A Study on Reading Comprehension Skills of Primary School 5th Grade Students – Learning Basic Reading and Writing Skills Through Phonics-Based Sentence Method or Decoding Method*

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Abstract
This research aims at investigating the influence of two methods implemented in primary reading and writing teaching programs – phonics-based sentence method and decoding (analysis) method – on primary school 5th grade students’ reading comprehension achievement. Also, the study considers the relationship between socio-economic status and reading comprehension achievement. This causal study was carried out in four primary schools which were in the districts of Adana; Seyhan and Cukurova. Out of 20 classes in these schools, 745 fifth grade students who were chosen according to the convenience sampling method to participate in the study. The data was obtained through 351 students learned reading and writing by means of decoding method in the 2008-2009 academic year and through 394 students who learned reading and writing by phonics-based sentence method in the 2009-2010 academic year. The data was collected using a reading comprehension achievement test. In the study, the students’ personal information was collected using a socio-demographic questionnaire. The findings indicated a statistically non-significant difference on reading comprehension achievement scores of students who learned reading and writing by different methods. In addition, a positive and meaningful relationship between reading comprehension achievement and socio-economic status (r = .33, p < .01).

Key Words
Reading Comprehension Achievement, Primary Reading and Writing Instruction, Socio-Economic Status.

Primary reading and writing instruction has an important place both in one’s personal life and social life. In addition to guiding students to acquire reading and writing skills, it is essential to direct them to learn some skills such as how to use Turkish effectively, how to communicate appropriately, how to solve problems and to make decision. Primary reading and writing instruction leads to significant changes in students’ intellectual, affective and social skills. Also, it improves students’ life-long intellectual skills such as comprehending, ordering, questioning, relating and guessing. In making learners gain these skills, methods and practice followed in primary school reading and writing curriculum have a considerable role (MEB Talim ve Terbiye Kurulu Başkanlığı [MEB], 2005, p. 225). Keeping in mind that developing these skills is at the heart of primary reading and writing instruction, which method is implemented in teaching reading and writing gains importance.
According to Akyol (2005, p. 9), there are ways of primary reading and writing instruction: from parts to whole, from whole to parts and interactive approach. Güneş (2000, p. 137-149) and Çelenk (2005, p. 50-59) mention three methods: synthesis (alphabet, phonetics, syllable), analysis (word, sentence and story) and mixed.

In Turkey, various methods have been implemented in primary school reading and writing curriculum. In the curriculum of 1924, the teacher was set free to decide on one of the methods: sentence or letter method. In the curriculum of 1926, the letter method was banned. Instead, word and sentence method were encouraged. In the curriculum of 1936, synthesis and decoding method was proposed. Particularly, decoding method was taken as a base but synthesis was also supported. In the curriculum of 1948 and 1968 decoding method was reinforced. In the curriculum of 1981, 1948 and 1968 the decoding method (DM) were followed and no other method was proposed (Şahin, 2005).

Decoding is a technique working from whole to parts. Firstly, meaningful sentences, then, words, syllables and sounds are introduced. Following those steps, free reading starts (Akyol, 2005, p. 79). In the academic year of 2004-2005, this technique was implemented in the primary school curriculum. However, since the academic year of 2004-2005, phonics-based sentence method (PBSM) was proposed as a method of primary reading and writing instruction. According to this method, primary reading and writing starts with phonemes. After presenting some meaningful phoneme chunks, syllables, words, sentences and texts are used.

The related literature has indicated that the efficiency of DM and PBSM is being investigated in terms of various variables. According to a study by Karadağ and Gültekin (2007) and Beyazit (2007) a big majority of teachers found DM to be more effective than PBSM in primary reading and writing instruction, particularly in reading comprehension skill. In the studies carried out by Özsoy (2006) and Samancı (2007), the teachers emphasized that the students who had learnt to read and write through PBSM had problems in comprehending what they read. In the study of Turan (2007); the participants expressed that they preferred the PBSM more in teaching first reading and writing and the analysis method in terms of fast reading. Çebi (2006; 2009) showed a difference in favor of students learning reading and writing by means of DM. Şahin (2005), Akyol and Temur (2008), Kaya (2008) indicated no difference between DM and PBSM on the achievement of reading comprehension skill, whereas Şahin, İnci, Turan, and Apak (2006); Vatansever (2008) pointed out a significant difference in favor of students learning reading and writing through PBSM method.

There are studies indicating the effects of different methods used on students’ reading in primary reading and writing instruction (Çebi, 2006, 2009; Popplewell & Doty, 2001; Şahin et al., 2006; Vatansever, 2008). Based on the findings of these studies, one cannot claim that only one specific method is the best and the most appropriate for all. As Cromwell (1997) also stated no approach is effective and excellent alone. It is possible to say that each method has some advantages and limitations over the other. Also, the teacher practicing that method in her class or the group on which the method is being implemented may be influential on the results. One of the most important factors, which are determinants on the efficiency of the method is the teacher's knowledge, skill and implementation. The other significant factor is students’ individual differences (Şenel, 2004).

Kavcar, Oğuzkan, and Sever (1997, p. 41) evaluates reading as “the process of seeing, perceiving and comprehending the words, sentences, punctuation marks and the other elements of a writing”. Sever (1997) defines reading as regards to mental processes. In other words, reading is not only voicing the letters. It is very important to explain the meanings and interpret the voiced letters (Gürses, 1996). A connection is established between the writer and the reader through reading and the reader is expected to understand the message that the writer aimed to convey. As it can be understood from this, reading has three dimensions (Demirel, 2000, p. 77).

As well as individual differences, the development of reading may also change according to biological and environmental factors. The home setting is extremely important on the achievement of reading. There is a meaningful relationship between a student’s reading achievement and the situation provided to him and his socio-economic status (Akyol & Temur, 2008). The students from low socio-economic status have a lower reading comprehension achievement than the students from mid and high socio-economic status (Çifçi, 2007; Küçük, 1998; Salıcı Ahıgoğlu, 2006; Uçar, 2001; Vural, 2007).

It may not be possible to explain the failure in the process of primary reading and writing only with a limited number of causes. The failure may derive from the student or the teacher or the family...
or the environment (Keskinkılıç, 2002, p. 252). In order to be good at the process of primary reading and writing, firstly, the student then, the family, the teacher and the teaching curriculum have important responsibilities (Akyol & Temur, 2008). Primary school reading and writing curriculum should be equipped with main reading and writing skills which will be used by students throughout their life and with appropriate method and materials, which are in line with students’ psychology and development (Şahin, 2005).

Today, there has still been a discussion on which method to use and which method is better than the other in teaching reading and writing to primary school first year students. It has been seen that the studies about the efficiency of primary reading and writing instruction methods have been conducted mainly with primary school first year students (Akyol & Temur, 2008; Şahin, 2005; Şahin et al., 2006). Gaining the reading skill starts at primary school first year, but the development and the use of this skill continue in the following years. From this perspective, it is important to compare the achievement of fifth-year students who learned reading and writing through different methods.

**Purpose**

The aim of this research is to investigate the effect of phonics-based sentence method and DM followed in primary reading and writing instruction on primary school fifth grade students’ reading comprehension achievement. Moreover; it addresses the relationship between socio-economic status and reading comprehension achievement.

In line with these main goals above, this study focuses on the following research questions:

1. Is there a meaningful difference on primary school fifth grade students from reading comprehension achievements in terms of two different methods: learning reading and writing through PBSM and DM?

2. Is there a meaningful difference on primary school fifth grade students from

   2.1. low socio-economic status reading comprehension achievements in terms of two different methods: learning reading and writing through PBSM and DM?

   2.2. mid socio-economic status reading comprehension achievements in terms of two different methods: learning reading and writing through PBSM and DM?

   2.3. high socio-economic status reading comprehension achievements in terms of two different methods: learning reading and writing through PBSM and DM?

3. Is there a relationship between reading comprehension achievement and socio-economic status?

4. Is there a meaningful difference on primary school fifth grade students’ reading comprehension achievements according to socio-economic status?

**Method**

**Research Design**

This study is based on a causal comparative research. Causal comparative studies aim at determining the reasons and results of differences among groups without intervention on conditions and participants (Büyüköztürk, Çakmak, Akgün, Karadeniz & Demirel, 2009, p. 15).

**Subjects**

This study was carried out in the spring semester of the 2008-2009 and 2009-2010 academic years in districts of Adana, Seyhan and Çukurova. It was conducted in four primary schools. 745 fifth-year students in 20 different classes in these schools participated in the study. The participants were chosen according to the convenience sampling method. First, from these schools, 351 fifth year students who had learned basic reading and writing skills through DM were taken in the academic year of 2008-2009. Then, 394 fifth-year students who had learned basic reading and writing skills by means of the PBSM method were chosen in the academic year of 2008-2009. Then, 394 fifth-year students who had learned basic reading and writing skills through DM were taken in the academic year of 2008-2009. Therefore, 745 fifth-year students who had learned basic reading and writing skills by means of the PBSM method were chosen in the academic year of 2009-2010. Also, this study aimed at analyzing if there was a meaningful difference among students learning basic reading and writing skills by different methods regarding gender and the educational background and occupations of families. It was hypothesized that these variables which are in students’ close environment may be effective on students’ academic achievement. Sufficient attention was given on the factor that students had the similar characteristics. In the first group of students learning basic reading and writing skills by the PBSM, there were 192 females and 202 males. In the second group of students learning basic reading and writing skills through DM, there were 191 females and 160 males. In terms of gender, no
significant difference was found between groups learning basic reading and writing skills by different ways \( [X(1)= 2.402, p>.05] \). In addition, no significant difference was observed between two groups in terms of father’s educational background \( [X(4)=6.896, p>.05] \), mother’s educational background \( [X(5)= 7.693, p>.05 ] \) and mother’s occupation \( [X(5)= 1.702 , p>.05] \).

**Findings**

**The Effects of PBSM and DM Used Primary Reading and Writing Instruction on Reading Comprehension**

Table 1 shows t-test results of the effect of PBSM and DM on students’ reading comprehension achievement.

<table>
<thead>
<tr>
<th></th>
<th>PBSM</th>
<th>DM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>394</td>
<td>351</td>
</tr>
<tr>
<td><strong>X</strong></td>
<td>17.44</td>
<td>17.11</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>4.06</td>
<td>4.26</td>
</tr>
<tr>
<td><strong>Sd</strong></td>
<td>743</td>
<td>1.08*</td>
</tr>
<tr>
<td><strong>t</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 1, there is no statistically significant difference on reading comprehension achievement of students learning basic reading and writing skills by PBSM and DM \( (p>.05) \).

**The Reading Comprehension Status of 5th Grade Students Learning Basic Reading and Writing Skills through PBSM and DM from Different Socio-Economic Status**

Taking into account the students’ scores from the socio-demographic questionnaire and the means and standard deviations of total scores, the scores which had 0.5 standard deviation above and below the mean were considered in order to determine the socio-economic status (SES). According to this criterion, the scores which had 0.5 standard deviation below the mean were accepted as “low socio-economic status”, the scores which were in the interval of 0.5 standard deviation above and below the mean were taken as “mid socio-economic status” and finally, the scores which had 0.5 standard deviation above the mean were regarded as “high socio-economic status”. Table 2 illustrates the t-test results of the effects of PBSM and DM on low socio-economic status students’ reading comprehension achievement.

<table>
<thead>
<tr>
<th></th>
<th>PBSM</th>
<th>DM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>116</td>
<td>116</td>
</tr>
<tr>
<td><strong>X</strong></td>
<td>15.72</td>
<td>15.67</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>4.42</td>
<td>4.52</td>
</tr>
<tr>
<td><strong>Sd</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>t</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 2, there is no statistically significant difference on reading comprehension achievement of students learning basic reading and writing skills by PBSM and DM \( (p>.05) \).
As clear in Table 2, there is no statistically meaningful difference on the reading comprehension achievement mean of students from low socio-economic status learning basic reading and writing skills by PBSM and DM (p > .05).

Table 3 indicates the t-test results of the effects of PBSM and DM on mid socio-economic status students’ reading comprehension achievement.

Table 3.
T-test Results of PBSM and DM on Reading Comprehension Achievement of Students from Mid Socio-Economic Status

<table>
<thead>
<tr>
<th></th>
<th>PBSM</th>
<th>DM</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>N</td>
<td>µ</td>
<td>S</td>
</tr>
<tr>
<td>Mid</td>
<td>130</td>
<td>17.45</td>
<td>3.43</td>
</tr>
<tr>
<td></td>
<td>107</td>
<td>17.33</td>
<td>4.19</td>
</tr>
</tbody>
</table>

As seen in Table 3, there is no statistically significant difference between the reading comprehension achievement mean of the mid socio-economic status students learning basic reading and writing skills through PBSM and through DM (p > .05).

Table 4 shows t-test results of the effects of PBSM and DM on high socio-economic status students’ reading comprehension achievement.

Table 4.
T-test Results of PBSM and DM on Reading Comprehension Skills of Students from High Socio-Economic Status

<table>
<thead>
<tr>
<th></th>
<th>PBSM</th>
<th>DM</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>N</td>
<td>µ</td>
<td>S</td>
</tr>
<tr>
<td>High</td>
<td>148</td>
<td>18.78</td>
<td>3.78</td>
</tr>
<tr>
<td></td>
<td>128</td>
<td>18.23</td>
<td>3.68</td>
</tr>
</tbody>
</table>

As seen in Table 4, there is no statistically significant difference between the reading comprehension achievement mean of the high socio-economic status students learning basic reading and writing skills through PBSM and through DM (p > .05).

The Relationship between Reading Comprehension Skill and Socio-Economic Status

Table 5 shows relationship between reading comprehension achievement and socio-economic status.

Table 5.
Pearson Correlation Coefficients among Variables (n= 745)

<table>
<thead>
<tr>
<th>Variables</th>
<th>RCS</th>
<th>SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Comprehension Score (RCS)</td>
<td>1</td>
<td>.33*</td>
</tr>
<tr>
<td>SES</td>
<td>.33*</td>
<td>1</td>
</tr>
</tbody>
</table>

* p < .01

Table 5 points out the correlation value (.33) between reading comprehension achievement and socio-economic status and this correlation value is statistically meaningful.

The Reading Comprehension Achievement of 5th Grade Students according to Socio-Economic Status

Table 6 illustrates descriptive statistics based on reading comprehension achievement of students from different socio-economic status.

Table 6.
The Descriptive Statistics of Reading Comprehension Achievement Scores

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>µ</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low SES</td>
<td>221</td>
<td>15.72</td>
<td>4.44</td>
</tr>
<tr>
<td>Mid SES</td>
<td>263</td>
<td>17.28</td>
<td>3.87</td>
</tr>
<tr>
<td>High SES</td>
<td>261</td>
<td>18.61</td>
<td>3.71</td>
</tr>
</tbody>
</table>

Table 6 indicates that the reading comprehension achievement means are very close to each other. However; deviations from normal distribution were seen on the achievement scores. In order to see whether there was a statistically meaningful difference among achievement scores, Kruskal-Wallis test, a non-parametric test, was used (Büyüköztürk, 2004). The results of this test can be seen in Table 7.

Table 7.
Kruskal Wallis Test Results of Reading Comprehension Achievement Scores

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Average rank</th>
<th>sd</th>
<th>x²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low SES</td>
<td>221</td>
<td>295.17</td>
<td>2</td>
<td>57.81</td>
<td>.000</td>
</tr>
<tr>
<td>Mid SES</td>
<td>263</td>
<td>367.99</td>
<td>2</td>
<td>57.81</td>
<td>.000</td>
</tr>
<tr>
<td>High SES</td>
<td>261</td>
<td>443.94</td>
<td>2</td>
<td>57.81</td>
<td>.000</td>
</tr>
</tbody>
</table>

A statistically meaningful difference was found on the achievement scores among groups (X²(2)= 57.81; p < .01). To understand among which groups there was a difference, Mann Whitney-U test was conducted. Significant differences were observed among high, mid and low socio-economic status. Therefore; it can be said that the students from high socio-economic status have higher achievement scores.
Discussion
According to the findings of this study, there is no statistically significant difference on the reading comprehension scores of students learning basic reading and writing skills through PBSM and DM. The studies in the related literature are also in line with this finding (Akyol & Temur, 2008; Kaya, 2008; Sahin, 2005). The students in this study were categorized regarding socio-economic status as low, mid and high. No significant difference is seen among groups from different socio-economic status. Akyol and Temur (2008) said that apart from the method implemented in teaching reading and writing, there are other influential factors on a student’s achievement. These factors are students’ personal characteristics, family interests, opportunities given to students by their families, students’ pre-school education opportunities. In addition to this, according to a study by Salıcı Ahiöğlu (2006), the teachers pointed out readiness, socio-economic status, family’s educational background, family-classroom atmosphere and teachers’ behaviors are influential factors on reading and writing. Bulut (2010) expressed in his study that the factors except from the personal characteristics of the student such as the number of days that the student attended school, having good samples of reading and writing in his environment, his level of attention which is related with the psychological state of the student, his motivation and anxiety state, his self-respect, his educational state which is connected with the socio-economic cultural status of the family and his perspective towards education affect the transition process into the first reading and writing.

The next finding of the study is the significant relationship between reading comprehension scores and socio-economic status. Also, a significant difference is found in favor of high socio-economic status students regarding reading comprehension achievement scores. Küçük (1998), Salıcı Ahiöğlu (2006), Vural (2007), Çifçi (2007) found in their studies that students from high socio-economic status are more successful. The scores that these children got from narrating and checking comprehension tests are lower than the scores children coming from families from middle socio-economic level (Chall, 1983 cited in Akyol & Temur, 2008; Coşkun, 2003). Researchers highlighted the relationship between family income and the quality of the education given to children. The socio-economic dynamics of families and father’s occupation are effective in growing up children and present important contributions on students’ achievements. In general, parents’ occupations are influential in the process of growing up children (Yıldırım, 1997).

This causal comparative research is somewhat limited when compared to experimental studies. It is important to support the findings about primary reading and writing instruction by experimental studies in which different methods are implemented, so longitudinal comparisons can be done. In this study, the effects of method of primary reading and writing instruction and socio-economic status on reading achievement were analyzed. In the follow-up studies, other probable variables such as teachers, students, families and other environmental factors should be investigated. Then, it can be realized which variable can be more interpretative on reading achievement.

References/Kaynakça


