Effect of Using Reflective Diaries in Teaching Turkish on Bilingual Students’ Academic Achievement and Writing Skills

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**ABSTRACT**

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**Purpose:** This study aimed to identify the effect of using reflective diaries in 4th grade Turkish classes on bilingual students’ academic achievement and writing skills.

**Research Methods:** A one-group pretest-posttest design was employed with a study group of 4th graders identified according to convenience sampling method. Data were collected by utilizing the Academic Achievement Test for Turkish Course for measuring students’ academic achievement in Turkish classes in addition to the Writing Skills Scoring Rubric for evaluating students’ written work and writing skills. Both the test and the rubric were developed by the researcher. During the intervention phase of the research, students were asked to write their daily achievements in their reflective diaries for 13 months. Feedback and corrections were provided for these reflective diaries and the effect of reflective diaries on writing skills were explored.

**Findings:** Findings revealed significant relationships between students’ academic achievement and writing skills. There were no significant differences in students’ academic achievement and writing skills in terms of gender.

**Implications for Research and Practice:** Results of the research indicate that using reflective diaries increased bilingual students’ academic success and improved their writing skills irrespective of gender.

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Introduction

The main purpose of language teaching is to improve individuals’ skills in thinking, communication, comprehension, and expression. Achieving the purpose of language training in schools that provide formal education depends on the quality of the curriculum and the effectiveness of teaching and learning process employed in the implementation of that curriculum (Hamzadayi, 2010). The Turkish Language Curriculum prepared by the Turkish Ministry of National Education (MoNE, 2015) aims to ensure that students can communicate, collaborate, make joint decisions, solve problems, read written texts correctly and fluently, get accustomed to reading by employing reading literacy skills, make a habit of writing, and develop writing skills of talented students. Additionally, it is also aimed that students can express their emotions, thoughts, wishes, dreams, ideas, and impressions on a subject using language and following the rules of written expression.

Learning and language are inseparable elements. Writing is crucial for learning especially considering that it is an important learning mechanism which enables exposure, organization and refining of ideas and feelings in addition to expressing them (Graham, 2008). The Turkish Language Curriculum (MoNE, 2015) aims to develop students’ writing skills in order to ensure that students can express their feelings, thoughts, dreams, ideas, and impressions by using the possibilities of language and by complying with the rules of written expression. Additionally, it is also aimed to provide pupils with the habit of expressing themselves through writing and to develop writing skills of talented students. Previous research focused on explaining the writing process, development of writing skills and the effects of different writing practices on the writing process and the nature of the writing act which is developed in this process. (Alamargot & Fayol, 2009; Berninger, Fuller, & Whitaker, 1996; Bereiter & Scragadamalia, 1987; De Beaugrande, 1984; Ellis, 1988; Fayol, 1997; Flower & Hayes 1997; Galbraith, 1999; Hayes, 2011; Margolin, 1984; Martlew, 1983; Segev-Miller, 2004; Tompkins & Jones, 2008; Van Galen, 1991).

The success of students in writing activities is related to their experiences with the writing process. However, writing activities are mostly provided by teachers included in native language classes. They are usually carried out through texts which are selected by the teachers to reflect pupils’ feelings and thoughts on a given topic (Ungan, 2007). Writing activities do not always generate the desired outcome due to the shortcomings in the planning of the writing process and in the organization of the necessary information used in this process. Also, students are not provided with adequate opportunities to correct their errors due to lack of feedback provided to students about the quality of their written products. However, real actions, activities, and situations are required to develop skills rather than abstract rules and explanations (Maden, 2013).

Writing skill is a crucial linguistic ability for expression and may become difficult even for Turkish students who are native speakers, simply because writing skills are not acquired naturally like speaking skills but learned through training (Ozdemir, 2016). Acquiring writing skills can be even more difficult for students if the skill is to
be acquired through a language other than their native tongue. On the other hand, the educational system is responsible for accurate teaching of the national language to all individuals to prevent societal problems caused by inadequate use of language (Sari, 2001). Many studies were conducted in Turkey on various samples to explore the effect of various factors affecting writing skills. However, a study focusing on ways of improving the writing skills of primary school students whose native languages are not Turkish has not yet been conducted.

The literature review demonstrates that materials which enable students to reflect their thoughts and feelings in writing and which help develop their writing skills are compatible with the constructivist approach. These materials are being used in the teaching and learning processes.

Reflective writing materials are tools that allow students to reflect what they learn (Haigh, 2001) and enable them to become aware of themselves and their learning (Thorpe, 2004). In previous studies, researchers referred to these materials by various expressions such as reflective notebooks, reflective diaries, student diaries, science diaries/journals, and study journals (Abali, Ozturk, & Sahin, 2014; Demirci, 2016; Er & Sasmaz Oren, 2015; Guvenc, 2011a; Guvenc, 2011b; Israel, 2007; Langer, 2002; Park, 2003; Stephens & Winterbottom, 2010; Yildirim, 2012). Reflective writing materials are the records that reflect what students accomplish and learn at classes (Haigh, 2000; Nesbit et al., 2004; Uslu, 2009; Wallin & Adawi, 2018, Wormeli, 2004).

Previous research demonstrate that reflective diaries increase student interest towards lessons, enable students to express their perceptions about the learning processes and their own achievements, contribute to the development of sense of responsibility and higher levels of recall, facilitate permanent learning, increase academic achievement, enable self-assessment and develop their writing skills in addition to the benefits for teachers who have the opportunity to monitor student development (Akkuzulu, 2011; Aymen Peker, Tas, Apaydin, & Akman, 2014; Ajello, 2000; Arslan & Ilgin, 2011; Audet, Hickman, & Dobrynina, 1996; Cardak, 2010; Cavus, 2015; Cavus & Ozden, 2012; Demirci, 2016; Duman, 2004; Eker & Arsal, 2014; Eker & Coskun, 2012; Erduran Avci, 2008; Ersozlu & Kazu, 2011; Francis, 1995; Guvenc, 2010; Hasanoglu Tektas, 2004; Karaca, Armagan, & Bektas, 2015; Nesbit et al., 2004; O’Connell, & Dyment; Park, 2003; Polat & Uslu, 2012; Spalding & Wilson, 2002; Tekin Aytas, & Ugurel, 2016; Unrul, 2008; Uslu, 2009; Uline, Wilson & Cordry, 2004).

While students write in their diaries, they can become aware of their learning and their motivation to learn can be positively affected (Duman, 2004). Hence, the academic success of the student may increase (Eker & Arsal, 2014). Reflective diaries are important tools for students to realize that they are learning. They also provide feedback in regards to the impact of teaching activities provided by teachers (Nesbit et al., 2004). As students continue to keep reflective diaries, they will be able to see their mistakes and have the opportunity to correct them by the help of feedback provided on the diaries (Polat & Uslu, 2012).

The outcomes provided by reflective diaries overlap with the outcomes foreseen for Turkish writing since reflective diaries allow students to structure their learning
process by having them reflect on what they have learned during classes (Arslan & Ilgin, 2011). Reflective diaries, utilized by students to express in their own words what they have learned during the class and immediately after classes, are used in developing students’ writing skills. Reflective writing diaries provide students with opportunities to take responsibility for their learning in generating knowledge and ensuring permanent learning rather than solely being the receivers of information. Therefore, this study examined the effect of reflective materials on bilingual students’ academic achievement and writing skills. It is believed that this study will contribute to the literature and help classroom teachers and Turkish teachers in teaching writing skills to students with native languages other than Turkish.

This study aimed to identify the effect of using reflective diaries in 4th grade Turkish classes on bilingual students’ academic achievement and writing skills. In this framework, answers were sought to the questions listed below:

Does the use of reflective diaries in 4th-grade Turkish classes affect bilingual students’ academic achievement and writing skills?

In regards to Turkish instruction provided by using reflective diaries;

1. “What is the relationship between pre- and post- achievement test scores and pre- and post- writing skill scores of bilingual 4th graders?”
2. Is there a significant relationship between achievement test pretest and posttest results of bilingual 4th graders?
3. Is there a significant relationship between writing skills pretest and posttest results of bilingual 4th graders?
4. Are the achievement test pretest and posttest results and writing skills pretest and posttest results of bilingual 4th graders significantly differ in terms of gender?

Method

Research Design

This study utilized a one-group pretest-posttest quasi-experimental design for examining the effect of using the reflective diary in Turkish course on bilingual students’ academic achievement and writing skills. There were two 4th grade groups: 4-A and 4-B in the school where the study was conducted. The first researcher was the classroom teacher of 4-B. The study was initially intended to be designed as experimental research with pre-test and post-test control group. However, it was decided to employ one-group pre-test-posttest design because of the change of teacher in 4-A, which was designated as the control group. The new teacher of 4-A was a non-education major temporary substitute teacher. The teacher is a very important factor in the teaching process. Since research findings might be affected by the difference in the competences and qualifications of teachers, the experimental design was dropped in favor of one-group pretest-posttest quasi-experimental design.
Research Sample

The study group was determined based on convenient sampling technique. The first researcher was the classroom teacher of class 4-B in Semdinli district of Hakkari province, where the native language of some students is not Turkish. Class 4-B consisted of 14 students (seven female and seven male). These students could not speak Turkish when they enrolled in primary school. They usually experienced the Turkish language first on the TV or in kindergarten. These bilingual students speak their native languages in their daily lives and begun to use Turkish only after a period of time studying in primary school. In the first year of her career, the researcher organized Turkish teaching activities on 3rd graders based on the curriculum but she observed that her students did not even have the outcomes they were supposed to have in earlier grades (1st and 2nd), they had difficulty in regards to writing skills, and the problem related to lack of writing skills was reflected in other classes as well. Her reflections made her realize that students needed a more student-centered practice to learn writing by practicing their writing skills. Hence the researcher determined to conduct her research with this specific group.

Research Instruments and Procedures

Academic Achievement Test for Turkish Course and the Writing Skills Scoring Rubric were used in the study as data collection tools.

Academic Achievement Test for Turkish Course. Academic Achievement Test for Turkish Course was developed to measure the achievement level of primary school 4th graders in Turkish classes. To ensure content validity for the instrument, a table of specifications was prepared by using Bloom’s taxonomy revised by experts (Anderson, 1999).

Table 1 represents the level of outcomes in terms of the cognitive process in Bloom’s revised taxonomy.
Table 1.
Outcomes in Bloom’s taxonomy.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Steps in Cognitive Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of questions</td>
</tr>
<tr>
<td></td>
<td>Remembering</td>
</tr>
<tr>
<td>Uses punctuation marks accurately and appropriately.</td>
<td>9</td>
</tr>
<tr>
<td>Uses orthographic rules in writing.</td>
<td>7</td>
</tr>
<tr>
<td>Uses appropriate conjunctions when expressing emotions and thoughts</td>
<td>6</td>
</tr>
<tr>
<td>(for instance: but, and, or, for example, especially, for, because, for</td>
<td>result, more than …, as much as).</td>
</tr>
<tr>
<td>Identifies emotional or exaggerated elements in what he/she reads</td>
<td>2</td>
</tr>
<tr>
<td>Identifies between real and imaginary expressions.</td>
<td>1</td>
</tr>
<tr>
<td>Distinguishes the meanings of homonymic words.</td>
<td>1</td>
</tr>
<tr>
<td>Distinguishes synonyms and antonyms.</td>
<td>2</td>
</tr>
<tr>
<td>Distinguishes the real, metaphorical and operand meanings of words.</td>
<td>3</td>
</tr>
<tr>
<td>Derives words by using suffixes and prefixes.</td>
<td>6</td>
</tr>
<tr>
<td>Uses different types of words appropriately in writing.</td>
<td>7</td>
</tr>
<tr>
<td>Divides the words at the end of a line with a hyphen appropriately.</td>
<td>3</td>
</tr>
<tr>
<td>Identifies the main emotions in poems.</td>
<td>1</td>
</tr>
<tr>
<td>Selects appropriate titles for texts.</td>
<td>1</td>
</tr>
<tr>
<td>Uses various types of vocabulary in writing.</td>
<td>3</td>
</tr>
<tr>
<td>Uses portrayals and descriptions in writing.</td>
<td>1</td>
</tr>
<tr>
<td>Writes meaningful and grammatical sentences.</td>
<td>1</td>
</tr>
</tbody>
</table>

The achievement test included 58 items selected according to the extent of how wide the topics are covered. To ensure construct validity, the test was implemented on 120 5th graders with the supposition that they had the same outcomes the year before. After the piloting, the test was descriptively analyzed, and item difficulty index, item
discrimination index, variance, skewness, and kurtosis values were calculated for each item on the test. Table 2 depicts the results of the descriptive analysis for the test.

**Table 2.**

*Descriptive Analysis for the Achievement Test.*

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>117</td>
</tr>
<tr>
<td>Mean</td>
<td>30,4444</td>
</tr>
<tr>
<td>Median</td>
<td>29,0000</td>
</tr>
<tr>
<td>Mode</td>
<td>29,00</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>12,41970</td>
</tr>
<tr>
<td>Variance</td>
<td>154,249</td>
</tr>
<tr>
<td>Skewness</td>
<td>,196</td>
</tr>
<tr>
<td>Standard Error of Skewness</td>
<td>,244</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-1,159</td>
</tr>
<tr>
<td>Standard Error of Kurtosis</td>
<td>,444</td>
</tr>
<tr>
<td>Range</td>
<td>45,00</td>
</tr>
<tr>
<td>Minimum</td>
<td>10,00</td>
</tr>
<tr>
<td>Maximum</td>
<td>55,00</td>
</tr>
</tbody>
</table>

As Table 2 depicts, skewness, and kurtosis coefficients were close to 0. Additionally, mode, median, and mean values were very close to each other.

**Figure 1. Histogram of Achievement Test.**
The histogram for an ideal distribution should be symmetrical. The mode, median, and mean values were very close to each other as shown in Table 2 and Figure 1. Also, the histogram of the distribution was neither too sharp nor too kurtic. An opinion can be formulated on the data based on the proximity of skewness and kurtosis coefficients to 0 (Can, 2013). With the help of all these values, the distribution can be interpreted as ideal.

Item difficulty index (Pj) points to the percentage of respondents who provided correct answers. Because a participant can answer all items correctly, or no one can answer the item, item difficulty index values are in the range of [0, 1]. Item discrimination index (Rj) indicates the extent to which success on an item corresponds to success on the whole test and it is the correlation between item scores and test scores. Item discrimination index can take values between [-1, +1] (Baykul, 2015). Negative values mean that the participants who received low scores from the test answered the item correctly whereas high scores mean the participants who received high scores from the test answered the item correctly. Since such items would not serve the purpose of the test, the items with negative item discrimination index values were excluded from the Academic Achievement Test for Turkish Course. After these items were excluded, the item difficulty index and item discrimination index were calculated to be 0.54 and 0.57 respectively. After these evaluations, the final form of Academic Achievement Test for Turkish Course was used with 54 items. KR-20 reliability coefficient, which is known as the internal consistency coefficient after the application, was found to be 0.986. These values indicate that the prepared test had moderate difficulty, was distinctive, and reliable. Table 3 displays the results of item analysis for some questions.

Table 3.

*Item Analysis of Some of the Questions Included in the Achievement Test.*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Group</th>
<th>A</th>
<th>B*</th>
<th>C</th>
<th>D</th>
<th>Pj</th>
<th>Rj</th>
<th>Sj</th>
<th>skewness</th>
<th>kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upper</td>
<td>1</td>
<td>30</td>
<td>2</td>
<td>0</td>
<td>0,50</td>
<td>0,81</td>
<td>0,91</td>
<td>0,57</td>
<td>-0,49</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Upper</td>
<td>31</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0,51</td>
<td>0,90</td>
<td>1,57</td>
<td>0,86</td>
<td>-0,62</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>2</td>
<td>11</td>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Upper</td>
<td>1</td>
<td>31</td>
<td>0</td>
<td>0</td>
<td>0,64</td>
<td>0,65</td>
<td>0,65</td>
<td>1,17</td>
<td>1,82</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* *: Correct answer for the item. Pj: item difficulty index; Rj: item discrimination index; Sj: variance.
Writing Skills Scoring Rubric. The rubric was developed to evaluate 4th graders’ texts written before and after the treatment in terms of writing skills. Scoring rubrics are tools that help identify the criteria for specific outcomes and the levels for these outcomes from perfect to weak (Goodrich, 2001). They allow teachers to be more objective in evaluating students (Kutlu, Dogan, & Karakaya, 2010, p. 53) because they provide opportunities to monitor what areas need improvement and to observe successful areas (Aslanoglu, 2003).

According to Moskal (2000) and Goodrich (2000), the steps in developing a scoring rubric are as follows: identifying a goal in line with the expected competencies, listing criteria based on these competencies, determining the levels for these criteria, making decisions as to which type of scoring will be used, providing students information about the rubric, implementing the treatment and scoring it based on the rubric, giving feedback to students about the results and making corrections.

Writing goals of Writing Skills Scoring Rubric correspond to outcomes determined in Turkish Language Curriculum for 1st to 4th grades (MoNE, 2015). Writing outcomes that cannot be measured in a single intervention like the one used in this study, which require a lengthier process, were not included in the evaluation. Criteria were determined to assess the acquisitions. Expert opinion was sought after preparing the outcomes in order to ensure content validity. The rubric consists of three parts. The first part consists of expressions related to grammar; the second part consists of expressions related to the text, and the third part consists of expressions related to the appearance/view of the text.

The rubric has been organized according to the scoring system in which the following levels are identified: “highly inadequate (1)”, “inadequate (2)”, “partially adequate (3)”, “adequate (4)”, “highly adequate (5) for each writing acquisition. There are two types of scoring rubrics: holistic and analytic. Holistic scoring rubrics allow holistic performance assessment without separately evaluating parts of the performance (Nitto as cited in Bekiroğlu, 2008). For example, when teachers are to score compositions with holistic scoring rubrics, they should decide how many points will be given to the whole text by taking the criteria into consideration (Kutlu, Dogan, & Karakaya, 2010).

Analytic scoring rubrics are usually used where a single response needs deep focus (Nitto as cited in Mertler, 2001). Analytic scoring rubrics are more specific compared to holistic scoring rubrics and provide opportunities for more in-depth evaluations. Therefore, Writing Skills Scoring Rubric was developed as an analytic scoring rubric. Thus, the texts and reflective diaries written by students were scored in more detail. According to the scoring rubric, a student can receive a minimum of 19 points and a maximum of 95 points. The opinions of five experts were consulted to determine how much the graded scoring key corresponds to the items. One professor, three associate professors and one assistant professor comprised the expert board. All experts were working in the field of Turkish education. The CGI value (0.95), which was calculated according to Lawshe (1975) technique, exceeded the criteria for a minimum value of content validity (0.87) that Wilson, Pan, and Schumsky (2012) determined for five
Accordingly, the content validity of the analytical grade scoring key of Writing Skills Scoring rubric was considered to be statistically significant.

First of all, Spearman's rank correlation coefficient \( r \) was used to analyze inter-rater reliability in the analyses where students’ writing skills scores were used in order to determine the reliability of the scores provided by the researcher. Table 4 depicts the results of Spearman’s rank correlation coefficients used for observing the interrater reliability of Writing Skills Scoring.

**Table 4.**

<table>
<thead>
<tr>
<th></th>
<th>Spearman</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rater1pre – Rater2pre</td>
<td></td>
<td>( r )</td>
<td>( .958^{**} )</td>
<td>( p )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rater1post – Rater2post</td>
<td></td>
<td>( r )</td>
<td>( .955^{**} )</td>
<td>( p )</td>
</tr>
</tbody>
</table>

\( ** p<.01 \)

Spearman’s rank correlation coefficient values varied between -1 and +1. When the correlation coefficient value approaches +1, the relationship in the positive direction increases and this indicates that variables increase or decrease at the same time (Kilmen, 2015). The finding that the correlation coefficient for teacher scores was greater than 0.70 shows high-level consistency between teachers (Kutlu, Dogan, & Karakaya, 2010, p. 85). As Table 4 shows, there was a high-level positive correlation between raters.

**Data Collection**

The study started after obtaining the necessary permissions from the Hakkâri Provincial Directorate of National Education. At the outset of the intervention process, the validity and reliability studies were conducted for an academic achievement test and writing skills scoring rubric. Finalized form of Writing Skills Scoring Rubric was given to study group students as the pretest. Students were asked to write about “Summer Holiday” for the pretest which aimed to measure students’ writing skills and the texts written by students were scored with the rubric by two classroom teachers one of whom was the researcher.

After the pretest, based on the treatment schedule; students wrote in their reflective diaries for a full class hour on a weekly basis each Thursday after the lesson was completed. As Maden (2013) stated, reflective diaries should be written at certain intervals. Reflective diaries were examined by the researcher on the evening of the day they were written and returned to students the next day to read what they had written accompanied by the teacher. Students were asked to think about their errors and they were provided opportunities to reflect on their mistakes. Students then were given the
necessary feedback and asked to control and correct their mistakes. The points they should take into consideration in their next writing were explained. Reflective diaries were evaluated by different teachers each week. The intervention lasted 13 weeks excluding the pretest and posttest sessions.

Writing Skills Scoring Rubric was given to study group students as a posttest. Students were asked to write about “Their Dreams” in the context of the posttest to measure their writing skills. Posttest can be implemented with the same measurement tool used in pretest or with a similar measurement tool in the same format (Buyuksokturk, 2016). Since the focus in the study was not the content but whether students could reflect on their writing skills, students were given a different topic during the posttest. Student texts were scored with the help of the Writing Skills Scoring Rubric by two teachers.

Data Analysis

According to literature, techniques that do not depend on the distribution should be selected in cases when the researcher is not sure whether the requirements for parametric techniques are met since impartance in hypotheses may increase in parametric tests when sample size decreases in small scale samples (when it is less than 30) (Akdag, 2011; Gamgam, 1989; Sipahi, Yurtkoru, & Cinko, 2008). For this reason, non-parametric techniques were preferred in all analyzes.

Results

Findings related to First Sub-Problem

Table 5 depicts the findings with regards to the following question: “What is the relationship between pre- and post- achievement test scores and pre- and post-writing skill scores of bilingual 4th graders?”

Table 5.
Correlations Between Achievement Test Pretest and Posttest And Writing Skills Pretest and Posttest.

<table>
<thead>
<tr>
<th></th>
<th>Test pretest total</th>
<th>Test posttest total</th>
<th>Writing Pretest Total</th>
<th>Writing Posttest Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST Pretest</td>
<td>1,000</td>
<td>,800**</td>
<td>,850**</td>
<td>,833**</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>,001</td>
<td>,000</td>
<td>,000</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>TEST Posttest</td>
<td>1,000</td>
<td>,898**</td>
<td>,954**</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>,000</td>
<td>,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Writing Pretest</td>
<td>1,000</td>
<td></td>
<td>,948**</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>,000</td>
<td>,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Writing Posttest</td>
<td></td>
<td></td>
<td></td>
<td>1,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

**. p<.01
It was observed that there were strong significant correlations between academic achievement and writing skills. The positive correlations between pretest academic achievement score and both pre- and post- writing skill scores indicate that; those higher-achieving bilingual 4th graders have stronger writing scores and benefit more from the treatment. Moreover, those bilingual 4th graders who increase their academic achievement during the semester, seem to benefit even more from the treatment. This may also indicate that reflective diaries may contribute to the academic achievement of the students.

Findings Related to the Second Sub-Problem

Table 6 displays the findings related to the research question “whether there was a statistically significant relationship between achievement test pretest and posttest results of bilingual 4th graders”.

Table 6. 
Students’ Pretest and Posttest Scores Attained From The Achievement Test.

<table>
<thead>
<tr>
<th>Test posttest total</th>
<th>N</th>
<th>Mean rank</th>
<th>Rank sum</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative rank</td>
<td>1</td>
<td>2.00</td>
<td>2.00</td>
<td>-3.173</td>
<td>.002</td>
</tr>
<tr>
<td>Positive rank</td>
<td>13</td>
<td>7.92</td>
<td>103.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Testposttesttotal<Testpretesttotal  
b. Testposttesttotal > Testpretesttotal  
c. Testposttesttotal = Testpretesttotal  
d. Dependent on negative rank

Table 6 shows that the level of significance (p) for Z value obtained as a result of the Wilcoxon Signed Ranks Test was lower than 0.05. Accordingly, there was a significant difference between students’ pre and posttest achievement scores. According to this finding, it can be said that there was a significant increase in the academic achievement of students (z = -3.173; p<0.05). This may also indicate that writing diaries may contribute to the academic achievement of the students. Since negative rank was 1, and the positive rank was 13, all except one student had an increase in their posttest scores (Kilmen, 2015, p. 249).

Findings Related to the Third Sub-Problem

Table 7 represents the findings related to the research question “whether there was a statistically significant relationship between writing skills pretest and posttest results of bilingual 4th graders.”

As Table 7 points out, the level of significance (p) for Z value obtained as a result of the Wilcoxon Signed Ranks Test was lower than 0.05. Accordingly, there was a significant difference between students’ pre and post-test scores related to writing skills (z= -3.29; p<0.05). This may also indicate that writing diaries may contribute to
the writing skills of the students. Since negative rank was zero and positive rank was 14, all students had an increase in their posttest scores (Kilmen, 2015, p. 249).

Table 7.
Students’ Pretest and Posttest Scores Attained From The Writing Skills Test.

<table>
<thead>
<tr>
<th>Writing/Posttest total - Writing/Pretest total</th>
<th>N</th>
<th>Mean rank</th>
<th>Rank sum</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative rank</td>
<td>0a</td>
<td>.00</td>
<td>.00</td>
<td>-3.297d</td>
<td>.001</td>
</tr>
<tr>
<td>Positive rank</td>
<td>14b</td>
<td>7.50</td>
<td>105.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>0c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Writing/Posttest total < Writing/Pretest total
b. Writing/Posttest total > Writing/Pretest total
c. Writing/Posttest total = Writing/Pretest total
d. Dependent on negative

Findings Related to the Fourth Sub-Problem

Table 8 depicts the findings related to the research question “whether the bilingual 4th grader’s achievement test pretest and posttest results and writing skills pretest and posttest results statistically significant in terms of gender”.

As shown in Table 8, there were no significant differences between the pre and posttest scores of students in the achievement test and writing skills based on gender (p > 0.05). As shown in Table 8, the mean scores of female students were higher than those of male students, but this difference was not found to be significant. According to this finding, it can be said that the course diaries may be contributing to an increase in the academic achievement and writing skills of students irrespective of gender.

Table 8.
Gender-based Difference Between Students’ Achievement Test Pretest and Posttest Scores and Their Writing Skills Pretest and Posttest Scores.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean rank</th>
<th>Rank sum</th>
<th>U</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Pre Total</td>
<td>1.00</td>
<td>7</td>
<td>8.21</td>
<td>57.50</td>
<td>19.500</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>7</td>
<td>6.79</td>
<td>47.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Post Total</td>
<td>1.00</td>
<td>7</td>
<td>9.64</td>
<td>67.50</td>
<td>9.500</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>7</td>
<td>5.36</td>
<td>37.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing Pre Total</td>
<td>1.00</td>
<td>7</td>
<td>8.57</td>
<td>60.00</td>
<td>17.000</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>7</td>
<td>6.43</td>
<td>45.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing Post Total</td>
<td>1.00</td>
<td>7</td>
<td>9.14</td>
<td>64.00</td>
<td>13.000</td>
</tr>
<tr>
<td></td>
<td>2.00</td>
<td>7</td>
<td>5.86</td>
<td>41.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 1 (female students) and 2 (male students).
Discussion, Conclusion, and Recommendations

The findings of the study showed that, that there was a high level of relationship between students’ pre-test and post-test scores in the achievement test and in the writing test. According to this finding, reflective diaries may contribute to the academic achievement of the students. While students write in their diaries, they may become aware of their learning, and their learning motivation can be positively affected (Duman, 2004). Therefore, academic success may increase (Eker & Arsal, 2014). Accordingly, it can be said that writing skills increase when students learn Turkish better. It can also be argued that expressing their feelings, thoughts, and impressions may affect students’ achievement positively. Studies in the literature related to this field support these findings as well (Yorusun, 2013; Tekin, Aytaş, & Ugurel, 2016).

The second finding of the study points to a significant difference between students’ achievement test pre and post-test scores in favor of post-test scores. The reason for the difference may be the fact that students in the study kept their own learning process under control by writing a reflective diary. They reviewed the topics of study and their learning was supported by feedback and corrections. This result is in parallel with the studies which examined the effect of reflective diaries on student achievement (Akkuzulu, 2011; Arslan & Ilgin, 2011; Demirci, 2016; Dunlap, 2006; Eker & Arsal, 2014; Eker & Coskun, 2012; Ersozlu & Kazu, 2011; Guvenc, 2010; Hasanoglu Tektas, 2004; Liuoliene & Metiuniene, 2009; Park, 2003).

The third finding of the study indicates a significant difference between students’ writing skills pre and post-test scores in favor of posttest scores. This finding may be associated with the opportunities provided by reflective diaries to enhance learning by writing. Writing is not a skill that can be learned in theory; it requires practice to enhance writing skills. The more students write, and the more they apply rules related to writing in their texts, the more they improve their writing skills. The literature review demonstrates that previous studies (Arslan & Ilgin, 2011; Butler & Nesbit, 2008) obtained results that were parallel with the finding related to this subproblem.

According to the fourth research finding, there were no significant differences based on gender in students’ achievement test and writing skills pretest and posttest scores. This may be because the social environment in which both female and male students are raised and have identical general cultural expectations, upbringing styles, activities, and childcare. The school they attend has an identical approach to both genders in education (Capri & Celikkaleli, 2005). In previous studies which focus on the relationship between gender and academic achievement; while Ipek and Malas (2013) found no gender-related differences between students’ pretest scores in academic achievement test, Coskun (2006) and Erduran Avci (2008) found that students’ written expression skills differ significantly according to gender. Tulu (2009), who examined the factors affecting the language level of bilingual and monolingual students, found that gender affects the language development of bilingual students. On the other hand, it does not affect the language development of monolingual students.
This study aimed to determine the effect of using reflective diaries on students’ academic achievement and writing skills in Turkish courses. Experimental research studies may further be conducted in order to determine the effect of using reflective diaries on students’ reading and verbal communication skills. Further studies can be conducted by using an experimental design with pretest and posttest and control groups in order to better determine whether the use of reflective diaries has an effect on students’ academic achievement and writing skills. Further studies may focus on the relationship of using reflective diaries with different school subjects at different levels. This study was conducted in a single class with a small study group. The same research can be replicated in other provinces from different regions in Turkey with larger study groups.

References


Tulu, Y. (2009). *Ana dili Türkçe olan ve ana dili Türkçe olmayan (iki dili) 4-7 yaş cocukların dil düzeylerine etki eden faktörlerin incelenmesi* [The examination of the factors which affect the language development of children at the age of 4-7 whose native language Turkish and native language not Turkish (bilingual)]. (Yayinlanmamis Yuksek Lisans Tezi). Selcuk Universitesi, Sosyal Bilimler Enstitusu, Konya.


Türkçe Öğretiminde Ders Günlüğü Kullanmanın İki Dilli Öğrencilerin Akademik Başarıları ile Yazma Becerilerine Etkisi

Atıf:
Can, C., & Kutluca-Canbulat, A.N. (2019). Effect of using reflective diaries in teaching Turkish on bilingual students’ academic achievement and writing skills. Eurasian Journal of Educational Sciences, 82, 1-26, DOI: 10.14689/ejer.2019.82.1

Özet


Türkçe Öğretim Programı’nın (MEB, 2015) öğrencilerin çevreleriyle iletişim kurmaları, iş birliği yapmaları, ortak karar vermeleri ve karışıltıkları sorunları çözmelere; yazılı metinleri doğru ve akıcı bir biçimde okuyabilme, okuduklarını değerlendirip okumayı bir alışkanlık haline getirmeleri; duygu, düşünce, istek, hayal, tasarım ve izlenimleri ile bir konu hakkındaki görüşlerini dilin imkânlarından yararlanarak yazılı anlatımı kurallara uygun şeklinde anlatmaları; yazmayı alışkanlığa dönüştürmeleri ve yeteneği olanların bu becerilerini geliştirmeleri gibi amaçları vardır. Bu çalışmada temel dil becerilerinden yazma öğrenme alanının öğretim süreci açısından etkililiği ve öğrenme sürecine olan etkileri ele alınmıştır.


Türkiye’de çeşitli faktörlerin yazma becerisi üzerindeki etkilerinin farklı gruplar üzerinde incelendiği pek çok araştırma yapılmıştır. Ancak anadili Türkçe olmayan
ilkokul öğrencilerinin yazma becerilerini geliştirmeye yönelik yapılan bir çalışmaya rastlanmamıştır.

Alan yazın incelendiğinde öğrencilerin yazma becerisine yönelik kazanımlarla ulaşılabilmesine yönelik olarak yansıtırma materyalleri, yapılandırmacı yaklaşımın öğrencilerden beklentileri ile uyumlu görülmektedir. Öğrencilerin Türkçe başarısı ve yazma becerisinin geliştirilmesi için öğrencilerin kendi öğrenmelerini takip etmeleri ve öğrenmelerini yansıtmalarına fırsat vermesi açısından ders günlükleri uygun bir etkinlik olarak görülmüştür.

**Araştırmaın Amacı:** Bu araştırmayanın amacı, dördüncü sınıf Türkçe dersinde ders günlük kullanımı iki dilli öğrencilerin akademik başarıları ve yazma becerileri üzerindeki etkisini belirlenmektedir.

**Araştırma Yöntemi:** Bu çalışmada tek grup ön test-son test deneysel desen kullanılmıştır. Araştırmının çalışma grubunu kolay ulaşılabilirlik esasına göre belirlenen, araştırmacı tarafından görev yaptığı okula okuttuğu 4. sınıf öğrencileri oluşturmaktadır. Çalışma grubundaki öğrencilerin uygulamaları ve uygulama sonunda Türkçe dersine ilişkin akademik yeterlikleri ve yazma becerilerini belirlemeye yönelik olarak uygulamalar yapılmıştır. Araştırma verileri, öğrencilerin Türkçe dersindeki akademik başarılardan yararlanarak hazırlanan Türkçe Dersi Akademik Başarı Testi ve öğrencilerin yazma becerilerini ölçmek amacıyla araştırmacı tarafından geliştirilen Yazma Becerileri Dereceli Puanlama Anahtarı ile toplanmıştır. Araştırmanın uygulama sürecinde, on üç hafta boyunca öğrenciler her ders sonunda ders mektuplarını yansıtan ders günlükleri yazmıştır. Dersler ders günlüklerine ilişkin gerekli dönüştürmelere ve düzeltmeler yapılmıştır. Araştırma verileri, Wilcoxon İşaretli Sıralar Testi, Mann-Whitney U ve Spearman Sıra Farkları Korelasyon Katsayısı testleri ile analiz edilmiştir.

**Araştırma Bulguları:** İki dilli öğrencilerin başarısı testi ön puanları ile son puanları ile yazma becerileri ön ve son test puanları arasında yüksek düzeyde bir ilişki olduğu saptanmıştır. Bu görece, öğrencilerin derslerde, dersi ve zihniyetlerini yazarak ifade etmelerinin başarısını olumlu yönde etkileyebileceği söylenebilir. Öğrencilerin başarı testinden aldıkları ön ve son test puanları arasında son test puanları lehine anlamlı bir fark olduğu sonucuna ulaşılmıştır. Bu farkın sebebi öğrencilerin kendi öğrenme sürecini dersinizi yazarak kontrol altına tutmaları, konuya tekra etmiş olmaları, öğrenmelerinin öğretmenlerinin döndür ve düzenlemelerle dekorlenmesi olabilir. Öğrencilerin yazma becerileri ön ve son testlerden aldıkları ön ve son test puanları arasında son test puanları lehine anlamlı bir fark olduğu sonucuna ulaşmıştır. Ulaşılan bu sonuç, ders günlüklerinin yazmaya yazarak öğrenmenin fırsat vermesi ile ilişkilendirilebilir. Çünkü yazma, teoride öğrenilecek bir beceri değildir. Öğrenciler, ne kadar çok yazarsa ve yazıldıkları bu yazma kurallarından ne kadar çok uygularsa o ölçüde yazma becerilerini kazanabilirler. Öğrencilerin başarı testinden aldıkları ön ve son test puanları ile yazma becerilerinden aldıkları ön ve son test puanlarının cinsiyet açısından anlamlı bir fark olmadığını göstermediği sonucuna ulaşılmıştır. Bunun bulgünün sebebi, hem kız hem de erkek öğrencilerin bulunduğu sosyal çevrenin,
öğrenim gördükleri okulun, yetiştirilme tarzının aynı olması sebebiyle gerek genel kültürel beklenti ve aktivitelerin gerekse de ilgilendikleri doğal aktiviteler ve çocuklar büyütülürken yapılan bakım uygulamalarının benzer olması olabilir (Çapri ve Çelikkaleli, 2005).

**Araştırma Sonucu ve Öneriler:** Bu çalışmada ders günlük yazma etkinliğinin iki dilli öğrencilerin akademik başarılarını artırdığı ve yazma becerilerini geliştirdiği sonucuna ulaşmıştır. Ayrıca öğrencilerin akademik başarlarının ve yazma becerilerinin cinsiyete göre değişkenlik göstermediği saptanmıştır.


**Anahtar Kelimeler:** Türkçe dersi akademik başarı testi, yazma becerileri dereceli puanlama anahtarı, yansıtma materyalleri