposure to a new reading instructional material that was aligned with Bloom's taxonomy of cognitive domain. After two months of teaching reading using the new materials aligned with Bloom's taxonomy of cognitive domain, the study participants were given a reading comprehension test. The post test reading comprehension result indicated a statistically significant improvement over the students' pre-test result. It is recommended that secondary school English teachers should design reading material aligning it with Blooms taxonomy of cognitive domain.

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Cognitive domain, Higher order thinking skill, Minimum reading competencies, Critical thinking, Lower order thinking skill.

### Introduction

English is among the few compulsory school subjects in the Ethiopian education system. This is in addition to using the language as a medium of instruction in the country. In Ethiopia, schools begin to teach English at grade one level and continue to do so until students complete their secondary school education. There has been a noticeable variation among regions in Ethiopia in the level at which English begins to be used as a medium of instruction. Grades 5, 7 and 9 are among the choices available to regions to start using English as a medium of instruction. Regardless of the level at which English begins to serve as a medium of learning/teaching, the

language remains to be a medium of instruction from secondary school through higher education. Beyond the secondary level, one or two English courses are offered to all first year university students.

Contrary to expectations, however, the learners' proficiency in the language has always been less than the level required to use it as a medium of instruction. One empirical piece of evidence to illustrate students' poor performance in reading, for example, can be found in the report released by The Institute of Curriculum Development and Research (2007). According to the report, 40% of third graders, 30% of eighth graders, and 25% of twelfth graders read below their grade level. The

percentages are even higher and the gaps wider between grade levels in schools in which free or reduced lunch is accessible to students (Ministry of Education, 2008).

Reading, like listening, speaking or writing, is an important communication skill in EFL context. It is a self-discovery process. During this process, readers interact with written materials by investing both cognitive and metacognitive efforts to decompose new knowledge so as to make or infer meaning. From this point of view, reading comprehension can be seen as the final product (Hellyer *et al.*, 2001; Kalayci, 2012). In this sense, reading is also a productive skill in that we are both receiving information and transmitting it to ourselves. We read depending upon our purpose. Thus, the purpose of reading is to connect the ideas on the page to what we already know.

The status English has as a medium of instruction in high school and university in Ethiopia has made it the language of writing all teaching materials, other than the materials for teaching the local languages in the country. This means that high school and university students are expected to engage themselves in reading a wide range of texts in English. Doing this requires students to have adequately developed reading and comprehension skills.

As indicated in teacher's guide and students' text book, Grade 11 English for Ethiopia focuses on the development of students' listening, speaking, reading and writing skills for communication in a wide variety of contexts. In each unit in the textbook, there is usually at least one Reading section. The aim of teaching reading here is to develop the students' skills and abilities to read for different purposes. Developing the students' reading skill for academic purposes is among the dominant purposes of teaching reading in high school English classes.

The minimum reading competencies students are expected to achieve after completing the reading activities in each unit have been stated in high school English language syllabus. The reading competencies in the syllabus are almost consistent. Nearly all tend to assess students' lower order thinking cognitive domain. Below are a few examples of the minimum learning outcomes of different units of reading sections in grade 11 English syllabuses (MoE, 2003):

- ✓ Read a factual article and infer meanings of new words using contextual clues and/or knowledge of word formation (unit two)

- ✓ Read newspaper article and identify main points and summarize (unit four)
- ✓ Read a factual article and identify detailed information (unit eight)
- ✓ Read a text and skim to get the general ideas (unit nine)
- ✓ read a factual article and identify and summarize the main points of a text (unit ten)
- ✓ Read job advertisements and express their views (unit eleven)
- ✓ predict the content of a text from an extract; read a newspaper article and identify evidence to support /justify opinions/arguments (unit twelve)

Nearly all of the competences outlined in each unit in the textbook seem to develop students' lower order thinking skills of cognitive domain. Only in unit twelve are the learners expected to practice higher order thinking skill of cognitive domain in their reading instruction. The activities in the reading texts have not been designed explicitly starting from lower order cognitive skills to higher order thinking skills. This in turn has not helped the students to develop their higher order thinking skills of cognitive domain.

Bloom's higher order thinking is the ability to think beyond memorizing facts or knowledge. Higher order thinking skills involve applying the knowledge, finding connections between facts, understanding the material, and manipulating the information and finding new ways to discover solutions to problems. Benjamin Bloom (1956), an educational psychologist, developed a classification system that defined lower and higher order thinking. This system is known as Bloom's taxonomy (Bloom, et al. 1956). The taxonomy has six levels within the cognitive domain. Listed from lower to higher, the taxonomies are: knowledge, comprehension, application, analysis, synthesis, and evaluation (<http://k12reader.com>).

In particular, Bloom's Taxonomy plays a great role in teaching/learning reading comprehension. Since comprehension is the second classification level of Bloom's Taxonomy, it assesses true reading comprehension skills. The use of higher levels of questioning helps develop the students' higher order of thinking. According to Nelson (2011), asking questions before reading can provide the teacher with some insight about how the students will process the information. Pre-reading questions can assist learners with making connections and generating interest in the story or text. Teachers can use questions that allow students

to predict what the text will be about. Post-reading questions are used to help the students to process new information. Asking students questions that lead to analysis and application helps them progress through the different levels of learning.

As a result of long years of teaching reading in high schools and university, the present researcher has observed that reading instruction and its assessment has barely covered higher order thinking skills such as analysis, synthesis and evaluation. For example, the preliminary assessment of grade 11 English syllabus reveals that the students are expected to practice higher order thinking skill of cognitive domain in their reading instruction in only unit twelve in their English textbook. This indicates almost the absence of alignment of reading instruction with Bloom's taxonomy of cognitive domain. As a result, learners heavily rely on their memorization skills. On the other hand, research has shown that when students are taught and assessed using higher levels of competencies, their learning progresses better (McNeil, 2010). The impetus for the present study arose from this recognition.

### **Statement of the problem**

Teaching reading in the traditional class did not help much in developing students' higher order thinking skill. Therefore, the new model that educators propose is to teach English reading comprehension focusing on developing students' critical thinking skill. Critical thinking in reading involves the use of information, experience, and world knowledge in ways which allow L2/EFL learners to seek alternatives, make inferences, pose questions, and solve problems, thereby signaling understanding in a variety of complex ways (Meei-Ling, L 2007). This means that it is possible to develop reading comprehension skill by applying Bloom's taxonomy of cognitive domain. Nevertheless, in the present practices of English reading instruction in Ethiopia, the materials used for teaching reading are inadequately aligned with Bloom's Taxonomy of Cognitive Domain. This has not helped much in enhancing the students' reading comprehension skills.

Following the education policy introduced in 1994, the Ministry of Education prepared and published new text books, English for Ethiopia series, in 1996 which were revised and published again in 2006 for secondary and preparatory classes. Since the publication of the text books, a lot of research work, particularly, MA thesis and a few PhD dissertations have been conducted

focusing on the extent in which the different techniques suggested in the text books have been implemented. Many findings agree that though the text books have been changed, the practice of English language teaching has not changed (Alemu, 2009).

Regarding the current grade 11 students' English text book, the reading tasks and mode of assessment and the aim of teaching and learning are incongruent. For example, Alemu (2009) contends that the reading exercises in the English text books of grade 11 have the following weakness in terms of helping learners to develop the intended reading comprehension skills.

The objectives of the reading activities are not appropriately stated; they do not indicate clearly the intended reading comprehension skills to be developed. Instructions that guide students to carry out the activities are not clearly stated. There is inappropriate use of words. There are mismatches between the intended reading comprehension skills to be developed and the nature of questions designed to practice the skills. The comprehension questions are not properly designed in the way they help learners practice effective reading skills. Questions related to the pre-reading activities and while-reading activities are very poorly designed. There is no activity designed in relation to the post-reading activities to help learners to go beyond the given reading and relate what they read to their own experience.

The above report depicts that reading activities lack questions which assess students' higher order thinking skills of Bloom's taxonomy. This makes students not to develop their reading comprehension skills. In addition, research reveals that up to 90 percent of teaching occurs at the knowledge level, which is the lowest of Bloom's six levels of cognitive domain (Davidson and Decker, 2006). Due to the revision of standards and tests by American public education occurred with the enactment of the No Child Left Behind Act of 2001 (NCLB), teachers must ensure that students are able to function at higher cognitive levels. Therefore, a need has surfaced to increase the use of higher order thinking skills of cognitive domain by the students as a paradigm shift.

The Ethiopian education policy has also not been beyond this paradigm shift. The curriculum framework of Ethiopia (KG-G12) (2009) goes in line with the framework of Bloom's Taxonomy of cognitive domain. The curriculum framework clearly states the key competencies or abilities and skills that students need to live, learn, work and contribute both to their own

community and to their country. Higher-order-skills are among the key competencies mentioned in the new curriculum framework of Ethiopia. As elaborated in the frame work, higher-order-skills are skills that engender and promote the development of application of knowledge, analysis, synthesis, evaluation and innovation. Even the curriculum framework elaborates the development of Higher-order-skills, the reality in the syllabus and textbook does not reflect this.

From my professional experience, I have observed that teaching reading skill and the assessment system does not seem to encourage students to develop higher order thinking skill; the reading instructions and activities are not explicitly designed starting from lower order cognitive domain to higher order cognitive domain of Bloom's Taxonomy.

One possible cause for students to have inadequate reading skill might be the material and the tasks in use to teach reading. For example, most of the comprehension questions in the material used with grades 10 – 12 assesses the learners' lower level thinking skills. Furthermore, the reading texts in the mentioned grade levels lack cue questions related to the six thinking levels of cognitive domain in Bloom's Taxonomy. They do not stimulate students to respond at all levels of the domain, especially the higher levels. As a result, the reading comprehension of students in secondary schools has deteriorated over time. For example, the National Agency for Examinations (NAE), (2010) revealed that in both the 10 and 12 grades, the mean score for English reading comprehension was below the minimum requirement. The percentages achieving 50% and above were only 17.8% for grade 10, and 25.9% for grade 12.

In addition, the Ethiopian Training Quality Assurance Agency in its students' National Learning Assessment reports of (2000, 2004, and 2007), reported that the quality of students' reading outcomes is declining. Similarly, the reading proficiency level of the students and the academic expectation of the students in the curriculum does not match (Eshetie, 2010; Abiy, 2012).

In the new Ethiopian education and training policy, students are expected to develop problem solving skills, i.e., critical and creative thinking skills (MoE 2009). Different researchers, namely, Dreyer and Nel, 2003; Faggella-Luby *et al.*, 2008, argue that EFL/ESL students often face difficulty in understanding academic literature in their fields of studies. The researchers contend that students who join university education underprepared for

the reading demands placed on them, lack the literacy skills needed to understand sophisticated information. They cannot synthesize main ideas across texts, and make meaning when required to read for academic purposes. This indicates EFL/ESL students' lack of higher order thinking skills (Bloom, 1956; Anderson and Krathwohl 2001).

The students' poor reading comprehension skill has been confirmed by research in the local context. For example, Eshetie, (2010); Medihanit, (2010); Jha, (2014) reported that the reading ability of Ethiopian secondary school students have deteriorated. Similarly, despite years of learning English as a subject at primary and secondary schools, students have continued to fail in their academics in every level, especially in reading comprehension (National Agency for Examinations (NAE), 2010; The Institute of International Education (IIE), 2012; USAID 2014). This implies the need for urgent measure to improve students' reading comprehension. This study, was therefore, designed to see if students' reading comprehension skills can be improved through aligning reading instruction with Bloom's taxonomy of cognitive domain.

The research on Utilizing Taxonomy of Educational Objectives in Language Instruction has been well underway in many parts of the world such as the United States and Europe One study to be mentioned is the study conducted by Charla (2010). Charla conducted a study entitled *The effects of using Bloom's Taxonomy to Align Reading Instruction with the Virginia Standards of Learning Framework for English*. The findings provided a documentation platform for addressing the varying needs of students at all levels. Charla also noted in the finding the strategies that would help teachers work smarter and more effectively, rather than harder. The study also called attention to positive outcomes derived from developing higher order thinking skills because they are essential to empower students for participation in the increasingly globalizing world of higher education and the workforce.

Research in the area of Bloom's taxonomy of cognitive domain is very scarce in the Ethiopian context. The only local research indirectly related to the current type of research, is "Interlacing Bloom's Taxonomy and E-Learning to Improve the Quality of English Class" by Yugandhar (2016). The findings suggest that cognitive support from authentic materials using e-learning tools is effectively used for the interaction of ideas among the learners. E-class plays major role in providing the

suitable authentic materials in different levels as per the revised Taxonomy, mediating the teacher and students in language learning. The class has no boundaries of place and time and learners can interact with the information to acquire and use communicative abilities and the language as per the instructions of the teacher following the taxonomy.

Yugandhar's. (2016) study is not specifically concerned with the issues and the objectives raised in this study. This study is mainly concerned with aligning reading instruction with Bloom's taxonomy of cognitive domain and determining the effect this may have on students' reading comprehension.

### **The research hypothesis**

The following null and alternate hypotheses have been formulated.

**H0:** Aligning reading instruction with Bloom's taxonomy of cognitive domain does not significantly improve students' reading comprehension.

**H1:** Aligning reading instruction with Bloom's taxonomy of cognitive domain significantly improves students' reading comprehension.

### **Materials and Methods**

#### **The research design**

A one-group pretest-posttest design was used in this study. In a one-group pretest-posttest design, a treatment is implemented (or an independent variable is manipulated) and then a dependent variable is measured once before the treatment is implemented and once after the treatment is implemented (Marsden and Torgerson, 2012). Similarly, this study contained one group of participants: the experimental group and there is no control group. The Dependent Samples t test has been computed to examine if there is statistically significant difference between the students' pre and post test reading comprehension performance because of the new teaching method, and teaching material designed in line with Bloom's taxonomy of cognitive domain.

#### **The study setting**

The study was conducted in grade 11 students in Wolayta Zone, Wolayta Sodo Town. Grade 11 could be an effective area of intervention for improving the English

language proficiency of students before they join higher institutions. Wolayta Zone is situated in Southern Nation Nationality and People's Regional State of Ethiopia. The school has been selected based on convenience sampling (Dornyei, 2007:87). That is, the school's geographical proximity and accessibility to the researcher was considered in choosing the school. According to the information from Wolayta Zone Educational Bureau, there are 68 secondary schools from grade 9-12 and 4 independent preparatory schools. These total of 72 secondary and preparatory schools are situated in twelve Woredas and three Town administrations. The researcher has selected Sodo Town preparatory school for his study as a study setting using convenient sampling technique.

### **Population and sampling**

Wolita Zone had 72 preparatory schools in the 1918/19 academic calendar. One preparatory school was selected from Wolyta Sodo Town using convenience sampling technique to participate in the study.

### **The study participants**

In the 2018/19 academic year, Wolita Sodo Preparatory School had 16 sections of grade 11 students. One section that had 40 students was selected from the 16 sections using simple random sampling technique to be participants of this study.

### **Data collection instrument**

#### **Test**

Two reading comprehension tests were administered as data collection tool in this study. The first reading comprehension test (i.e., pre-test) was administered to establish the status of the study participants' reading comprehension skill before the intervention. The second reading test (i.e., post-test) was administered after the intervention. The purpose of the second test was to see the effect of the new teaching material on the study participants' reading performance. Data from reading comprehension tests were used to address the effect of teaching reading using materials aligned with Bloom's Taxonomy of cognitive domain on the study participants' reading comprehension skills. Two different reading comprehension passages taken from McGraw-Hill's 500 SAT Critical Reading Questions were used in this study. The reading comprehension passages used in the pre and post tests had similar objectives. The cue questions were based on Bloom's Taxonomy of cognitive domain (Table 1).

### **The general aim of the test**

The test was aimed at measuring the effectiveness of aligning reading instruction with Bloom's taxonomy of cognitive domain on students' reading comprehension skills.

### **The items of the test**

The researcher used one reading comprehension passage in the pre-test and a different passage in the post-test. The passages were selected from *McGraw-Hill's 500 SAT Critical Reading Questions*. The passage for pre test was about 'Pregnancy and Cerebral Cortex', and the passage for the post test was about the 'Three Important Events of Europe.' The researcher believed that the students didn't read the texts, and had no prior knowledge about them. The items used in the tests had equal weights. The questions were constructed according to the table of specification designed based on the criteria to assess thinking skills, ranging from remembering up to creating and the general objectives of teaching reading comprehension skills. The emphasis was on reading comprehension skills since they were the general goal of this study. The same test was carried out after the six week intervention. Results of the pre and post tests were recorded, statistically analyzed and compared.

### **Procedure of experiment**

The researcher first administered pre-intervention reading test to get information on the status of students' reading skill. Next, he prepared material for teaching reading based on Bloom's Taxonomy of Cognitive Domain. Following that, he taught reading using the new material for six weeks by continuously assessing individual and group assignments. Then, he administered a post intervention reading comprehension test to see the effect of a modified teaching material on students' comprehension skill. The students' pre and post tests were finally compared to see the effect of the intervention on the students' reading comprehension.

### **Materials used to teach reading in the intervention sessions**

The researcher took grade 11 text books as a frame work in preparing the teaching materials in the context of Bloom's taxonomy of cognitive domain for this study. The researcher also used the following as additional sources to preparing the reading materials. He used grade 11 and 12 English entrance exam, "McGraw-Hill's 500

SAT Critical Reading Questions," cue questions based on Blooms' Taxonomy of Critical Thinking. The following were contents of reading materials that the participants were taught: 'letter in the school news paper', 'Edward rang the Millers 'doorbell', 'Goldilocks and the three bears', 'reading' in this pilot study. The students were taught each of the texts designed in line with Bloom's taxonomy of cognitive domain. The length of intervention was six weeks. Six weeks time was expected enough because the intervention took two hours a week in their regular shift and they were given additional one hour's lesson in a week in their opposite shift to compensate time shortage. The intervention for the experiment was conducted by the researcher because the teachers were not interested to take part in something for which there was no compensation. Thus, the researcher taught two hours a week in their regular shift and one hour extra teaching in their opposite shift for six weeks (two months) time in which teaching was through aligning reading instruction with Bloom's taxonomy of cognitive domain.

### **Results and Discussions**

#### **Mark/re-mark reliability**

Mark/ re-mark reliability was used to assess the degree to which the different raters gave consistent scores of the same test. The pairs of marks relating to each student's test score in the pre-and post-tests were subjected to statistical analysis. Pearson Product Moment Correlation Coefficient ( $r$ ) is used in this study. Pearson's correlation coefficient is a statistical measure of the strength of a linear relationship between paired data (Chee, Jennifer 2015). In a sample, it is denoted by  $r$  and is by design constrained as  $-1 \leq r \leq 1$ . Since correlation is an effect size, Evans (1996) suggests for the absolute value of  $r$  as follows: .00-.19 "very weak", .20-.39 "weak", .40-.59 "moderate", .60-.79 "strong", and .80-1.0 "very strong"

Since mark/re-mark reliability has been considered very significant in second language research, the pre-and post-test were given for re-marking using analytic scoring method to a colleague who was briefed about the research and specifically about the marking procedures in this study. The marks given by the colleague were correlated with the marks given by the researcher. Thus, the researcher made a statistical analysis of the scorers of Rater 1 (the researcher) and Rater 2 (a colleague). SPSS (Statistical Package for Social Sciences Version 21) was used to calculate the correlation of the two raters' scores. The following two correlation matrix tables show the results (Table 2).

**Table.1** The contents of reading tasks taught during the experiment and its time duration in the study

| Number of weeks | Number of days                        | Topics for reading tasks          | Thinking skills should be developed                                    |
|-----------------|---------------------------------------|-----------------------------------|--|
| Week one        | Day 1-Day 2<br>Day 3(opposite shift)  | letter in the school news paper   | Knowledge, Comprehension, Application, Analysis, synthesis, Evaluation |
| Week two        | Day 1- Day 2<br>Day 3(opposite shift) | Edward rang the Millers‘ doorbell | Knowledge, Comprehension, Application, Analysis, synthesis, Evaluation |
| Week three      | Day 1- Day 2<br>Day 3(opposite shift) | Goldilocks and the three bears    | Knowledge, Comprehension, Application, Analysis, synthesis, Evaluation |
| Week four       | Day 1- Day 2<br>Day 3(opposite shift) | Reading                           | Knowledge, Comprehension, Application, Analysis, synthesis, Evaluation |
| Week five       | Day 1Day 2Day 3(opposite shift)       | Cricket                           | Knowledge, Comprehension, Application, Analysis, synthesis, Evaluation |
| Week six        | Day 1- Day 2                          | Revision                          |  |

**Table.2** Correlation of Grade 11-B students during experiment in Pre-test

|         |                     | Pre-test<br>Rater_1 | Pre-test<br>Rater_2 |
|---------|---------------------|---------------------|---------------------|
| Rater_1 | Pearson Correlation | 1                   | .994**              |
|         | Sig. (2-tailed)     |                     | .000                |
|         | N                   | 30                  | 30                  |
| Rater_2 | Pearson Correlation | .994**              | 1                   |
|         | Sig. (2-tailed)     | .000                |                     |
|         | N                   | 30                  | 30                  |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table.3** Correlation of Grade 11-B during experiment in Post-test

|         |                     | Pre-test<br>Rater_1 | Pre-test<br>Rater_2 |
|---------|---------------------|---------------------|---------------------|
| Rater_1 | Pearson Correlation | 1                   | .992**              |
|         | Sig. (2-tailed)     |                     | .000                |
|         | N                   | 30                  | 30                  |
| Rater_2 | Pearson Correlation | .992**              | 1                   |
|         | Sig. (2-tailed)     | .000                |                     |
|         | N                   | 30                  | 30                  |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table.4** Results of Statistical Analysis of the Dependent Sample T-test

| Pair 1         | Pre-test |         |         | Post-test |         |         | D/f | t-value | Sig. |
|----------------|----------|---------|---------|-----------|---------|---------|-----|---------|------|
|                | N        | X       | S.D     | N         | X       | S.D     |     |         |      |
| Test 2- Test 1 | 30       | 21.5333 | 7.21222 | 30        | 28.3567 | 7.74827 | 29  | 14.832  | .000 |

The inter-rater correlation of Rater 1 against Rater 2 in pre-test was 0.994. This may indicate that the marking of pre-test was consistent because the inter-rater correlation of pre-test is more than 0.80 which is very strong relationship between marks of two raters.

As shown in Table 3, the P-value of the inter-rater correlation of Rater 1 against Rater 2 in post-test is 0.992. This means that the raters' marking was highly consistent. Evans (1996) noted that when the absolute value of  $r$  is more than 0.80, the correlation is very strong. Likewise, there is no significant difference between the scores given to the same scripts by two different markers because the correlations of both tests were between -1 and +1.

### **Effects of aligning reading instruction with bloom's taxonomy of cognitive domain on students' reading comprehension**

Even though the participants of this study were one section of 40 students as expressed earlier, the test was applied on 30 students because the remaining 10 students were neither missed the test nor absent in the classroom. Therefore, the pre and post tests were applied on only 30 students who participated in the experiment. The pre-test, was applied before the experiment and the post-test, was applied after the experiment. The results were recorded and statistically analyzed to measure whether the post-test had significant change over the pre-test.

The Dependent sample t-test in table 4 shows that the average scores of the pre-test of 30 students and the post-test of 30 students is 21.5333 and 28.3567 respectively. The standard deviation of the pre-test and the post-test is computed as 7.21222 and 7.74827 respectively. As results of the average score and the standard deviation show, there is an improvement on the post- test over pre-test. Regarding the t-value and the p-value, the t-value is 14.832, and the p-value is .000. The difference between the two scores was found to be statistically significant indicating that the students in the experiment made a significant improvement in the post-test compared to result of the pre-test.

On the basis of the statistical results of this study, the Null Hypothesis, which is aligning reading instruction with Bloom's taxonomy of cognitive domain, does not significantly improve students' reading comprehension is rejected. The reason for rejecting the Null Hypothesis is that the p-value is .000 which is  $p < 0.05$  significant level. The findings of the tests thus seem to indicate that

aligning reading instruction with Bloom's taxonomy of cognitive domain could have a significant contribution in improving students' reading comprehension. Evidence from the reviewed literature, for instance, Beth Lewis, (2019), appears to support this. Lewis reported that you ask critical thinking questions or higher order questions; you develop all levels of thinking. This helps students to have improved attention to detail. It also increases their comprehension and problem-solving skills.

In conclusion, as noted earlier, an experiment was conducted for six weeks in Wolita Sodo Town Preparatory School. The purpose of the experiment was to determine whether or not aligning reading instruction with Bloom's taxonomy of cognitive domain significantly improves students' reading comprehension skill. Dependent sample t-test was computed to check if there was significant change on the students' reading comprehension of pre-test over the post-test. The findings showed that the study participants made a significant improvement over the post-test compared to that of their pre-test result because the p-value is .000 which is  $p < 0.05$  significant level.

### **Recommendations**

The researcher recommends the following based on the findings of this study:

- As students are better develop higher order thinking skill and improve their reading comprehension, teachers of English language should design reading material aligned with Blooms taxonomy of cognitive domain
- The government and curriculum reviewers should revisit the preparation of grade 11 English syllabus in line with Bloom's taxonomy of cognitive domain
- The school should prepare short training on how to align reading instruction with Bloom's taxonomy of cognitive domain to English language teachers to fill knowledge gap

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