

## Thinking Development Techniques Used By Pre-service Turkish Language Teachers in Informative Text Writing<sup>i</sup>

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### Abstract

The purpose of the current study is to determine the pre-service Turkish language teachers' level of using thinking development techniques while writing informative texts. In the study, descriptive analysis-based qualitative method was employed. The study group determined by means of purposive sampling method is comprised of a total of 33 fourth-year students attending the Department of Turkish Language Teaching at the Education Faculty of Muğla Sıtkı Koçman University in the spring term of 2015-2016 academic year. In order to collect the data in the study, discussion and video display activities were performed with the pre-service teachers and then they were asked to write informative texts. The produced texts were analyzed to explore their level of using thinking development techniques. At the end of the study, it was concluded that the pre-service Turkish teachers had used the providing examples technique the most while writing informative texts and it is followed by the defining, showing witness and comparing techniques. Moreover, it was found that the pre-service teachers were limited to some certain thinking development techniques in terms of their level of using thinking development techniques.

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## **Introduction**

Understanding based on the individual's perception of the external world includes "listening and reading" skills and explaining based on expressing one's feelings and thoughts to another person and expressing oneself include "speaking and writing". According to Kurudayıoğlu (2011, p. 216), while individuals are reading, listening and watching, they try to understand and while they are speaking and writing, they try to express. During understanding, the existing thoughts are fed, new constructions are made and they are compared with the already existing structures and during expressing, the existing thoughts are explained and are conveyed to another person.

One of the most frequently used skills in both the daily life and academic life of an individual, writing enables the individual to convey his/her feelings and thoughts in a planned manner. General objectives stated in the Turkish Language Curriculum aim to enable students to express their feelings and thoughts and opinions and theses about a subject effectively by developing their writing skills and to make them use Turkish language in a conscious, accurate and meticulous manner in compliance with the speaking and writing rules of Turkish (MEB, 2017, p. 10).

Mental factors play an important role in grasping, administering and getting into the habit of writing skill (Tiryaki, 2017, p. 1036). As the written expression as a complicated and metacognitive activity requiring the skill of organizing personal knowledge, basic skills, strategies and multiple processes is based on producing a synthesis by capitalizing on the individual's feelings, thoughts and experiences, it involves the simultaneous use of more elements than the other skill domains (Arıcı, 2008, p. 217; Ceran and Kordak, 2015, p. 49). Allowing a systematic expression of feelings and emotions, the act of writing is a multi-dimensional mental process. Within this process, there are many mental operations such as analysis, synthesis, comparison, matching, criticizing and questioning.

Writing skill is systematically developed starting from the first years of elementary education. Senemoğlu (2010) noted that from the fourth grade onwards –especially after the sixth grade– students' thinking skills should be developed in tandem with their basic language skills (cited in Kurudayıoğlu, Tüzel and Karakaş, 2011, p. 186). When the general objectives of the Turkish Language Curriculum are examined, it is seen that students are expected to develop their information seeking, discovering, interpreting and constructing in the mind skills, learn how to have access to information through printed materials and multi-media sources and how to organize, question, utilize and produce this information and to comprehend what they read and evaluate and question them from a critical viewpoint and the thinking-based skills such as communicating in the mother tongue, mathematical competence and competence in science/technology, digital competence and learning how to learn are among the basic skills stated in the curriculum. As stated here, through the language education, it is intended to develop language skills such as listening, speaking, writing on the one

hand, and to promote the individual's communication and thinking skills on the other. Thus, mother tongue education should not be limited to mere conveyance of information, it also should have a content aiming to enhance thinking skill (Aktaş and Baki, 2013, p. 3). Seen from this perspective, utilization of thinking development techniques for enhancing writing skill has an important place in the effective expression of feelings and thoughts.

In fact, on the basis of developing thinking lays perceiving and making sense of abstract and concrete entities. Actually, this process starts with the activation of the five sense organs. Humans recognize and describe other creatures, environment and nature through these five sense organs, evaluate and interpret them on the basis of similarities and differences and come to conclusions specific to their lives. For the development and promotion of informative text writing skills, first, five sense organs should be trained in such a way as to perceive and make sense of concrete and abstract entities. In this training, ways of educating students not hearing but listening, not smelling, tasting and touching but recognizing smells, tastes and objects and consciously discriminating them according to their qualifications should be sought and students should be enabled to acquire the skills of discovering the essence, constructing the essence and restructuring it by establishing entity-perception-language-making sense-thinking relationship.

One of the text types in which thinking development techniques are frequently used, informative texts are written to give information and they can help develop thinking skills such as discussion, criticizing, comparing. Akyol (2006, p. 160) states that informative texts do not have a fixed structure unlike narrative texts; therefore, they are more difficult to understand. Due this characteristic, there is a need for serious and progressive training to write informative texts. One of the important stages of this training is constituted by thinking development techniques. According to Temizkan (2011, p. 17), the use of thinking development techniques allows the detailed processing and presentation of the topic addressed in the writing in various respects. The topic is better perceived by the reader in a more comprehensible and interesting way. As clear, comprehensible and effective expression is achieved, the retention of the writing is enhanced.

In informative texts, the author makes use of different techniques such as defining, providing examples, comparing, showing witness, using numerical data to justify his/her opinions to express them more effectively and persuade the reader. These techniques requiring higher metacognitive skills are explained below:

**Defining:** In the Turkish Dictionary, it is defined as “precisely describing and explaining the characteristics of a concept” and it is one of the techniques used to explain the unknown concepts related to the topic while writing informative text. Defining sentences usually found in the introductory parts of the text can take the form of objective sentences as well as subjective sentences.

**Providing examples:** The technique of providing examples usually used to reify the subject allows the information to be more permanent and the expression to be more effective through visualization in the mind. Examples given after the explanation of a certain topic can be selected from among the actual or would-be-actual events that took place in the past, are taking place at present or will take place in the future. According to Akbayır (2010, p. 80), sampling is based on similarity or the ability to represent; it is similar to the general one or exists inside of it.

**Comparing:** On the basis of similarities or differences, comparing aims to exhibit the characteristics of an event, a state or an object in a synchronic or diachronic manner and allows something to be seen as different from others or to be distinguished from others.

**Showing witness:** It is one of the techniques used to prove an event or a state, to increase the persuasiveness of the presentation and to support the discussion. In general, the opinions of people who are experts in their fields are given; thus, the technique of showing witness helps to convince the reader. According to Bilgin (2006, p. 554) *“the quotation is made with the aim of supporting the defended position or refuting the opposed discussion.”*

**Using numerical data:** This technique involves using numerical data found in documents such as scientific facts, statistics, historical heritages and correspondences to reinforce a discussion (Akbayır, 2010, p. 81). Numerical data are used to support, prove, reify and increase the credibility of a discussion presented in a text.

There is a need for a progressive training starting from the elementary education for the development of the skill of writing informative text which is one of the text types in which thinking development techniques are used the most frequently. This progressive training should attempt to develop students' mental structures and skills by adopting orientation approaches leading student from difficult to easy, from near to far, from surface to depth and from depth to surface. What is important in such activities and applications is to promote higher thinking.

Writing an informative text is more difficult and complex than writing other types of texts because the author needs to do many things in tandem such as organizing the ideas, explaining the topic to be conveyed to the reader in a precise and striking manner, making efforts to influence and persuade the reader. Therefore, teaching how to use thinking development techniques to students can help them develop their informative text writing skill. For pre-service Turkish teachers to impart informative text writing skill to their prospective students, first they need to have the skill necessary to use thinking development techniques in their written explanations. In this regard, the main purpose of the current study is to determine the pre-service Turkish teachers' level of using thinking development techniques.

## **METHOD**

### **Research Model**

In the current study conducted to determine the thinking developing activities used by the pre-service Turkish teachers while writing informative texts, the case study design; one of the qualitative research designs, aiming at a detailed investigation of one or more cases was employed. In the case study, the factors related to the case of interest (environment, individuals, events, processes etc.) are investigated through an integrated approach and the focus is on how they affect the target case and how they are affected from it (Yıldırım and Şimşek, 2005, p. 77).

### **Study Group**

The study group of the study is comprised of 33 fourth-year students attending the Department of Turkish Language Teaching at the Education Faculty of Muğla Sıtkı Koçman University. In the determination of the study group, the purposive sampling method allowing the deep investigation of the situations thought to include rich information was used (Yıldırım and Şimşek, 2005, p. 107).

### **Data Collection and Analysis**

In order to determine the extent to which they use thinking developing techniques while writing informative texts, it was planned to make the pre-service teachers write a composition about endangered animals. Before writing, some activities such as video shows and discussions about the issue were performed. After these activities, the pre-service teachers were given an hour to write their compositions on the basis of the videos watched and discussions conducted about endangered animals.

The collected data were analyzed by using the descriptive analysis, one of the qualitative research methods. The descriptive analysis approach involves the summarization and interpretation of the data on the basis of the pre-determined themes (Yıldırım and Şimşek, 2005, p. 224). In the current study, as the texts written by the pre-service teachers are examined according to the pre-determined thinking developing techniques, the study is a descriptive analysis study based on the analysis of the data according to a thematic framework. The texts written by the pre-service teachers were examined according to the extent to which they had used the thinking developing techniques, frequencies and percentages were calculated for each technique and excerpts from the students' statements were frequently used.

For the reliability of the data, the researchers discussed to decide what they agree and disagree on. For the calculation of the reliability of the data, the reliability formula proposed by Miles and Huberman (1994) was used.

$$\text{Reliability} = \text{Agreement} / (\text{Agreement} + \text{Disagreement})$$

As a result of this calculation, the reliability of the study was calculated to be 90%; thus, the study is accepted to be reliable.

The written texts were analyzed to determine the level of using thinking development techniques and frequencies and percentages were calculated for each technique.

## FINDINGS

In this section of the study, findings related to the thinking development techniques used by the pre-service Turkish language teachers while writing informative texts are presented.

**Table 1.** Thinking Development Techniques Used by the Pre-service Teachers While Writing Informative Texts

Thinking Developing Techniques	f	Percentage (%)	Mean
Providing examples	79	52	2.4
Using numerical data	32	21,1	1
Defining	28	18,4	0.8
Showing witness	8	5,3	0.2
Comparing	5	3,3	0.2
Total	152	100	4.6

As can be seen in Table 4.1, the most commonly used thinking developing technique by the pre-service teachers while writing informative texts is “providing examples” with 52%. This is followed by “using numerical data” with 21.1%, “defining” with 18.4%, “showing witness” with 5.3% and “comparing” with 3.3%.

When the arithmetic means of the thinking developing techniques used by the pre-service teachers in their texts are examined, it is seen that the pre-service teachers used the thinking developing techniques 4.6 times in total. From among these, the technique of providing examples was used 2.4 times, the technique of using numerical data was used once, the technique of defining was used 0.8 time and the techniques of showing witness and comparing were used 0.2 time each on average.

When the techniques used by the students are examined as a whole, it is seen that the technique of providing examples makes up more than half of the techniques used (52%). Moreover, the most frequently used techniques; providing examples, using numerical data and defining make up almost all of the techniques used (91.5%). The remaining techniques; showing witness and comparing

make up 8.6% of all the techniques used. This shows that the pre-service teachers' using the thinking developing techniques while writing informative texts is generally limited to some certain techniques in general.

Direct quotations from the compositions of the pre-service teachers regarding each thinking development technique are given below.

Examples from the pre-service Turkish language teachers' informative texts related to the technique "providing examples":

	EXAMPLES
PROVIDING EXAMPLES (29%)	<b>K11-</b> <i>"For instance, though polar bears are cute animals, and we love them from distance, they are becoming extinct as we restrict their habitats and due to globalization."</i>
	<b>K12-</b> <i>"Another example can be dolphins. They are used for therapeutic purposes and they remain distant from their natural habitats."</i>
	<b>K14-</b> <i>"For example, golden frog has not been encountered in any part of the world for years."</i>
	<b>K15-</b> <i>"Human beings continuously wanting to expand their domination have wiped out many animal species: These are Caspian tiger, whale species and endangered pandas and polar bears."</i>
	<b>K21-</b> <i>"For example dolphins; they are brutally destroyed in The Far East Asia by food industry and entertainment industry."</i>

Examples from the pre-service Turkish language teachers' informative texts related to the technique "using numerical data":

	EXAMPLES
USING NUMERICAL DATA (11.5%)	<b>K2-</b> <i>"Tasmanian tiger, endemic to Australia and carnivorous, lived up to 1930s."</i>
	<b>K4-</b> <i>"As a result of recent works, the number of these animals has been increased by 10%."</i>
	<b>K7-</b> <i>"The number of these endangered animals is about 200-300. This animal living in the Californian Bay uses only about 20% of its brain."</i>
	<b>K17-</b> <i>"The weight of Giant bullhead reaches up to 300 kilograms."</i>
	<b>K30-</b> <i>"It is known that more than 500 species have been extinct on earth."</i>

Examples from the pre-service Turkish language teachers' informative texts related to the technique "defining":

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	EXAMPLES
	<b>K7-</b> “ <i>The Ganges River dolphins are also known as Indian river dolphins.</i> ”
	<b>K12-</b> “ <i>Poaching is one of the most serious problems.</i> ”
	<b>K16-</b> “ <i>Extinct species are species completely wiped out.</i> ”
DEFINING (%10)	<b>K29-</b> “ <i>The Mediterranean seals live only in the Mediterranean and Western Africa coasts.</i> ”
	<b>K29-</b> “ <i>Java rhinos are hunted as their horns are valuable and they are endangered as their habitats are destroyed by construction companies.</i> ”

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Examples from the pre-service Turkish language teachers’ informative texts related to the technique “showing witness”:

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	EXAMPLES
	<b>K21-</b> “ <i>As a result many observations, it has been concluded that many animals have not been seen in their natural habitats or their numbers have been reduced to hundreds.</i> ”
	<b>K22-</b> “ <i>According to the data reported by the polar bears watching and tracking association, the number of these animals is fewer than 25,000.</i> ”
SHOWING WITNESS (%3)	<b>K24-</b> “ <i>According to the news I have watched recently, a new born dolphin died as some people wanted to be taken a photograph with it.</i> ”
	<b>K31-</b> “ <i>The Mediterranean seal has been accepted as one of the twelve endangered species by IUCN (International Union for Conservation of Nature).</i> ”
	<b>K32-</b> “ <i>Recent research has shown that many animal species are endangered.</i> ”

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Examples from the pre-service Turkish language teachers’ informative texts related to the technique “comparing”:

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	EXAMPLES
	<b>K3-</b> “ <i>Humans can express and protect themselves but animals and plant cannot.</i> ”
COMPARING (2%)	<b>K20-</b> “ <i>While previously nature affected the people, now people have started to shape and exploit the nature as they wish.</i> ”
	<b>K27-</b> “ <i>The number of endangered animals is higher than it was before.</i> ”
	<b>K30-</b> “ <i>Lives of other living things are not less valuable than ours.</i> ”
	<b>K32-</b> “ <i>Borneo elephant is smaller than Asian elephants.</i> ”

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## **DISCUSSION and CONCLUSION**

For students to write informative texts about a topic, they first need to have good knowledge base about the topic. Thus, activities such as reading articles, watching films, conducting discussions etc. should be conducted. In the current study, the students were first made watch video about the topic of interest and they were exposed to text reading and discussion activities and then they were asked to write informative texts. As a result of the current study, it was found that the pre-service teachers used the techniques of providing examples, using numerical data and defining while writing their informative texts; yet, they used the techniques of showing witness and comparing relatively less.

When the relevant literature is reviewed, it is seen that in different studies, different techniques came to the fore (Kurudayıoğlu, 2011; Temizkan, 2011; Çetin and Can, 2012; Aktaş and Baki, 2013). Kurudayıoğlu (2011) investigated the pre-service Turkish language teachers' state of using thinking development techniques in their oral expression and found that the most frequently used techniques were "providing examples" and "defining"; Temizkan (2011) explored the university students' state of using the ways of thinking development and found that the most frequently used techniques were "comparing" and "providing examples"; Çetin and Can (2012) attempted to determine the secondary school students' frequency of using thinking development techniques in their writings and found that the most frequently used techniques are "providing examples". Despite the differences seen in the studies, "providing examples" seems to be the most frequently used technique while "showing witness" and "using numerical data" seem to be the least frequently used ones. This indicates that use of thinking development techniques varies depending on the topic, text genre and teacher's preferences. A well-planned instructional program is needed to eliminate these differences and make the equal use of all techniques.

The research focusing on ways of thinking development techniques is considerably limited. This issue has only been indirectly addressed in few studies on written expression. Tiryaki (2011, p. 69) investigated the argumentative writing proficiency of first-year 361 students from the Faculties of Economics and Administration, Letters and Science and Education of Mustafa Kemal University and in this regard, thinking development techniques used by the students to support their argumentative texts were explored. As a result, following ratios were found for the techniques used by the students "defining" (0.16), "showing witness" (0.02), "comparing" (0.05), "providing examples" (0.43), "analogy" (0.03), "using numerical data" (0.02). Here, the students most frequently used "providing examples" and they used "showing witness" (0.02) and "using numerical data" (0.02) the least. The common point of the two studies is that the ratio of using the techniques of "providing examples", "defining", "using numerical data" and "showing witness" is lower than 1. This yields some negativities such as not being able to develop texts from different aspects, committing comprehension mistakes and not being able to express clearly and efficiently.

As a result of the current study, it was found that the pre-service teachers used the thinking developing technique of providing examples the most and it is followed by the techniques of using numerical data and defining. These three techniques make up more than 90% of all the techniques used; on the other hand, the total ratio of the techniques of showing witness and comparing is 8%. Thus, it can be concluded that the pre-service teachers do not make adequate use of thinking developing techniques while writing informative texts and they are limited to some certain techniques.

For the development and promotion of informative text writing skills, first, five sense organs should be trained in such a way as to perceive and make sense of concrete and abstract entities. For this purpose, prior to informative text writing activities, different resources can be exploited such as museums and field trips, conferences, films, theaters, exhibitions, videos, pictures, written documents and listening materials. In this way, students can acquire the skill of making use of ways and techniques of defining, comparing, providing examples, showing witness and using numerical data while writing their informative texts.

Applied works should be performed to show how to use thinking development techniques more effectively within writing activities. Thus, students' use of thinking development techniques can be developed by conducting oral activities such as discussions and panels. Moreover, each thinking development technique can be individually focused on in paragraph writing activities.

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