Readability Characteristics of Texts in Middle School Turkish Textbooks[1]

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Abstract

Turkish textbooks are important tools for gaining skills and competencies identified in curriculum. Textbooks should be designed to contribute to students' basic language skills as well as high level thinking skills in alignment with curriculum. The texts to be selected for textbooks should be prepared in alignment with the targeted skills and learning outcomes in terms of visuals and content. Textbooks kids encounter during elementary education play an important role in their upbringing as individuals with reading habits in later phases of their education. Therefore, texts to be included in textbooks should be selected carefully to reflect the best examples of text types, to be compatible with the child's language and meaning universe, and should be understandable. In this study, the readibility levels of texts in Turkish course textbooks were analyzed. Readibility levels reveal the comprehensibleness of texts. Readability depends on the number of words in a sentence and syllables in a word. First the average word and sentence length were calculated and then the readibility scores of texts were calculated. Two formulas adapted to Turkish were used in identifying the readibility levels of texts. The findings were analyzed comparatively. The results showed that the readability levels of narrative texts are easier compared to informing texts.

Keywords: Turkish education, Turkish textbook, Readability, Text, Analysis.

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Introduction

The purpose of Turkish education is to improve communication skills of students and to internalize the language use rathen than the language within the scope of comprehension and narrative skills so that they can contribute in all kinds of written and oral communication environments competently (Dilidüzgün, 2017). In alignment with this goal, the purpose if to improve reading, listening, talking, and writing skills through learning outcomes and activities in educational environment.

Various materials are used in gaining basic language skills in Turkish education. Textbooks are among these materials as an essential component of education (Cemiloğlu, 2015, p. 221). However, one of the most important issues of Turkish education is to select a right and effective text, and to teach the text in class effectively and efficiently (Yalçın, 2018, p. 164). Without a doubt, texts presented to students in Turkish education are of high importance. In order to like a language, the need to learn it and the services provided in teaching it are very important (Baki & Karakuş, 2012, p. 6). One of the fundamental conditions of raising language awareness and sensitivity in students it to provide them with dfferent kinds of literary texts that are compatible with students' levels, prepared with an artistic sensitivity. Thus, the reflection, correct and effective use of Turkish word existence in texts should be adopted as a main principle. Texts should be able to give students the responsibility of hearing and thinking rather than the purpose of teaching (Sever, 2013, p. 22).

In selecting texts for Turkish textbooks, not only children's reality, but also literariness criteria should be considered. This is because regardless how much a text reflects children's reality, if children can't participate in the fictional world created in the text, or can't find appropriate clues for the meaning of the text, and if children pay attention to teachings and tenets rather than anticipation and perception, and can't fill in the semantic gaps between word values, then the text is not compatible for children as it can't meet the literariness criteria (Çer, 2016, p. 1403).

Texts in Turkish textbooks play an important role in developing an interest and habit of reading as well. Reading skills include a multi-dimensional and complex process such as seeing, perceiving, vocalizing, and structuring in the brain (Güneş, 2014, p. 128; Karatay, 2014, p. 8; Stauffer, 1969, p. 5; Sever, 2004, p. 14; Yalçın, 2018, pp. 119-130). Günay (2013, p. 13) evaluates reading within the frame of interaction with text and considers reading as an intellectual activity performed by the reader with the text. Akyol (2014, p. 33) defines reading as a dynamic meaning making process that requires an active and effective communication between the writer and the author. According to Demirel (1999, p. 50), reading is an activity of meaning making from written symbols through collaboration of cognitive behaviors and psychomotor skills. These definitions indicate that reading

has both physical and mental aspects and involves an activity based on an effective communication between the writer, reader, and the text.

The occurrence of reading activity is directly related to the readability of the text. Therefore, one of the important aspects to be carefully considered in text selection is the compabitibility of readability levels of text with students' levels. According to Ateşman (1997, p. 71), readability is text quality of easy or difficult comprehension by the reader. Göğüş (1978) defines readibility as a comprehension of a text by a student at a certain level. Readability aims to identify the difficulty level of texts in consideration with quantitative characteristics such as sentence and word lengths, and the number of unknown words (Zorbaz, 2007, p. 89).

According to Karatay, Bolat and Güngör (2013), as children grow older, textbooks should include texts with longer sentences. Having texts, words and sentences that are shorter or longer than what is compatible with the age range is an obstacle for readers. The length of sentences used in texts included in Turkish textbooks should be taken into consideration as it is one of the main components that impact the readability of textbooks.

According to Ateşman (1997), there are certain differences between readability and comprehensibility. Comprehensibility depends on not only the quantitative characteristics of texts, but also qualitative characteristics. Content is more important in comprehensibility while quantitative characteristics such as grammatical characteristics and average of word and sentences are taken into consideration in readability (Temur, 2003, p. 171).

Studies on readability go a long way back. First studies on texts were conducted by men of God in the 9th century B.C. with the purpose of differentiating important words in sacred texts from unimportant words. The frequency dictionary consisting of around 11 million words that was written by F.W. Kaeding in 1898 has an important place in the literature. The first studies on readability in English were conducted by B. A. Lively and Pressey in 1923. However, the most renowned studies were done by R. Flesch (1943, 1948, 1950). Other important works were done by Dale/Chall, Farr/Jenkins?Paterson and Gunning (as cited in Ateşman, 1997, p. 72).

When related literature is examined, it is seen that there are multiple formulas used to select texts and to identify the compatibility of texts with the level of students. Frequently used formulas are Dale Cale formula, Gunning Fog Index, Flesch-Kincaid readability formula, Raygor formula, Fry readability graph, and Ateşman (1997) formula which is an adapted version of Flesch in Turkish (Temur, 2003, p. 174-178; Zorbaz, 2007, p. 89-90).

Studies on readability do not go a long way in Turkey. One of the earliest studies include Ateşman's (1997) work on adapting the Flesch readability formula to Turkish in order to calculate the

readability of Turkish texts and this study still holds an important place. Similarly, the formula developed by Çetinkaya-Uzun (2010) is used by researchers in identifying the readability level of Turkish texts.

The field literature includes studies on readabillity in Turkey. Temur (2002) compared the texts in 5th grade Turkish textbooks with student compositions from the aspect of readability levels. The calculations done by using formulas developed by Ateşman (1997) did not show a significant difference in the level of readability between textbook texts and student compositions.

Çiftçi, Çeçen, & Melanlıoğlu (2007) examined the texts in 6th grade Turkish textbooks by using Ateşman's (1997) formula. Significant differences were found between narrative texts and informative texts in readability levels. While 35% of informative texts were either "difficult" or "very difficult", only 3% of narrative texts were either "difficult" or "very difficult." 62% of narrative texts were "easy" or "very easy" while 18% of informative texts were "easy" or "very easy."

Zorbaz (2007) studied the readability of texts and the change of word or sentence lengths in tales in Turkish textbooks according to grades by using the Ateşman formula. The results of t-test performed showed a significant difference only between grades in sentence length and readability. Çetinkaya's (2010) study focused on identifying the relationships between the readability levels of texts and linguistic characteristics such as word difficulty and syntactic complexity. With this purpose, participants of the study engaged in an inductive reading activity and the relationship between inductive score and linguistic characteristics of the texts was analyzed. Statistical analysis revealed the readability score of Turkish texts and with the regression formula to determine the readability score of Turkish texts, the Çetinkaya- Uzun readability formula was developed which is an important scale to identify the structural difficulty of reading materials to be distributed to students in class and to match the readability level of the text with the reading level of targeted reader group.

Okur & Arı (2013) examined texts in 15 different Turkish texts books between 2010 and 2011 by using Ateşman (1997) and Çetinkaya- Uzun (2010) readability formula. The results showed that the narrative texts were easier than informative texts and as the grade level increased the readability level of texts increased. In a study focusing on readability of texts in 8th grade Turkish textbooks, Bağcı & Ünal (2013) found that the the difficulty level of texts was medium. In a study conducted by Durukan (2014) to identify the relationship between readability levels of texts in Turkish textbooks and students' reading speed and comprehension levels of these texts revealed a significant difference between readability levels and student's reading speed and comprehension levels. Baş & İnan Yıldız (2015) focused on the readability of texts in 2nd grade Turkish textbooks and found that the readability scores of narrative texts were higher than informative texts.

A study by Iskender (2013) focused on identifying the relationship between the word and sentence structures of texts in Turkish textbooks and readability levels. In order to identify the readability levels of texts, Ateşman's (1997) formula wsa used. The results showed that texts in 5th, 6th, 7th, and 8th grade Turkish textbooks have an average readability level of medium difficulty. There was no significant difference between the class levels and word and sentence length of texts in Turkish textbooks. The average length of word and sentence do not significantly differ from 5th grade through 8th.

Bolat (2016) examined the readability levels of texts in 5th-8th grade Turkish textbooks based on length of worda and the frequency of word use in texts. By using cloze readability test in texts, the readability of texts were identified based on text type, length of word and sentences, and grade and gender variables. The results indicated that 5th-8th grade students read narrative texts more easily than informative texts. When examined according to the grade levels, the texts in the 6th grade textbooks were found to be easier to read than other textbooks. A significant difference was found between the word frequency and readability level. Also, the texts consist of common words were easier to comprehend. Another finding was that when the sentence length of texts are more than 12 words, the readability score was significantly lower which indicated that the average sentence length was the variable that impacts the readability of texts the most.

In addition to these studies, there are also studies focusing on identification of readability levels of texts selected from different textbooks (Geçit, 2010; Hızarcı, 2009; Köse, 2009; Ulusoy, 2009) as well as in literary books (Bezirci & Yılmaz, 2010; Çeçen Aydemir, 2011; Gedizli, 2016; Güneş, 2000; Temizyürek, 2010).

When the studies in the literature were examined, it was found that the majority of the studies focused on different levels of textbooks and students. In today's information and technology world, Turkish curricula are being updated and improved in order to keep up with change and innovation. With this update and improvement, the contents of Turkish textbooks are being improved and updated as well. Within this scope, the current study aims to identify the readability levels of middle school Turkish textbooks prepared in alignment with the updated 2018 Turkish Course Curricula. This study is significant as it focuses on evaluating texts in Turkish textbooks that were prepared in alignment with the new curriculum, and provides an opportunity to compare with previous studies.

Purpose of the Study

The problem statement of this study was identified as "are readability characteristics of texts in middle school Turkish textbooks compatible with the student level?" With the purpose of

identifying readability characteristics of texts in middle school Turkish textbooks, this study is guided by the following research questions:

1. What is the average difficulty level of texts in 5th, 6th, 7th, and 8th grade Turkish textbooks?

2. What is the readability level of narrative texts in 5th, 6th, 7th, and 8th grade Turkish textbooks?

3. What is the readability level of informative texts in 5th, 6th, 7th, and 8th grade Turkish textbooks?

4. What is the average length of word and sentence in texts in 5th, 6th, 7th, and 8th grade Turkish textbooks?

Methodology

The current study with the purpose of identifiying readability levels of texts in middle school Turkish textbooks is a descriptive survey research. "Descriptive studies describe a given situation as accurate and comprehensive as possible" (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz & Demirel, 2015, p. 22).

This study is limited to informative and narrative texts in the Turkish textbook that was used during the 2018-2019 academic year. Listening/watching texts that are in themes and free reading texts were not included in the study. As readability formulas are based on syllable, word, and sentence count, comprehensiveness was not included in the scope of the study. There are differences in classification of text types in the literature. In the current study, the classification listed in the Turkish Course Curriculum for the year of 2018 was used in identifying the text types.

Data Collection and Analysis

Two formulas used in this study to identify the readability levels of texts in Turkish text books (Ateşman, 1997; Çetinkaya-Uzun, 2010). The researcher identified the numbers of syllables, words, and sentences of texts. Every component in between two gaps was considered as a word. Each unit that is thought to be independent of other sentence or objects grammatically was considered as a sentence. Period (.), question mark (?), colon (:), and two parantheses ( ) were considered as a finished sentence. Syllables were counted as they are phonated. Symbols and shapes were counted as they are phonated. Then, the average word length was calculated by dividing the total number of syllables by total number of words (X) and the average sentence length was calculated by dividing the total number of words by total number of sentences (Çetinkaya & Uzun, 2014, p. 148). Following the calculations of average word length and average sentence length, data were placed in the formula to calculate the readability scores. The formulas used in this study are explained in the next section.

Ateşman formula is applied as follows:

$$RS = 198{,}825 - (40{,}175 . AWL - 2{,}610 . ASL)$$

Çetinkaya-Uzun formula is applied as follows:

$$RS = 118{,}823 - 25{,}987 \times AWL - 0{,}971 \times ASL$$

RS= Readability score

ASL= Average sentence length

AWL= Average word length

Average sentence lengths and average word lengths were applied in the formula and the scored obtained were analyzed according to the classification shown in table 1.

Table 1. Readability scores and levels according to Ateşman & Çetinkaya-Uzun formulas

Ateşman Formula – Readability Levels			Çetinkaya-Uzun Formula – Readability Levels		
SCORE	**LEVEL OF READABILITY**		**SCORE**	**READING LEVEL**	**EDUCATION LEVEL**
90-100	Very easy		51+	Independent Reading	5th, 6th and 7th grades
70-89	Easy				
50-69	Medium Difficulty		35-50	Educational Level	8th and 9th grades
30-49	Difficult				
0-29	Very Difficult		0-34	Frustration Level	10th, 11th, and 12th grades

According to Flesch, average word length in English texts are around 1.4 syllables, and the average sentence length is 14-15 words. The length of words and sentences in German texts are longer than English texts. In their analysis on 23 texts, Fucks found that the average word length in German is 1.68 syllables and the sentence length is 17-18 words. The average word length in Turkish is 2.6 syllables while the sentence length is 9-10 sentences (as cited in Ateşman, 1997, p. 73). The characteristics of the most difficult and the easiest texts in Ateşman's (1997) readability formula are shown in table 2.

Table 2. Length of words and sentences based on difficulty level

	Word Length (syllable)	**(Sentence Length)**
The Easiest Text	2,2	4
The Most Difficult Text	3,0	30

Findings and Discussion

In this section, the findings related to the readability levels, average word and sentence lengths and sub-types of narrative and informative texts in Turkish textbooks are presented. 1 represents narrative texts and 2 represents informative texts in the tables provided. ASL= average sentence length, A RS = Ateşman readability score, ÇU RS= Çetinkaya-Uzun readability score and the findings listed in the level column represent readability scores according to two formulas (Ateşman, Çetinkaya-Uzun)

1. Readability Levels of Texts in 5th Grade Turkish Textbooks

Table 3. Average word-sentence lengths and readability levels of texts in 5th grade Turkish textbooks

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	Toy	1	Story	5,45	2,68	76,86	43,84	easy- educational
	I was a Plane Tree	1	Story	5,46	2,75	74,24	42,15	easy- educational
	Is There Anyone Who Doesn't Know?	1	Story	4,27	2,50	87,33	49,76	easy- educational
	15th of July	2	Essay	9,62	2,59	69,61	42,14	moderate- educational
	Dove	1	Fable	6,79	2,73	71,56	41,37	easy- educational
	Karagöz ile Hacivat- Kindness	1	Theatre	4,15	2,30	95,63	55,05	very easy- independent
	Tip	1	Story	5,27	2,58	81,57	46,76	easy- educational
	A Day in Space	2	Article	9,07	2,94	57,00	33,59	moderate- frustration
	Pasta with Garlic Sauce	2	Manuals	10,71	2,59	66,74	41,06	moderate- educational
	Talking to a Genius	2	Conversation	7,98	3,03	56,39	32,41	moderate- frustration
	Forsa	1	Story	4,54	2,50	86,58	49,48	easy- educational
	Tambour Player Mr. Cemil Explains Instruments	2	Manuals	8,81	2,45	77,54	46,68	easy- educational
	My Reading Books	2	Essay	6,20	2,88	67,13	38,09	moderate- educational
	Anatolia's Javelin Game	2	Essay	7,57	2,72	69,73	40,75	moderate- educational
	I'm Living Healthy	2	Brochure	4,07	2,55	85,75	48,60	easy- educational
	Prescription	2	Essay	6,20	2,81	69,57	39,67	moderate- educational
	The Journey of a Snowflake	1	Story	4,48	2,73	77,31	43,44	easy- educational

According to the findings shown in table 3, the average word length of narrative texts varies between 2.30 and 2.73. Similarly, the average sentence length varies between 4.15 and 6.79. According to Ateşman's formula, readability scores of narrative texts vary between 71.56 (easy) and

95.63 (very easy). The text titled "Karagöz & Hacivat-Kindness" is at the *very easy* level while texts titled "Toy", "I was a Plane Tree", "Is There Anyone who Doesn't Know?," "Dove", "Tip", "Forsa" and "The Journey of a Snowflake" are at the *easy* level. According to the Çetinkaya- Uzun formula, the scores range between 41.37 (educational) and 55.05 (independent). The text titled "Karagöz & Hacivat-Kindness" is at the *independent* level while "Toy"," "I was a Plane Tree," "Is There Anyone who Doesn't Know?", "Dove", "Tip", "Forsa" and "The Journey of a Snowflake" are at the *educational* level. According to both formulas, it was found that the "Karagöz & Hacivat-Kindness" text was easier than other texts.

According to the findings presented in the table, the average word length of informative texts in the related textbook varies between 2.45 and 3.03. Similarly, the average sentence length varies between 4.07 and 10.71. When the readability scores of informative texts are examined according to the Ateşman formula, the scores are found to vary between 56.39 (medium) and 95.63 (very easy) while the scores according to the Çetinkaya-Uzun formula vary between 32.41 (frustration) and 55.05 (independent). According to the Ateşman formula, texts titled "15th of July", " A Day in Space", "Pasta with Garlic Sauce", "Talking to a Genius", "My Reading Books", "Anatolia's Javelin Game" and "Prescription" are at the level of medium while the texts titled "Tambour Player Mr. Cemil Explains Instruments" and "I'm Living Healthy" are at the level of easy. According to the Çetinkaya-Uzun formula, texts titled " A Day in Space" and "Talking to a Genius" are at the frustration level while "15th of July", "Pasta with Garlic Sauce", "Tambour Player Mr. Cemil Explains Instruments", "My Reading Books", "Anatolia's Javelin Game", "I'm Living Healthy" and Prescription" are at the level of educational.

2. Readability Levels of Texts in 6th Grade Turkish Textbooks

Table 4. Average word-sentence lengths and readability levels of texts in 6th grade Turkish textbooks published by Eksen Publishers

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	Forsa	1	Story	5,13	2,69	77,44	43,99	easy-educational
	Boiled Seed	1	Tale	7,09	2,69	72,35	42,10	easy-educational
	Those who Helped the Gazelle	1	Fable	5,31	2,51	84,08	48,41	easy-educational
	Newruz	2	Article	17,82	2,95	33,95	24,95	difficult-frustration
	An Empty Coop, A Few Full Hearts	1	Story	7,42	2,59	75,43	44,33	easy-educational
	Atatürk Orman Çiftliği	1	Story	8,52	2,71	67,57	40,03	moderate-educational
	Ataturk Had Written A Geometry Book	2	Article	8,49	2,82	63,19	37,17	moderate-educational
	Nasreddin Hodja Jokes	1	Mizahi Fıkra	4,02	2,34	94,35	54,13	very easy-independent

Riddle	1	Theatre	3,14	2,28	99,06	56,55	very easy-independent
Who Am I?	1	Fable	5,95	2,61	78,41	45,20	easy-educational
Recycling	2	Article	11,65	2,99	48,38	29,86	difficult-frustration
Life-Draining	1	Story	5,26	2,72	75,89	43,08	easy-educational
On Smiling Face and Smiling	2	Conversation	8,53	2,63	71,03	42,27	easy-educational
Technological Celebrations of Holidays	2	Conversation	7,07	2,88	64,68	37,12	moderate-educational
Petition Without a Stamp	2	Letter	5,50	2,94	66,26	37,02	moderate-educational
Our Planet is Warming	2	Article	10,06	2,78	61,04	36,91	moderate-educational
Far Lands	2	Travel writing	9,77	2,74	63,08	38,03	moderate-educational
Energy with Robotics	1	Comic book	6,05	2,61	78,04	45,04	easy-educational
Newton's Apple	1	Theatre	4,10	2,61	83,27	47,02	easy-educational

According to the findings presented in table 4, the average word length of narrative texts in books varies between 2.28 and 2.72. Similarly, the average sentence lengths varies between 3.14 and 8.53. The readability scores of narrative texts in the 6th grade Turkish textbooks published by Eksen Publishers showed that the scores according to the Ateşman formula vary between 67.57 (medium) and 99.06 (very easy). The texts titled "Riddle" and "Nasreddin Hodja Jokes" are very easy, "Forsa," "Boiled Seed", "Those who Helped the Gazelle", "An Empty Coop, A Few Full Hearts", "Who Am I?", "Life-Draining", "Energy with Robotics" and "Newton's Apple" are easy, "Atatürk Forest Farm" are at the medium level. According to the Çetinkaya-Uzun formula, readability scores vary between 40.03 (educational) and 56.55 (independent). According to the Çetinkaya-Uzun formula, "Forsa", "Boiled Seed", "Those Who Help The Gazelle", "An Empty Coop, A Few Full Hearts", "Who Am I?" "Life-Draining", "Energy With Robotics" and "Newton's Apple" were found to be at the educational level. "Nasreddin Hodja Jokes" and "Riddle" texts were the easiest according to both formulas.

The findings presented in the table show that the average word length of informative texts vary between 2.34 and 2.63 and the average sentence length is between 5.50 and 17.82. According to the Ateşman formula, the readability scores of texts vary between 33.95 (difficult) and 71.03 (easy). According to this formula, "On Smiling Face and Smiling" text is wasy, "Ataturk Had Written A Geometry Book", "Technological Celebrations of Holidays", "Petition Without a Stamp", "Our Planet is Warming", "Far Lands" texts are medium, and the texts titled "Newruz" and "Recycling" are at the difficult level. According to the Çetinkaya-Uzun formula, the readability scores vary between 24.95 (frustration) and 42.27 (educational). According to this formula, "Ataturk Had Written A Geometry Book", "On Smiling Face and Smiling", "Technological Celebrations of Holidays", "Petition Without a Stamp", "Our Planet is Warming" and "Far Lands" are educational, while "Newruz" and

"Recycling" are at the frustration level. Texts titled "Newruz" and "Recycling" are found to be difficult according to both formulas.

Table 5. Average word-sentence length and readability levels of texts in 6th grade Turkish textbooks published by the Ministry of Education

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	This Is My Story	2	Memoir	6,50	2,82	68,73	39,33	moderate-educational
	My Dear Bookshelf	2	Conversation	5,40	2,63	79,02	45,20	easy-educational
	The Courage Of The Turkish Soldier	1	Story	6,19	2,78	70,84	40,48	easy-educational
	The Old Grandmother	2	Memoir	5,69	2,52	82,63	47,74	easy-educational
	15th of July	2	Essay	12,18	2,83	53,31	33,43	moderate-frustration
	Aziz Sancar	2	Autobiography	7,55	2,71	70,25	41,07	easy-educational
	How did People Use to Measure Time?	2	Article	8,74	2,72	66,64	39,59	moderate-educational
	Technology Addiction	2	Article	9,04	3,10	50,63	29,45	moderate-frustration
	Give To Multiply	1	Story	8,28	2,54	75,09	44,72	easy-educational
	Silver Wing	1	Story	6,17	2,59	78,52	45,43	easy-educational
	Things We Are Curious About	2	News text	9,85	2,73	63,54	38,38	moderate-educational
	Afyon	2	Travel writing	9,02	2,74	65,24	38,89	moderate-educational
	Water Pollution	2	News text	10,06	2,97	53,28	31,89	moderate-frustration
	The Story of Tarhana	2	Manuals	8,91	2,85	61,20	36,19	moderate-educational
	Time of Bicycle	2	Manuals	9,25	2,71	65,81	39,41	moderate-educational
	Eating, Drinking and Digesting	2	Essay	7,31	2,68	72,18	42,14	easy-educational
	10 Questions and 10 Answers About Obesity	2	Brochure	3,90	2,80	76,19	42,30	easy-educational
	Yes Sir	1	Theatre	4,45	2,46	88,35	50,55	easy-educational
	Do You A Favor	1	Story	5,48	2,66	77,61	44,35	easy-educational
	On Friendship	2	Essay	7,12	2,61	75,36	44,07	easy-educational

According to the findings presented in table 5, the average word length of narrative texts varies between 2.46 and 2.78 while the average sentence length varies between 4.45 and 8.28. The readability scores of these texts in the related book according to the Ateşman formula vary between 70.84 and 88.35. All of the narrative texts are at the easy level. According to the Çetinkaya-Uzun formula, their readability scores vary between 40.48 and 50.55. All of the texts were found to be at the educational level according to this formula.

When the table is examined, it is seen that the average word length of informative texts varies between 2.52 and 3.10 while the average sentence length varies between 3.90 and 12.18. According to the Ateşman formula, readability scores of the texts vary between 50.63 (medium) and 82.63 (easy). Texts titled "My Dear Bookshelf", "The Old Grandmother", "Aziz Sancar", "Eating, Drinking and Digesting", " 10 Questions and 10 Answers About Obesity", and "On Friendship" are easy, "This Is My Story", "15th of July", "How did People Use to Measure Time?", "Technology Addiction", "Things We Are Curious About", "Afyon", "Water Pollution", "The Story of Tarhana", "Time of Bicycle" texts are at the medium level. The readability scores according to the Çetinkaya-Uzun formula vary between 29.45 (frustration) and 47.74 (educational). According to this formula, "15h of July", "Technology Addiction" and "Water Pollution" are found to be at the frustration level while others are at the educational level.

3. Readability Levels of Texts in 7th Grade Turkish Textbooks

Table 6. Average word-sentence length and readability levels of texts in 7th grade Turkish textbooks published by Dersdestek Publishers

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	Purple Cluster House	1	Story	7,41	2,61	74,70	43,85	easy-educational
	Red Shoes	1	Story	5,70	2,78	72,33	41,09	easy-educational
	Life Without Gravity	2	Article	8,27	2,80	64,77	38,05	moderate-educational
	Snowman with Green Eyes	1	Story	5,04	2,42	88,64	51,16	easy-independent
	Coloured Map Of My Country	1	Story	5,98	2,64	77,02	44,32	easy-educational
	The Man Who Makes the World Laugh	2	Biography	11,19	2,76	58,78	36,27	moderate-educational
	Little Hasan from Istanbul High School	1	Story	7,06	2,75	69,91	40,50	moderate-educational
	The Personality and Characteristics of Ataturk	2	Article	10,02	2,91	55,91	33,56	moderate-frustration
	The Names of Martyrs of 15th of July Live in Schools	2	News text	26,14	3,00	10,07	15,48	very difficult-frustration
	White-bearded Wise Grandfather	1	Tale	5,85	2,53	82,05	47,48	easy-educational
	Our Responsibilities	2	Essay	6,58	2,75	71,28	41,04	easy-educational
	Goool!	1	Story	5,48	2,61	79,79	45,76	easy-educational
	My Name:Baby	1	Story	4,93	2,62	80,87	46,06	easy-

Candy							educational
Sufficient and Balanced Eating	2	Brochure	15,53	2,41	61,47	41,11	moderate-educational
Belkıs Theatre	1	Tale	6,83	2,56	78,22	45,70	easy-educational
Traditional Hand Crafts Bazaar	2	Travel writing	12,86	2,86	50,37	32,02	moderate-frustration
Towards Invention	2	Conversation	8,42	2,67	69,48	41,19	moderate-educational
The Media Does Not Consist of Only Television and Newspaper	2	Conversation	9,05	2,89	59,11	34,94	moderate-frustration

The findings presented in table 6 show that the average word length of narrative texts in the related textbook varies between 2.42 and 2.78 while the average sentence length varies between 4.93 and 7.41. According to the Ateşman formula the readability scores of narrative texts vary between 69.91 (medium) and 88.64 (easy) while the scores according to Çetinkaya-Uzun formula vary between 40.50 (educational) and 51.16 (independent). The text titled "Little Hasan from Istanbul High School" is at the medium level according to the Ateşman formula while other texts are at the easy level. According to Çetinkaya- Uzun formula, the text titled "Snowman with Green Eyes" is at the independent reading level while others are at the educational level. This text is also at an easier level according to both formulas compared to other texts.

The table shows that the average word length is between 2.41 and 3.00 while average sentence length is between 6.58 and 38.75 in informative texts. According to Ateşman formula, the readability score of informative texts are between -23.62 (very difficult) and 71.28 (easy) while they are in the range between 2.73 (frustration) and 41.19 (educational) according to Çetinkaya-Uzun formula. According to the Ateşman formula, the text titled "Our Responsibilities" is easy, "Life Without Gravity", "The Man Who Makes the World Laugh", "The Personality and Characteristics of Ataturk", "Sufficient and Balanced Eating", "Traditional Hand Crafts Bazaar", "Towards Invention" and "The Media Does Not Consist of Only Television and Newspaper" texts are at the medium level while "The Names of Martyrs of 15th of July Live in Schools" text is at the very difficult level. According to Çetinkaya-Uzun formula, "Life Without Gravity", "The Man Who Makes the World Laugh", "Our Responsibilities", "Sufficient and Balanced Eating" and "Towards Invention" texts are educational while "Traditional Hand Crafts Bazaar", "The Media Does Not Consist of Only Television and Newspaper", "The Personality and Characteristics of Ataturk", and "The Names of Martyrs of 15th of July Live in Schools" texts are at the frustration level. "The Names of Martyrs of 15th of July Live in Schools" text is a more difficult text according to both formulas.

Table 7. The average word-sentence lengths and readability levels of texts in 7th grade Turkish textbooks published by the Ministry of Education (a)

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	Inspiration of Bees	1	Tale	6,74	2,65	74,67	43,34	easy-educational
	Munise	1	Novel	6,99	2,62	75,27	43,91	easy-educational
	Friendship	1	Theatre	5,06	2,30	93,22	54,14	very easy-independent
	Armies! Your first Target	2	Memoir	6,58	2,58	78,09	45,44	easy-educational
	Ask for Forgiveness from Your Teacher	2	Memoir	7,60	2,68	71,44	41,88	easy-educational
	The Last Letter of a Martyr	2	Letter	8,88	2,42	78,57	47,41	easy-educational
	Barış Manço	2	Biography	10,34	2,63	66,23	40,48	moderate-educational
	My Left Foot	1	Story	7,55	2,59	75,16	44,25	easy-educational
	he Art of Getting Along with People	2	Essay	9,83	2,79	61,26	36,89	moderate-educational
	Coffee in the Turkish Cuisine Culture	2	Article	12,48	2,76	55,44	35,03	moderate-educational
	I, Mimar Sinan	1	Theatre	6,42	2,44	84,00	49,15	easy-educational
	Piri Reis	1	Comic book	6,60	2,95	62,90	35,63	moderate-educational
	New World	2	Essay	13,27	2,75	53,73	34,49	moderate-frustration
	A Day in the Life in 2100	2	Essay	7,74	2,85	63,94	37,13	moderate-educational
	On Reading	2	Conversation	8,53	2,79	64,47	38,03	moderate-educational
	The Story of Divanu Lügat-Türk	1	Story	6,56	2,55	79,46	46,31	easy-educational
	Reading is a Privilege, Not Everyone Can Read	2	Essay	7,19	2,61	75,10	43,95	easy-educational
	The Village Smelled Like Lavender	2	Article	17,95	2,83	38,29	27,86	Difficult-frustration
	First Snow	2	Journal	8,83	2,56	72,90	43,70	easy-educational
	An Elephant in Aksehir	1	Mizahi Fıkra	4,72	2,50	85,91	49,17	easy-educational
	Moena, A Turkish Village	2	Essay	10,34	2,74	61,64	37,51	moderate-educational

The findings presented in table 7 show that the average word length of narrative texts varies between 2.30 and 2.95 while the average sentence lengths varies between 4.72 and 7.55. According to the Ateşman formula, the readability scores of narrative texts are in the range of 62.90 (medium) and 93.22 while according to the Çetinkaya-Uzun formula the scores are between 35.63 (educational) and 54.14 (independent). When the Ateşman formula is applied, "Piri Reis" is found to be medium, "Inspiration of Bees", "Munise", "My Left Foot", "I, Mimar Sinan", "The Story of Divanu Lügat-Türk", "An Elephant in Aksehir" texts are found to be easy while "Friendship" text is very easy.

According to the Çetinkaya-Uzun formula, except for "Friendship" (independent) text, all the other texts are at the educational level.

According to the data presented in the table, the average word length of informative texts varies between 2.42 and 2.85 while the average sentence length is between 6.58 and 17.95. According to the Ateşman formula, the readability scores of informative texts vary between 38.29 (difficult) and 78.57 (easy). "Armies! Your first target", "Ask for Forgiveness from Your Teacher", "The Last Letter of a Martyr", "Reading is a Privilege, Not Everyone Can Read" and "First Snow" texts are easy while "Barış Manço", "The Art of Getting Along with People", "Coffee in the Turkish Cuisine Culture", "New World", "A Day in the Life in 2100", "On Reading" and "Moena, A Turkish Village" texts are at the medium level and the text title "The Village Smelled Like Lavender" is at the difficult level. According to the Çetinkaya-Uzun formula, "New World" and "The Village Smelled Like Lavender" texts are at the frutration level while other texts are at the educational level. The text "The Village Smelled Like Lavender" is a at the difficult level according to both formulas.

Table 8. Average word-sentence length and readability levels of texts in 7th grade Turkish textbook published by the Ministry of Education(b)

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	Kaleidoscope	2	Essay	7,47	2,84	65,29	37,81	moderate-educational
	Mother Unemployed	1	Story	5,04	2,63	80,16	45,68	easy-educational
	Women of the Mürefte and Emin Petty Officer	1	Story	5,40	2,64	78,59	44,92	easy-educational
	The Story of Cowman Mustafa	1	Story	5,24	2,59	81,12	46,44	easy-educational
	The Function of Reading	2	Essay	8,60	2,81	63,45	37,42	moderate-educational
	Reading is for Thinking	2	Conversation	6,43	2,25	91,56	54,05	very easy-independent
	Wooden Bicycle	2	Letter	4,94	2,56	82,97	47,43	easy-educational
	Two Ducks With Turtle	1	Fable	6,78	2,69	72,92	42,25	easy-educational
	Angry Pounds	1	Story	5,90	2,60	78,92	45,49	easy-educational
	The Kid Whose Name Is Written in the Sky	2	Biography	5,11	3,71	36,44	17,45	difficult-frustration
	Pushing Towards Success or Pulling Success?	2	Conversation	6,25	2,43	84,96	49,65	easy-educational
	The Letter "A"	1	Story	7,43	2,60	75,02	44,07	easy-educational
	Yusufçuk	1	Legend	5,78	2,39	87,65	51,05	easy-independent
	Rug in Anatolia	2	Essay	7,48	2,66	72,29	42,34	easy-

							educational
What is Karagöz?	2	Article	8,85	2,66	69,02	41,21	moderate-educational
Two-wheel Freedom	2	Essay	12,08	2,71	58,27	36,57	moderate-educational
I had Decided to Become a Soccer Player	2	Memoir	7,89	2,53	76,55	45,39	easy-educational
Be A Friend of Snowy Mountains	2	Conversation	10,31	2,61	66,97	40,93	moderate-educational
Âşık Veysel Şatıroğlu	2	Biography	9,03	2,48	75,75	45,69	easy-educational
Ebru: A Traditional Turkish Art	2	Article	11,00	2,70	61,57	37,93	moderate-educational
Dipper Carved Out of Tree	2	Memoir	5,54	2,46	85,53	49,51	easy-educational

Table 8 shows that the average word length of narrative texts in the related textbook is between 2.39 and 2.69. Similarly, the average sentence length of texts varies between 5.04 and 7.43. According to the Ateşman formula, the readability scores of texts are between 72.92 and 87.65. According to this formula, all the narrative texts are at the easy level. According to the Çetinkaya-Uzun formula, readability scores are between 42.25 (educational) and 51.05 (independent). The text titled "Yusufçuk" is at the independent reading level while other texts are at the educational level.

The data presented in the table show that the average word length of informative texts varies between 2.25 and 3.71 while the average sentence length is between 4.94 and 12.08. According to the Ateşman formula, the readability scores are between 36.44 (difficult) and 91.56 (very easy) while according to the Çetinkaya- Uzun formula the scores vary between 17.45 (frustration) and 54.05 (independent). According to the Ateşman formula, the text titled "Reading is for Thinking" is at the easy level; "Wooden Bicycle", "Pushing Towards Success or Pulling Success?", "Rug in Anatolia", "I had Decided to Become a Soccer Player", "Âşık Veysel Şatıroğlu" and "Dipper Carved Out of Tree" are easy level. "Kaleidoscope", "The Function of Reading", "What is Karagöz", "Two-wheel Freedom", "Be A Friend of Snowy Mountains" and "Ebru: A Traditional Turkish Art" texts are at the medium level while "The Kid Whose Name Is Written in the Sky" text is at the difficult level. The text "Reading is for Thinking" is independent and "The Kid Whose Name Is Written in the Sky" is at the frustration level according to the Çetinkaya-Uzun formula. Other texts are found to be at the educational level. According to both formulas, the text titled "Reading is for Thinking" is at the level easy and the text titled "The Kid Whose Name Is Written in the Sky" is at the difficult level.

4. Readability Levels of Texts in 8th Grade Turkish Textbooks

Table 9. The average word-sentence lengths and readability levels of texts in 8th grade Turkish textbooks

No	Title of The text	Type	Subtype	ASL	AWL	A-RS	ÇU-RS	Readability Level
	On The Self	2	Essay	8,45	2,82	63,47	37,33	moderate-educational
	Seagull	1	Story	7,66	2,60	74,20	43,70	easy-educational
	Do not Decide to Hurry	1	Tale	6,54	2,49	81,59	47,68	easy-educational
	Motherland or Silistra	1	Theatre	6,10	2,40	86,29	50,41	easy-educational
	Independence Medal	2	Essay	11,81	2,54	66,10	41,45	moderate-educational
	Pleasure To See A Useful Job	2	Conversation	14,42	2,64	55,23	36,28	moderate-educational
	Beauty Of Turkish	2	Essay	10,33	2,65	65,59	40,05	moderate-educational
	Micro Miniature	2	Article	12,28	2,76	56,08	35,29	moderate-educational
	Selimiye Mosque	2	Article	13,80	2,68	55,04	35,72	moderate-educational
	Stop Here	1	Legend	5,90	2,60	78,78	45,41	easy-educational
	Ergenekon Epic	1	Destan	7,07	2,51	79,69	46,83	easy-educational
	The Voice of the Heart	2	Essay	7,06	2,57	77,07	45,13	easy-educational
	Rolling Stone In The Mill	1	Story	5,71	2,70	75,42	43,09	easy-educational
	The Graves of Yunus Emre	2	Essay	8,68	2,50	75,93	45,55	easy-educational
	Aunt Emine Strawberry Jam	1	Story	6,35	2,65	75,71	43,74	easy-educational
	The Wise Man's Path	1	Tale	10,39	2,72	62,58	38,15	moderate-educational
	Aliya Izzetbegovic and Fight For Freedom	2	Biography	12,08	2,80	54,90	34,39	moderate-frustration

According to the findings presented in table 9, the average word length of narrative texts in related textbook varies between 2.40 and 2.72 while the average sentence length is between 5.71 and 10.39. According to the Ateşman formula, the radability scores of narrative texts vary between 62.59 and 86.29. "The Wise Man's Path" text is at a medium level while all other texts are at the easy level. According to the Çetinkaya-Uzun formula, the readability scores vary between 38.15 and 50.41, and all the narrative texts are at the educational level.

According to the data in the table, the average word length of informative narratives varies between 2.50 and 2.82 while the average sentence length ranges between 7.06 and 14.41. According to the Ateşman formula, the readability scores of informative texts range between 54.90 (medium) and

77.07 (easy) while according to the Çetinkaya- Uzun formula, the scores range between 34.39 (frustration) and 45.55 (educational). The texts titled "The Voice of the Heart" and "The Graves of Yunus Emre" are at the easy level while the rest of the informative texts are at the medium difficulty level according to the Ateşman formula. The texts titled "Aliya Izzetbegovic and Fight For Freedom" is at the frustration level while the others are at the educational level according to the Çetinkaya- Uzun formula.

5. Findings on the Readability Level of Informative Texts

Table 10. Readability levels of informative texts according to the Ateşman formula

Grade	Very easy		Easy		Moderate		Difficult		Very difficult		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
5 th Grade	0	0,00	2	22,22	7	77,78	0	0,00	0	0,00	9	100
6 th Grade	0	0,00	7	30,43	14	60,87	2	8,70	0	0,00	23	100
7 th Grade	1	2,78	12	33,33	20	55,56	2	5,56	1	2,78	36	100
8 th Grade	0	0,00	2	22,22	7	77,78	0	0,00	0	0,00	9	100

Table 10 shows that two of the narratives in the 5th grade Turkish textbooks are easy (22%), 7 of them are medium (77.78%) according to the Ateşman formula. No texts were identified at the levels of very easy, difficult and very difficult. 7 easy (30.43%), 14 medium (60.87%), 2 difficult (8.70%) texts were identified in the 6th grade textbooks while no texts were identified at the very easy or very difficult levels. There were 1very easy level (2.78%), 12 easy (33.33%), 20 medium (55.56%), 2 difficult (5.56%), and 1 very difficult (2.78%) level texts were identified in the 7th grade textbooks. Among the texts in 8th grade Turkish textbooks, 2 easy (22.22%) and 7 medium (77.78%) level texts were identified. There were no very easy, difficult and very difficult level texts were found. The table shows that only 1 text was very easy and 1 text was very difficult in the 7th grade Turkish textbooks amonf all grade levels. From a readability level perspective, the table shows that the most accumulation is at the level of medium while the least amount of accumulation is at the very easy and very difficult levels.

Table 11. Readability levels of informative texts according to the Çetinkaya-Uzun formula

Grade	Independent		Educational		Frustration		Total	
	f	%	f	%	f	%	f	%
5 th Grade	0	0,00	7	77,78	2	22,22	9	100
6 th Grade	0	0,00	18	78,26	5	21,74	23	100
7 th Grade	1	2,78	28	77,78	7	19,44	36	100
8 th Grade	0	0,00	8	88,89	1	11,11	9	100

Table 11 shows that there are 7 educational (77.78%), 2 frustration levels of texts were identified in the informative texts in the 5th grade Turkish textbooks while 18 educational level (78.26%) and 5 frustration (21.74%) texts were identified in the 6th grade textbooks. Among the 7th grade Turkish textbooks, 1 independent (2.78%), 28 educational (77.78%) and 7 engelli (19.44%) level texts were identified while 8 educational (88.89%) and 1 engelli (11.11%) level of texts were identified in the 8th grade Turkish textbooks. The highest level of accumulation was at the educational level while the lowest accumulation was at the independent level. From an all grade levels perspective, only 1 text was identified as independent level.

6. Findings on the Readability Levels of Narrative Texts

Table 12. Readability levels of narrative texts according to the Ateşman formula

Grade	Very easy		Easy		Moderate		Difficult		Very difficult		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
5 th Grade	1	12,50	7	87,50	0	0,00	0	0,00	0	0,00	8	100
6 th Grade	2	12,50	13	81,25	1	6,25	0	0,00	0	0,00	16	100
7 th Grade	1	4,17	21	87,50	2	8,33	0	0,00	0	0,00	24	100
8 th Grade	0	0,00	7	87,50	1	12,50	0	0,00	0	0,00	8	100

In table 12, according to the Ateşman formula, 1 very easy (12.50%), 7 easy (87.50%) texts in 5th grade Turkish textbooks were identified while 2 very easy (12.50%), 12 easy (81.25%) and 1 medium level (6.25%) texts were identified in the 6th grade textbooks. Among the 7th grade Turkish textbooks, 1 very easy (4.17%), 21 easy (87.50%), 2 medium (8.33%) level texts were identified while 7 easy (87.50%) and 1 medium (12.50%) level narrative texts were identified in the 8th grade Turkish textbooks. When all levels are considered, there were no texts identified at the difficult or very difficult levels. It's seen that the texts are accumulated at the easy level.

Table 13. Readability levels of narrative texts according to the Çetinkaya-Uzun formula

Grade	Independent		Educational		Frustration		Total	
	f	%	f	%	f	%	f	%
5 th Grade	1	12,50	7	87,50	0	0,00	8	100
6 th Grade	2	12,50	14	87,50	0	0,00	16	100
7 th Grade	3	12,50	21	87,50	0	0,00	24	100
8 th Grade	0	0,00	8	100,00	0	0,00	8	100

The finding presented in table 13 show that there are 1 independent (12.50%) and 7 educational (87.50%) level narrative texts in 5th grade Turkish textbooks, 2 independent (12.50%) and

14 educational (87.50%) narrative texts in 6th grade Turkish textbooks, 3 independent (12.50%) and 21 (87.50%) educational level narrative texts in 7th grade Turkish textbooks according to the Çetinkaya-Uzun formula. All the narrative texts in 8th grade Turkish textbooks are at the educational level while no texts at the frustration level were identified. The accumulation at the educational level is the highest.

7. General Readability Levels of Texts in Turkish Textbooks

Table 14. Readability levels of texts in Turkish textbooks according to the Ateşman formula.

Grade	Independent		Educational		Frustration		Total	
	f	%	f	%	f	%	f	%
5 th Grade	1	12,50	7	87,50	0	0,00	8	100
6 th Grade	2	12,50	14	87,50	0	0,00	16	100
7 th Grade	3	12,50	21	87,50	0	0,00	24	100
8 th Grade	0	0,00	8	100,00	0	0,00	8	100

In table 14, according to the Ateşman formula, the highest accumulation among all grade levels was seen at the easy level. 1 very easy (5.88%), 9 easy (52.94%), 7 medium (41.18%) level texts were identified in the 5th grade Turkish textbooks while no difficult or very difficult level texts were identified. Among the 6th grade Turkish textbooks, 2 very easy (5.13%), 20 easy (51.28%), 15 medium (38.46%), 2 difficult (5.13%) level texts were identified while no texts at the very difficult level were identified. 2 very easy (3.33%), 33 easy (55%), 22 medium (36.67%), 2 difficult (3.33%) and 1 very difficult (1.67%) level texts were identified in the 7th grade Turkish textbooks. There were 9 easy (52.94%) and 8 medium (47.06%) level texts in the 8th grade textbooks while there were no texts identified at the levels of very easy, difficult, and very difficult.
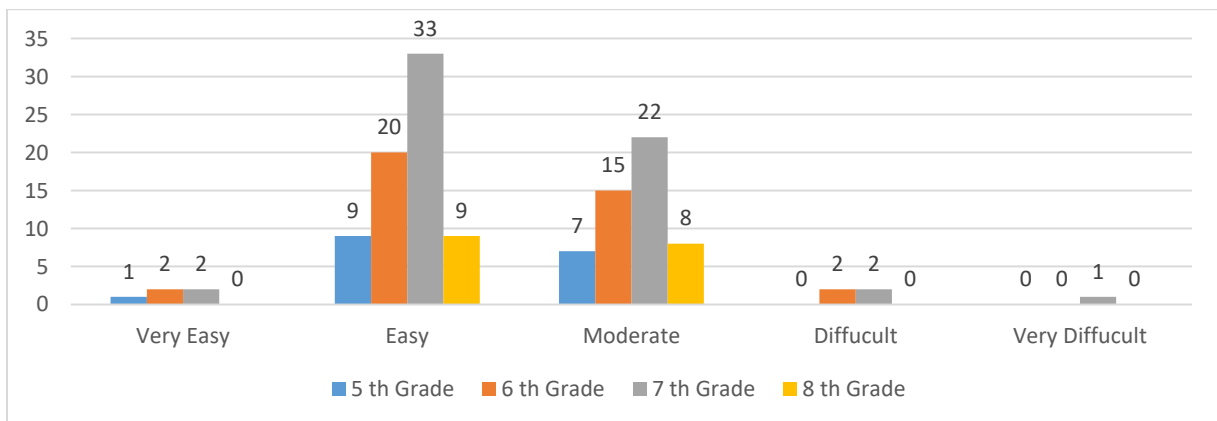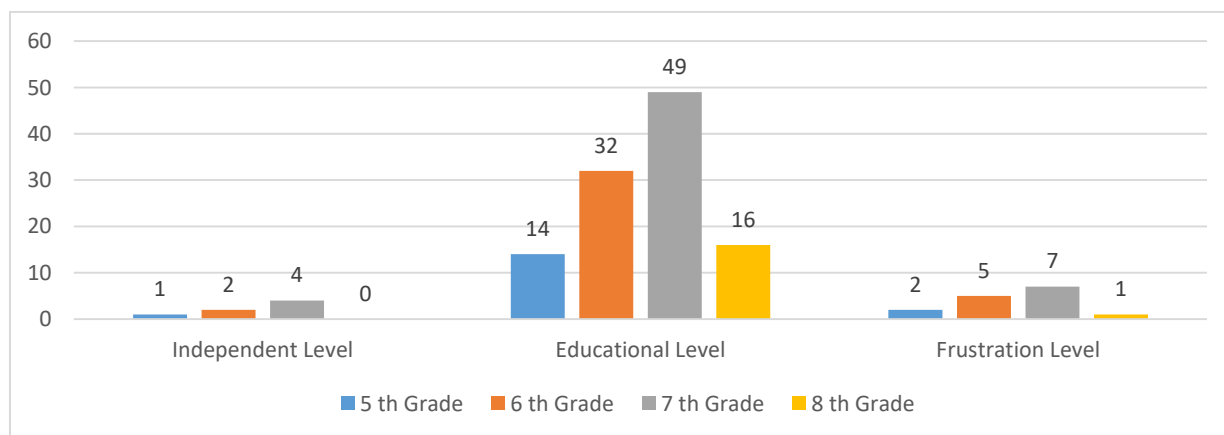

Figure 1. Readability levels of texts in Turkish textbooks according to the Ateşman formula

Table 15. Readability levels of texts in Turkish textbooks according to the Çetinkaya-Uzun formula

Grade	Independent		Educational		Frustration		Total	
	f	%	f	%	f	%	f	%
5 th Grade	1	5,88	14	82,35	2	11,76	17	100
6 th Grade	2	5,13	32	82,05	5	12,82	39	100
7 th Grade	4	6,67	49	81,67	7	11,67	60	100
8 th Grade	0	0,00	16	94,12	1	5,88	17	100

When the table 15 is examined, according to the Çetinkaya-Uzun formula, 1 independent (5.88%), 14 educational (82.35%), 2 frustration (11.76) level texts were identified in the 5th grade Turkish textbooks while 2 independent (5.13%), 32 educational (82.05%), 5 frustration (12.82%) level texts were identified in the 6th grade Turkish textbooks. Among the 7th grade textbooks, 4 independent (6.67%), 49 educational (81.67%), 7 frustration (11.67%) texts were identified while 16 educational (94.12%) and 1 frustration (5.88%) level texts were identified in the 8th grade Turkish textbooks. The highest accumulation was seen at the educational level while the lowest accumulation was seen at the independent level.

Figure 2. Readability levels of texts in Turkish textbooks according to the Çetinkaya-Uzun formula

Findings and Discussion

Turkish textbooks consist mainly of texts and activities related to these texts. Texts play an important role in reaching the identified goals in a Turkish education program. Texts to be selected for Turkish textbooks should be compatible with children's reality and literariness criteria. Readability levels of texts should be compatible with the students' levels. In this study, readability levels of texts in middle school Turkish textbooks were identified.

The average word length of narrative texts studied ranged between 2.30 and 2.73 in the 5th grade textbooks, between 2.28 and 2.78 in the 6th grade textbooks, between 2.30 and 2.95 in the 7th grade textbooks, and between 2.40 and 2.72 in the 8th grade Turkish textbooks. The average word

length of informative texts were within the range of 2.45 and 3.03 in the 5th grade textbooks, between 2.34 and 3.10 in the 6th grade textbooks, between 2.25 and 3.71 in 8th grade textbooks. The average Turkish word length is 2.6 syllables (Ateşman, 1997, p.73). The average word lengths of the texts analyzed in this study are close to this statistical rate. However, it was seen that the average word lengths of some informative texts were above this rate.

The average sentence lengths of narrative texts analyzed were found to be between 4.15 and 6.79 in 5th grade textbooks, between 3.14 and 8.53 in 6th grade textbooks, between 4.72 and 7.55 in 7th grade textbooks and between 5.71 and 10.30 in 8th grade textbooks. The average sentence lengths of informative texts ranged between 4.07 and 10.71 in 5th grade textbooks, between 3.90 and 17.82 in 6th grade Turkish textbooks, between 4.94 and 26.14 in 7th grade textbooks and between 7.06 and 14.41 in 8th grade textbooks. The average sentence length in Turkish texts is 9-10 words (Ateşman, 1997, p.73). According to the findings, the average sentence lengths of certain informative texts are above this number.

The findings show that the word and sentence lengths of informative texts are higher than narrative texts. Similar results are seen in other studies (Bağcı & Ünal, 2013; Baş & Yıldız, 2015; Çiftçi, Çeçen, & Melanlıoğlu 2007, Okur & Arı, 2013, Özdemir, 2016).

It is seen that the majority of the texts analyzed in Turkish textbooks are at the level of easy. According to the Ateşman readability formula, 52.94% of the texts in 5th grade textbooks, 51.28% of the texts in 6th grade books, 55% in 7th grade books and 52.94% of the texts in 8th grade books are at the easy level. According to the Çetinkaya-Uzun forumla, the accumulation occurs at the educational level. The lowest accumulation according to the Ateşman formula is at the level of very difficult while according to the Çetinkaya-Uzun formula, the accumulation occurs at the independent level.

Okur and Arı (2013) identified in their study that the highest accumulation at the medium level and the lowest accumulation at the very difficult level in 6th and 7th grade while at the very easy level in the 8th grade. Bağcı and Ünal (2013) conducted a study on 8th grade Turkish textbooks and identified that the majority of the texts are at the medium level. When compared to the current study, the texts analyzed in the current study are compatible with the students' level in terms of readability.

When the examined Turkish textbooks are analyzed in terms of text types, informative texts are accumulated at the medium level while narratie texts are accumulated at the easy level. When analyzed across all grade levels, only 1 text was found at the very easy level in informative texts while there are 4 texts in narrative texts. There are 4 difficult and 1 very difficult level texts found in informative texts while there are no texts identified at these levels in narrative texts. When the data obtained through the Çetinkaya-Uzun formula, the accumulation is at the educational level. There are 15 texts at the frustration level in informative texts while there are no texts found at the same level in

narrative texts. In light of the findings obtained through both formulas, informative texts are more difficult than narrative texts. There are similar results found in the literature (Bağcı & Ünal, 2013; Okur & Arı, 2013; Özdemir, 2016).

In a study conducted on 5th grade Turkish textbooks by Mirzaoğlu & Akın (2015), the readability scores of narrative texts were 74.86 (easy) while informative texts had a score of 71 (easy). In a study conducted by Özdemir (2016), 71.4% of narrative texts are easy level and 28.6% are medium level while 16.7% of informative texts are easy, 58.3% are medium and 25% are at the difficult level. 46% of all the texts are easy, 42.3% are medium and 11.5% are at the difficult level. In the current study, 12.50% of narrative texts are very easy, 87/50% are easy level. 5.88% of all the texts are easy, 52.94% are easy and 41.18% are medium level. While there are differences between the findings of the current study and the findings of the study conducted by Özdemir (2016), there is a similarity as well.

Departing from the current study and the literature in the field, a few recommendations can be made:

1. It is seen that the average word and sentence lengths of informative texts in Turkish textbooks are longer than narrative texts. This needs to be taken into consideration when selecting texts for textbooks in terms of comprehensibility of texts.

2. In selecting texts for Turkish textbooks, texts that are created with an artist's sensitivity and are compatible with children's meaning universe should be preferred.

3. Readability levels of texts should be compatible with the students' levels. Thus, necessary examinations should be performed in selecting texts for textbooks.

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