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Writing Synthesis Texts: Effect of Synthesis Text Writing Training and Students' Views*

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Abstract

This study aims to investigate the effect of the synthesis text writing training on the success of 7th grade students to create synthesis text and to evaluate the effectiveness of the training given through student opinions on the training process. The research was conducted with 51 students studying in the 7th grade of a public school in Turkey. The research was modeled according to the embedded design. As for the quantitative dimension of the research, there was a training application based on a quasi-experimental design with pretest-posttest control group. In the qualitative dimension of the study, semi-structured interviews were used. According to the results, it can be said that the training organized to improve the synthesis text writing skill has a positive effect on the success of synthesis text writing. It was also concluded that the qualitative data collected through the interviews also supported the quantitative results and some changes and developments in the students were reflected in the interviews.

Key words: Discourse synthesis, Synthesis text writing, Writing from sources, Writing training, Text synthesis

Introduction

High-level literacy skills require access to reliable sources, reading, analyzing and evaluating them. For this, skills of critical thinking and using the acquired knowledge are needed. Regarding this situation, Goldman (2004, p. 318) states that fully and productively participating in the information society depends on reading, understanding, organizing and integrating multiple sources and various types of information. In this context, it can be thought that writing a synthesis text will help individuals gain these skills.

Synthesis text creating is based on Spivey's (1983, 1990, 1997) concept of "discourse synthesis". Spivey (Spivey, 1984, as cited in Spivey, 1997) states that discourse synthesis is a concept related to the process that authors use when reading multiple texts and creating their own texts related to this. More specifically, discourse synthesis can be defined as the writers' integrating material from multiple textual sources while creating their new texts (Nelson, 2009, p. 545).

According to Spivey (1997, p. 146), who restricts discourse synthesis to literacy actions, "no piece of writing is discrete, unconnected from other texts, because writers draw from their own experiences with other writers" texts when they write their own, using knowledge they have built of discourse conventions and options, of topic and domain, contrasting views, and so on." The author considers discourse synthesis as the process of comprehending and composing in which the writer uses cues from multiple texts to create meaning for the text written (Spivey, 1997, p. 146). In this process of comprehending and composing, the reader uses his previously acquired knowledge to work with textual cues, organizes his mental representations with the material they select from the text and connect them with the material he produces (Spivey, 1990). Similarly, according to Boscolo, Arfè, and Quarisa (2007, p. 422), writers should elaborate different sources of information in the process of creating a synthesis text and compare, transform, and integrate them in a more inclusive text (intertext).

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Discourse synthesis has three main concepts (Spivey, 1990): organizing, selecting, and connecting. With these operations, the reader organizes the textual meaning, selects the content in the text to present, and connects the content presented in the text with the content produced from previously acquired information (Spivey, 1990, p. 257). These three concepts can be defined as follows from the information provided by various sources (Martínez, Mateos, Martín, & Rijlaarsdam, 2015; Mateos & Solé, 2009; Spivey, 1990, 1997; Zhang, 2012; Zhao & Hirvela, 2015): *Selecting* is the selection of information that the reader perceives as important and which is shown important by the cues in the text. *Organizing* is the transformation of the reader/writer to create mental presentations about the content to organize the text and to create meaning in its own text. *Connecting* is conveying the information which the writer reads from multiple texts by transforming and combining them with what she learns from the new texts and her prior knowledge.

When the literature is examined, it is seen that discourse synthesis can be expressed with concepts such as “writing from sources (Kirkpatrick & Klein, 2009; Nash, Schumacher, & Carlson, 1993; Reynolds, 2006; Segev-Miller, 2004; Spivey, 1990), synthesis text (Martínez et al., 2015), synthesis writing (van Ockenburg, van Weijen, & Rijlaarsdam, 2019), although less used – report writing (Reynolds, 2006; Spivey, 1990)” in the literature. The concept of discourse synthesis expressed so far has been handled as “synthesis text writing” in the study. Synthesis text writing refers to the processes of creating a unique text by synthesizing the information that students obtain from the „informative” type of texts written on the same subject.

“The ability to synthesize effectively from sources has long been recognized as crucial to academic success” (Machili, Papadopoulou, & Kantaridou, 2020, p. 1). For this reason, it is important to develop this skill at an early age with a training appropriate to the students’ level. However, when the relevant literature is examined, it can be said that this process is a challenging work that requires knowledge and success in many sub-skills. Some researchers (Fisher & Frey, 2014; Mateos, Martín, Villalón, & Luna, 2008; Mateos & Solé, 2009) emphasize that this skill is a challenging one. Although writing a synthesis text is a difficult skill, various studies have revealed that this skill is a skill that can be developed both at secondary school level (De La Paz & Felton, 2010; González-Lamas, Cuevas, & Mateos, 2016; Hammann & Stevens, 2003; Kirkpatrick & Klein, 2009; Martínez, Martín, & Mateos, 2011; Martínez et al., 2015; Reynolds, 2006) and at higher education levels (Boscolo et al., 2007; Emehatsion, 1998; Luo, 2018; Mateos et al., 2018; Mateos et al., 2020; Risemberg, 1993; Segev-Miller, 2004; Zhang, 2012). Additionally, in the literature, it is seen that there are correlational researches (Monopoli, 2002; Zhu, Li, Cheong, Yu, & Liao, 2021) or case studies (Mateos et al., 2008; Mateos & Solé, 2009; Read, 2000; Solé, Miras, Castells, Espino, & Minguela, 2013; Zhao, 2015; Zhao & Hirvela, 2015;) to examine the synthesis text writing skill at various educational levels.

When the studies aimed at improving the synthesis text writing success of secondary school students are examined, it is seen that studies are carried out on various strategies, text structures, and learning processes. For example, in the research conducted by Reynolds (2006), there are two experimental groups that are given text structure and self-regulation training. Both of the experimental groups, involved instruction in writing from sources. In the study conducted by Kirkpatrick and Klein (2009) regarding text structure teaching, comparison-contrast text structure teaching was carried out in instruction of writing from the sources. In the study conducted by Hammann and Stevens (2003), a group was trained on summarization, a group on text structure, and a group on both summarization and text structure. Students were expected to read two descriptive texts and to write text in a comparison-contrast text structure. In the study conducted by Martínez et al. (2015), along with the synthesis writing education, content learning, and literacy activities in the synthesis text writing process were examined. De La Paz and Felton (2010) examined the impact of historical reasoning strategy instruction in their study. Besides, in the research, they have made reading and writing from multiple sources practices. Martínez et al. (2011), on the other hand, organized an education program to teach students how to write synthesis texts based on some texts on environmental knowledge. In the research conducted by González-Lamas et al. (2016), the effectiveness of educational programs designed to improve students’ argumentative synthesis text writing skills based on the texts read was investigated. One of the programs is Explicit, Practice, Feedback (EPF), the other is Explicit, Practice, Feedback, Modeling, and Guide (EPFMG) Program. In the EPFMG Program, a teaching based on self-regulation strategies has been made.

As can be seen from the examples above, research has been conducted in various contexts to increase the success of synthesis text writing of students at the secondary school level. These studies focused on the results of the experimental process and the achievements. However, in addition to quantitative results, student views about the educational process were not included in the studies. However, the opinions of the students about the practices will add depth to the research and help to make better sense of the results related to success or failure.

In line with the information provided, in this research, it was aimed to investigate the effect of training which was organized to improve the synthesis text writing skill on the success of the 7th grade students to create synthesis text and to evaluate the effect of training through student opinions on the training process. For the purpose of the study, the following research questions were determined:

- 1) Is there a significant difference between the pre and posttests of the experimental group in terms of the success for writing a synthesis text after the intervention training? If any, how do student opinions explain this difference?
- 2) Is there a significant difference between the pre and posttests of the control group in terms of the success for writing a synthesis text?
- 3) Is there a significant difference between the posttests of the experimental and control groups in terms of the success for writing a synthesis text?

Method

Research Design

The research is designed according to the mixed method based on the evaluation of quantitative and qualitative data together. The study was designed according to the embedded model. In the embedded model, the researcher can add a qualitative phase within a quantitative phase, such as an experimental study, or a quantitative phase within a qualitative phase, such as a case study (Creswell & Plano Clark, 2014, p. 80). In the quantitative dimension of the research, a quasi-experimental study with pretest-posttest control group was conducted. In the qualitative dimension of the research, interview method was used.

Participants

The study group of the research consists of 51 students studying in the 7th grade of a public school in the city center of Hatay in the 2017-2018 academic year. There were 26 students in the experimental group and 25 students in the control group. Qualitative data were collected through interviews with 12 students in the experimental group. Before starting the research at the school, necessary written permissions were obtained from the Hatay Governorship, Hatay Provincial Directorate of National Education, the school directorate, and the parents of the students.

Data Collection Instruments

In this section, information is provided about the teaching materials and measurement tools used in the research.

Teaching Materials

The teaching materials used in the research consisted of texts and training booklets. Information about these materials is given below.

Choosing the text: Quantitative and qualitative features taken into account during the selection of the texts were determined by taking into consideration the literature and the current study's aims and features. Accordingly, while selecting the texts, the fact that each pair of texts was written on the same subject, their suitability to the student level, the number of words and their content were taken into consideration.

Training booklets: In the training process, the booklets prepared for the use of researchers and students were two types: 1) Preparation booklets and 2) Booklets prepared for synthesis text creation practices. The aim of the preparatory booklets was to provide students with some basic information about reading and writing and to prepare students for the synthesis process. For this purpose, booklets were arranged separately for reading and writing skills. Following the 2-week application of the preparatory booklets, teaching was carried out with the booklets prepared for synthesis text creation. These booklets were prepared separately in each text group. These booklets contained content on reading and synthesis text writing processes.

Synthesis Text Writing Analytical Evaluation Rubric

Synthesis text writing analytical evaluation rubric was developed by the researcher. The rubric was organized in an analytical structure and consisted of five sub-dimensions: General Organization of Text, Creating Text Structure, Organization of Content and Expression, Using Source Texts and Language Use. Four levels between 0-3 points were created for the items of each dimension and the description corresponding to the scoring was defined. There were 26 items in rubric. The interrater reliability coefficient of the rubric was .93.

Information Units List

The source texts and student texts were analyzed in terms of information units with the aim of evaluating students' texts according to the Synthesis Text Writing Analytical Evaluation Rubric's "Use of Source Texts" dimension. For this purpose, a list of information units has been created.

In order to analyze the source texts in terms of information units, primarily, basic information that can be used in the text writing process was determined. While determining this information, first, the main ideas of the paragraphs of the texts were inferred. Then the basic thoughts, if any, were divided into units of information. Then, supportive sentences/information about main idea were determined in the paragraphs and these were separated and listed in the information units. In this way, all sentences in the text were divided into information units.

The information units in the synthesis texts created by the students were analyzed based on the list of information units prepared for the source texts. How and to what extent the texts covered the basic and supportive thoughts in the source texts, whether the information was handled correctly and accurately, and whether the information was repeated in the text were examined.

Written Expression Assessment Rubric

Written expression assessment rubric developed by the researcher for the 7th grade students was used to assess the students' general writing skills. The rubric was organized in an analytical structure and consisted of four sub-dimensions: Content, Organization of Text, Language and Expression and Spelling and Punctuation. Three levels between 0-2 points were created for the items of each dimension. There were 23 items in rubric. The interrater reliability coefficient of the rubric was .85.

Reading Comprehension Test

In the current study, the reading comprehension test developed by Ateş (2008) for the 7th grade level was used to measure the reading comprehension skills of the students. This test have included a 30-question test for text based on event, a 30-question test for text based on thought, a 15-question test for poetry, and a 15-question test for a scientific text. A reading comprehension test with 90 questions in total was applied to the students.

Semi-Structured Interview Form

While preparing the questions in the interview form, considering the characteristics of the individuals interviewed, eight basic questions were prepared in order to determine the practices of the students in the writing process and to reveal the developments they saw in themselves after the training. Probes were used when required.

Data Collection and Analysis

For the purpose of the research, quantitative and qualitative data were collected at different stages of the study. Quantitative data were obtained via identifying the experimental and control groups by equalising the groups in terms of various variables and via pretest and posttest in the experimental practices process. Interview was used

to collect qualitative data. The interview data were collected from the experimental group students after the experimental application. The data collection process was conducted in accordance with ethical rules.

Quantitative Data Collection and Analysis

Quantitative data during the process of group equalization was obtained from 183 students from 7th grade studying at a school in the city center of Hatay. Students studied at six different classrooms. While the groups were being equalized, firstly, the scores which were obtained from the variables of reading comprehension success score, general writing success score, and prior knowledge success score which were thought to affect students' synthesis writing skills were converted to a standard score by factor analysis. This score was evaluated as reduction score. In the process of obtaining this standard score, reading comprehension test was used for reading comprehension success and the Written Expression Evaluation Rubric was used for general writing success. In order to obtain the prior knowledge achievement score, the students were given 15-20 minutes and asked to write what they knew about dinosaurs. In the analysis of prior knowledge data, scoring methods were used through classification and ranking. After obtaining the reduction score, the groups that did not have a significant difference in terms of this score were determined.

Secondly, apart from the reduction score, another variable that was taken into consideration during the equalization of the groups was the synthesis writing success scores. To collect this data, two informative texts were presented to the students about the characteristics of dinosaurs. The students were asked to create their own original texts on the same subject using the information in these two texts. This application was carried out in two lesson hours. Written texts were scored with the Synthesis Text Writing Analytical Evaluation Rubric developed by the researcher. After scoring, necessary analyzes were made and the groups that did not have a significant difference in terms of synthesis writing success were determined.

Finally, the groups with no significant difference detected between their successes in writing synthesis were matched two by two in terms of their Turkish academic achievement scores. As a result of the analyses, groups with no significant differences were identified as well. Two of the groups with no significant difference in terms of all three variables were assigned as experimental and control groups by random method. The pretest and posttest data of the study were obtained from the synthesis text writing success scores of the experimental and control groups.

Pilot study: After determining the experimental and control groups, one of the booklets to be used in the process of creating a synthesis text was used with a 7th grade group outside the study group for two weeks. As a result of this pilot scheme, necessary changes were made in the initial format of the materials due to reasons such as saving time in order to gain the target skill, marking some practices planned to be acquired as unnecessary in order to make students achieve the actual outcome.

Experimental process: In the current study, the researcher was also the teacher. Since the subject studied is a new subject in the field, it is necessary to perform the experiment by informing the teacher about the subject. However, the training was provided by the researcher since there were no teachers to voluntarily participate in the research. During the experiment, all the predetermined stages were actually followed, and there were no practices or changes that were not included in the plan.

Before the experimental process, a pilot study was carried out with a group other than the study group for two weeks. For three weeks, a training including basic information about reading comprehension and planned writing process was given to experimental and control group students. This training was given to students so that they could gain basic skills such as synthesis writing training which required some high level skills (analysis, evaluation, synthesis, information organization and so on). The purpose of giving this training to both groups was that there would not be any difference between the two groups.

A 14-week experimental training was organized to improve the synthesis text creation skill. Students were taught three lessons per week. This training, in its most basic form, included practices such as reading the source texts (with the techniques of taking notes, underlining, making markings and so on), selecting the information needed, taking notes on the templates, associating / connecting the relevant information and organizing them by considering the coherence of the text.

Additionally, the training content given to the experimental group was presented to the control group by the researcher, but no training was given on the reading processes and the synthesis text writing process. In the

control group, the texts and the writing process were arranged in line with the curriculum similar to the reading and writing activities in other lessons.

Qualitative Data Collection and Analysis

Interview was used for the qualitative data collection dimension of this research. For the interviews, the students in the experimental group were classified as low, middle, and high by Turkish lesson academic grade averages and teacher opinions with maximum variation sampling model. Four students were selected for each level on a voluntary basis, and a total of 12 students were interviewed after the training. The interviews were organized by the researcher by transcribing them in Microsoft Word program. Then, it was analyzed with the content analysis method using the MAXQDA Qualitative Data Analysis Program. Qualitative data were used in the study to contribute to the clarity of the quantitative findings.

Results

Findings of First Sub-Problem

In the first sub-problem of the study, it was investigated whether there was a significant difference between the pretest and posttest scores of the experimental group students and how student opinions explained this difference status. Findings obtained in this direction are presented below:

Table 1. Paired samples t-test results of the experimental group students' scores from pretest and posttest

| Measurement | N | SD | df | t | p | Cohen's d |
|-------------|----|---------|----|--------|------|-----------|
| Pretest | 26 | 31.6154 | 25 | -6.601 | .000 | -1.294 |
| Posttest | 26 | 44.2308 | | | | |

When Table 1 is examined, there is a statistically significant difference ($t_{(25)} = -6.601$, $p = .05$) between the pretest mean score (31.6154) and the posttest mean score (44.2308) of the experimental group. The effect size calculated as a result of the test is found as $d = -1.294$. In the interpretation of the level of effect size, a rating of .2 (low), .5 (medium), and .8 (high) can be made (Green & Salkind, 2014, p. 153). In this case, the calculated effect size shows that the difference is high. As a result, it is seen that the training organized to improve the synthesis text writing skill in this group has a significant effect on the students' synthesis text writing success.

In addition to the quantitative findings, the students' thoughts on the practices during the writing process and thoughts on training process are presented below. In the presentation of the opinions, since the findings obtained from the thoughts of the students about the practices before, during, and after the writing and the developments they saw in themselves were related to the Synthesis Text Writing Analytical Evaluation Rubric's dimensions of general organization of the text, organization of content and expression, language use, and the use of source texts, the findings were arranged according to these dimensions.

Opinions on Pre-Writing Practices

In the interviews, regarding pre-writing practices, the codes related to the text organization were determined during the planning phase which were planning the title ($f=1$) and planning the introduction, body, and conclusion parts ($f=5$). The opinions of a student (S4) from high academic achievement group regarding the planning of the introduction, body and conclusion parts of the text are presented as an example:

S4: "When I read, I marked it at the introduction. I already summarized all of them in conclusion. As we said, in body part I wrote its features."

Researcher: "So, for example, did you use the notes you took for the introduction? Can you explain a little more what you did?"

S4: "So I used the notes I took for introduction, I wrote the details of the subject in the body, and I summarized the whole subject in the conclusion." It is understood from these statements of the student that he learned the body and result correctly.

In the interviews, the students had difficulties in writing introduction ($f=2$) and writing body part ($f=1$) in terms of the organization of the text during the preparation phase. The following is an example of a student (S9) from

the low academic achievement group reporting his problem with the body part: *"I had difficult times in finding what to write in the body paragraph."*

During the planning phase, the students had difficulties in the introduction part (f=1), body part (f=1), and the conclusion part (f=2). Regarding the difficulty in writing an introduction, S10 from the low academic achievement group expressed his thoughts as follows: *"I had difficult times in finding how to get started. That is to say, if I look at the texts, I said it would be like copying and pasting the same. I had some difficulty there."*

When the students' opinions about *organization of content and expression* at the stage of preparation for writing were examined, the following codes were determined: Organizing the underlined sentences (f=2), adding new information to the received notes (f=1), thinking about the prior knowledge about the subject (f=2), separating necessary and unnecessary information from each other (f=2), connecting relevant information (f=2), creating categories for the text to be written (f=2), and organizing categories / information meaningfully (f=2). About organizing the underlined sentences, S11 from the low academic achievement group expressed what s/he did as follow: *"I tried to transfer the underlined sentences properly. As a sentence and coherent with each other."*

S7 from the middle academic achievement group expressed his opinions regarding adding new information to the already taken notes: *"I develop the small paragraphs I write by adding tiny information."* It is understood from this statement that the student made a preparation for detailing.

S1 and S3 from the high academic achievement group stated that they created categories by classifying the information, and wrote them by dividing into paragraphs. Regarding the theme of organizing the categories / information in a meaningful way, a student (S6) in the middle academic achievement group commented: *"I am preparing my paper. I put the paper that I wrote down some notes with me. I read my notes first. I make them a neat paragraph in my mind and write them down."*

The students made some practices in the planning phase. The codes determined about this were the classification of information (f=2), detailing the content (f=2) and the ordering of the subject categories (f=7). S3 from the high academic achievement group on classifying the information said: *"I received the information while I was reading the first text. I have reclassified them. Then, I indicated where and in which order to use my categorization."* Regarding the ordering of the subject categories, the opinions of the students in the high (S4) and middle (S6) academic achievement groups are presented below:

S4: *"I took the notes, and ordered them, I mean the subjects and the items on the subjects."*

Researcher: *"What did you consider when ordering?"*

S4: *"I started with the discovery of dinosaurs. Finally, I told them about their extinction and I gave the other information in between introduction and conclusion."*

The student stated that he was trying to follow a logical and chronological order as taught in the lessons. S6 from the middle academic achievement group stated how he organized the body part according to the subject categories as follows: *"For example, there is an order for the body paragraph. Which subject will come first, and which subject will come later. I am planning this."*

The students expressed that they had difficulty in the organization of content and expression dimension related to the following aspects: paraphrasing (f=1), putting the information in order (f=1), linking information (f=1), writing according to the basic idea (f=1), linking between paragraphs (f=1), and connecting taken notes (f=2). The paraphrasing problem of a student with low academic achievement group (S11) is given as an example: *"I had difficulties in expressing the information in the two texts with my own sentences."*

Additionally, it was determined that two students (S10 and S12) from the low academic achievement group started writing directly without any preparation. These students stated during the interview process that they had difficulty in writing an introduction and were afraid. This is related to the students not having a good preparation and planning process.

The students also had some difficulties with creating coherent content in the planning phase. These were linking paragraphs (f=1) and ordering subjects logically (f=2). Below is an opinion of a student from high academic achievement group regarding the difficulty s/he faced while ordering the subjects in a logical way:

S1: *"I sometimes have difficulty in identifying related issues. Apart from this, if I am ordering wrong, the logic flow may be disrupted. Sometimes I have trouble with that. I think on it a lot."*

Opinions on during Writing Practices

After the training, the findings regarding the general organization of the text in the opinions of the students during writing were as follows: thinking of the title of the text (f=1), writing the conclusion part (f=2), writing the body part (f=1), and writing the introduction paragraph (f=3). Some student opinions are presented below as an example:

Regarding thinking of the title of the text, S5 from the middle academic achievement group expressed his/her opinion as follows: *"I thought to put the title later while writing."* The students who gave an opinion about writing an introduction part were S1 from the high academic achievement group and S8 from the middle academic achievement group. While S8 stated that s/he used the texts while writing an introduction, S1 expressed his thoughts as follows:

"After I start writing the text, as the last sentence of the introduction must be linked to the following paragraph, I write the last sentence of the introduction by linking it to the first sentence of the following paragraph. Using linking words, if I think of different information about them, I try to connect them."

The codes determined regarding the difficulties in the organization of the text during writing were: writing introduction (f=1), writing body (f=1), and writing conclusion (f=3). For example, S2 from the high academic achievement group expressed his/her problem regarding the writing of conclusion as follows: *"I had great difficulty in composing the conclusion."*

The findings determined about *organization of content and expression* during the writing process of the students were as follows: connecting the individual expressions with the source text (f=1), writing connected sentences (f=1), utilizing ways to improve thought (f=1), using prior knowledge (f=2), using signal words (f=1), and creating related paragraphs (f=2). Some examples of the findings are presented below:

S5 from the middle academic achievement group expressed his/her opinions on the connection of individual expressions with the source text: *"I check if my own sentences connected with the text or not."* Regarding writing connected sentences, S4 from the high academic achievement group stated that s/he writes by considering the sentences should be related to each other. One of the critical skills in organization of content and expression is the use of signal words. In this regard, S1 from the high academic achievement group stated that he made connections between the paragraphs using the signal words.

During the writing, the students stated that they had difficulty in organization of content and expression in the following issues: planning the content (f=1) and linking the sentences (f=2). As for the content planning, S10 from the low academic achievement group expressed his difficulty as follows: *"For example, I wrote an important thing in the text while writing. Then when I started the second text, the same information appeared. I tried to fix it somehow."* This difficulty experienced by the student may be due to the lack of good preparation and planning.

The findings about the *use of language* during the writing process were as follows: paying attention to spelling-punctuation (f=2) and writing qualified sentences (f=4). Two students who stated that they paid attention to the rules of writing and punctuation during the writing process were S10 and S9 from the low academic achievement group. Below are the expressions of S10 as an example:

S10: *"I paid attention to the punctuation at first, but when I started writing fast, I might have missed the punctuation marks. I made sure to write in capital letters. Sometimes I can be confused about it at the beginning."*

The opinions of S6 from the middle academic achievement group in terms of writing qualified sentences are as follows: *"... I look for if the sentence structure is correct, and if I have used ,and" too much."*

After the training, the only student who stated that s/he had difficulty in using language during writing was S7 from the middle academic achievement group. S7 expressed his difficulty in spelling and punctuation as follows: *"The writing rules force me a lot during writing and punctuation marks."*

Opinions on after Writing Practices

After the training, when the students' opinions about their post-writing practices were examined, the findings obtained regarding the organization of the text were as follows: checking the conclusion (f=1) and finding a title in the text (f=7).

S3 from the high academic achievement group stated how s/he checked the conclusion section as follows: "... I checked whether the conclusion paragraph really summarized all the body paragraphs." Regarding finding a title to the text, S10 from the low academic achievement group stated that s/he found a title suitable for the content of the text. The opinion of S3 from the high academic achievement group is as follows: "...Then my other purpose was to find the title. I found it. I checked whether the title was suitable for the text."

The findings regarding the opinions of the students about *organization of content and expression* in their post-writing practices were as follows: re-reading the text written (f=11), checking the coherence of the text (f=7) and checking the information (f=3).

All students except the S1 from the high academic achievement group stated that they re-read the text they wrote for control. Regarding checking the coherence of the text, S11 from the low academic achievement group stated that s/he was looking at the harmony of the sentences. S3 from the high academic achievement group stated his/her opinion as follows: "... I checked the passing between sentences and whether the sentences were written according to the sequence of occurrence." S6 from the middle academic achievement group stated what s/he did to check the informations: "... I am taking note paper again. I check the information and look for whether I misspell a piece of information."

Regarding the *use of language*, the opinions of the students were as follows: controlling the use of vocabulary (f=2), grammar control (f=3), and spelling-punctuation control (f=6).

The two students who control the words in the text they wrote were S6 from the middle academic achievement group and S12 from the low academic achievement group. S6 stated that s/he checked for repetitive words; S12, on the other hand, stated that s/he corrected the words that distorted the meaning of the sentences.

Regarding the spelling-punctuation control, the opinions of one student from the middle (S6) and one student from low (S11) academic achievement group are given as examples:

S6: "... I am looking at punctuation and spelling."

S11: "I pay attention to semicolons. I care for whether I should use uppercase or lowercase."

Opinions regarding the Developments that the Students see in themselves

After the training, the following findings were obtained in relation to the text organization dimension in the opinions received about what kind of improvements they saw in the writing process: writing the introduction, body and the conclusion better (f=4), detailing the body part (f=2), and putting a title in the text (f=4).

The opinion of S11 from the low academic achievement group about writing an introduction, body, and conclusion section is as follows: "... Actually, I started to write the introduction, body, and conclusion better, but I am still confused about body and conclusion a bit." S2, a member of the high academic achievement group, expressed his/her opinion on writing an introduction as follows: "I was very stuck when starting the introduction, but now I start a little easier."

As for making the body section more detailed, opinion of S3 from high academic achievement group is as follows: "In the past, for me, a text was three paragraphs, but you also taught how detailed the body part can be." The opinion of S10, one of the students who saw improvement in writing the title of the text, is as follows: "Iiii... So I used to have difficulty in writing the title. I have also learned to write the title after I finish the writing. I would write the title immediately at the beginning."

Findings about the development of the organization of content and expression dimension of the students in themselves were as follows: starting paragraph (f=1), writing remarkable text (f=1), linking between paragraphs (f=3), writing related expressions (f=2), including important dimensions of the subject (f=1), presenting information in logical order (f=2), determining categories (f=5), and using connective sentences (f=1).

As for starting a paragraph, S10 from the low academic achievement group stated that it used to be very difficult for him/her to start a paragraph but now s/he can start more easily. Regarding the linking up between paragraphs, opinions of S3 from the high academic achievement group are as follows: *“When I wrote a text, I did not link up the paragraphs. But now I am linking up them. I have improved linking up the paragraphs a lot.”* S5 from the middle academic achievement group expressed his/her opinion on writing related statements as follows: *“I can make sentences more connected.”* S1, one from the high academic achievement group, stated how s/he has improved his/her skill in terms of covering the important aspects of the subject:

“I have also learned that I need to focus more on key points. It is necessary to explain more when trying to give the main purpose of the text. For example, if the subject is the dinosaurs’ feeding styles, I mostly give information about it. According to the subject, the content should be richer.”

Another skill for text coherence is to use connective sentences within the text. The only student who gave an opinion about this was S1 from the high academic achievement group: *“Now, I also point out whether the information can be proved and it shows the certainty with connecting sentences. So that, the reader will not be misled”.*

Students express the improvements for using source text from their own perspectives as follows: not copying ($f=1$), benefitting from the source texts ($f=2$), and distinguishing necessary and unnecessary information ($f=2$). The opinions of S3 from the high academic achievement group and K6 from the middle academic achievement group which provide opinions on the use of source texts are given below as examples:

S3: *“You have taught me to use another text instead of writing directly, to sort the sentences properly and their order of occurring, and to classify the details and important information.”*

S6: *“... For example, I did not use to write a text by reading it first. Now I am taking notes and writing a text.”*

As for distinguishing necessary and unnecessary information, S1 from the high academic achievement group stated that: *“I could not distinguish important and unimportant information. I have started to realize whether these support information. I have learned not to use unnecessary information.”*

Findings of the Second Sub-Problem

In the second sub-problem of the study, it was investigated whether there was a significant difference between the pre-test and posttest scores of the control group students. Findings obtained in this direction are presented below respectively.

Table 2. Paired samples t-test results of control group students’ scores from pretest and posttest

| Measurement | N | Mean | SD | df | t | p |
|-------------|----|---------|---------|----|-------|------|
| Pretest | 25 | 31.5600 | 4.27278 | 24 | -.505 | .618 |
| Psttest | 25 | 31.7600 | 4.36157 | | | |

When Table 2 is examined, there is no significant difference between the pretest mean scores (31.5600) and posttest mean scores (31.7600) ($t_{(24)}=-.505, p>.05$). As a result, writing training given within the framework of Turkish Lesson Teaching Curriculum does not affect the success of synthesis text writing.

Findings of the Third Sub-Problem

In the third sub-problem of the study, it was investigated whether there was a significant difference between the posttest scores of the experimental and control group students. Findings obtained in this direction are presented below respectively.

Table 3. Mann Whitney U test results of experimental and control groups’ posttest scores

| Group | N | Mean Rank | Sum of Ranks | U | p |
|--------------------|----|-----------|--------------|---------|------|
| Experimental Group | 26 | 33.38 | 868.00 | 133.000 | .000 |
| Control Group | 25 | 18.32 | 458.00 | | |

Table 3 shows that, the results of this test are statistically significant in favor of the experimental group ($U=133.000, p<.05$). Pallant (2007, p. 223) gives the effect size calculation for Mann Whitney U test with the following formula: $r = z/\sqrt{N}$, (N number of experimental group+number of control group). Based on this

formula, the effect size of the difference was calculated as: $r=.51$. According to the information provided by Pallant (2007, p. 223), this value shows that the difference is high.

Conclusion and Discussion

In this section, the impact of training organized to improve the synthesis text writing skills of the 7th grade students and conclusions of the qualitative data have been mentioned and these results have been compared with those of other studies in the literature. Additionally, suggestions have been made based on the results obtained.

As a result of the research, it has been determined that there was a significant difference between the pre-test and posttest scores of the students in the experimental group in favor of posttest. The difference was high according to the effect size calculation for the level of the difference. According to these results, it is seen that the training organized has a significant effect on the students' success in synthesis text writing. This result is related to the research results on the subject in the literature (Boscolo et al., 2007; De La Paz & Felton, 2010; González-Lamas et al., 2016; Hammann & Stevens, 2003; Kirkpatrick & Klein, 2009; Luo, 2018; Martínez et al., 2011; Martínez et al., 2015; Mateos et al., 2018; Reynolds, 2006; Segev-Miller, 2004; Zhang, 2012). When the results of the current research and studies in the literature are evaluated together, it is concluded that the synthesis text writing training, which is specially prepared according to the students' levels and needs, increases the success of synthesis text writing.

In addition to the quantitative results, the results of the interviews regarding the practices of the students in the writing process and the developments they saw in themselves during the training process are presented below.

When the students' opinions about pre-writing practices were analyzed, it was seen that, regarding the organization of the text it is noteworthy that the students went through a conscious planning process for creating synthesis text. Additionally, students had difficulty in a few issues. This is a result that supports the positive effect of the training provided.

After the training, it was seen that in the preparation phase, the views about organization of content and expression dimension could be gathered under the titles of organizing the notes, selecting the information, connecting the information, and making preparations for the text plan. In the planning process, it was seen that the students focused on planning and detailing the content. Similarly, in the research conducted by Read (2000), it was determined that students focus on determining what to write and what not to write and to generate ideas while writing a text. In current research, it is noteworthy that the preparation process associated with organization of content and expression included methods focused on synthesis text writing. The challenging topics about the content and expression were about coherence (link between paragraphs and logical ordering of topics), expression and content creation.

When the opinions reported in the interviews regarding the preparation process are evaluated in general, it is possible to say that the students had a specific and controlled preparation process for writing a synthesis text after the training. This is a result that supports the positive effect of the training provided.

When the students' opinions about applications *during the writing process* are analyzed, it is seen that in the general organization of the text dimension, it is noteworthy that the students sharing opinions attach importance to the issues such as text coherence and writing introduction, body, and conclusion parts. Additionally, some students have a few difficulties about writing introduction, body and conclusion parts. These are related to the training students received. Additionally, this result overlaps with similar study results in the literature. For example, in the case study conducted by Read (2000) with 24 first and second grade students, it was determined that the students pay attention to the text organization during the writing process.

In terms of organization of content and expression, the opinions expressed in the interviews can be summarized with the titles of using source text, using prior knowledge, benefitting from the ways of developing thought, and the coherence between sentences and paragraphs. The opinions expressed by the students are important in the way that they relate to the information provided during the training process. Additionally, some students have a few difficulties about planning content and linking sentences. This result regarding student views shows that students make conscious practices about organizing content and expression.

Regarding the use of language during writing, students stated that they paid attention to spelling-punctuation and writing qualified sentences. There was a student who stated that s/he had difficulty in spelling and

punctuation rules. Similarly, in the research conducted by Read (2000), it was determined that students pay attention to the syntax, spelling, handwriting so on.

When the opinions of the students regarding the practices during writing are evaluated in general, the reflections of the training given in terms of various dimensions can be seen in the expressions. This is a result that supports the fact that the training process provides positive changes in the students.

When the opinions of students regarding post-writing practices were examined, it was seen that the students did not make important practices about the general organization of the text. They just checked the conclusion and found a title for the text. This situation may be related to the fact that students concentrate more on the process of creating a text in the posttest, and have less time to review and revise it due the lack of time.

In terms of organization of content and expression, opinions on reading the text written, coherence and information control were reported. In the interviews, including opinions on the use of resources in writing synthesis has showed the effect of training. Additionally, students' checks on language use included the word control, grammar control and spelling-punctuation control after writing.

When the post-writing practices are generally evaluated, though there are opinions related to the training given, it is seen that the students are not very effective in this process. During the training, the revising and correcting phase has not been elaborated due to reasons such as time limitation, grammar, spelling and punctuation titles that are not elaborated as they were no the main focus of the training. The points that students will pay attention to are explained with a few examples. It is thought that this situation may be reflected in the interviews.

After the training, when the students were asked to evaluate what kinds of improvements they have seen in themselves, they stated about the organization of the text that they write parts of the text easier and more qualified, and they elaborated better and found the title more carefully after writing the text. These issues are important in increasing the quality of the text and are a result to support the positive effect of training. Similarly, some studies (Boscolo et al., 2007; Luo, 2018) have shown that students' success in text organization has increased as a result of synthesis text writing training.

From the perspective of students, they considered the developments in terms of organizing content, coherence, presentation of information and creating more selective content in the dimension of organization of content and expression. This self-assessment shows that students pay attention to the important points about creating content in synthesis writing. Similarly, in various studies (Boscolo et al., 2007; Zhang, 2012), it has been observed that issues related to content and expression can be improved with education.

Regarding the dimension of using the source texts, the students stated that they made progress in benefitting from the source texts correctly and selecting important / necessary information. This is important in a way that it reflects the positive impact of the training provided. Similarly, in the research conducted by Zhang (2012), it was found that in the posttest, students expressed their opinions about practices such as selecting basic ideas and selecting important ideas from the source text.

After the training, it was concluded that the students saw improvements in themselves in the issues related to the general organization of the text, organization of content and expression, and the use of the source texts. When all the results related to student opinions are evaluated together, it is seen that qualitative results support the change in favor of posttest in student success.

There was no statistically significant difference between the pre-test and posttest mean scores of the control group students who did not receive the training to improve the synthesis text writing success. This result obtained in the study is in line with the similar study results in the literature (Luo, 2018; Martínez et al., 2015). In conclusion, this result from the current research, shows that writing training given within the framework of Turkish Lesson Teaching Curriculum does not affect the success of synthesis text writing.

As a result of the analysis conducted to determine whether there was a significant difference between the posttest scores of the experimental and control group students, it was concluded that there was a significant difference between the experimental group students and the control group students' success in writing synthesis text in favor of the experimental group. In the effect size calculation for the level of the difference, it was determined that the difference was high. This result shows that a planned synthesis text writing training can increase students' synthesis text success. The results obtained are parallel with those in the literature (De La Paz & Felton, 2010; Emehatsion, 1998; Kirkpatrick & Klein, 2009; Luo, 2018; Martínez et al., 2011; Martínez et al.,

2015; Reynolds, 2006; Risemberg, 1993; Zhang, 2012). Based on the result of the current study, at the same time, it is concluded that the training given within the Turkish lessons in the current education curriculum does not allow students to improve their synthesis text writing skills.

Based on the findings and the conclusions obtained after the research, some suggestions for the researchers and training activities are given below:

Further Suggestions for Researchers

1. Researchers can carry out their studies on this subject in qualitative methods. In this way, more in-depth knowledge about the subject can be obtained.
2. It is possible to investigate the relationship between the synthesis text writing success and variables such as the success of reading comprehension, writing success, and prior knowledge of the subject that may affect the synthesis text writing success.
3. It is possible to investigate the relationship between affective factors for reading and / or writing, such as interest, attitude, anxiety, and synthesis text writing success.

Further Suggestions for Training Activities

1. Synthesis text writing process requires an effective reading and writing process. Necessary studies should be carried out to gain skills related to these processes.
2. Teachers should raise awareness among students that reading and writing skills are related skills, and that information obtained from reading can be a source for various types of written texts. Thus, students can be more careful in the reading process.

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