The Effectiveness of Cognitive and Metacognitive / Affective Strategies in Story Writing Process

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ABSTRACT

The aim of this research is to teach the participants how to use the strategies to write a story and how to evaluate their story according to these strategies. For these purposes, the strategy training was given and a rubric was developed to evaluate the effectiveness of this strategy training and the stories. The study was conducted according to the mixed research method in which a qualitative and quantitative data collection process was used together. In order to determine the effectiveness and functionality of strategies, a seven-week training course was organized with 30 Turkish prospective teachers. The stories written at the end of the strategy training were examined in detail with the rubric. As a result of the examination, it was seen that story writing training given according to cognitive and metacognitive/affective strategies supports the participants' story writing skills. At the same time, it was determined that the rubric which was developed is a functional measurement tool to evaluate the stories in a suitable and effective manner. Based on this result, it has been suggested that further education related to cognitive and metacognitive/affective strategies should be given in order to support the prospective teachers' qualifications regarding writing education in vocational education processes.

Key Words: Cognitive/metacognitive/affective strategies, writing skills, rubric.

1. Introduction

The fact that writing education consists of some critical processes make it important to how to improve writing skills. In this context, in the meta-analysis study, adults' writing skills were examined according to strategy instruction, summarization, peer assistance, setting product goals, word processing, sentence -combining, inquiry, prewriting activities, process writing approach, the study of models, grammar instruction focal points (Graham and Perin, 2007). And theoretical and experimental researches on the teachers' writing skills were conducted. Thus, it was examined how teachers would benefit from writing strategies in an effective communication process (Young, 2006).

According to the teachers, training on developing writing skills that given in scope of faculty education are inadequate and weak (Yamaç and Öztürk, 2018). Therefore, focusing on teachers' needs about writing skills education in faculties is an important issue for teacher qualifications. In this context, it is necessary to be focused on how the teaching of writing skills should be taught according

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to the variables affecting the written expression skills. Because it is determined that prospective teachers' writing skills influenced by many aspects such as knowledge of vocabulary, finding the main idea, knowledge of the narrative disorder, paragraph completion knowledge, knowledge of meaning in paragraph, punctuation, spelling knowledge, and knowledge of narrative forms (Bağcı, 2007). In a similar study, it was seen that not only word choices, sentence variations, punctuation choices, and other linguistic tools for cohesion and coherence but also ways to structure and develop arguments at the micro and macro level were effective in writing competence (Cheung, 2016). Writing education using different strategies can effectively develop this competence. Because prospective teachers' writing anxiety differed significantly according to their writing status. It was observed that writing studies were directly effective on this anxiety. According to the analysis, it was found that writing anxiety decreased as writing frequency increased, and writing anxiety increased as writing frequency decreased (İşeri and Ünal, 2012).

It was seen that writing education provided opportunities and time to prospective teachers to recognize themselves and to realize how they reflect some of their characteristics in their writings. In this context, the applications of the analytical writing and evaluation model were found to be effective in Turkish prospective teachers' writing achievement and in developing a positive attitude towards writing (Özdemir, 2014). For this reason, prospective teachers need effective writing strategies in order to prepare a successful training process in teaching writing skills. Because it was determined that the prospective teachers who using writing strategies were more successful than the prospective teachers who did not use writing strategies in the writing process (Topuzkanamış, 2014). In addition, it was determined that the teachers' awareness level of theories on teaching writing varies each other (Ahlsén and Lundh, 2007). Using different strategies in the writing education process is an important factor to success writing education. Because the writing strategies used are effective in rewriting, drafting, and revising, editing, and publishing processes. Despite this effectiveness, it is early to say that strategy training has a generalizing feature in all writing processes (Alber-Morgan, Hessler, and Konrad, 2007).

The effectiveness and functionality of cognitive strategies in writing skills were examined by researchers with various aspects. With one aspect in research, the effect of the cognitive domain on writing is criticized from the theoretical, methodological and practical perspectives. Despite criticism, the cognitive domain was found has an effect on the writing process due to its aspects such as theoretical insights, qualitative methods, and impact on the educational practice (Best, 1995). According to the results of the study, it was determined that the cognitive strategies used in the writing process give advantageous to the writer in order to compare some aspects of the text and give her/him the opportunity to examine the text in detail (Flower and Hayes, 2014). However, in some studies, is it stressed that the cognitive strategies were not effective in planning and revising steps of writing (Kodituwakku, 2009).

It was seen that metacognition would benefit from planning, writing and evaluating the text. In this context, it is emphasized that metacognitive domain should be used in order to development-effective tools to measure students' awareness about metacognitive writing strategies (Aydın, İnnalı and Uyumaz, 2017). Because it is determined that the educational process organized according to metacognitive strategies is functional in developing university students' writing competencies (Nosratiniaa and Adibifarb, 2014). Similarly, other strategies effective in developing writing skills are within the scope of affective field. Research results show that the affective domain is successful in teaching and learning in a certain classroom especially learning second languages as a strategy

(Wijirahayu and Dorand, 2018; Garay and Etxebarria, 2012). According to the results, cognitive, metacognitive and affective strategies were found to be effective in the language learning context and learner characteristics (White, 1993).

Based on the results of these studies, it is aimed that Turkish prospective teachers can write a story by using cognitive, metacognitive and affective strategies that support their writing skills. In order to achieve this aim, the following research questions were examined:

1. How is the effectiveness of cognitive, metacognitive and affective strategies used by prospective teachers in the story writing process?

2. How is the effectiveness and functionality of the rubric to evaluate the stories?

3. How are the participants' feelings and thoughts about the cognitive, metacognitive and affective strategies used in the writing process?

With these research questions, it is aimed to eliminate two important needs (deficiencies) about teacher qualifications. The first of these needs is learning the strategies that support their writing skills. In addition, to ensure that prospective teachers can use these strategies effectively in their writing process. The second one is to give the possibility to the prospective teachers to evaluate the writing process according to these strategies.

2. Method

2.1. Research Model/Design

The research is structured according to the steps of the mixed method in which both quantitative and qualitative methods are used together. In accordance with this method, the data collection process is designed according to the explanatory pattern of the mixed method. In the exploratory pattern, firstly, the results are gathered according to the quantitative data. Then the results of the qualitative data are determined. The process of quantitative and qualitative data collection depends on each other. Initially, quantitative knowledge is given importance, but the qualitative data that come after them may be less important (Creswell and Clark, 2014, p.73). The quantitative part of the study was designed according to the single-group intermittent time series pattern of the quasi-experimental design. In the single-group intermittent time series pattern of the semi-experimental design, the data are analyzed by taking measurements at a certain time before and after the experimental procedure (Creswell, 2012). In the qualitative part of the study, the interview technique was applied. The semi-structured interview was used to determine the participants' experiences, thoughts, and opinions in the implementation process.

2.2. Study Group

The study was carried out in the fall of the Academic Year of 2018-2019, with 30 prospective teachers (14 female, 16 male) who are student of the Department of Turkish Language Teaching. The study was carried out in the scope of the Narration Skills II: Writing Education lesson since the content of the study are closely related to the content of this lesson. By this way, prospective teachers have the opportunity to acquire the knowledge within the scope of their lesson by applying and examining.

2.3. Data Collection

Data were collected in seven weeks. Details of the practices in this period are given below.

Practices of the first week: The participants' pre-knowledge about writing skills, cognitive and affective domain and metacognitive knowledge was determined. Thus, participants' needs are determined. Then they were asked to write a story. These stories were examined with the rubric which evaluates the story writing process according to affective/metacognitive and cognitive strategies.

Practices of the second week: First, knowledge about how to organize the basic elements that should be included in the story was given. These properties listed as "the type of story (Maupassant or Çehov style), grammar, correct expression, curiosity element, the storyline, the characters, moral development, readability, the appropriateness of the content, and the images" are explained with examples of how these should be used in the story.

Practices of the third and fourth weeks: Knowledge about how to use the affective, cognitive and metacognitive strategies in the process of developing the characters in their story was given. In this context, education was given about affective (responding, valuing, organization, characterization) and cognitive categories (remember, understand, apply, analyze, evaluate and create) domains and metacognitive knowledge. Then it is explained how these categories are related to other elements in the story. In this context, firstly, how to use the affective domain in the process of giving value, theme, feeling, main ideas and auxiliary ideas in the story is explained. These are as follows.

Responding: Determining how the characters will do reaction about the values given in the story.

Evaluating: Ensuring that characters hold the specified value in the story.

Organization: The combination of common values for the characters and the organization of a value system.

Characterization: Designing the values of the story by the characters   assimilating   (Krathwohl, Bloom and Masia, 1964).

Practices of the fifth week: In the process of cognitive development of character, training was given on how to benefit from cognitive categories of Revised Bloom's Taxonomy (RBT). At the same time, training was given on how to use metacognitive knowledge in order to improve the characters' problem-solving skills in their story. How to use this knowledge in the story is as follows.

Strategic knowledge*:* The characters know the right strategies to solve the problems in the story.

Knowledge of cognitive tasks: The character is aware of the strategies about where and why they should be used in solving the problems.

Knowledge about himself/herself: The characters' self-judgment regarding his/her ability (his/her beliefs, values, and interests about himself/herself in order to fulfill a task) included (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths, and Wittrock, 2001).

Practices of the sixth week: This week contains learning the features of the story type, reading and examining important stories, and creating a plan of the story.

Practices of the seventh week: The stories written by the participants were examined and evaluated according to the rubric. The deficiencies identified in this context (related to the story-writing

processes) were emphasized. These examinations cover 30 stories written before strategy training and the 30 stories written after strategy training.

At the end of the training, participants' responses about the story writing process were examined. A semi-structured interview was conducted with five participants to determine the participants' feelings and thoughts about the stories qualitatively. The items of interview collected in four themes were prepared according to the steps of strategy training. The participants' opinions were examined according to descriptive analysis. The results of this evaluation process were shared with the participants and feedback was given on the effectiveness and the success of the training process.

2.4. Data Analysis

In order to examine and evaluate the 60 stories written during the seven-week training period, an analytic rubric was prepared. The analytic rubric categorizes the general performance characteristics to be measured into sub-groups. Definitions regarding the levels of different performances related to these sub-groups were made. The criteria, dimensions, and items of the preliminary draft rubric were reviewed by the researcher. Lawshe analysis was done in this respect. Lawshe analysis consists of some basic steps such as establishing the expert group, preparing the candidate scale forms, recruiting experts' comments, identifying the content validity ratio for the items, identifying the content validity indexes for the assessment and creating the final form in accordance with the criteria of the content validity ratio indexes. Each item is rated by an expert *as the item measures the target structure*, *the item is related to the structure but redundant* and *the item is unrelated to the target structure*. Moreover, in addition to content validity, this analysis can also be used to receive expert view about issues such as the suitability or comprehensibility of the item for the sample group (Lawshe, 1975). The designed rubric was presented for the comments of six experts in the field Department of Turkish Education and Department of Education Science. In this scope, the randomly chosen six stories were examined by the raters. Yıldırım and Şimşek (2003) state that, in the event that the agreement percentage in the reliability calculation is 70% and above, then the reliability percentage is reached. We used the notation ["P= Na: (Na + Nd) x 100" "Agreement percentage = agreement amount: (agreement + disagreement) x 100"] for the agreement percentage (Türnüklü, 2000; Şencan, 2005). The result of the calculation made in accordance with this notation gave an 88% agreement percentage for the evaluation results by the raters. The rubric developed in accordance with the analyses is a 26-item analytic measurement tool with five dimensions (the designing of story, characters' affective development, characters' problem-solving development by metacognitive, characters' cognitive development, evaluation of characters' properties) and that makes product evaluation and consists of three achievement levels (sufficient, partially insufficient and insufficient) (See Table 3). The stories were examined with the rubric. In each item, the score of 2 (The criterion completed correctly and completely by participant), 1 (The criterion completed incompletely by participant) and 0 (leaving the part for the relevant criterion blank or filling with an incorrect or irrelevant answer) were rated (Osgood at all., 1957, Narrated by Bilgin, 2014, p. 20- p.21). In some items, scores between 2 and 0 are given according to the characteristics of the criteria. After rating, the arithmetic average of the items in each dimension in was given. Achievement levels of stories according to their proximity to arithmetic average from 0 to 2 are determined as: 0-0,49 [Insufficient (I)], 0,5-0,9 [Partially Insufficient (PI)], 1-1,4 [Should be Developed (SD)] and 1,5-2 [Successful (S)]. Based on the data obtained, the success levels of the written stories, as well as the success of the steps in the given strategy training, were examined and evaluated.

In the analysis process, the items were coded as "I1, I2, I3, I4" and participants were coded as "P1, P2, P3, P4, P5". The findings from the descriptive analysis were classified in the frame of certain themes based on their similarities (planning of draft story, affective, cognitive domain and metacognitive knowledge) (Yıldırım and Şimşek, 2013, p.256-p.258). Data collected in this scope were analyzed in accordance with the descriptive analysis and were evaluated under the relevant theme. As a matter of fact, in the previous study, it was determined that the data analysis method within this scope is suitable for the purpose and it is functional (Sönmez, 2019, p.127-p.131).

3. Results

3.1. Results about the First Research Question

In this section, activities related to writing skills for the seven-week teaching process (writing story) were designed. The stories were written in two steps as before and during the strategies for writing skills (SWS) training. Knowledge was provided regarding the strategies that would be used in the writing process. Findings on this knowledge and the 60 stories that were written by 30 participants are given in the Graphic 1.
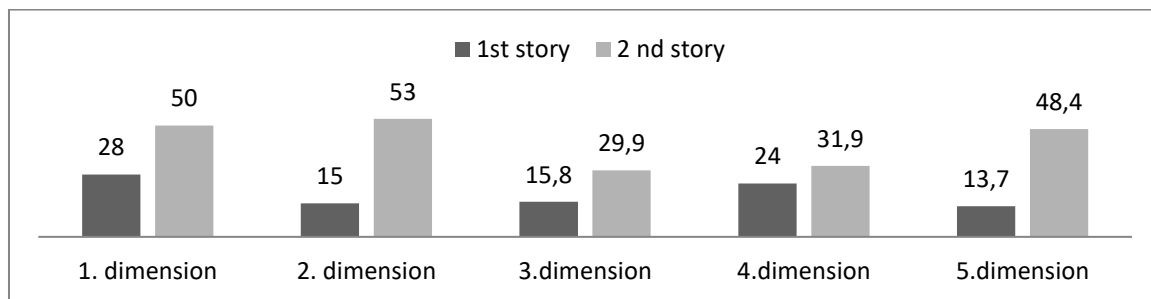
Graphic 1. *Achievement levels of first and second story according to the five dimensions of the rubric*

Achievement levels of the stories were reviewed based on the results gathered from the total values of the mean score for the 60 stories that was calculated according to five dimensions (Graphic 1). For instance, it was determined the achievement level of a certain group by adding up the arithmetic averages of the scores that were given to 30 stories in the first group in the first, second, third, fourth and fifth dimensions of the rubric. Based on this calculation, the following findings were derived about the achievement levels of the text.

In the first step of the SWS training, were focused on story designing plan before writing the text. Accordingly, the participants were given training about the strategy for writing a story plan. Before writing the story, the participants were informed about how to prepare a story writing plan and about the important criteria that should be followed in the whole story draft based on the plan. In order to determine how the given knowledge was integrated in the story written, the items related to this knowledge were added to the first dimension of the rubric. Based on these criteria, the characteristics of the story written in accordance with the story writing plan were assessed in the light of the rubric. In the first dimension of Graphic 1, the findings on how those ten criteria were used in the story written by the participants are shown. These criteria are as follows: Appropriate verbal usage for kind of story (Maupassant's or Çehov's type) (I1), using grammar (I2), correct expression I3), curiosity element (I4), configuring events in the story (I5), choosing the right character (I6), moral development (I7), the readability (I8), the appropriateness of the content (I9), and the images (I10). Compliance with these criteria in the first and second stories were assessed as 0-0,49 [Insufficient (I)], 0,5-0,9 [Partially Insufficient (PI)], 1-1,4 [Should be Developed (SD)] and 1,5-2 [Successful (S)].

At this step of the SWS training, preparation of the story plan was done before writing the story. Thus, the following features should be included in the stories were given: The type of story (Maupassant or

Çehov style), correct grammar, correct expression, curiosity element, the storyline, the characters, moral development, readability, the appropriateness of the content and the images. Knowledge is given about how these features should be used according to the purpose of the story. After that, it was examined how these features were used in both story groups. These features are added to the rubric as an item (criterion). In order to evaluate the success at this step, the stories in the first group which were written before the SWS training and the stories in the second group written after the SWS training were compared. The results shown in the graphic suggest that the SWS training was quite successful since the achievement means show a great variance in the first (28) and second (50) story group. When the parts of the stories are examined, it is seen that these features in the story writing process were used successfully. This result shows that at the end of the SWS training, the participants learned the features that should be found in a story and used them successfully in their story.

In the second step of the SWS training, training was given on how to construct the characters' affective development in the story. In this context, the characters' affective characteristics were determined according to the categories of the affective domain (Krathwohl et al. 1964). These affective characteristics are listed as: Responding the main sensation or basic value (I11), valuing the main sensation or basic value (I12), doing organization for the main sensation or the acceptance of the basic value (I13), and doing characterization the main sensation or basic value (I14). Knowledge was given to the participants about how these affective characteristics should be used in the story. Then it is examined how these features were formed according to affective processes are used in the story. For this review, the categories of the affective domain are added to the rubric as an item (criterion). In order to evaluate the success at this step, the first stories written before the SWS training and the second stories written after the SWS training were compared. The data obtained are given in Table 1 and Graph 1. According to Graph 1, the training given at this step is quite successful. Because these features were used as missing and inadequate (15) in the first stories, but they were used as successful or should be developed (53) in the second stories. According to these results, it is seen that the main sensation (feeling), basic value, themes, main ideas, and other ideas have been formed successfully depending on the affective development in the story. Therefore, at the end of the SWS training, the participants successfully used the affective domain as a strategy in the character development process in order to give the main sensation, basic value more effective in the story.

In the third step of the SWS training, characters' metacognitive knowledge characteristics are included in the story. In this context, the metacognitive characteristics that must be present in the story are determined according to the kinds of metacognitive knowledge (Anderson et al. 2001). Based on the characteristics of these kinds of knowledge, it is focused on how the character will solve the problems in the story. For this, it is stated how to create the problem situations that the characters will face in the story. Then, on the basis of metacognitive strategic knowledge, training was given on how the characters will find solutions to these problem situations. In this context, the knowledge of strategy that the characters should have to solve the problems was determined as follows. These criteria are listed as: The character recognizes the right strategy for the problem situation (strategic knowledge) (I15), using the right strategy for the problem state (cognitive tasks knowledge) (I16) and the character knows his or her competence to overcome the problem state (I17). In the SWS training, the knowledge was given on how to use these problem-solving steps in accordance with the purpose of the story. Then, how these metacognitive strategies are used in the story written by the participants is examined.

For examination, these dimensions of metacognitive are added to the rubric as an item (criterion). In order to evaluate the success at this step, the first stories written before the SWS training and the second stories written after the SWS training were compared. The data obtained are given in Table 1 and Graph 1. According to Graph 1, the training given at this step is quite successful. Because these features were used as missing and inadequate (15,8) in the first stories, but they were used as successful or should be developed (29,9) in the second stories. According to these results, metacognitive knowledge has been used successfully as a strategy in the process of solving problems in the story.

At this step of the SWS training, participants were trained on how to construct the characters' cognitive development by using the cognitive categories of Revised Bloom Taxonomy. In this context, knowledge about the cognitive categories of RBT and cognitive processes of these categories are given (Anderson et al. 2001). Then, how to use these cognitive categories in the process of developing the storytelling is explained. The participants identified the characters' cognitive characteristics in their stories based on this knowledge. They have developed their storytelling according to these characters' characteristics. In order to examine how the characters' cognitive developments are given in the story, cognitive categories are added as an item (criterion) to the rubric. These criteria are listed as: Characters' remembering (recall) skills (I18), characters' understanding (interpreting, exemplifying, classifying, summarizing, inferring, comparing and explaining) skills (I19); characters' applying (executing, implementing) skills (I20); characters' analyzing (differentiating, organizing, attributing) skills (I21); characters' evaluating (checking, critiquing) skills (I22), and characters' creating (generating, planning, producing) skills (I23). In this way, how the characters' cognitive development of remembering, understanding, applying, analyzing, evaluating, and creating according to the narration in the story were examined.

For review, these dimensions of metacognitive are added to the rubric as an item (criterion). In order to evaluate the success at this step, the first stories written before the SWS training and the second stories written after the SWS training were compared. The data obtained are given in Table 1 and Graph 1. According to Graph 1, the training given at this step is quite successful. Because these features were used as missing and inadequate (24) in the first stories, but they were used as successful or should be developed (31,9) in the second stories. According to these results, metacognitive knowledge has been used successfully as a strategy in the process of solving problems created in the story. According to these results, it is seen that cognitive categories of remembering, understanding, applying, analyzing, evaluating, and creating are used successfully as a strategy in order to improve the characters' cognitive characteristics in the story.

In this final step of the SWS training, participants evaluated how they formed their character development in accordance with affective, cognitive domains and metacognitive knowledge. In this context, the characters' development process in the story has been examined and evaluated in accordance with these three domains. At this step of the training, participants were told how to evaluate their characters according to affective, cognitive and cognitive domains. For this purpose, this section consists three steps: characters' self-evaluation, evaluation of characters by others, and giving characters' deficiency. In this context, training was given to the participants. Then they were asked to organize these evaluations in the fiction of the story. In order to examine how the participants organized these processes in the story, these evaluations were added to the rubric as an item (criterion). These criteria are listed as: characters' self-evaluation (I24), evaluation of characters by others (I25), and evaluation of characters' deficiencies (I26). According to Graph 1, the SWS training are successful in the character development process of the story. Because, these features were used as missing and inadequate (13,7) in the first stories, but they were used as successful or should be developed (48,4) in the second stories.

These results indicate that the SWS training are generally successful. But this success is not at the same degree in all steps of education. Because the results achieved showed that the SWS training is more successful in the steps of the character' affective development (38), the evaluation of character's development (35) and the general characteristics of the story (26). The dimensions about character's cognitive development (7) and character's metacognitive development (14) were found to be less successful.

3.2. Results about the second research question

This section of the study deals with the findings on the examination and use of the rubric designed for the study. Therefore, these findings are discussed in two categories, the first one being the findings on the development process of the rubric, and the second one being the findings on the change in the learning process of the participants who wrote the stories in accordance with the rubric.

Findings on the development process of the rubric

3.2.1. The rubric was developed in order to evaluate the story that would be written in accordance with the steps of the SWS training. The items and dimensions were designed according to the SWS training. In accordance with it, a draft rubric has 26 items and five dimensions were completed. The value ranges for each item was defined as *sufficient (2), incomplete (1), and insufficient (0).* To interpret the achievement levels of the stories, the arithmetic average of the items in a certain dimension of the SWS was used. A dimension with arithmetic average of 70% and above is accepted *sufficient*, with an average arithmetic average between 40% and 69% is accepted *incomplete* and with an arithmetic average below 40% is accepted *insufficient.*

3.2.2. The rubric was revised according to Lawshe analysis by experts in the field. Thus, it was determined that 5 items were not appropriate for the aim of the assessment and 3 items assessed similar criteria. Therefor these items were omitted from the draft rubric. Then the evaluation of the criteria was also altered in accordance with the comments of the experts. The ranges for evaluating the items were designed based on the arithmetic average are: *0-0, 49: Insufficient (I); 0, 5-0, 9: Partially Insufficient (PI); 1-1, 4: Should be Developed (SD); and Successful (S).* To test the functionality of the finalized rubric before the real implementation, a pilot scheme of two weeks was carried out with ten students who were not going to participate in the real study.

3.2.3. Participants who took place in the SWS in the first week of the pilot scheme. After the SWS training, the participants wrote a story. Then they evaluated their story according to the rubric. Participants evaluated the stories using the rubric. And the rubric was revised again. After the second revision, three experts in the field were asked to provide their comments in order to ensure the validity of the rubric. In in order to evaluation randomly selected nine stories were given to the raters. After the agreement percentage between the evaluation results by the raters was analyzed. The calculation made gave an 88% of agreement percentage between the evaluation results of the raters. Thus the development process of the rubric with five dimensions, 26 items and five evaluation ranges was completed. For more detail about The Rubric please see Table 3. During the SWS training, the rubric proved to be an important tool for the participants' learning process and story writing skills. Rubric developed in accordance with this method has been determined in the previous research to be suitable and functional as an effective measurement tool. (Sönmez, 2019, p.136-p.137). The effect of the rubric developed in this regard on the story was examined. These findings are given in Table 1.

Table 1. *Achievement levels of the stories evaluated in accordance with the rubric*

	1st dimension				2nd dimension				3rd dimension				4th dimension				5th dimension			
Achievement Level	S	SD	PI	I	S	SD	PI	I	S	SD	PI	I	S	SD	PI	I	S	SD	PI	I
1st story	3	14	9	4	4	4	7	15	1	6	9	14	3	5	15	7	1	4	12	13
2nd story	26	4	-	-	26	2	1	1	17	6	4	3	22	4	2	2	19	9	2	-

Participants examined their stories in two steps according to the rubric. In this part of the rubric, the basic features of the story were evaluated. According to the results of this examination, they evaluated the deficiencies of their stories. And they removed these deficiencies and stories were developed.

Table 1 presents the results of this development process. In the first dimension of the table, the results of the ten criteria in the stories are given. When the first and second stories are compared, it is seen that these criteria are used more successfully in the second story. Because in the first story, these criteria, which were used as insufficient and incomplete were used successfully in the second story.

3.3. Results about the third question

In this section, the study deals with the participants' comments and observations on the SWS training. To obtain the participants' comments and observations, the semi-structured interview form was used. Five randomly-selected participants joined to this interview. The four items in the interview form were designed related with the steps of the SWS training and the five dimensions in the rubric. The participants were t coded as P1, P2, P3, P4, P5. Each item represented a theme so the findings of the interview were categorized under four themes.

3.3.1. How are the difficult and easy parts of the story writing process?

Two participants state the difficulties they have encountered during the story writing process as follows:

When I was preparing a story plan, I had difficulty in the introduction of my story (P1). I had difficulty deciding which value to choose (P2).

Three participants, state the following regarding the points that they have not had difficulty.

First, I did some research about the story plan. This strategy helped me to start my story (P5). My story had a guide because of answering specific questions and also evaluating processes by these strategies (P4). I had no difficulty in transition between events by these processes (P3).

3.3.2. Participants' opinion on using the affective domain as a strategy

In this part, the participants state the difficult and easy parts of the organizing the affective domain. One of the difficulties encountered by the participants during improving the character organization is as follows.

In fact, it is not enough to value the character in the story. Because it must be a continuous flow of events that make up this value (P3).

Three participants state the easy parts of improving the character organization as follows:

Affective features were given according to the characters' characteristics. The characters are given in accordance with their affective characteristics (P2). I chose value based on the flow of events and the characters' characteristics. The value I chose for my story is associated with the characters' properties (P4). An affective challenging process did not occur. Because a feeling gave birth to another value (P5).

3.3.3. Participants' opinions on using the metacognitive domain as a strategy

In this part of the study, the participants talk about the difficulties they have had during the using metacognitions. Two participants make the following observations in this regard:

There is metacognitive knowledge in the writing process, and it is a prerequisite that forced me in the writing process (P1). I had a little hard on this step. Because I designed the story for children. So I am surprised how to give the metacognitive domain according to the child (P4).

Two participants, state that they have found the preparation, raising curiosity and remembering processes of the introduction part easy and fun.

I gave the metacognitive knowledge in the conclusion part of the story. There is unraveling the event and everything is better sitting (P2). At this step, I addressed the reactions of my characters to the feeling of loneliness. I've included in my story how the character handles this problem. I have a little thought to my character about loneliness (P3).

3.3.4. The difficulty or simplicity level of the cognitive categories used in the stories

Two participants state the difficulties they have had during the remembering, understanding, applying, analyzing, evaluating and creating steps of the stories

I took advantage of the categories of the cognitive domain in my story. But when I started writing the general story, I found my story to be more successful when I wrote in accordance with the affective, cognitive and metacognitive domain (P3). In the conclusion part of the story, I could not reflect these categories. I have experienced other problems in this domain (P5).

Three participants state the convenience they have had in the understanding, applying, analyzing and evaluating processes of the *development part*.

I wasn't forced at this step. The characters I created came up with both positive and negative aspects. In this context, I tried to give the character with real cognitive processes (P4). I was not overwhelmed by the use of cognitive processes in the story. Because these are the features that should be in a story characters under normal circumstances. Therefore, cognitive domains facilitated character development in the story (P1). In the introduction and development of the story, I have given space for the characters' cognitive characteristics. In this story, character development strengthened the narrative in the story (P5).

4. Discussion and Conclusion

Strategy training is an important issue in the process of developing both prospective teachers' professional qualifications and their skills in some aspects. One of these aspects is the training of writing skills. Because, in this research, it is seen that prospective teachers need a strategy education in the process of developing writing skills. It is determined that teachers have important needs especially in the process of using strategies suitable for writing skills in the class environment (Yamaç and Öztürk, 2018; Bağcı, 2007). Therefore, this study focuses on the elimination of prospective teachers' shortcomings and needs. Text-writing strategies to support the prospective teachers' writing skills were given in the SWS training. Based on the findings obtained, it was determined that the SWS training was generally functional in the process of developing prospective teachers' writing skills. Although this level of achievement was recorded as little at some steps of the training, it was determined that SWS training was generally successful. Because the success of the second stories in every five steps of the SWS training is higher than the first stories. Therefore, it can be concluded that prospective teachers have learned writing-oriented strategies and used them successfully in the writing process. Thus, it can be said that a part of Turkish prospective teachers' needs about using different strategies of writing skills have been solved (Çer, 2017). It is determined that the SWS training is functional during the process of meeting the needs which are stressed in the previous study (strategy instruction, setting product goals, word processing, sentence combining, prewriting activities, process writing approach, the models of study, grammar instruction) (Graham and Perin, 2007).

In the research, it was found that strategies used in the context of affective, cognitive domains and metacognitive knowledge was successful in developing the characters of the story. It has been determined that the second, third and fourth step of the strategy training given in this context is carried out in a suitable and successful manner. Participants can be guided to make use of affective, cognitive and metacognitive domains to develop the characters in the process of story writing. Thus, more effective texts will be written in the process of forming story characters. As a matter of fact, these results support the findings of previous studies conducted in this context (Wijirahayu and Dorand, 2018; Flower and Hayes, 2014; Nosratiniaa and Adibifarb, 2014; Garay and Etxebarria, 2012; White, 1993).

The writing strategies given in the seven-week education process were examined in accordance with the student opinions and observer notes. Each week with students, the story writing steps were prepared and the functionality of each of the strategies used at these steps was tested. In order to ensure that the relevant strategies are acceptable, researcher's observation notes, participants' opinions, classroom discussion questions and the results of the rubric were used. Based on the results of these measurement tools, it has been determined that there is a great improvement in prospective teachers' writing skills. According to these results, the writing strategies used are effective to improve the participants' writing skills. Thus, the effectiveness of strategy-based education in developing language skills was once again tested by this research (Yulisa, 2018; Kassem, 2015; Graham, Santos and Vanderplank, 2011).

5. Recommendations

The participants' satisfaction levels about the SWS training were examined. In this context, semi-structured interviews were conducted with five participants. According to the results of the interview, participants find it very useful to write story using affective, metacognitive and cognitive strategies. Because the participants think that the strategies used have a facilitating effect on the writing process. It was determined that these issues were related to previous research results (Özdemir, 2014; İşeri and Ünal, 2012). Based on these results, the strategy-based education processes should be extended in the prospective teachers' occupational training skills. Because according to the previous findings, teachers find the writing education in the university insufficient and weak (Yamaç and Öztürk, 2018). It is hoped that some of these inadequacies and weaknesses related to writing education will be solved by the results of this study.

In order to determine the effectiveness of the SWS training and the success levels of the stories, the rubric was developed. In this context, the rubric has been used for two purposes. The first is to develop a measurement tool to assess writing skill when designing an effective teaching process for this skill. The second is to ensure that prospective teachers can control the process of writing text using the rubric. In order to determine the effect of the rubric in the SWS training process, the functionality of the rubric in the pre-training and training process was examined. Thus, it has been observed whether there are deficiencies and defect of the rubric. For this purpose, the dimensions of the rubric and the steps of the SWS training are arranged in parallel. Thus, both the dimensions of the rubric and the steps of the SWS training were monitored simultaneously for seven weeks. In this process, the effectiveness and functionality of both were examined by the researchers' notes, observations results and participant views. The result obtained in The Results chapter show that all items in the rubric developed have made accurate measurements. Therefore, the rubric has a positive effect on SWS training and the participants' writing skills. And it is determined that the developed

rubric makes appropriate measurements. Based on these results, the rubric developed for evaluating the teaching process related to writing skill is suggested to researchers as an effective measurement tool.

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Appendices

Table 2[2]. *The evaluation results of the stories*[3]

	Story draft[4]		Affective domain[5]		Metacognitive domain[6]		Cognitive domain[7]		Evaluation of character[8]	
The participants	2[9]	1[10]	2	1	2	1	2	1	2	1
1	0(1) 1(4) 2(5) $\bar{x}$:1,4 S	0(10) $\bar{x}$: 0 I	2(4) $\bar{x}$: 2 S	0(4) $\bar{x}$: 0 I	0(2) 2(1) $\bar{x}$: 0,6 PI	0(3) $\bar{x}$: 0 I	2(3) 1(3) $\bar{x}$:1,5 S	0(6) $\bar{x}$:0 I	0(1) 1(1) 2(1) $\bar{x}$:1 SD	0(3) $\bar{x}$: 0 I
2	1(2) 2(8) $\bar{x}$:1,8 S	0(3) 1(3) 2(4) $\bar{x}$:1,1 SD	2(4) $\bar{x}$: 2 S	0(4) $\bar{x}$: 0 I	0(2) 2(1) $\bar{x}$: 0,6 PI	0(2) 2(1) $\bar{x}$: 0,6 PI	0(1) 2(3) 1(2) $\bar{x}$:1,3 SD	0(1) 1(2) 2(3) $\bar{x}$:0,9 I	0(1) 2(2) $\bar{x}$:1,3 SD	0(3) $\bar{x}$: 0 I
3	1(1) 2(9) $\bar{x}$:1,9 S	0(9) 1(1) $\bar{x}$:0,1 I	2(4) $\bar{x}$: 2 S	0(4) $\bar{x}$: 0 I	2(3) $\bar{x}$: 2 S	0(3) $\bar{x}$: 0 I	0(1) 2(5) $\bar{x}$:1,7 S	0(2) 1(3) 2(1) $\bar{x}$:0,8 I	0(1) 2(2) $\bar{x}$:1,3 SD	0(3) $\bar{x}$: 0 I
…	0(1) 1(3) 2(6) $\bar{x}$:1,5 S	0(1) 1(8) 2(1) $\bar{x}$:1 SD	2(4) $\bar{x}$: 2 S	0(3) 2(1) $\bar{x}$: 0,5 PI	0(1) 2(2) $\bar{x}$: 1,3 SD	0(2) 2(1) $\bar{x}$: 0,6 PI	1(2) 2(4) $\bar{x}$:1,7 S	1(4) 2(2) $\bar{x}$:1,6 S	1(1) 2(2) $\bar{x}$:1,7 S	0(1) 1(1) 2(1) $\bar{x}$:1 SD

[2] Adapted from (Sonmez, 2019, p.148).

[3] 0-0,49 [insufficient (I)], 0,5-0,9 [partially insufficient (PI)], 1-1,4 [should be developed (SD)] and 1,5-2 [successful (S)].

[4] number of item: 10

[5] number of item: 4

[6] number of item: 3

[7] number of item: 6

[8] number of item: 3

[9] The second story

[10] The first story

Table 3[11]. *The rubric*

Dimensions	The criteria	value ranges of items [12]	$\bar{x}$ [13]	Success level [14] [15]
The designing of story (1st dimension)	Appropriate verbal usage for kind of story (Maupassant or Çehov style)	Using the frequency of the verbs and nouns available according to the story type: if available (2), less available (1), available (0).		
	Using grammar	Grammar errors in the story: If there is more than 3 (0), less than 3 (1), any error (2).		
	Correct expression	If there is incomprehensibility (0) or there not incomprehensibility (2).		
	Curiosity element	In each part of the story, if the curiosity element is given (2) if it is given only in one part (1), not given in any part (0).		
	Configuring events in the story	If the supporting events in the story do not support the basic event (0) if support (2).		
	Choosing the right character	If all the characters in the story are related to the story structure (2), if some of them are not related (0).		
	Moral development	The events and situations in the story do not support the Aristotle theory (reward for good behavior and punishment for bad behavior) (0), support (2).		
	The readability	The length of sentences in accordance with the target groups' reading ability: if available (2), not available (0).		
	The appropriateness of the content	The content in the story will be given in a certain systematic (from known to unknown): if available (2), not available (0).		
	The images	All of the images in the story should be given in relation to the fiction of the story in the related part: If all of the images are available (2), if some of them not available (1) and any of them not available (0).		
characters' affective development (2nd dimension)	Responding of the values	Characters should pay attention to and react to warnings about messages given in the story: If available (2), not available (0).		
	Evaluating of the values	To include the thoughts and attitudes of the character about the acceptance, preference or loyalty of the target values: If available (2), not available (0).		
	Organization of the values	Character(s) give (s) reaction to accept the values: If available (2), not available (0).		
	Characterization of the values	Designing the story's values with the characters by assimilating: If available (2), not available (0).		
characters' problem-	Strategic knowledge	Characters realize the right strategy to solve the problem situation: If available (2), not available (0) .		

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[11] Adapted from (Sonmez, 2019, p.149).

[12] Score will be given as 2, 1, and 0.

[13] Success level of the items as 2 "sufficient", 1 "Partially Insufficient" and 0 "Insufficient"

[14] Success level of the story dimension as 0-0,49 [insufficient (I)], 0,5-0,9 [partially insufficient (PI)], 1-1,4 [should be developed (SD)] and 1,5-2 [successful (S)].

[15] I,PI, SD, S

solving development by metacognitive knowledge (3rd dimension)	Knowledge of cognitive tasks)	The character uses the right strategy to solve the problem situation: If available (2), not available (0).		
	Knowledge about yourself	He/she is aware of his/her own ability to overcome the character's problem state: If available (2), not available (0).		
characters' cognitive development (4th dimension)	The cognitive process of remembering	There isn't sub-cognitive process (recall) (0), there is sub-cognitive processes (2).		
	The cognitive process of understanding	There aren't sub-cognitive processes (interpreting, exemplifying, classifying, summarizing, inferring, comparing and explaining) (0), less than two sub-cognitive processes (1), more than three sub-cognitive processes (2).		
	The cognitive process of applying	There aren't sub-cognitive processes (executing, implementing) (0), less than one sub-cognitive processes (1), at least two sub-cognitive processes (2).		
	The cognitive process of analyzing	There aren't sub-cognitive processes (differentiating, organizing, attributing) (0), less than one sub-cognitive processes (1), at least two sub-cognitive processes (2).		
	The cognitive process of evaluating	There aren't sub-cognitive processes (checking, critiquing) (0), less than one sub-cognitive processes (1), at least two sub-cognitive processes (2).		
	The cognitive process of creating	There aren't sub-cognitive processes (generating, planning, producing) (0), less than one sub-cognitive processes (1), at least two sub-cognitive processes (2).		
evaluation of characters' properties (5th dimension)	self-assessment	Self-assessment is done (2), not done (0).		
	peer/group assessment	Peer/group assessments are included (2), not included (0).		
	Provide feedback on learning deficiencies	Feedback was given about the characters' deficiencies (2), not given(0)		