Developing a Story Writing Attitude Scale for Secondary School Students

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Developing a Story Writing Attitude Scale for Secondary School Students

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Abstract

The aim of this study is to develop a measurement tool to measure the attitude towards story writing. Validity and reliability studies of the scale, applied to 243 secondary school students, were carried out with exploratory factor analysis, measurement of internal consistency and confirmatory factor analysis. EFA revealed that the scale had three dimensions as planned in the original. Cronbach Alpha internal consistency coefficient was calculated as 0.95 in order to determine the reliability of the scale. Kaiser-Meyer-Olkin (KMO) coefficient was found as 0.94 in principal component analysis. In addition, the Barlett Sphericity test was significant ($\chi^2 = 3529.500; p<0.01$). Factor loads as a result of varimax rotation varies between 0.43 and 0.80. In CFA, it was stated that the standardized regression coefficients varied between 0.51 and 0.81, and that the items in each dimension had a significant predictive power. As a result of the analysis, a valid and reliable scale was obtained. In addition, the attitudes of 243 secondary school students towards story writing were investigated. As a result of the data, it was observed that students had a positive attitude towards story writing.

Key words: Attitude, Writing story, Scale development

Introduction

The student who is capable of writing establishes a connection between thoughts and what he / she has learned, and transfers his / her knowledge. Developing a positive attitude towards writing skills enables students to be successful not only in Turkish classes, but also in many different classes. With the development of written expression skills, students have sensitivity to aesthetics of their writings. The higher the student's attitude towards writing, the higher the quality of his writing will be.

The most important type of writing used in the development of writing skills in schools is stories. Stories are aesthetic texts that enrich our lives and our imagination. In particular, it is important for teachers to use different methods, techniques and practices that will give students an interest in writing in order to develop a positive attitude towards writing. Developing a positive attitude towards writing will also have a positive impact on the attitude towards writing a story.

Writing, which is one of the important areas in language development, is the expression of emotions, thoughts and wishes in our minds by various symbols in accordance with certain rules (Güneş, 2013). Writing skill is a narration skill which develops after listening, speaking and reading skills. Writing involves a number of challenging tasks, such as combining and using words correctly, following grammatical rules, maintaining unity and consistency (Del Aguila, 2016). Other than helping us improve our writing style, writing has virtues such as communicating with others and most importantly expressing thoughts (Krashen, 1993; Smith, 1988; cited in: Krashen, 1993). People have contributed to civilization by providing information and culture transmission through writing (Coşkun, 2007).

The texts that began with oral tradition and became written in the history of almost every nation are examples of the type of story. Turkish storytelling began to appear in our literature especially with the works of the period of
Tanzimat. Before this period, there were mostly folk tales, legends, narratives taken from the Qur’an, and Tales of Dede Korkut (Eronat, 1995). Stories are short texts about events that have been experienced or that are possible to be experienced in an enjoyable way (Kayasandık, 2012). The story is usually a chronological narrative involving the basic characteristics of an event, which is transmitted through some channels over time (Genette, 1982; Abbott, 2010). According to Boratav (2009), the first type of text to show the child his mother tongue consistency, richness and subtlety are stories. Students can write events or fictional events related to their own lives applying to their imagination even if they are not literary (An, 2008).

Teachers should encourage students to write stories for reasons such as having fun, developing artistic expression, exploring the function and value of writing, revealing creativity, explaining their thoughts clearly, finding their identity, learning to read and write (Tompkins, 1982). Students who have difficulty in writing stories often do not have knowledge about the writing process, they have difficulties in producing ideas, they do not plan well, they do not use strategies to produce and organize text, they have difficulty in writing mechanics and they do not review or review very little what they write (Englert, Raphael, Fear & Anderson, 1988; Graham, Harris, MacArthur & Schwartz, 1991).

Writing practices in schools are carried out in a traditional structure. For this reason, writing is not regarded as an attractive activity by children. During the applications, rules such as paper cleaning, writing properly, compliance with grammar rules are more important than necessary. Thus, children direct attention to the form rather than the content of the article (Oral, 2003). Developments of children’s imagination and creativity are ignored. The student, who is overwhelmed by boring and meaningless rules, avoids the work of writing.

Today, researchers view attitudes as evaluable judgements (Fazio & Olson, 2003; Schwarz, 2007). Attitude is defined as a positive or negative intensity ranking and rating directed towards a psychological object (Thurstone 1928; Sherif & Sherif, 1996). Most students tend to show negative attitudes towards writing. Students fear making writing mistakes and they are not confident to exhibit their thoughts through writing (Jabali, 2018). The attitude towards writing is very effective in increasing the success of writing (Bartscher, Lawler, Ramirez & Schinault, 2001). Writing attitudes directly influence writing achievement and motivation (Graham, Berninger & Fan, 2007). Mason, Harris & Graham (2002) indicated that students had a positive attitude towards writing when they started to school, but towards the end of primary school this attitude worsened. So it is important for teachers to identify students’ attitude toward writing and to do instructional practices of writing to develop it.

It is important to be able to see the students’ attitudes towards story writing, to determine the methods and techniques used in the class, especially to shape their writing activities in this way. Therefore, it is important to do this study. The literature on attitude towards writing was reviewed and scales were found to measure attitude towards writing, not towards writing a story (Kırmızı, 2009; İşeri & Ünal, 2010; Erdoğan, 2012; Göçer, 2014; Akaydın & Kurnaz, 2015; Ayrancı & Temizyürek, 2017; Baştuğ & Keskin, 2017; Can & Topçuoğlu Ünal, 2017; Tavşanlı, Bilgin & Yıldırım, 2019). In addition, this study has importance for literature because of the lack of a scale of attitude in the field of writing stories.

**Aim of the Study**

The purpose of the study is to develop a scale to determine the attitudes of secondary school students towards writing stories.

**Method**

It is a scale development study to determine secondary school students’ attitudes towards writing a story. In the first stage of the scale development study, “what is wanted to be measured” should be clearly determined. In the second stage, an item pool should be created. In the third stage, the format of the measurement tool should be decided. The other stages consist of reviewing the items by experts, ensuring item validity, applying the scale, evaluating the items, and finalizing the scale (Şahin & Boztunç Öztürk, 2018). In this study, necessary analyzes were made to determine the validity and reliability of the “Story Writing Attitude Scale for Secondary School Students”.
Participants

The study group consists of 243 secondary school students who continue their education in Uşak. In scale development studies, it is recommended that the sample size for item analysis and factor analysis should be at least five times the number of the items (Bryman & Cramer, 2001). Therefore, the study group was aimed to reach at least five times the number of the items.

Scale Development Process

The aim of this study is to develop an attitude scale to determine the attitudes of secondary school students towards story writing. In this context, a literature review was conducted on writing, writing attitude, story, story writing and story writing attitude. Then, in accordance with expert opinions, nine questions were prepared as “Student Opinion Determination Form for Writing a Story” and 19 secondary school students’ opinions were collected.

In accordance with the literature survey, students’ and expert opinions, a measuring instrument consisting 37 items was created. In order to determine the comprehensibility and content validity of the scale, it was presented to 16 field experts and three Turkish teachers. In line with the feedback from the experts, two items were subtracted from the scale and arrangements were made. Prior to the validity and reliability analysis, 31 of the scale items contain positive expressions and four of them negative. The items in five-point likert type are graded as Strongly disagree (1), Disagree (2), Undecided (3), Agree (4), Strongly agree (5).

The developed form was applied to the study group and SPSS program was used for the statistical analysis. As a result of the validity and reliability analysis, it was decided to subtract seven items from the scale. Three of the seven removed substances are negative substances. As a result of the analysis, these substances have a negative factor load. As in the Benson & Hocavar (1985) study, it was concluded that the factor structures for positive and negative substances are different. It is stated by Marsh (1984) that there is a low likelihood that primary school children will show a positive concept of self when they do not participate in a negative statement. Schriesheim & Hill (1981) stated that negative expressions were less valid, and negative expressions led to errors in students’ responses.

Data Analysis

In scale development studies, factor analysis is the most commonly used method to obtain data about the structure validity of a scale (Seçer, 2015). Generally, factor analysis technique is divided into two as exploratory factor analysis technique and confirmatory factor analysis technique. EFA was performed with the data obtained in the study. With this method, a smaller number of factors are described which explain the original variability of p number of variables, and factor loads, factor coefficients, and factor scores are calculated (Ozdamar, 2002). In this context, the data obtained are listed in a table. Correlation matrix was used in descriptive factor analysis because the units and variance of the data were close to each other.

Kaiser-Meyer-Olkin (KMO) technique is used to comment on the adequacy of sample size in EFA (Seçer, 2015). This data obtained in the study is shown in a table. In addition, Barlett’s Test of Sphericity was also given to determine whether the data came from a multivariate normal distribution.

The Cronbach Alpha coefficient is used to evaluate the accuracy of the responses to the items on the likert scale. In this context, the obtained Cronbach Alpha coefficient is shown in a table.

In this study, CFA was used to verify the structure determined by the EFA. To demonstrate the adequacy of the model, the fit indices are given in a table. In addition, the measurement model of CFA was given and the variables were commented.
Results

The findings of the study and the comments are explained under the related headings.

Development of Story Writing Attitude Scale for Secondary School Students

An exploratory factor analysis was performed for the first sub-objective of the study to develop a story writing attitude scale for secondary school students.

Findings Related to Exploratory Factor Analysis

The findings related to the adequacy of sample size in exploratory factor analysis are given in Table 1.

<table>
<thead>
<tr>
<th>KMO Coefficient for Factor Analysis of the Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
</tr>
<tr>
<td>.94</td>
</tr>
</tbody>
</table>

In order to determine the factor structure of the developed scale, factor analysis was applied to the scores obtained from the responses of students to the scale. The KMO test is a criterion for testing the suitability of the data structure for factor analysis in terms of sample size (Çokluk, Şekercioğlu & Büyükoztürk, 2016). The KMO value has a value between 0 and 1. The following evaluation of levels for KMO values is that 0.50-0.60 is miserable, 0.60-0.70 is mediocre, 0.70-0.80 is middling, 0.80-0.90 is meritorious and over 0.90 is marvelous (Şencan, 2005). According to Pallant (2001), KMO value should be at least 0.60 and Kaiser (1974) stated that it should be at least 0.70. In the factor analysis of the study, KMO value was found 0.94 and it is significantly higher than acceptable value (0.70).

The suitability of the data for factor analysis can be examined by Barlett's sphericity test (Büyüköztürk, 2014). As a result of the analysis, the Barlett Sphericity Test was found to be significant ($\chi^2 = 3529.500; p<0.01$). The chi-square statistic shows that the data matrix is appropriate.

The construct validity of the scale was analyzed using the factor analysis on the data obtained from the developed scale and variance and factor eigenvalues of the scale items are shown in Table 2.

<table>
<thead>
<tr>
<th>Variance and Factor Eigenvalues of Story Writing Attitude Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
</tr>
<tr>
<td>Component 1</td>
</tr>
<tr>
<td>Component 2</td>
</tr>
<tr>
<td>Component 3</td>
</tr>
</tbody>
</table>

In social sciences, scale items are expected to explain the total variance between 40% and 60% (Can, 2014). It can be seen that the scale has a three factor structure because the dimension where the total variance is explained over 40% is the third factor and the substance is collected under three factors whose eigenvalue is greater than 1.

It was observed that the scale has three components as in the original and these three eigenvalues were over 1.00. These three sub-components accounted for 56.27% of total variance.

Factor load values are shown in Table 3 in order to see the relationship of substances with factors.

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Love8</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love7</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love1</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love3</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love9</td>
<td>.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Varimax rotation was applied to the data in order to see the factor load distribution. Items loading 0.30 indicates that 9% of the variance explained by the factor. The variance at this level is remarkable and the load value of 0.60 and above is high, the load value between 0.30 and 0.59 can be defined as medium regardless of its mark and this is taken into consideration in variable extraction (Büyüköztürk, 2002).

As a result of the analysis, 2, 10 and 12, which are the items of love dimension in the original scale, items 3 and 6 in the benefit dimension and items 6 and 7 in learning environment were found in more than one dimension or not in any dimension and were removed from the scale. After removing these substances from the analysis, factor analysis was performed for the second time and the results indicated in Table 3 were obtained. When these results were examined, as in the original measurement tool, the items had high values under three factors. It was determined that the first factor of the scale consists of 11 items, the second factor consists of 8 items and the third factor consists of 9 items. Factor load values of the first factor ranged between 0.43-0.80, the factor load values in the second factor ranged between 0.54-0.77 and the factor loads in the third factor ranged between 0.50-0.70.

Reliability Analysis

In this study, Cronbach Alpha method, which is one of the methods of determining reliability in measurement tools, was selected and the calculated value is shown in Table 4.

<table>
<thead>
<tr>
<th>Component</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td>11</td>
<td>.91</td>
</tr>
<tr>
<td>Component 2</td>
<td>8</td>
<td>.90</td>
</tr>
<tr>
<td>Component 3</td>
<td>9</td>
<td>.86</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>.95</td>
</tr>
</tbody>
</table>

Table 4. Cronbach Alpha Internal Consistency Coefficient of Story Writing Attitude Scale
The success in predicting the behavior of individuals depends largely on the reliability of the test and the scores obtained from the test (Büyüköztürk, 2014). Cronbach Alpha coefficient is calculated for the rated attitude and personality tests (Can, 2014; Thorndike & Thorndike, 2018). In the literature, it is stated that if Cronbach alpha coefficient of the scale is between 0.80 and 1, the scale is highly reliable; if it is between 0.60 and 0.79, the scale is reliable; if it is between 0.40 and 0.60, the scale is low reliable and if it is between 0 and 0.39, the scale is unreliable (Büyüköztürk, 2014). For the sub-dimensions of the scale, Cronbach Alpha coefficients were 0.91; 0.90; 0.86, while it was 0.95 for the whole scale. These values showed that all of the sub-dimensions and the whole scale were reliable.

Findings Related to Confirmatory Factor Analysis

CFA was used to test the construct validity of the scale. The model fit indices of the measurement tool are given in Table 5.

<table>
<thead>
<tr>
<th>Measurement Values Before Modification</th>
<th>Measurement Values After Modification</th>
<th>Perfect Fit</th>
<th>Acceptable Fit</th>
<th>Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMIN/ sd</td>
<td>1.80</td>
<td>1.57</td>
<td>0≤χ2 /df≤2</td>
<td>2≤χ2 /df≤3</td>
</tr>
<tr>
<td>p</td>
<td>.00</td>
<td>.05&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GFI</td>
<td>.84</td>
<td>.86</td>
<td>0,95≤GFI≤1,00</td>
<td>0,90≤GFI≤0,95</td>
</tr>
<tr>
<td>AGFI</td>
<td>.81</td>
<td>.84</td>
<td>0,90≤AGFI≤1,00</td>
<td>0,85≤AGFI≤0,90</td>
</tr>
<tr>
<td>IFI</td>
<td>.92</td>
<td>.94</td>
<td>0,95≤GFI≤1,00</td>
<td>0,90≤GFI≤0,95</td>
</tr>
<tr>
<td>CFI</td>
<td>.91</td>
<td>.94</td>
<td>0,97≤CFI≤1,00</td>
<td>0,95≤ CFI ≤0,97</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.05</td>
<td>.04</td>
<td>0≤RMSEA≤0,05</td>
<td>0,05≤RMSEA≤0,08</td>
</tr>
</tbody>
</table>

Reference: Blunch, 2008; Byrne, 2010

Many conformity index values should be used in order to more accurately determine the compatibility of the model due to the fact that the fit indices have strengths and weaknesses compared to each other in evaluating the harmony between the theoretical model and the actual data (Büyüköztürk, Akgün, Kahveci, Demirel, 2004). Chi-Square Goodness of Fit, Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Incremental Fit Index (IFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) indexes are used in this study.

The ratio of the χ2 /df, the overall compatibility index of the model tested, is in marvelous fit range. On the other hand, the p value considered as a reference for the acceptance of the general compliance index in the model should not be significant and χ2 / sd should be less than 3 (Schumacher & Lomax, 2010). However, it is stated that if the ratio of χ2/df is acceptable, it is enough for the general fit index of a model to be compatible (Meydan & Şeşen, 2011).

In addition, other conformity indexes such as GFI, AGFI, IFI and CFI are also stated as acceptable as they approach 1 (Blunch, 2008; Bryne, 2010). The GFI value (0.86), the AGFI value (0.84), the IFI value (0.94), the CFI value (0.94) showed acceptable compliance. On the other hand, it can be said that the value of RMSEA (0.58) is acceptable within the framework of the reference values accepted (Arbuckle, 2012).

The diagram of the model that reflects the dimensions of the scale, the items which the dimensions have and the standardized regression weights in the analysis of each item is as follows.
Diagram 1. Story Writing Attitude Scale Confirmatory Factor Analysis Results

Regression values show the power of estimating hidden variables of observed variables, in other words factor loads (Yemez, 2016). Factor loads ranged from 0.51 to 0.81 for the love sub-dimension, from 0.60 to 0.81 for the benefit sub-dimension, and from 0.51 to 0.73 for the learning environment sub-dimension. These findings explain that the items in each dimension have considerable predictability. Factor loadings were found to be significant and the items were loaded correctly.

In the path diagram, all the standardised values obtained should not exceed 1 (Aytaç & Öngen, 2012). 0.79, 0.82, 0.76 values show standardized correlation between love, benefit and learning environment. When we look at the path diagram, one-way arrows pointing towards the observed variable from the love, benefit and learning environment shows one-way linear relationship. Thus, it is seen how well each item represents its own hidden variable.
When the standardized parameter values are considered, the most affecting item of dimension love is the first item with a load of 0.81 and the least affecting is the items 6 and 13 with a load of 0.50. The most affecting item of dimension benefit is the forth item with a load of 0.81 and the least affecting is the seventh item with a load of 0.60. The most affecting item of dimension learning environment is the fifth item with a load of 0.73 and the least affecting is the tenth item with a load of 0.51.

Conclusion and Discussion

In this study, a 28-item Story Writing Attitude Scale was developed to determine attitudes of secondary school students towards story writing skills. Harmer (2004) emphasizes that being able to write is a vital skill for everyone using their own first language. Writing triggers thinking, enables learners to concentrate and organize their ideas, and increases their ability to summarize, analyze, and criticize (Rao, 2007). The writing attitude is highly effective on improving or hindering writing achievement (Bartscher, Lawler, Ramirez & Schinault, 2001). Learners with positive attitudes performes significantly better than those with negative attitudes on writing tasks (Sarkhoush, 2013). The increase in writing activities has presented teachers with the challenge of determining their students' attitudes toward writing because of the link between motivation and literacy learning (Turner & Paris, 1995). So, our purpose was to develop an instrument that teachers and researchers could use to learn about students' attitudes toward writing stories.

According to the analysis results, the KMO value was found to be 0.94 in factor analysis. As a result of the analysis, the Barlett Sphericity test was found to be meaningful. After vertical rotation of varimax factor load values were found to be between 0.43 and 0.80. Calculated internal consistency reliability coefficient was found to be 0.95 for the whole scale. In the CFA, it was observed that the general fit index of the model, $\chi^2/df$, was within the marvelous fit range, and the items in each dimension had a significant predictive power. The findings show that the story-writing attitude scale is a valid and reliable measurement tool that can measure students' attitudes towards story-writing skills.

In our literature, Akaydın & Kurnaz (2015) developed a writing attitude scale for high school students. Ayrancı & Temizyürek (2017) conducted a scale development study on the free writing attitudes of the students of the Faculty of Education. Kırmızı (2009), developed a Scale of Attitude Towards Writing for 4th and 5th grade students. The Attitude Scale for Written Expression was developed by Ak (2011). Temizkan & Sallabas (2009) developed Attitude Scale for Reading and Writing to determine the attitudes of university students towards reading and writing activities. Can (2018) developed Writing Attitude Scale for Secondary School Students. The study of adaptation of the Writing Attitude Scale, developed abroad, to Turkish language was carried out by Göçer (2014). In the same way, studies were carried out by Can (2016) and Yıldız & Kaman (2016).

Teachers, the most important element of the education system, have a great influence on strengthening students’ writing skills and making them enjoy writing. In particular, teachers' personal attitudes were found to affect the time spent teaching writing, the quality of teaching writing and the selection of teaching strategies (Bandura & Schunk, 1981; Robinson & Adkins, 2002; Street, 2003). Therefore, at every stage of the acquisition of writing skills, by monitoring, guiding the students, the teacher can help the students develop positive attitudes towards writing not only as a guide but also as a participant. The importance of the attitude of the students towards writing is closely related to the effective realization of the skills in Turkish Teaching Program such as short text writing and story writing.

In order to help teachers examine their students' attitudes toward writing stories, it is critical for the field of writing to have a reliable and valid method in which to measure attitudes of students. We can say that the Story Writing Attitude Scale for Secondary School Students developed to address a significant deficiency in the field of writing is a valid and reliable measurement tool. We believe that it can be a source for researchers working in this field. In addition, we expect teachers to benefit from this measurement tool.

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