The Relationship Among Listening Comprehension And Factors Affecting Listening

Ayşe Dilek Yekeler [1], Mustafa Ulusoy [2]

Abstract

Listening is a process during which what is spoken is heard and comprehended. There are many cognitive, affective and psychological factors that can affect this process. Anxiety, which is one of the psychological factors, is a distressing emotionarising from the individual and has a direct impact on listening comprehension skills. The aim of this research is to investigate the relationship among elementary school students' listening comprehension skills, factors affecting listening. The research was designed and conducted within the framework of causal comparison method. The study group of the study consisted of 130 fourth grade primary school students. The listening comprehension test, listening anxiety scale and the form of other factors affecting listening, which were developed by the researchers and tested for validity and reliability in the scope of the research, were used as data collection tools. According to the results of the research; it was found that listening anxiety and other factors affecting listening processes negatively affect listening comprehension skills of students.It was found that the other factors affecting listening, along with listening anxiety reveal more than half of the variance in their listening comprehension skills.

Introduction

Listening

"Listening is a complex process carried out in our ears and brains to hear, understand and structure the voice stimuli such as sound, music and speech, in mind" (Güneş, 2013, p. 79). According to Oxford (1993), listening is a problem-solving skill and is not just about perceiving sounds. Listening is confused with the concept of hearing. However, listening and hearing are different processes. Hearing; mechanical vibrations in the middle ear, where sound waves are transmitted from the outer ear to the eardrum; It is a process in the inner ear that turns into nerve currents going to the brain. Listening is a more complicated process that starts with the individual's attention to speech and ends with the meaning (Ergin, 1998). Therefore, "during the listening process, there is the effort to find a meaning in mind by paying attention to the sound stimuli" (Ungan, 2009, p. 136). Since the purpose of listening is to understand, this process "requires the listener to distinguish between sounds, understand words and grammatical structures, interpret stress and intonation and combine all these in a broad sociocultural context" (Vandergrift, 1999, p. 168). While listening, any lack of attention on the listening

[1] Giresun University, Faculty of Education, Department of Elementary Education, Turkey, dilekyekeler@gmail.com

[2] Gazi University, Faculty of Education, Department of Elementary Education, Turkey, mstfulusoy@gmail.com

text may lead to a lack of understanding of the main ideas or the entire message (Mills, Pajares, & Herron, 2006). At this point, listening; lays the foundationof speaking, reading and writing and becomes the only comprehension skill that exists in early childhood, is important (Doğan, 2016; Bulut & Karasakallıoğlu, 2018).

Listening Comprehension

Listening comprehension is "*a process of constructing meaning based on multidimensional relationships between the learner and all of the internal and external influences and the intrinsic and extrinsic elements involved in that learner's reality*" (Vogely 1995, as cited in Vogely, 1998, p. 67). In this process, the voice of the speaker, the body language skills, the content of the subject, the social, psychological and mental states of listeners and their related past experiences are important (Çifçi, 2001). Because the individual is compared with the preliminary information, he / she investigates causes, draws conclusions and makes sense again (Güneş, 2013). Listening comprehension is a prerequisite for learning to read and is important as it affects the communication and learning processes of school-age children (Dickinson, Golinkoff, & Hirsh-Pasek, 2010; Fong & Ho, 2017).

Factors Affecting Listening

There are many factors that affect the listening process. Cognitive, affective, mental, social and psychological factors are among them. The negative mood of the listener may be one of the most important obstacles in perception by listening (Çifçi, 2001, p. 170-176). Fear, anxiety, anger, attitudes and interests may be given as examples for cognitive, affective and psychological factors (Dalgleish & Power, 2015). Attitudes can be thought of as psychological processes that are behind the behaviors and that directly guide the human behaviors (Harmankaya & Melanlıoğlu, 2017). Therefore, "students who have to work with texts that are not suitable for their levels, who are mostly passive during the listening process or find listening texts boring, cannot be expected to have positive attitudes towards listening" (Katrancı & Fire, 2013, p. 739). Anxiety can be defined as "a distressing feeling that occurs when a strong desire or impulse seems like it will fail to achieve its aim" (Enç, 1974). It is often referred to as a state of vague fear andtension, which is indirectly associated with an object (Hilgard, Atkinson, Atkinson, & Lambert, 1971) and "comes out with the stimulation of the limbic system" (Lamendella 1977, as cited in Scovel, 1978, p. 134). Anxiety is a vague sense that "something bad might happen", it is an increase in the startle reflex. The startle reflex itself is automatic, but experiences and context modify it (Kalat, 2015, p. 394). Bandura (1997, p.137) defined anxiety as "a state of anticipatory apprehension over possible deleterious happenings", and in social cognitive theory, one's perceived sense of efficacy plays a key role in the arousal of student anxiety. According to Scovel (1978), anxiety can have a positive or negative effect on learning. Therefore, it can be evaluated according to the effect it creates in two ways as constructive (motivating the student to engage in the new learning task) and debilitating (motivating the student to escape from the new learning task). For example, students with a high level of debilitating anxiety, easily avoid activities; because time is divided between affective and cognitive factors (MacIntyre & Gardner, 1989). "The right level of anxiety depends on the situation" (Kalat, 2015, p. 394). Bandura (1997), in his Social Cognitive Theory, stated that the belief of self-efficacy plays a central role in stimulating the anxiety of the individual and in this direction, it may increase the student's anxiety of the feeling of insufficiency in a particular course or subject. At this point, the anxiety that occurs during the listening process is called a negative "self-conception of listener" by Joiner (1986), which means a low level of self-confidence in listening (as cited in Vogely, 1998, p. 68). Physically "listening anxiety might show itself emotionally in the form of sadness, anger, fear or in the form of rapid heart beat and sweating" (Melanlıoğlu, 2013, p. 856). According to Scarcella and Oxford (1992, p. 63), listening anxiety "occurs when students feel confronted with a very difficult or unfamiliar task". Being one of the effects that debilitate the listening process, it is hard to identify the anxiety that accompanies the listening comprehension skills, because in order to interact verbally, the listener must first understand what is said (Vogely, 1998).

Listening processes can be handled in three stages as pre-listening, listening order and post-listening (Güneş, 2013). A noisy environment or lack of information about the material to be listened

before listening; words with unknown meanings and not being able to recognize the verbal clues of the speaker during listening and not being able to achieve the purpose of listening and correlate the new information with former experiences after listening may cause anxiety (Tobias, 2013). In addition to that, many students may also be concerned that they need a wide of vocabulary, extensive grammar and experience, as well as a natural ability to have "good" listening comprehension skills (Horwitz 1987, as cited in Vogely, 1998).

Young (1992) has stated that, listening skills are affected from many factors such as not taking time for listening activities, inadequate teaching methods and listening strategies, and students' lack of vocabulary; however, anxiety is an increasingly important factor among them. Because, according to herthe listening comprehension skill is quite worrying if the speech cannot be understood. Sharif and Ferdous (2012), distinguished the sources of anxiety as factors related to teachers and students, factors related to materials and the process and other factors in their study in which they analyzed the sources of listening anxiety. For example, the type of text, which is a factor that affects listening anxiety, is related to both the listening process and the material. Familiar (known) words or interesting topics that students come across in the text by using their prior knowledge reduce the anxiety for both the student and the material. In the study conducted by Golchi (2012), that the effect of listening anxiety and listening strategy of Iranian students on listening comprehension skills in foreign language was negatively correlated with variables. In addition, it was found that low-anxiety students used more meta-cognitive strategies than high-anxiety students and they were more successful in comprehension test. Vogely (1998) worked with 140 university students in his qualitative study, in which he explored the sources of listening comprehension anxiety and solution recommendations. The students (1) were asked whether they had any listening anxiety; (2) if so, what might be making them anxious while attending a listening comprehension activity and (3) what arrangements, exercises or activities are helpful to lower their levels of anxiety. According to the results of the research, the sources of anxiety and recommendations for reducing anxiety were gathered under the categories of preparation, processual, educational and personal factors. As examples for these factors respectively; lack of visual support, lack of time, distressing environment and fear of failure may be counted among the factors that cause anxiety. As a result of the research, it is stated that it is necessary to learn the comprehension process and structure well since instant and intensive information input is encountered during the listening process.

When "listening is thought to be the only comprehension skill that enables children to gain information until they start school and learn to read" (Doğan, 2016, p. 9), it forms the basis for other learning areas, which are speaking, reading and writing. In addition to that, studies on the rate of benefit from language skills (e.g.; Bird, 1953; Burley-Allen, 1995) revealed that the most commonly used skill is listening. Therefore, listening comprehension plays a key role in facilitating language learning. Research conducted (e.g.; Dunkel 1991; Feyten 1991) has indicated that listening skills should be given importance in language learning. However, listening skills are generally neglected by children as being acquired at a certain level before starting school (Doğan, 2016). Thus, "students have difficulty in listening process while trying to get meaning and produce the right sounds" (Vandergrift, 1999, p. 168).

When the literature is reviewed (e.g.; Kılıç & Uçkun, 2013; Golchi, 2012; Chang, 2008; Chang, Chang, & Read, 2008; Mills et al., 2006; Elkhafaifi, 2005; Kim, 2000; Vandergrift, 1999; Young, 1992; Dunkel, 1991; MacIntyre & Gardner, 1989; Gardner, Lalonde, Moorcroft, & Evers, 1987; Scovel, 1978) many research on listening skills and listening anxiety are in foreign language, second language acquisition (SLA), English as a foreign language (EFL). Despite its importance, the comprehension skills of students, especially in the first mother tongue, have not been studied in depth yet (Andringa, Olsthoorn, van Beuningen, Schoonen, & Hulstijn, 2012; Vandergrift, 2007).Moreover, in these studies, it is seen that there are no researches investigating the relationships between listening comprehension, listening anxiety, other factors (factors from listener, text, speaker, environment) affecting listening in mother language and listening skill for primary school students and the factors that may affect this skill. However, the negative relationship between anxiety and success has been confirmed by a small number

of studies covering listening skills (e.g.; Elkhafaifi, 2005; Mills et al., 2006). Therefore, the aim of this study is to analyze the relationship between listening comprehension skills and listening anxiety of fourth grade primary school students and the other factors affecting listening. The research is important in terms of revealing the relationship between the elementary school students' ability to understand by listening together with the individual, social and environmental factors that affect the listening process in their mother tongue. In this direction, answers to the following questions were sought:

1. Is there a relationship between primary school fourth grade students' listening anxiety and listening comprehension skills?

2. Is there a relationship between primary school fourth grade students' listening others factors and listening comprehension skills?

Method

Research Method

In this study, the relationships between listening comprehension skills of fourth grade primary school students and the factors affecting listening were investigated. Therefore, this study is designed as a relational screening model which allows examining the relationships between variables. In such studies, "the relationship between one dependent variable and more than one independent variables is tried to be evaluated" (Tabachnick & Fidell, 2015, p. 117). Trying to determine the degree of co-variation between variables does not mean a real cause-effect relationship, but it is a prerequisite for causality (Karasar, 2012).Since the focus of the study is on the relationships between variables, the listening comprehension skills of the primary school students are considered as the dependent variable; their listening anxiety and theother factors affecting listening (factors from listener, text, speaker, duration and environment) are considered as the independent variables and more than one independent variable that have impact on the dependent variable were tried to be analyzed.

Study Group

The study group of this research consisted of 130 fourth grade primary school students who study in three public schools in Giresun province during the 2018-2019 Academic Year. In the determination of the study group, a suitable sampling method was used by visiting schools that would facilitate the researchers in terms of time and labor (Gürbüz & Şahin, 2015). In total, 130 students (66 female and 64 male) participated in the study.

Data Collecting Tools

As data collection tool; listening comprehension test was used to measure students' listening comprehension skills, listening anxiety scale was used to measure their listening anxiety and the form of factors affecting listening was used to define the factors affecting listening processes. Detailed information about the data collection tools is as follows.

Listening Comprehension Test: In order to measure the students' listening comprehension skills, "Listening Comprehension Test" was developed by the researchers. For the test, first of all, an illustrated story book was tried to be selected. At this stage, illustrated story books suitable for the class levels of the students were reviewed, opinions of two instructors who were experts in the field of classroom education were consulted and the number of T-Unit was taken into consideration. When Turkish sentence types are considered, simple sentences and compound sentences with side clauses can be considered as a single T-Unit (Ulusoy, 2017). In the light of the books examined and the opinions received, "Kütüphanedeki Aslan" (Library Lion) illustrated story book was selected and the comprehension test was prepared based on this book. The number of T-unit in the book is 168. First of all, the test items, which consisted of a four-choice and 25-item question pool, were examined by two instructors, one from the field of Assessment and Evaluation in Education and the other from the field of Classroom Teaching, and two classroom teachers who currently work in primary schools. Items that are not considered to be appropriate were not removed from the test and some of them were revised. As a result, a trial form of 25 items in total was prepared. In the item analysis, the trial form was applied

to 396 students in the fourth grade of three public schools, for which permission was obtained from the Directorate of National Education, based on the recommendation that the sample size should be 5 to 10 times of the ratio of the number of items (MacCallum, Widaman, Zhang, & Hong, 1999). During the application process, a total of 16 primary schools of the fourth grade were informedthat they will do purposeful listening activities by the researchers about the purpose of test, then, by the researchers, the book titled "The Lion in the Library" was read aloud once in all classes,After the reading process is over, the comprehension test is distributed to the students by the researchers and asked each student to answer the test individually within 25 minutes. After that, item and test analyzes were performed. As a result of statistical processes conducted for item analysis, the difficulty index (P_j), the standard deviation (S_j), the distinctiveness index (r_{jx}) and the item reliability (r_j) values of the items in the test were calculated. Five items with a distinctiveness index (r_{jx}) less than 0.30 were excluded from the test. Substances with difficulty index (P_j) below 0.10 and above 0.90 were also excluded from the test (Ebel, 1965). As a result of these analyzes,the Listening Comprehension Test consisting of the remaining 20 items was prepared. The values of difficulty index (P_j), standard deviation (S_j), distinctiveness index (r_{jx}) and item reliability (r_j) conducted for the upper and lower 27% of the test items are as in Table1.

Table 1. Listening Comprehension Test Item Analysis Results

Item No	p_j	s_j	r_{jx}	r_j	Item No	p_j	s_j	r_{jx}	r_j
1	0.70	0.49	0.38	0.17	11	0.84	0.36	0.40	0.15
2	0.88	0.33	0.33	0.11	12	0.70	0.47	0.51	0.24
3	0.75	0.43	0.50	0.22	13	0.84	0.37	0.45	0.17
4	0.64	0.48	0.56	0.27	14	0.85	0.36	0.40	0.14
5	0.84	0.37	0.33	0.12	15	0.77	0.42	0.51	0.21
6	0.83	0.45	0.40	0.19	16	0.26	0.44	0.36	0.17
7	0.40	0.49	0.37	0.18	17	0.73	0.44	0.51	0.23
8	0.54	0.50	0.56	0.28	18	0.62	0.49	0.52	0.25
9	0.34	0.47	0.49	0.23	19	0.71	0.45	0.58	0.26
10	0.84	0.36	0.30	0.11	20	0.64	0.48	0.61	0.29

When Table 1 is reviewed, it is seen that, after the removal of the five items with a distinctiveness index (rjx) lower than .30, the distinguishing difficulties of the remaining 20 items ranged between 0.30 and 0.61. These values, which were calculated for the upper and lower 27% groups, can be interpreted as the validity of the items included in the test are high and can distinguish students in terms of listening comprehension success (Ebel, 1965). The results of the test analysis which was conducted following the item analysis are as in Table 2.

Table 2. Listening Comprehension Test Analysis Results

Number of Items	N	$\overline{M}$	SD	Mod	Median	Average Difficulty	KR-20
20	396	13.92	3.62	16	15	0.68	0.77

When Table 2 is reviewed, it is seen that the average difficulty of the test scores is 0.68. This value indicates that the test is of medium difficulty. As a result of the analyzes conducted related to the reliability of the test, the KR-20 value was calculated as 0.77. This reliability value shows that the comprehension test is at a usable level (Crocker & Algina, 2006).

Listening Anxiety Scale: In order to measure the listening anxiety of primary school students, the listening anxiety scale was developed by the researchers. While developing the scale, the following steps were taken into consideration:

❖ *Deciding on for what purpose the scale will be developed*: The aim is to develop a valid and reliable listening anxiety scale as a measurement tool that measures the listening anxiety of primary school students is not available in the related literature. In this respect, how the anxiety is defined in the literature and the literature on anxiety about the target group of the research were

investigated (Kim, 2000; Mills et al., 2006; Kılıç, 2007; Chang, 2008; Melanlıoğlu, 2013). According to Erkuş (2016) "there may be a measuring tool developed to measure the same variable that meets the requirement; however, a factor such as different target groups may require a new scale study", p. 25). Although the studies have shown that there are measurement tools related to anxiety and prepared for students in different developmental periods, there is a need for a measurement tool developed for elementary school students.

❖ *Writing Items*: When anxiety is considered as a distressing feeling that occurs when a will cannot reach its purpose, it can be handled as a state of fear, anxiety and sadness that occurs when elementary school students cannot reach their listening purpose during the listening process. With reference to this definition, after reviewing the literature, a pool of 13 items in 4 point likert type (4-always, 3-usually, 2-occasionally, 1- never) was created for primary school students. In writing items; attention was paid on writing as short, simple and clear items as possible and the language and words used, to be appropriate for the age and level of education of the target group.

❖ *Pre-investigation*: This is the stage of reviewing and revising the items. At this stage; whether the items measure the variable of anxiety, whether they are appropriate in terms of item type, their grammatical suitability, their comprehensibility, legibility and suitability for the target group were investigated. Then, a total of four experts two of whom were working in the field of Classroom Education, one of whom in Turkish Language Education and another one of whom in Assessment and Evaluation were consulted. In line with the opinions of the experts, the 13-item scale was prepared for the pretesting stage by being revised in terms of content and form. By this way, the content validity of the prepared measurement tool was tried to be ensured.

❖ *Pre-implementation*: The items developed in line with the opinions of the experts were implemented on 30 fourth grade primary school students studying in the center district of Giresun province in terms of whether they reveal the anxieties of the primary school students and whether they are comprehensible or not. Following the implementation, the opinions and suggestions of the students were taken into consideration and necessary revisions were made for each item answered by the students.

❖ *Main Implementation*: The necessary permissions were obtained from the Provincial Directorate of National Education for the main implementation and it was decided that the fourth grade students from four different primary schools in center district of Giresun could be eligible. In the scale analysis, a total of 317 fourth grade students were reached based on the recommendation that it should be 10 times of the number of items, for the sample size (MacCallum et al., 1999); 46% of these students were female (*n*=147) and 54% were male (*n*=170)

In order to reveal the structure of the scale; exploratory factor analysis (Conway & Huffcutt, 2003), which is a type of analysis that can be used in the first stage of the scale development process, in which the number of factors or dimensions is not known beforehand and which enables the items to correlate with all dimensions was used. Thus, 13 items were put to factor analysis; 10 items were grouped under 2 factors and three items were excluded. KMO (Kaiser-Meyer-Olkin) and Bartlett Test results were reviewed in order to evaluate the appropriateness of the data obtained from the Listening Anxiety Scale of Elementary School Students for factor analysis (Table 3).

Table 3. Listening Anxiety Scale KMO and Bartlett Test Results

KMO Measure of Sampling Adequacy		.837
Bartlett's Test of Sphericity	**Approx. Chi Square**	590.220
	Df	45
	Sig.(p)	.000

When Table 3 is reviewed, it is seen that KMO value is .84 and Barlett Sphericity value is .00. While the case that KMO value is .60 and above indicate that the sample will be sufficient for factor analysis (Tabachnick & Fidell, 2015), that Barlett Sphericity test is significant (p <.05) indicates that the matrix formed by the relationships between variables is sufficient for factor analysis (Gürbüz & Şahin, 2015).

The factor exclusion rules; the eigenvalue (1) rule (Kaiser, 1960) and the slope graph test (Cattell, 1966) were taken into consideration in order to determine whether the items constitute a factor or not. Following the determination of the number of factors; the factor loads, distribution among factors and eigenvalues of the items are as in Table 4.

Table 4. KFA Results of Listening Anxiety Scale

Item	1st Factor	2nd Factor
m12	.684	
m7	.673	
m9	.637	
m13	.601	
m8	.507	
m3		.758
m6		.633
m5		.602
m10		.580
m11		.574
(Eigenvalues)	2.265	2.178
Percentage of Declared Variance (%)	22.648	21.784
Total Percentage of Declared Variance (%)	44.432	

When Table 4 is analyzed, it is seen that 5 items of the 10-item scale define 23% of the total variance by grouping under the first factor and the other 5 items define the 22% of the total variance by grouping under the second factor. The two factors together define 44% of the scale. According to Scherer, Wiebe, Luther, and Adams (1988), who state that an acceptable variance can be between 40% and 60%, the total variance of the two factors of the scale (44%) is acceptable. The factor load, which is correlation of an item with the related factor, shows how much of the variance in that factor it defines. If the factors are to be composed of strong substances, it can be based on that this value to be at least 0.5. In addition to that, it is necessary that the difference between the load values of the substance under two or more factors is greater than 0.1 for the substance to not to be overlapping (Ackerman, 2005). When Table 5 is analyzed, it is seen that ten items are loaded into two factors, there is no cross-loading problem among the items and the load values of the items in the first factor vary between 0.507 and 0.684, and the load values of the items in the second factor vary between 0.584 and 0.758. These results prove the validity of the two-factor structure of the scale consisting of 10 items.

In order to prove the reliability of the scale consisting of two factors and ten items, internal consistency reliability was grounded on to test the consistency of the items in the scale with each other (Gürbüz & Şahin, 2015). In order to determine the reliability of the scale, Cronbach's Alpha values were calculated and are as in Table 5.

Table 5. Listening Anxiety Scale Reliability Statistics

Factor	Number of Items	Average	Standard Deviation	Cronbach's Alfa Value
1	5	10.57	2.985	.667
2	5	11.06	2.939	.694
Total	10	21.63	5.229	.786

When Table 5 is analyzed, the reliability coefficient of the whole scale was calculated as .786. The internal consistency coefficients of the scale are .667 for the first factor and .694 for the second factor. These values can be cited as evidence that the scale is reliable based on the assumption that measurements with a reliability coefficient of .70 and above are considered reliable (Domino & Domino, 2006; Fraenkel, Wallen, & Hyun, 2012; Tavşancıl, 2018).

Other Factors Affecting Listening Form: Form of Factors Affecting Listening Process was developed by the researchers in order to determine the other factors that affect the listening process of fourth grade primary school students. The development of the form was based on the research conducted by Goh (1999) in which he categorized the factors that affect the listening process and tabularized them and shared their ratios. The factors in the research were gathered under the categories of text, speaker, listener, duration and environment. The factors affecting the listening process of primary school students based on the related categories were simplified according to the age and development level of the students after consulting the opinions of three researchers who are experts in the field of Primary School Education. In the form, the students were asked to mark the factor or factors that they think affected their listening processes after listening to the story "Kütüphanedeki Aslan" (Library Lion). In the scoring of the form, the presence of each factor is 1 point and the absence of 0 points. Total score was obtained from the form in line with the number of factors that students marked. These factors used in the research and the categories they belong to are shown in Table 6.

Table 6. Other Factors Affecting Listening

	1.1. Knowing the meanings of the words in the story beforehand
1. Text	1.2. That I have listened the story before
(Story)	1.3. That the sentences in the story are easy
	1.4. My teacher's showing me the illustrations that show the incidents in the story
2. Speaker	2.1. My teacher's reading the story at a tone that I can hear
	3.1. Story's taking my attention
	3.2. Having a purpose in listening to the story
3. Listener	3.3. That I have listened to a story like this before
	3.4. My being stressed while listening to the story
	3.5. That I also can read the words in the story easily
	3.6. My ability to paying full attention while listening to the story
4. Duration	4.1. Having enough time to listen to the story
5. Environment	5.1. Being in a silent classroom while listening to the story

Data Collection Process

The data collection process of the research has two stages: first stage is the reliability and validity studies of the scale and the comprehension test, and the second is the main implementation stage conducted to investigate the relationships among the variables. The steps followed at these stages are presented in Table 7.

Table 7. Data Collection Process of the Research

Stages	Steps
First Stage	***1. Scale Development:*** In the *fall semester* of the 2018-2019 Academic Year, the necessary permissions to develop the scale were obtained by the researchers from the Directorate of National Education and 317 4th grade students from four primary schools in Giresun were reached. ***2. Preparation of Comprehension Test:*** In the *fall semester* of the 2018-2019 Academic Year, the necessary permissions to prepare the test were obtained by the researchers from the National Education Directorate and 396 4th grade students from three primary schools in Giresun were reached. ***3. Preparing the Form of Factors Affecting Listening:*** The related literature was reviewed for the form, the factors affecting the listening process of primary school students were defined item by item and opinions of field experts were consulted.
Second Stage	For the main implementation, the necessary permissions were obtained from the Directorate of National Education in the *spring semester* of the 2018-2019 Academic Year and 130 4th grade students different from pilot implementation in three primary schools in Giresun were reached. The necessary information was shared with the teachers and students and the implementations were carried out in two course hours. • First, listening anxiety scale was applied to define the students' listening anxiety. • The researchers informed the students about the purpose of the research to enable students to listen purposefully. Since the story will be read to them once aloud, students are warned to determine the subject and main idea of the story. Thus, it has been tried to help students who are story listeners to focus on important points (Akyol, 2008). • Second, the illustrated book "Kütüphanedeki Aslan" (Library Lion) was read to the students once aloud by the researchers and the listening comprehension test was applied. Reading aloud was preferred for two reasons: First, the selected story was not a natural listening text. Second, when we are not sure about infrastructure adequacy of the classrooms and when we want to save time during the data collection process, we preferred reading aloud. In this process, attention was paid to the sound level, emphasis, intonation and pauses (Dowhower, 1991), which are the prosodic elements in the classrooms. • Finally, the students were asked to identify the other factors affecting the listening process while listening to the story.

Analysis of the Data

The data of the study were collected in two stages. The steps followed at these stages are as in Table 8.

Table 8. Analysis of the Research Data

Stages	Steps	Analyzes Done
First Stage	1.Developing Scale	Factor Analysis and Reliability Calculation: Factor analysis is the general name of multivariate analyzes aiming to obtain a less number of factors consistent with each other by bringing a large number of related items together (Kim & Mueller, 1978). Internal consistency reliability is based on testing the conceptual structure with a one-time measurement together with the aim of testing whether the items in the scale show consistency among themselves (Allen & Yen, 2001).
First Stage	2.Preparing a Comprehension Test:	Test and Item Analysis: Item analysis is carried out for the purpose of determining the items that are directly to be included in the test, on which items there should be a revision and to remove the items that are not possible to be included in the test (Turgut & Baykul, 2011, p. 224). The statistics that belong to a single item (item difficulty, item distinctiveness, item variance, item reliability, item standard deviation, etc.) are called item analysis. The statistics of the whole test (standard deviation of the test, the reliability of the test, etc.) is called test analysis (Tan, 2014, p. 241).
Second Stage	Main Implementation	Calculation of descriptive statistics, correlation and regression coefficients of variables: • First l, the descriptive statistics of variables were calculated. • Then the correlation coefficient was used to find the degree and direction of the relationships between the variables. "The correlation coefficient has a value ranging between +1 and -1. It can be said that if the coefficient is less than .30, the relationship is weak, if it is between .30 and .70, it is moderate, and if it is higher than .70, it is high. The negative (-) correlation coefficient calculated between the two variables indicates that there is an inverse, negative relationship between the two variables. This means that, while one of the variables is increasing the other decreases" (Atılgan, 2009, s.440). "The strength of this relationship increases as the calculated correlation coefficient gets closer to -1. A positive (+) correlation coefficient indicates that there is a positive relationship between the two variables in the same direction. In other words, while one of the variables is increasing, the other increases as well" (Tan, 2014, p. 95). • Finally, multiple linear regression analysis was used in the case of variables discussed in the study were more than two. In this type of analysis, a number of independent variables that have an impact on a dependent variable and all variables can be included in the model to define the relationships among these independent variables (Orhunbilge, 2017, p. 73). Thus, the common effect of all independent variables on the dependent variable can be investigated (Can, 2013, p.248). In the regression analysis, there are cases in which independent variables are related to each other (Tabachnick & Fidell, 2015, p.118), and there may be cases in which there is a relationship close to 1 separately between the independent variable and the dependent variable (Orhunbilge, 2017, p. 75-76).

Results

In this section, central tendency measures related to the other factors affecting the listening process of primary school students, listening comprehension, scores of listening anxiety scale (means, standard deviations, minimum and maximum values), normality values of data (skewness and kurtosis), binary and partial correlation values between independent and dependent variables and multiple regression values (regression coefficient, total variance, significance values) are presented.

Table 9. Measures of Dispersion of the Variables

Variables	n	Min	Max	$\overline{M}$	Sd	Kurtosis	Skewness
1.Listening Comprehension	130	5	100	64.58	24.17	-.238	-.836
2. Listening Anxiety	130	10	44	27.42	8.86	-.787	-.356
3. Other Factors Affecting Listening	130	1	12	6.19	2.93	-.082	-1.00

When Table 9 is reviewed, the central tendency measures and kurtosis and skewness values of the variables are seen. The fact that the skewness and kurtosis values are between -1 and +1 can be considered as evidence that the data shows a normal distribution (Tabachnick & Fidell, 2015; Kline, 2015).

Table 10. Relationship Among Variables

Variables	1	2	3
1. Listening Comprehension	1.00		
2. Listening Anxiety	-.65	1.00	
3. Other Factors Affecting Listening	-.51	.31	1.00

When Table 10 is reviewed, it is seen that there are negative relationships between listening comprehension skills and listening anxiety and the other factors affecting listening. There is a positive relationship in the same direction between other factors affecting listening and listening anxiety. There is a negative and moderate (r=.-65, p<.01) relationship between listening comprehension skills and listening anxiety. Similarly, there is a negative and moderate (r=-.51, p<.01) relationship between listening comprehension skills of the students and the other factors affecting listening. Apart from these, there is a positive and moderate relationship between listening anxiety of the students and the other factors affecting listening (r=.31, p<.01). According to Büyüköztürk (2013) "the lack of a high level relationship between independent variables is an indication that there is no multi-colinearity problem among the predictor variables" , p. 100). In addition to that, the fact that there is a moderate relationship between the independent variables and the dependent variable separately (Tabachnick & Fidell, 2015; Orhunbilge, 2017) indicates that regression analysis can be performed. Thus, the common effects of listening anxiety and factors affecting listening independent variables on listening comprehension dependent variable can be investigated.

Table 11. Results of Standard Multiple Regression Analysis on Prediction of Listening Comprehension

Variable	B	Standard Error ʙ	β	T	p	Binary r	Partial R
Constant	122.338	5.130	-	23.846	.000	-	-
Listening Anxiety	-1.476	.176	**-.541**	-8.390	**.000**	**-.648**	-.597
Listening Factors	-2.792	.531	**-.339**	-5.260	**.000**	**-.509**	-.423

R=0.723 R²= 0.523   Adjusted R²= 0.516

$F_{(2.127)}$=69.683 p= .000

The results of regression analysis of the predictions of listening comprehension according to the variables of listening anxiety and theother factors affecting the listening are shown in Table 11. When the binary and partial correlations between independent variables (listening anxiety and other factors affecting listening) and the dependent variable (listening comprehension) were analyzed, it is seen that

there is a negative and moderate (r=-.65) relationship between listening anxiety and listening comprehension, however when the other variable was checked, the correlation between the two variables was calculated to be r=-.54. There is a negative and moderate (r=-.51) relationship between the other factors affecting listening and listening comprehension skills. However, when the other variable is controlled, it is seen that this correlation is calculated as r=-.34. Along with listening anxiety and other factors affecting listening, the scores of listening comprehension skills show a high and significant (R=0.72, p<.01) relationship. These two variables together define the 52% of the total variance (change in listening comprehension scores) in listening comprehension skills. According to the standardized regression coefficient (β), the relative order of the independent variables on listening ability is; listening anxiety (β=.541) and other listening factors (β=.339). When the results of the t-test regarding the significance of the regression coefficients were analyzed, it was seen that both listening anxiety and the other factors affecting listening were significant predictors (p <0.0.5) on listening comprehension skills. According to the results of the regression analysis, the regression equation that predicts listening comprehension skills is as follows:

Listening Comprehension Skill = (0.541x Listening Anxiety Scale Score) + (0.339x Number of Other Factors Affecting Listening) + (122.338)

Conclusion, Discussion and Suggestions

As a result of this study which was conducted to investigate the relationships among listening comprehension, listening anxiety and the factors affecting listening, a negative correlation was found between the students' listening comprehension skills and listening anxiety and listening factors. It was found that the factors affecting listening along with listening anxiety, define the 52% of the variance in listening comprehension skills of students. The presence of a negative and moderate relationship between listening comprehension skills and listening anxiety is similar to the previous studies conducted on anxiety which is one of the psychological factors that affect the listening comprehension skills (e.g.; Kimura 2011; Golchi, 2012; Harmankaya, 2016; Selam 2019). In the study conducted by Golchi (2012), in which the relationship among listening anxiety, listening comprehension and listening strategies was investigated, a significant negative relationship was found between listening anxiety and listening comprehension (r = -.63 and p <.05). Based on the results, it was stated that IELTS students' listening comprehension skills decreased when their listening anxiety increased. In the study conducted by Kimura (2011), it was stated that as listening anxiety increased, listening comprehension skills decreased. Since these studies are related to the students' listening comprehension skills in foreign (second) language, they have similar results with this study which is on listening comprehension and listening anxiety in mother language. In the study conducted by Harmankaya (2016) with 100 students studying in the 7th grade of secondary school, the effects of metacognition strategy education on listening comprehension, listening attitude and listening anxiety were examined. As a result of the research, the metacognition strategy teaching created a significant difference on the comprehension skills of the experimental and control group students. But there was no meaningful difference on the attitudes towards listening and listening anxiety. In the study conducted by Selam (2019), it was aimed to examine the listening anxiety of secondary school students in terms of various variables according to their learning styles. According to the results of the research, there was no statistically significant difference between the gender of the secondary school students and the listening anxiety for understanding and analyzing the text, listening barriers, individual differences in listening and lack of self-confidence in listening; It was observed that anxiety levels of female students were higher in male vocabulary sub-dimensions than male students in listening and listening vocabulary sub-dimensions. From this point of view, it can be concluded that listening anxiety negatively affects students' listening comprehension skills both in mother language and in foreign language.

The presence of a negative and moderate relationship between the students' listening comprehension skills and the other factors affecting listening is similar to the previous qualitative and quantitative studies (e.g.; Vogely, 1998; Chang, 2008). As a result of the current research as the listener, the text, the speaker, the time and other factors affecting the listening process increase, the scores of

listening comprehension skills decrease. The factors that cause anxiety in students are the lack of visual support, lack of time, distressing environment, difficult or unfamiliar texts, factors originating from the listener as shown in Vogely's (1998) study conducted on the sources and proposed solutions of the listening anxiety of university students, are similar to the results of this research. For example; some of the students stated that the *distressing environment*, that is, physical environments such as a classroom that is too warm or too cold during the listening process, is important and generally affect their listening comprehension skills negatively. Others were concerned because of the very noisy environment. *The prior knowledge of students* is another factor that affects their listening comprehension skills. One common way to reduce anxiety in listening comprehension is to use visual materials during listening activities. Some neuroscientists have stated that live and convincing images have the strongest effects on students' behavior. Therefore, it is important to use *visual materials*. Chang (2008) stated in her study conducted with 160 students learning English as a second language that; as students were more afraid when they were to be evaluated, their listening comprehension anxiety scores in tests were higher than their general listening comprehension anxiety scores and as one of the important factors affecting the listening, speech speed was chosen by the students (75%). The factor of speaker shows the difference between the tone of voice for primary school students by researchers and the factors that affect listening in mother language in terms of speed by Chang (2008) and the factors affecting listening in foreign language.

Listening is the basis of other language skills; speaking, reading and writing. Bulut and Karasakallıoğlu (2018, p. 1409) stated that "there is only the listening skill in the comprehension dimension of basic language skills until the age of school, and that teaching listening was not given the necessary importance on the grounds that it was acquired before the age of school." Additionally, some studies have shown that these skills affect each other (e.g., Center, Freeman, Robertson, & Outhred, 1999; Yıldırım, Yıldız, Ateş, & Rasinski, 2010). According to Vogely (1998, p. 68), anxiety can undermine the speaking skills in the process of listening comprehension, because for verbal interaction, the listener must first understand what is being told. Therefore, listening anxiety should not be ignored and should be actively discussed. Mills et al. (2006) conducted a study to evaluate the relationship between self-efficacy, anxiety, and gender variables of French listening and reading proficiency of 95 university students living in the United States. As a result of the research, a negative and moderate relationship was found between listening self-efficacy and listening anxiety (-.53), and a positive moderate relationship was found between listening anxiety and reading anxiety (.56). As a result of this research, the (pre)reading of students, which is one of the factors that affect listening, and the characteristic of the speaker affect the listening comprehension skill.

According to Vogely (1998) that in order to be an effective listener, students should actively and strategically participate in the listening process in a low-anxiety classroom environment. In addition to that, revealing the factors that affect the listening comprehension process and the relationships between the listening skills and these factors might be useful in knowing the factors that affect the comprehension process, teachers' knowing their students well and improving the language performance of the students. There are studies showing that anxiety directly affects motivation in language learning (Gardner et al., 1987). Through researches, the relationships between listening anxiety and listening motivation, listening anxiety and speaking skills or listening anxiety and the type of text may be investigated. Such relational studies can be expanded with large sample groups and tested for primary school students at different grades. Different measurement tools can be developed for students' listening comprehension skills to ensure reliable measurements. Similarly, researchers, who want to work with the listening anxiety scale developed by the researchers, can experience the validation process of the scale on different and larger samples with alternative analyzes. Other factors affecting the listening process can be verified in different contexts or improved by adding new factors. As a result of the study findings, as the listening anxiety that is included in the model and the other factors affecting listening define more than half of the change in the dependent variable (52%), which variable or variables might have effect on in the remaining 48% can be investigated.

Limitations

This study is limited to the listening comprehension test and the listening anxiety scale, which were developed by the researchers as data collecting tools and analyzed for validation and reliability and the 130 forth grade primary school students.

References

Ackerman, T. A. (2005). Multidimensional item response theory modeling. In A. Maydeu-Olivares & J. J. McArdle (Eds.), *Contemporary psychometrics* (pp. 3-26). Mahwah, New Jersey: Lawrence Erlbaum.

Akyol, H. (2008). *Teaching methods in new program*. Ankara: Kök Publications.

Allen, M. J., & Yen, W. M. (2001). *Introduction to measurement theory*. USA: Wavel and Press.

Andringa, S., Olsthoorn, N., van Beuningen, C., Schoonen, R., & Hulstijn, J. (2012). Determinants of success innative and non-native listening comprehension: An individual differences approach. *Language Learning, 62*(s2), 49-78.

Atılgan, H. (2009). *Measurement and evaluation in education*. Ankara: Anı Publications.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Macmillan.

Bird, D. E. (1953). Teaching listening comprehension. *Journal of Communication, 3*(2), 127.

Bulut, B., & Karasakaloglu, N. (2018). The effect of effective listening education on listening and reading comprehension. *Kastamonu Education Journal, 26*(5), 1407-1417.

Burley-Allen, M. (1995). *Listening: The forgotten skill* (2nd ed.). Canada: John Wiley and Sons.

Büyüköztürk, Ş. (2013). *Data analysis handbook for social sciences: Statistics, research design, SPSS applications and interpretation*. Ankara: Pegem Academy.

Can, A. (2013). *Data analysis in scientific research process with SPSS*. Ankara: Pegem Academy.

Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research, 1*(2), 245-276.

Center, Y., Freeman, L., Robertson, G., & Outhred, L. (1999). The effect of visual training on the reading and listening comprehension of low listening comprehenders in year 2. *Journal of Research in Reading, 22*(2), 241-256.

Chang, A., Chang, S., & Read, J. (2008). Reducing listening test anxiety through various forms of listening support. *TESL-EJ, 12*(1), 1-25.

Chang, A. C. S. (2008). Sources of listening anxiety in learning english as a foreign language. *Perceptual and Motor Skills, 106*(1), 21-34.

Conway, J. M., & Huffcutt, A. I. (2003). A review and evaluation of exploratory factor analysis practices in organizational research. *Organizational Research Methods, 6*(2), 147-168.

Crocker, L., & Algina, J. (2006). *Introduction to classical and modern test theory*. USA: Cengage Learning.

Çifçi, M. (2001). Listening education and factors affecting listening. *AfyonKocatepe University Journal of Social Sciences, 2*(2), 165-177.

Dalgleish, T., & Power, M. (2015). *Cognition and emotion: From order to disorder*. London: Psychology Press.

Dickinson, D. K., Golinkoff, R. M., & Hirsh-Pasek, K. (2010). Speaking out for language: Why language is central to reading development. *Educational Researcher, 39*(4), 305-310.

Doğan, Y. (2016). *Listening education* (4th ed.). Ankara: Pegem.

Domino, G., & Domino, M. L. (2006). *Psychological testing: An introduction*. Cambridge: Cambridge University Press.

Dowhower, S. L. (1991). Speaking of prosody: Fluency's unattended bedfellow. *Theory into Practice, 30*(3), 165-175.

Dunkel, P. (1991). Listening in the native and second / foreign language: Toward an integration of research and practice. *TESOL Quarterly, 25*(3), 431-457.

Ebel, R. L. (1965). *Measuring educational achievement*. New Jersey: Englewood Cliffs.

Elkhafaifi, H. (2005). Listening comprehension and anxiety in the Arabic language classroom. *The Modern Language Journal, 89*(2), 206-220.

Enç, M. (1974). *Ruhbilim terimleri sözlüğü*. Ankara: Türk Dil Kurumu Yayınları.

Ergin, A. (1998). *Instructional technology: Communication*. Ankara: Anı Publishing.

Erkuş, A. (2016). *Measurement and scale development in psychology*. Ankara: Pegem Academy.

Feyten, C. M. (1991). The power of listening ability: An over looked dimension in language acquisition. *The Modern Language Journal, 75*(2), 173-180.

Fong, C. Y. C., & Ho, C. S. H. (2017). What are the contributing cognitive-linguistic skills for early Chinese listening comprehension?. *Learning and Individual Differences, 59*, 78-85.

Fraenkel, J. R., Wallend, N. E., & Hyun, H. H. (2012). H*ow to design and evaluate research in education*. New York: McGrawHill.

Gardner, R. C., Lalonde, R. N., Moorcroft, R., & Evers, F. T. (1987). Second language attrition: The role of motivation and use. *Journal of Language and Social Psychology, 6*(1), 29-47.

Goh, C. (1999). How much do learners know about the factors that influence their listening comprehension?. *Hong Kong Journal of Applied Linguistics, 4*(1), 17-42.

Golchi, M. M. (2012). Listening anxiety and its relationship with listening strategy use and listening comprehension among Iranian IELTS learners. *International Journal of English Linguistics, 2*(4), 115-128.

Güneş, F. (2013). *Turkish teaching approaches and models*. Ankara: Pegem Academy.

Gürbüz, S., & Şahin, F. (2015). *Research methods in social sciences*. Ankara: Seçkin Publishing.

Harmankaya, M. Ö. (2016). *The effect of metacognitive strategies education on thelisteningcomprehensionskills, the attitudes towards listening and listening anxiety in secondary school students* (Unpublished master's thesis). Kırıkkale University, Institute of Social Sciences,Kırıkkale.

Harmankaya, Ö. M., & Melanlıoğlu, D. (2017). The effect of metacognition strategies education on secondary school students' listening skills, listening attitudes and listening anxiety.*Turkish Studies-International Periodical for the Languages, Literature and History of Turkish or Turkish, 12*(18), 339-360.

Hilgard, E., Atkinson, R. C., Atkinson, R. L., & Lambert, W. W. (1971). *Introduction to psychology*. New York: Harcourt Brace Jovanovich.

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*(1), 141-151.

Kalat, J. W. (2015)*. Introduction to psychology* (8th ed.). Boston: Nelson Education.

Karasar, N. (2012). *Scientific research method*. Ankara: Nobel Publishing.

Katrancı, M., & Fire, B. (2013). The effect of metacognitive strategies teaching on listening comprehension and listening attitude. *AdıyamanUniversity Journal of the Institute of Social Sciences*, 11, 733-771.

Kılıç, M. (2007). *The sources and relations of foreign language listening anxiety with respect to text type and learner variables: a case study at Gaziantep University* (Unpublished master's thesis). Gaziantep University, Institute of Social Sciences, Gaziantep.

Kılıç, M., & Uçkun, B. (2013). Listening text type as a variable affecting listening comprehension anxiety. *English Language Teaching, 6*(2), 55-62.

Kim, J. H. (2000). *Foreign language listening anxiety: A study of Korean students learning English* (Unpublished doctoral dissertation). University of Texas, Austin.

Kim, J. O., & Mueller, C. W. (1978). *Factor analysis: Statistical methods and practical issues*. Beverly Hills, USA: Sage.

Kimura, H. (2011). *A self-presentational perspective on foreign language listening anxiety* (Unpublished doctoral dissertation). Temple University, Philadelphia, USA.

Kline, R. B. (2015). *Principles and practice of structural equation modeling*. New York: The Guilford Press.

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods, 4*(1), 84-99.

MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second-language learning: Towarda theoretical clarification. *Language Learning, 39*(2), 251-275.

Melanlıoğlu, D. (2013). Validity and reliability of the listening anxiety scale for secondary school students. *Adıyaman University Journal of Institute of Social Sciences, 6*(11), 851-876.

Mills, N., Pajares, F., & Herron, C. (2006). A reevaluation of the role of anxiety: Self-efficacy, anxiety and their relation to reading and listening proficiency. *Foreign Language Annals, 39*(2), 276-295.

Orhunbilge, N. (2017). *Applied regression and correlation analysis*. Ankara: Nobel Publishing.

Oxford, R. L. (1993). Research update on teaching L2 listening. *System, 21*(2), 205-211.

Scarcella, R. C., & Oxford, R. L. (1992). *The tapestry of language learning: The individual in the communicative classroom*. Boston: Heinle and Heinle.

Scherer, R. F., Luther, D. C., Wiebe, F. A., & Adams, J. S. (1988). Dimensionality of coping: Factor stability using the ways of coping questionnaire. *Psychological Reports, 62*(3), 763-770.

Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language Learning, 28*(1), 129-142.

Selam, Ç. (2019). *Listening anxiety of secondary school students learning styles and analysis of various variables* (Unpublished master's thesis). Çanakkale University, Institute of Educational Sciences, Çanakkale.

Sharif, M. Y., & Ferdous, F. (2012). Sources and suggestions for lower listening comprehension in the efl classroom: A case study. *English Language Teaching, 5*(10), 92-105.

Tabachnick, B. G., & Fidell, L. S. (2015). *Use of multivariate statistics* (M. Baloğlu, Trans.). Ankara: Nobel Publishing.

Tan, Ş. (2014). *Measurement and evaluation in teaching*. Ankara: Pegem Academy.

Tavşancıl, E. (2018). *Measurement of attitudes and data analysis with SPSS* (6th ed.). Ankara: Nobel Publishing.

Tobias, S. (2013). Anxiety and cognitive processing of instruction. In R. Schwarzer (Ed.), *Self-related cognitions in anxiety and motivation* (pp. 45-64). New Jersey: Psychology Press.

Turgut, M. F., & Baykul, Y. (2011). *Measurement and evaluation in education* (3rd ed.). Ankara: Pegem Academy.

Ulusoy, M. (2017). The evaluation of primary school students' oral expression skills of illustrated children's books. *Ahi Evran University Journal of the Institute of Social Sciences, 3*(1), 29-43.

Ungan, S. (2009). Listening education. In A. Kırkkılıç & H. Akyol (Ed.), *The Turkish language teaching in primary education* (p.135-161). Ankara: Pegem Academy.

Vandergrift, L. (1999). Facilitating second language listening comprehension: Acquiring successful strategies. *ELT Journal, 53*(3), 168-176.

Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching, 40*(3), 191-210.

Vogely, A. J. (1998). Listening comprehension anxiety: Students' reported sources and solutions. *Foreign Language Annals, 31*(1), 67-80.

Yıldırım, K., Yıldız, M., Ateş, S., & Rasinski, T. (2010). Level of understanding of fifth grade Turkish students reading and listening by text types. *Educational Sciences: Theory & Practice, 10*(3), 1855-1891.

Young, D. J. (1992). Language anxiety from the foreign language specialist's perspective: Interviews with Krashen, Omaggio Hadley, Terrell, and Rardin. *Foreign Language Annals, 25*(2), 157-172.