



INTERNATIONAL

JOURNAL of HUMAN STUDIES

ULUSLARARASI İNSAN ÇALIŞMALARI DERGİSİ

ISSN: 2636-8641

Cilt/VOLUME 7 Sayı/ISSUE 13 Yıl/YEAR: 2024 ALINDI/RECEIVED: 11-12-2024 – KABUL/ACCEPTED: 25-05-2024

The Effect of Diary Use on Social Studies Course Achievement of Middle School Students

Günlük Kullanımının Ortaokul Öğrencilerinin Sosyal Bilgiler Dersi Başarılarına Etkisi

Tuğba SARITEKİN¹ | Hilmi DEMİRKAYA²

Abstract

In the study, the effect of social studies diary activities applied to seventh grade middle school students on students' social studies achievement was examined. In the research, which was carried out as a quantitative method, static group pretest-posttest design was used from quasi-experimental designs. The study group consisted of 60 middle school seventh grade students. Data were collected with the Social Studies Achievement Test. Descriptive statistics, independent groups t-test and dependent groups t-test statistics

Öz

Araştırmada ortaokul yedinci sınıf öğrencilerine uygulanan sosyal bilgiler günlüğü etkinliklerinin öğrencilerin sosyal bilgiler başarılarına etkisi incelenmiştir. Nicel yöntem şeklinde gerçekleştirilen araştırmada yarı deneysel desenlerden statik grup ön test-son test desen kullanılmıştır. Çalışma grubu toplam 60 ortaokul yedinci sınıf öğrencisinden oluşmaktadır. Veriler, Sosyal Bilgiler Başarı Testi ile toplanmıştır. Nicel verilerin analizinde betimsel istatistikler, bağımsız gruplar t-testi ve bağımlı gruplar t-testi istatistikleri

¹ Tuğba SARITEKİN, Yüksek Lisans, Akdeniz Üniversitesi, Sosyal Bilgiler Eğitimi, saritekintuba396@gmail.com, Orcid: 0009-0005-2582-8220

² Hilmi DEMİRKAYA, Prof. Dr., Akdeniz Üniversitesi, Sosyal Bilgiler Eğitimi, hdemirkaya@akdeniz.edu.tr, Orcid: 0000-0002-4456-580X

were used to analyze the quantitative data. There was no significant difference between the mean pretest achievement scores of the experimental group and the control group. There was also no significant difference between the posttest scores of the experimental and control groups. However, when the experimental and control groups were analyzed within themselves, it was found that there was a significant difference between the pretest and posttest achievement scores of both groups. It was concluded that the posttest achievement scores of the experimental group differed according to gender, whereas the posttest scores of the control group did not differ according to gender.

Keywords: Social Studies, Middle School, Social Studies Lesson Diaries, Success.

kullanılmıştır. Deney grubu ve kontrol grubunun öntest başarı puan ortalamaları arasında anlamlı düzeyde bir fark bulunamamıştır. Deney ve kontrol grubunun sontest puanları arasında da anlamlı düzeyde bir fark bulunamamıştır. Bununla birlikte deney ve kontrol grupları kendi içlerinde incelendiğinde her ikisinin de öntest-sontest başarı puan ortalamaları arasında anlamlı düzeyde fark olduğu tespit edilmiştir. Deney grubunun sontest başarı puanlarının cinsiyete göre farklılaştığı, buna karşın kontrol grubunun sontest puanlarının cinsiyete göre farklılaşmadığı sonucuna ulaşılmıştır.

Anahtar kelimeler: Sosyal Bilgiler, Ortaokul, Sosyal Bilgiler Ders Günlükleri, Başarı.

Introduction³

In contemporary education systems, student course success and the permanence of the education given are not only considered as the main purpose of education, but also as an indispensable necessity of our age. This situation puts individuals' perspective on education in a different way and enables the use of innovative contemporary teaching methods in the field of education. In order for human beings to be able to access information and internalize it correctly, information must be processed permanently by human beings. Active participation in the lesson by keeping a diary, which is one of the more effective and efficient ways of learning, helps students to use what they learn more effectively and to realize education permanently. Participating in class

³ This study is derived from the Master's Thesis presented at Akdeniz University Institute of Educational Sciences in 2023.

by writing daily is effective in improving student achievement in a positive way. Keeping a diary has been effective in increasing student awareness by enabling students to discover their own learning method (Güvenç, 2009).

Among the out-of-school activities included in the 'Social Studies Course Curriculum', which started to be implemented in Turkey in 2005, it was recommended that students keep a diary in order to participate in the lesson (MEB, 2005). Thanks to the diaries kept in the lesson, the student can reveal the information he/she has obtained in his/her own words, and the permanence of the information can be ensured through repetition. Thanks to these diaries, students have the opportunity to ask questions and express their feelings and thoughts correctly by repeating and writing down what they have understood (Arslan, 2010).

Lesson journals are considered as written documents in which students express their feelings and thoughts, research, brainstorming, writing, questioning, experiments, observations, suggestions, etc. during the learning process (Uslu, 2009). Course diaries reflecting learning experiences enable students to take an active part in the learning process. Lesson journals enable students to monitor their own learning and reflect their thoughts in the best way (Wormeli, 2004). The child who writes a diary writes down in his/her own words what he/she has learned in the lesson and has the opportunity to go back and evaluate himself/herself by examining what he/she has written. Students can get direct feedback about the course of the lesson by keeping journals. The teacher checks the journals and gives feedback to the students, helping them to formulate their ideas about the topic correctly (Walker, 2003).

Lesson journals enable the reflection of the student's individual observations and the benefit to the student in the activities carried out in the classroom (Unrau, 2008). Students can track their own achievements through the diaries they keep (Wiggins, 1989). Regularly writing a lesson diary is a great help in developing a sense of responsibility in the student and increasing the rate of information retention. In addition, lesson journals enable students to identify their learning objectives and to see their goals clearly (Audet, Hickman, & Dobrynina, 1996).

By keeping a diary, students rephrase the information they have acquired in their own words and have the opportunity to organize the thoughts they express (Rossi, 2004). Students write their thoughts and feelings freely and in their own words in their diaries. Since keeping a diary increases problem solving and critical thinking skills, it helps individuals develop reflective learning skills (McLeod & Maimon, 2000). Journal writing in class helps students to progress in the cognitive domain (Audet, Hickman, & Dobrynina, 1996).

Students confront their own ideas by freely writing their thoughts and feelings in their diaries in their own words, without any limitations, thanks to the information they have learned

in the lesson. By writing in a diary, the student has the opportunity to understand his/her own progress and what and how he/she is learning. By becoming aware of their own learning level in relation to the subject they have learned, they have the opportunity to see where they have gone wrong and where they need to improve by seeing their positive or negative performances. Lesson journals offer the opportunity to review one's own performance and correct mistakes in a timely manner. Keeping a journal in a lesson is to record the information learned and to repeat the lesson. For this, journals kept in class facilitate learning (Moon, 2010).

Education is a process in which students and teachers actively participate in the learning process. The time period we are in has revealed with all its reality that we have to keep up with the changes occurring in the education and training process. It is known that the tools and materials used during education increase the participation in the lesson and have a positive effect on the academic success of the student. It is known that the tools used during education have contributions such as supporting teaching, being active during education, making information usable and making education permanent (Halis, 2002).

Diaries can be considered as one of the tools used to increase efficiency during educational activities. The use of diaries in education made students more active in the lesson, provided them with the opportunity to express what they learned in their own words, and made learning permanent with the visuals drawn by the diaries during the lesson. Scientific research on the use of journaling in the educational process has been quite insufficient in our country. In addition, studies have been conducted on science education by keeping science diaries (Çardak, 2010; Polat & Uslu, 2012; Aydın, 2014; Cengiz & Karataş, 2014).

Research on the contributions of journaling to social studies education is also quite limited. This study is of great importance in terms of eliminating this limitation in the field of social studies education and contributing to the related field. The aim of the study is to investigate the effect of the use of diary in social studies course on the academic achievement of seventh grade middle school students in social studies course.

In line with this main objective, answers to the following questions were sought;

1. Is there a significant difference between the pretest scores of the students in the experimental group and the control group in the academic achievement test for the social studies course?
2. Deney grubu öğrencileri ile kontrol grubu öğrencilerinin sosyal bilgiler dersine akademik başarı son test puanları arasında anlamlı bir fark var mıdır?
3. Is there a significant difference between the achievement test pre-test and post-test mean scores of the experimental group students?

4. Is there a significant difference between the achievement test pre-test and post-test mean scores of the control group students?
5. Do the post-test achievement test scores of the experimental group students differ significantly according to gender?
6. Do the post-test achievement test scores of the control group students differ significantly according to gender?

METHOD

Research Design

In this study, a quasi-experimental design with pretest - posttest and control group and experimental group was used. Pre-tests were administered before the implementation of the social studies lesson diaries and post-tests were administered at the end of the training program (Serttaş & Demirkaya, 2021). The independent variable of the study was the social studies course diaries and the dependent variable was the students' level of knowledge about the social studies course. The pre-tests applied to the groups before the applications in the model helped to determine the similarity levels of the groups before the experiment and the post-tests helped to interpret the results (Karasar, 1995).

Working Group

The data of this study were obtained from a total of 60 seventh grade students studying in two different branches of Ersoy Secondary School in Kepez District of Antalya province in the 2017-2018 academic year. In determining the experimental and control groups, the data obtained from the academic achievement pre-test scores of the subject within the scope of the research and the opinions of the social studies course teachers were utilized. There were 31 students (11 male, 20 female) in the experimental group and 29 students (9 male, 20 female) in the control group.

Measurement Tools

Social Studies Achievement Test: The social studies achievement test, from which quantitative data were collected, consisted of 20 questions and took approximately 30 minutes to complete. The achievement test was prepared for the "Communication and Human Relations" unit, which is Unit 1 of the 7th grade social studies course. The social studies achievement test was administered to both the experimental group students and the control group students twice, before and after the program.

Social Studies Course Diaries: These are the writings in which students write their thoughts about their feelings, perceptions and impressions in the social studies course. In this context, students were asked to keep diaries on 4 different dates on 25.09.2017, 28.09.2017, 03.10.2017 and 11.10.2017.

Normality Distribution of Data

Before analyzing the data of the experimental and control groups, normality values of the data were examined. The pre-test and post-test scores of the students in the study group were subjected to normality analysis according to both experimental and control groups and gender. The normality test data of the pre-test and post-test scores of the students in the study group are as follows.

Table 1. Normality values according to pretest and posttest scores of experimental and control groups

| Tests | Groups | Shapiro- Wilk | Skewness | Kurtosis |
|-----------|------------|---------------|----------|----------|
| Pre-test | Experiment | ,425 | -,527 | ,320 |
| | Control | ,108 | -,305 | -,820 |
| Post-test | Experiment | ,000 | -,988 | -,130 |
| | Control | ,000 | -1,554 | 1,930 |

When Table 1 is evaluated, the skewness and kurtosis coefficients are between +1.5 and -1.5. This result shows that the data meet the normality values (Tabachnick & Fidell, 2015). In addition, it was found that Shapiro-Wilk values were not significant at the 0.05 level. This shows that the data are normally distributed ($p>0.05$).

Data Analysis

In the study, pre-test and post-test were applied to both experimental and control groups. In the analysis of the data, t-test, arithmetic mean (\bar{x}), standard deviation (SD), frequency (f), percentage (%) were used.

Results

Results Related to the First Sub-Problem

Independent sample t-test was applied to determine whether there was a significant relationship between the pretest mean scores of the experimental and control groups. There was no significant relationship between the pre-test mean scores of both groups. This situation is important for the continuation of the study. The results of the analysis are as follows.

Table 2. Independent sample t-test results for the pretest achievement test scores of the experimental and control groups

| Groups | N | \bar{X} | S | sd | T | P |
|------------|----|-----------|------|----|-------|------|
| Experiment | 31 | 14,45 | 3,22 | 58 | -,810 | ,421 |
| Control | 29 | 15,10 | 3,99 | | | |

*p>0.05

When Table 2 is evaluated, no significant relationship was found between the mean pre-test score of the students in the experimental group (\bar{X} =14.45) and the mean pre-test score of the students in the control group (\bar{X} =15.10).

Results Related to the Second Sub-Problem

Independent sample t-Test was applied to determine whether there was a significant relationship between the post-test mean scores of the experimental and control groups. The results of the analysis are as follows.

Table 3. Independent sample t-test results for the post-test achievement test scores of the experimental and control groups

| Groups | N | \bar{X} | S | sd | t | P |
|------------|----|-----------|------|----|-------|------|
| Experiment | 31 | 17,00 | 3,44 | 58 | -,626 | ,534 |
| Control | 29 | 17,52 | 2,91 | | | |

*p<0.05

When Table 3 is evaluated, the mean post-test score of the experimental group for the achievement test (\bar{X} =17,00) was higher than the mean post-test score of the control group for the achievement test (\bar{X} =17,52). Despite this difference, there was no significant relationship between the mean scores of the experimental group on the achievement test and the mean scores of the control group on the achievement test in favor of the experimental group.

Results Related to the Third Sub-Problem

In order to determine whether there was a significant relationship between the pre-test and post-test mean scores of the students in the experimental group, dependent sample within groups t-test was applied. The information obtained as a result of the analysis is as follows.

Table 4. Dependent t-test results for pretest-posttest achievement test scores of the experimental group

| Tests | N | \bar{X} | S | sd | t | P |
|-----------|----|-----------|---------|----|---------|------|
| Pre-test | 31 | 1,00 | ,00000 | 30 | -23,236 | ,000 |
| Post-test | 31 | 14,45 | 3,22324 | | | |

*p<0.05

When Table 4 is evaluated, the mean pre-test score of the experimental group ($\bar{X}=1,00$) was lower than the mean post-test score ($\bar{X}=14,45$). According to the results of the analysis, there was a significant relationship between the pre-test and post-test mean scores of the experimental group in favor of the post-test, therefore, it can be said that the use of course journals in social studies lessons has a positive effect on student achievement.

Results Related to the Fourth Sub-Problem

In order to determine whether there was a significant relationship between the pre-test and post-test mean scores of the students in the control group, t-test within dependent sample groups was applied. The results of the analysis are as follows."

Table 5. Dependent t-test for pretest-posttest achievement test scores of the control group

| Tests | N | \bar{X} | S | sd | t | P |
|-----------|----|-----------|------|----|---------|------|
| Pre-test | 29 | 2,00 | ,00 | 28 | -23,583 | ,000 |
| Post-test | 29 | 15,10 | 2,99 | | | |

*p<0.05

When Table 5 is evaluated, the pre-test mean score ($\bar{X}=2,00$) of the control group for the achievement test was lower than the post-test mean score ($\bar{X}=15,10$). According to the results of the analysis, it can be said that there is a significant relationship between the pre-test and post-test mean scores of the control group in favor of the post-test.

Results Related to the Fifth Sub-Problem

An independent sample t-test was conducted to examine whether there was a significant relationship between the post-test mean scores of the experimental group according to gender.

Table 6. Independent sample t-test results of the post-test achievement test scores of the experimental group according to gender

| Grups | N | \bar{X} | S | sd | t | P |
|--------|----|-----------|------|----|-------|------|
| Female | 18 | 18,06 | 2,46 | 29 | 2,121 | ,043 |
| Male | 13 | 15,54 | 4,16 | | | |

*p<0.05

When Table 6 is evaluated, it is seen that the mean post-test score of the experimental group for females (\bar{X} =18,06) is higher than the mean post-test score of males (\bar{X} =15,54). It was found that there was a significant relationship between the mean scores of women on the achievement test and the mean scores of men on the achievement test in favor of women.

Results Related to the Sixth Sub-Problem

An independent sample t-test was conducted to examine whether there was a significant relationship between the post-test mean scores of the control group according to gender.

Table 7. Independent sample t-test results of the post-test achievement test scores of the control group according to gender

| Groups | N | \bar{X} | S | sd | T | P |
|--------|----|-----------|------|----|-------|------|
| Female | 18 | 18,11 | 2,27 | 27 | 1,432 | ,164 |
| Male | 11 | 16,55 | 3,64 | | | |

*p<0.05

When Table 7 is evaluated, it is seen that the mean post-test score of women (\bar{X} =18,11) is higher than the mean post-test score of men (\bar{X} =16,55). It was found that there was a significant relationship between the mean scores of women on the achievement test and the mean scores of men on the achievement test in favor of women.

Conclusion, Discussion and Recommendations

Conclusion and Discussion

Lesson diaries were used in the middle school social studies course, and an achievement test on the unit 'Communication and Human Relations' was applied to the 7th grade students before and after the program. The mean achievement test scores obtained before and after the implementation of the program were analyzed in the SPSS package program. The results of the analysis of the data and the discussions made in the light of the relevant literature are given below. There was no significant difference between the pre-test mean scores of the students in the experimental and control groups in the social studies course achievement test. The mean

scores of the experimental and control groups were close to each other before the experimental procedure.

There was no significant difference between the post-test mean scores of the students in the experimental and control groups in the social studies course achievement test. In this case, it was concluded that the lesson diaries applied to 7th grade middle school students were not effective on students' achievement scores in the social studies course. This result contradicts the result of Şahin's (2019) study in which the experimental group was found to be significantly more successful than the control group in keeping a course diary about learning activities in teaching the 'our country and the world' unit. A similar situation is also valid for the results of Günel, Kabataş Memiş, and Büyükkasap (2009), Eker and Coşkun (2012), Çavuş (2015), and Ay and Başbüyük (2018)'s studies on writing activities aimed at learning.

There was a significant difference between the pre-test/post-test mean scores of the students in the experimental group in favor of the post-test. This result shows that the lesson diaries applied to the students in the experimental group significantly affected the post-test mean scores of the students compared to their pre-test mean scores. A similar result was found to be consistent with the result of Şahin (2019), in which a significant difference was obtained in favor of the posttest in the study in which the pretest-posttest achievement scores of the experimental group students were compared. Based on this result, it can be concluded that writing a lesson diary applied to students in the social studies course positively affects student achievement.

It was revealed that the mean scores of the 7th grade secondary school students in the control group on the social studies achievement test applied to them before and after the experimental procedure differed significantly in favor of the post-test. This result shows that the post-test achievement test mean scores of the students in the control group, as well as in the experimental group, differ significantly compared to the pre-test mean scores. This result was found to be parallel to the result of Şahin (2019), in which the effect of the lesson diary, one of the writing activities aimed at learning in social studies education, on success was examined and a significant difference emerged between the pretest and posttest success scores of the control group in favor of the posttest.

It was concluded that the post-test success score averages of the students in the experimental group differed significantly in favor of the female students. There was no significant difference between the post-test achievement scores of male and female students in the control group.

This result is in line with the conclusion of Can (2017)'s study examining the effect of daily printing on student achievement in Turkish teaching, that the academic achievement posttest

scores of the students did not differ significantly according to gender. A similar result can be seen in the findings of İpek and Malaş (2013).

Recommendations

1. In order to increase students' academic achievement, social studies course journals can be used as an effective tool that allows students to repeat the lesson and to express their thoughts in order to reveal their shortcomings and alternative strengths.
2. This study was conducted with two small study groups and two classes at the seventh grade level of a middle school. A similar study can be conducted with a larger group of students in secondary schools in different cities of Turkey or at different educational levels.
3. The effects of journaling on various student outcomes can be investigated at different student levels.
4. In the studies to be planned, the development levels of students' knowledge, skills and attitudes can be compared and the level of impact can be determined through course diaries at different educational levels of the social studies course.
5. The effect of social studies course diaries implemented in a public school on student achievement can be investigated by implementing them in different types of schools.

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