

The Effect of Tales on the Development of Turkish Language Skills: A Meta-Analysis Study

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Abstract

The purpose of the current study is to determine the effect of tales on the development of the Turkish language skills of students from different grade levels in Turkey. To this end, a meta-analysis of the studies investigating the effect of tales on the development of the Turkish language skills was conducted. 5 studies were included in the current meta-analysis study. The total sample size of the studies included in the meta-analysis is 256 students; 126 in the control groups and 130 in the experimental groups. The studies included in the meta-analysis are heterogonous. In addition to result of the funnel scatter plot related to publication bias, absence of the publication bias was confirmed with Orwin's Safe N Analysis, Duval and Tweedie's Trip and Fill and Egger's regression analysis. Effect sizes were calculated according to the random effects model. In the calculations of the effect sizes, Cohen's d coefficient was used. In the current study, moderator variable effect of the variables of grade level, type of publication and skill area on the effect sizes calculated according to the effect of tales on the development of the Turkish language skills was also examined. In the determination of the moderator variable effect, Q test and p significance coefficient were used. In the current study, tales was found to have a high level of effect on the development of the Turkish language skills. When the results of the moderator variable analysis were examined, it was found that for grade level, type of publication and skill area moderator variables, the between-studies variance is not significant in terms of the development of the Turkish language skills. In light of the current meta-analysis study, it was concluded that tales are an effective method to be used to develop students' Turkish language skills. Thus, tales can be used to support the development of students' language skills in mother tongue education. According to results, it can be argued that tales have a positive effect on the development of all the Turkish language skills in all the Turkish language skill areas. It has been observed that applied research on the use of tales as a learning tool in Turkish language education is quite limited. Therefore, the number of applied studies that examine the effects of tales on the development of Turkish language skills as well as on academic achievement, student motivation, and the retention of the learned information in Turkish language education can be increased.

Keywords: Turkish Language Education; Turkish Language Skills; Tales, Meta-Analysis

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INTRODUCTION

Basic language skills are divided into two groups as comprehension (listening / watching and reading) and expression skills (speaking and writing). The main goal of Turkish language education is to improve students' basic language skills and to impart the love for and awareness of language to them. When the Turkish curriculum is examined, it is seen that the objectives of the curriculum are stated as follows; "developing students' listening/watching, speaking, reading and writing skills, enabling them to use Turkish consciously, accurately and meticulously in line with the rules of speaking and writing, helping students to gain the pleasure and awareness of language use, enriching their worlds of emotions, thoughts and imaginations and getting them to recognize and adopt aesthetic and artistic values through the works of art produced in the world and Turkish culture" (Milli Eğitim Bakanlığı [MEB], 2019). The development of language skills in students helps them to gain the following competences "expressing and interpreting concepts, thoughts, views, feelings and phenomena both orally and in writing (listening, speaking, reading and writing) and getting involved in linguistic interactions in any type of social and cultural environment such as educational and work, home and recreational environments in a creative and appropriate manner" within the basic competence of "communication in mother tongue" (MEB, 2019). In this connection, the selection of materials that can address the development of all basic language skills in Turkish lessons is an important factor for the conduct of a healthy mother tongue education. One of the educational materials that can be preferred in this context is tales. Tales which can be defined as attractive and impressive narratives that attract the attention of children, keep their curiosity alive and enrich their imaginations (Kaya & Erol, 2020) are widely used in the teaching of reading, listening, speaking and writing skills and grammar knowledge as an educational material (Bağcı-Ayrancı, 2017). It can be said that tales are among the literary genres that can be preferred when creating a learning environment in Turkish language education because they have a flexible language structure and they develop the imagination of students and foster the pleasure and interest of reading in them (Özkaya & Altuntaş, 2021). In addition to nurturing the imagination and emotional power of the child, tales are also an important factor in the language development of the child, with the ease and entertaining dimension involved in their way of narration; therefore, tales should be used in mother tongue education (Arıcı & Bayındır, 2015; Boratav, 2009; Dilidüzgün 2018). Effective use of tales in mother tongue education and instruction has a positive effect on the development of the child's basic language skills as well as the development of vocabulary, emotional worlds, dreams and thoughts (Türkben, 2018). The child, who is fed from tales through listening / watching and reading, which are called receptive skills, can use what he/she has gained from these tales in his/her verbal and written expressions through his/her speaking and writing skills, also known as productive language skills (Yemenici, 2019). It can be said that the child can express his/her feelings, thoughts and dreams in an aesthetic way as a result of transferring various language structures and rich speeches from tales to his/her vocabulary, and correspondingly, his/her oral and written expression will develop.

There are many studies investigating the role of tales in values education and value transfer (Coşkun & Çiftçi, 2019; Kılıç & Yılmaz, 2018; Kavaklı, 2019, Özbaşı, 2020, Temizyürek & Vargelen, 2016); in the development of vocabulary knowledge (Aslan, 2017; Baş, 2012; Çetinkaya, 2020; Kaçmaz, 2018; Sever & Karagül, 2014); in the use of educational materials (Arıcı & Bayındır, 2015; Bağcı-Ayrancı, 2017; Bozkırlı, 2018; Çiftçi & Kaya, 2020; Gedik, 2020); readability (Tekşan et al., 2020); children's literature (Kılıçaslan, 2019; Saltık, 2016; Yasa, 2012) bibliotherapy (İpek-Eğilmez & Erdemir, 2016), teaching Turkish to foreigners (Bayraktar, 2016; Özdin, 2020) within the context of teaching Turkish. It is seen that the studies on tales are generally descriptive studies. Within the context of teaching Turkish, there is a limited amount of applied research focusing on the effects of tales on the conceptual development of children (Akın, 2018), their academic achievement and attitudes (Çinici, 2019), Turkish language skills (Bilgiç-Yıldız, 2019; Çetinkaya & Sönmez, 2019; Oğuz, 2017; Onarıcıoğlu, 2011; Öztürk, 2018; Urhan, 2016; Yemenici, 2019). Each of these studies in the literature examining the effect of tales on Turkish language skills has concluded that tales are effective on the development of language skills. However, considering the fact that the effects of fairy tales on the development of Turkish language skills reported in these studies seem to be different from each other, a meta-analysis study is needed in order to evaluate and generalize the results of the studies

as a whole. As a result of a literature review, no meta-analysis study on the effect of tales on the development of Turkish language skills could be found.

The purpose of the current study is to determine the effect of tales on the development of Turkish language skills of students in different levels of education in Turkey. To this end, a meta-analysis of the studies examining the effect of tales on the development of Turkish language skills was conducted. In this connection, it was also attempted to determine whether the effect values vary significantly depending on the moderator variables of publication type, education level of the participants and skill area. The research questions are:

1. What is the effect size of the tales on the development of Turkish language skills of students at different educational levels in Turkey?
2. Are there any significant difference in the effect values according to the moderator variables (publication type, education level of the participants and skill area)?

METHOD

In the current study, it was aimed to determine the general effect sizes of tales on the development of students' Turkish language skills with the meta-analysis method. Meta analysis is a quantitative method that provides a general result by combining quantitative results obtained from more than one primary study on a topic (Kanadlı, 2021; Şen & Yıldırım, 2020). Meta analysis, also called quantitative research synthesis, is a powerful approach to summarizing and comparing results from empirical literature (Card, 2011). In addition to making it possible to obtain a overall effect size by combining the results of the related studies, meta-analysis also allows them to be examined in terms of variables such as publication type, the place where the research was carried out and / or the age, gender, education level of the study groups. When the literature is reviewed, it is seen that there are different studies examining the effect of tales on the development of students' Turkish language skills. However, in the studies reached, it is seen that the effect sizes of tales on students' Turkish language skills differ and it is necessary to express the research results in a holistic manner. This holistic expression is possible by combining the results obtained from different studies by subjecting them to a meta-analysis and reaching a general effect size. In this connection, within the scope of the current study, the studies designed to examine the effect of tales on the development of Turkish language skills were examined and a general effect size was tried to be reached with the meta-analysis method. Moreover, it was investigated whether the effect sizes calculated for the effects of tales on the development of Turkish language skills vary significantly depending on the moderator variables of education level, publication type and skill area.

Data collection procedure

The data of the study were collected in February 2021. By using the key words “*masal, dil becerileri, Türkçe eğitimi*” and their English translations, a search was conducted in Google Academia, Council of Higher Education Thesis Centre, ULAKBİM TR Dizin, ProQuest and indices in the ISI database (SCI, SCI Expanded, SSCI, AHCI and ESCI), and ERIC and Education Full Text (H. W. Wilson, EBSCOhost) databases. In this connection, a total of 94 studies were reached, including 32 articles and 62 graduate theses on the use of tales in Turkish language education and in the development of Turkish language skills. It was observed that the studies reached were conducted between the years 1997 and 2020. In this direction, criteria were determined for the studies obtained to be included in the meta-analysis. These criteria are: (1) The studies should be graduate theses completed or articles published in reviewed journals between the years 1997 and 2020, (2) The studies should be focused on the determination of the effects of tales on the development of Turkish language skills (listening/watching, speaking, reading and writing), (3) The studies should be semi-experimental studies with experimental and control groups, (4) The participants in the experimental groups should be engaged in teaching practices with tales and the participants in the control groups should be engaged in practices conducted with traditional methods, (5) In the studies, data collection tools

aiming to determine the effects of tales on the development of Turkish language skills should be used, (6) The number of the participants in the experimental and control groups should be stated, (7) Arithmetic means, standard deviations, p values or the statistics required to calculate the effect size should be reported in the studies. These criteria were also used as the exclusion criteria. When the articles produced from the graduate theses were found, not the articles but the theses were included in the meta-analysis on the basis of the assumption that they include more data and that publication bias is relatively lower in them.

When the studies were evaluated in line with the criteria for inclusion in the meta-analysis study, it was seen that most of the studies were designed with qualitative research methods. Seven experimental studies examining the effect of tales on the development of Turkish language skills were identified. Two of these studies were not included in the meta-analysis since the required values for the necessary calculations were not reported. As a result, a meta-analysis was conducted with 5 studies that met the inclusion criteria. The total sample size of the studies included in the meta-analysis consists of 256 participants, 130 participants in the experimental group and 126 participants in the control group.

Data coding

In line with the criteria for inclusion in the meta-analysis determined, a coding form was created for the studies to be included in the study. The name of the study, author (s), publication year, skill area, education level, publication type, number of experimental and control group participants, posttest arithmetic mean, standard deviation, and p values were coded in this form. In order to ensure the reliability of the coding, two field experts other than the researcher coded the research data, and it was observed that full consensus was achieved on the codings as a result of the consensus meetings.

Publication bias

Publication bias in meta-analysis studies can be defined as the inadequacy of the studies included in a meta-analysis to represent all the studies on that subject. Publication bias is an important factor that threatens validity as it adds systematic error to the research (Dwan et al., 2013; Şen & Yıldırım, 2020). The reasons for publication bias are that studies with high effect sizes are easier to publish than studies with low effect sizes, and that generally, publications with such high effect sizes are included in the meta-analysis (Bakioğlu and Göktaş, 2018). Similarly, Rust et al. (1990) drew attention to this situation and stated that printed publications such as articles and books are deemed more suitable for publication if they have a strong effect or statistical significance, and stated that this may be a problem in terms of publication bias in meta-analysis studies. For this reason, before determining the effect sizes, the status of publication bias in the studies included in the meta-analysis was determined. In the current study, the status of publication bias was examined by funnel scatter plot, Orwin's Safe N analysis, Duval and Tweedie's Trim and Fill analysis and Egger's regression test. In this context, the funnel scatter plot showing the possibility of publication bias in this meta-analysis study is shown in Figure 1.

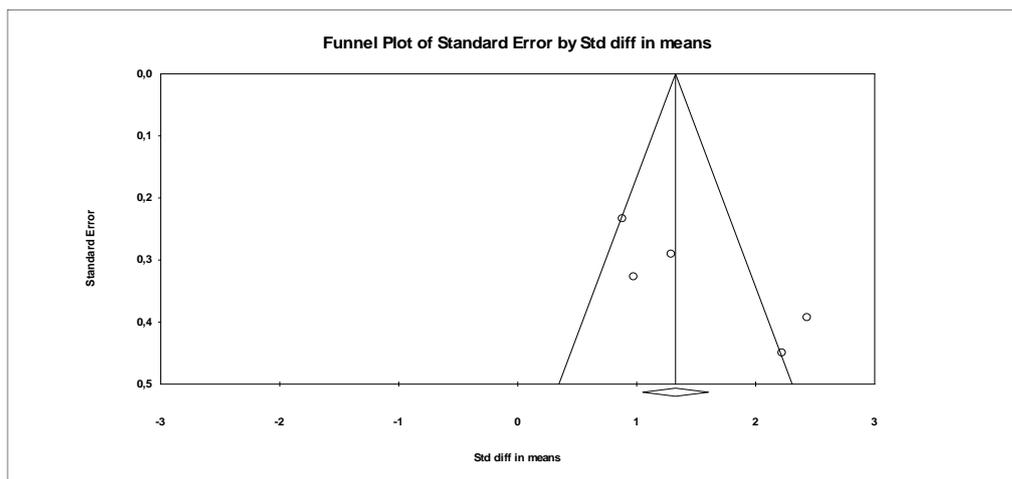


Figure 1. Funnel scatter plot regarding the effect of tales on the development of Turkish language skills

When the funnel scatter plot in Figure 1 is examined, it is seen that the studies are generally gathered in the middle and distributed symmetrically towards both sides of the vertical line showing the combined effect size. The symmetrical distribution of the studies included in a meta-analysis around the effect size axis and their gathering in the middle part of the standard error axis indicate the low probability of publication bias. However, the results produced by the funnel scatter plot, which visually presents the possibility of publication bias, are limited. Therefore, in addition to the result of the funnel scatter plot regarding the publication bias, the possibility of publication bias was also examined with Orwin’s Safe N analysis, Duval and Tweedie’s Trim and Fill, and Egger’s regression analysis. The findings obtained are presented in Table 1.

Table 1. Reliability tests regarding the possibility of publication bias

Orwin’ Safe N (-/+ .01 S.O.F) Required Studies*	Duval and Tweedie		Egger Test (p)
	Trimmed	Observed/Added	
659	1	1.501(1.288)	.056

*The number of studies required for Cohen’s *d* value to reach a value outside the range of +/- .01

According to Table 1, the high number of studies to be reached as a result of Orwin's Safe N analysis indicates the lowness of publication bias. This shows that there is no need to add a new study to the meta-analysis in order to bring Cohen’s *d* coefficient to a value outside the range of +/- .01, which is considered to be "insignificant". The result of the Duval and Tweedie test shows that the effect values resulting from the exclusion of the studies that negatively affected the publication bias from the meta-analysis or the addition of their symmetrical equivalents to the meta-analysis do not differ significantly from the observed values. Additionally, the fact that the result of Egger test is insignificant ($p > .05$) confirms that there is no publication bias in the study.

Model selection

In order to calculate the effect sizes in meta-analysis studies, it is first necessary to determine the model through which the effect sizes will be calculated. These models are divided into two as fixed effects model and random effects model. While calculating the general effect size, the fixed effects model is used in homogeneous distributions of effect sizes, and the random effects model is used in heterogeneous distributions (Cooper, 2017). Especially in meta-analysis studies conducted in social sciences, it is recommended to choose the random effects model based on the assumption that the effect size may change due to the differences in the characteristics such as the age and education level of the participants (Borenstein et al., 2009). The use of the random effects model was deemed appropriate in the current study because of the differences seen in the scopes of the studies combined in this meta-analysis study and the characteristics of the participants. Heterogeneity tests were used to provide evidence that the combined studies are heterogeneous.

Heterogeneity

Heterogeneity tests were conducted to determine whether the effect sizes show a heterogeneous distribution or not in the current study. Q value is generally used to determine the heterogeneity of the effect sizes of the studies included in a meta-analysis (Dinçer, 2021). However, the Q test only gives information about whether there is heterogeneity or not but cannot determine the degree of heterogeneity (Huedo-Medina et al., 2006). For this reason, Q value was used to determine heterogeneity and I² value was used to determine the size of heterogeneity. I² is the percentage of variance resulting from the heterogeneity between effect sizes. An I² value of 25% or less indicates a low level of heterogeneity, 50% indicates a medium level of heterogeneity and 75% and above indicates a high level of heterogeneity (Pigott, 2012). Accordingly, the Q value was calculated as 16.639 (sd(Q)= 4; p = .002). These values show that the studies included in the meta-analysis are heterogeneous. The I² value was determined to be 75.961. This value confirms that the studies included in the meta-analysis are highly heterogeneous. Due to the high level of heterogeneous structure of the studies included in the meta-analysis, the need to examine the differences between effect sizes arose. In this connection, the differences in the effect sizes calculated according to the studies on the effect of tales on the development of Turkish language skills were examined through the moderator variables.

Calculation of effect sizes

In the current meta-analysis study, Cohen's d coefficient was used in the effect value calculations and the confidence level was accepted as 95% in all the calculations regarding the effect value. A Cohen's d coefficient of $d < .20$ indicates a low level of effect, a Cohen's coefficient in the range of $.20 \leq d < .50$ indicates a medium level of effect, and a Cohen's coefficient of $.50 \leq d$ indicates a high level of effect (Cohen, 1988). While evaluating the effect sizes, these value ranges were taken into consideration.

In the current study, the moderator variable effect of the variables of education level, publication type and skill area on the effect values calculated according to the effect of tales on the development of Turkish language skills was also examined. Q test and p significance coefficient were used to determine the moderator variable effect.

RESULTS

Results regarding the properties of the studies included in the meta-analysis

Results regarding the properties of the studies included in the meta-analysis are presented in Table 2.

Table 2. Descriptive information about the studies included in the meta-analysis

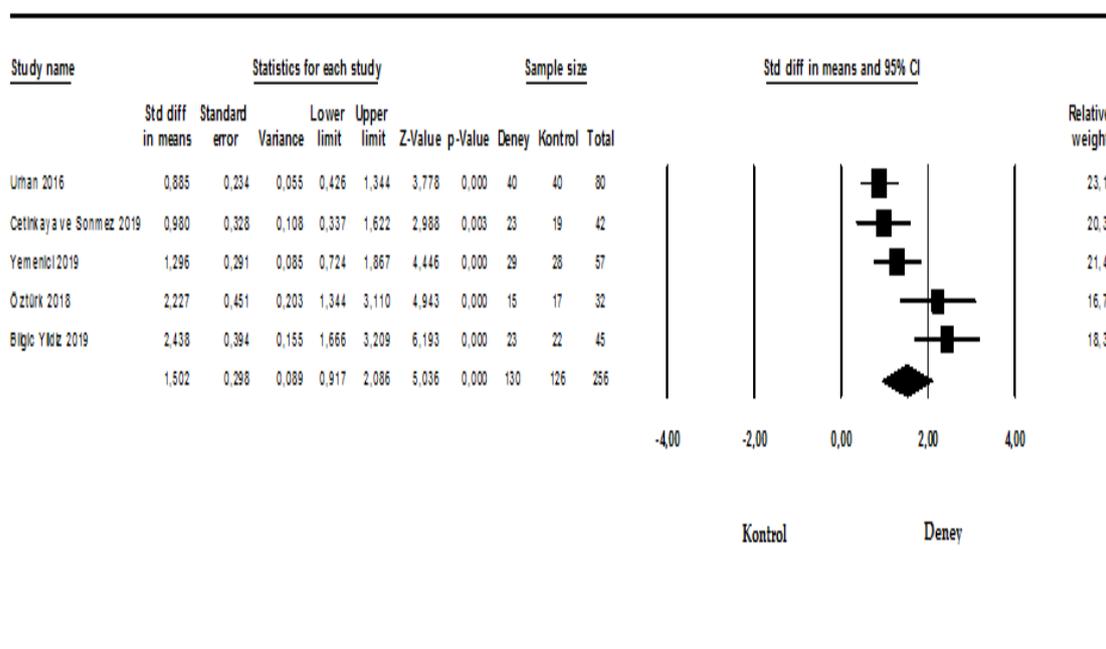
Author name/ Publication year	Skill area	Education level	Publication type	\bar{X} experimental	S experimental	n experimental	\bar{X} control	S control	n control	p	Cohen's d	s hata
Bilgiç-Yıldız (2019)	Listening	Primary school	Master's thesis	16.690	1.960	23	9.400	3.780	22	-	2.438	.394
Öztürk (2018)	Listening	Middle school	Master's thesis	83.956	10.091	15	49.050	19.274	17	-	2.227	.451
Urhan(2016)	Writing	Middle school	Master's thesis	25.680	6.350	40	20.450	5.430	40	-	.885	.234
Yemenici (2019)	Listening	Middle school	Doctoral dissertation	79.820	18.248	29	61.600	7.583	28	-	1.296	.291
Çetinkaya and Sönmez (2019)	Speaking	Primary school	Article	-	-	29	-	-	19	.003	.980	.328

\bar{X} : Arithmetic mean; n: Sample size; S: Standard deviation; $p < .05$; Cohen's d: Effect size; S_{error} : Standard error

As can be seen in Table 2, a total of 5 studies; 1 doctoral dissertation (20%), 3 master's theses (60%) and 1 article (20%), were included in the meta-analysis. Of these five studies, 2 were conducted on primary school students (40%) and 3 were conducted on middle school students (60%). When the distribution of the studies across the years is examined, it is seen that 1 of them (20%) was published in 2016, 1 of them (20%) was published in 2018 and 3 of them (60%) were published in 2019. When the studies included in the meta-analysis are examined in terms of skill areas, it is seen that 3 of the studies (60%) were conducted on listening skill, 1 of them (20%) was conducted on speaking skill and 1 of them (20%) was conducted on writing skill.

Results related to the effect of tales on the development of language skills

The purpose of the current study is to determine the effect of tales on the development of Turkish language skills. In this connection, the forest graph regarding the effect of tales on the development of Turkish language skills is presented in Figure 2, and the statistics for the effect size are presented in Table 3.



Meta Analysis

Figure 2. Forest graph regarding the effect of tales on the development of Turkish language skills

Table 3. Results of the analysis regarding the effect of tales on the development of Turkish language skills

k	n	EBmean	p	z	Serror	EBlower	EBupper
5	256	1.502	.000	5.036	.298	.917	2.086

k: the number of studies included in the meta-analysis; n: Sample size; EB_{mean}: Mean effect size; S_{error}: Standard error; EB_{lower} – EB_{upper}: Lower and upper limits of the effect size

As can be seen in Figure 2, in all the studies included in the meta-analysis, there are positive effects in favour of the experimental group. In addition, the study weights included in the analysis are close to each other. This similarity in terms of study weights shows that the contribution of the combined studies to the overall effect size is similar. When the effect sizes of the studies included in the meta-analysis are examined, it is seen that the study with the highest effect size belongs to Bilgiç-Yıldız (2019), and the one with the lowest belongs to Urhan (2016).

When Figure 2 and Table 3 are evaluated together, it is seen that the effect value of tales on the development of Turkish language skills is 1.502 ($p > .05$), and the standard error of the effect size is .298, according to the results of the meta-analysis made with 5 studies. These values show that the overall effect size is positive and at a high level. The findings of the meta-analysis study show that the development of Turkish language skills of the experimental group students instructed with tales is higher than the development of Turkish language skills of the control group students instructed with traditional methods.

Results related to the effect of tales on the Development of Turkish language skills according to the moderator variables

In line with the general purpose of the current study, it was examined whether the effect of tales on the development of Turkish language skills varies significantly depending on education level, publication type and skill area. The findings obtained are presented in Table 4.

Table 4. The results of the analysis conducted to determine whether the effect of tales on the development of Turkish language skills varies significantly depending on the moderator variables

Moderator variable	Level of moderator variable	k	EB _{mean}	EB _{lower}	EB _{upper}	sd	Q	p
Education level	Primary school	2	1.692	.264	3.121	1	.152	.697
	Middle school	3	1.379	.709	2.048			
Publication type	Doctoral dissertation	1	1.296	.724	1.867	2	1.692	.429
	Master's thesis	3	1.808	.709	2.907			
	Article	1	.980	.337	1.622			
Skill area	Listening	3	1.940	1.175	2.706	2	5.597	.061
	Speaking	1	.980	.337	1.622			
	Writing	1	.885	.426	1.344			

When the results of the moderator analysis given in Table 4 are examined, it is seen that the effect of tales on the development of Turkish language skills does not vary significantly depending on the moderator variables of education level (primary school, middle school), publication type (doctoral dissertation, master's thesis, article) and skill area (listening, speaking, writing) ($p > .05$). This finding shows that tales are effective on the development of all the Turkish language skills (listening, speaking, writing) and on all the levels of education (primary school, middle school) regardless of the publication type of the studies included in the meta-analysis (doctoral dissertation, master's thesis, article).

DISCUSSION AND CONCLUSIONS

In this meta-analysis study aiming to determine the effect of tales on the development of Turkish language skills of students from different levels of education in Turkey, a total of five studies were included and the effect sizes of the studies were calculated. The total sample size of the studies included in the meta-analysis consists of 256 participants; 130 participants in the experimental group and 126 participants in the control group. The fact that no meta-analysis study investigating the effect of tales on the development of Turkish language skills of the students from different levels of education could be found in the literature reveals the importance of the current study. In the current study, a meta-analysis of the studies examining the effect of tales on the development of Turkish language skills was conducted. Within the context of the current study, it was also determined whether the effect values differ according to the moderator variables of publication type, education level of the participants, skill area.

According to the results of the meta-analysis conducted with 5 studies, tales have a high level of effect on the development of Turkish language skills. When the effect values and forest graphic are evaluated together, it is seen that the development of Turkish language skills of the experimental

group students instructed with tales as a learning tool is higher than the development of Turkish language skills of the control group students instructed with traditional methods. This result shows that tales are effective in the development of students' Turkish language skills. In many studies in the literature (Arıcı & Bayındır, 2015; Gedik, 2020; Karatay, 2007; Lüle-Mert, 2012; Türkben, 2018), it is stated that tales are a teaching material that can be used in mother tongue education by drawing attention to the effect of tales on the development of language skills. All these studies support the finding of the current study.

In line with the general purpose of the study, it was also examined whether the effect of tales on the development of Turkish language skills varies significantly depending on education level, publication type and skill area. When the results of the moderator analysis are examined, it is seen that the effect of tales on the development of Turkish language skills does not vary significantly depending on the moderator variables of education level (primary school, middle school), publication type (doctoral dissertation, master's thesis, article) and skill area (listening, speaking, writing). The fact that there is no significant difference between the variances in terms of publication type shows that the studies included in the current study can represent the general. As a result of the publication bias analysis conducted before starting the meta-analysis, it was determined that there was no publication bias. In the related studies, it was stated that printed publications such as articles and books are considered to be worth for publication if they have a strong effect or statistical significance, and it was stated that this could be a problem in terms of publication bias in meta-analysis studies (Bakioğlu & Göktaş, 2018; Dwan et al., 2013; Rust et al., 1990). Considering this situation in this meta-analysis study, when the articles produced from the graduate theses were found, not the articles but the theses were included in the meta-analysis on the basis of the assumption that they include more data and that publication bias is relatively lower in them.

When the results related to the moderator variable of skill area (listening, speaking, writing) are examined, it is seen that the fact that the variance between skill areas is not significant in terms of the development of Turkish language skills indicates that tales have a positive effect on the development of all language skills. When the literature was examined, applied studies that determined that tales have an effect on the development of Turkish language skills of students were reached (Bilgiç-Yıldız, 2019; Çetinkaya & Sönmez, 2019; Oğuz, 2017; Onarıcıoğlu, 2011; Öztürk, 2018; Urhan, 2016; Yemenici, 2019). The results obtained from these studies support the finding of the current study showing that tales have a positive effect on the development of language skills. Although there is no significant difference between the variances in terms of skill area (listening, speaking, writing), it is seen that the effect size on listening skill is higher than the effect sizes on the other skill areas. One of the basic language skills, listening skill is the first skill used by the individual in the language acquisition process. Taking this situation into consideration in the Turkish Curriculum, listening / watching skill is given the first place in the ordering of skill areas (MEB, 2019). Listening skill is the basis for the development of other language skills. Acquisition of listening skill is followed by speaking, reading and writing skills. For the development of expression skills, first of all, comprehension skills need to be developed (Bozorgian, 2012; Egamnazarova & Mukhamedova, 2021; Emiroğlu & Pınar, 2013; Yemenici, 2019). Tales appeal to listening skill of individuals, which is the primarily receptive skill, with their rich vocabulary content, richness and flexibility in narration, and arousing language taste by being constructed with extraordinary features that will enrich the imagination. As a result of the transfer of various language structures and rich expressions in tales by the individual to his/her vocabulary through listening skill, the individual can express his/her feelings, thoughts and dreams in an aesthetic way, so that other language skills can also be developed. This shows that the effect of tales on other language skills may increase parallel to the development of listening skill.

When the results obtained in relation to the moderator variable of education level (primary school, middle school) is examined, it is seen that the effect of tales on the development of Turkish language skills does not vary significantly depending on education level, which indicates that tales positively affect the development of Turkish language skills regardless of the level of education. The fact that the effect sizes of the studies included in the current study at primary and middle school

levels are close to each other may indicate that tales have similar effects at both education levels. When the literature was examined, it was seen that applied research examining the effect of tales on the development of Turkish language skills was carried out at primary and middle school levels (Bilgiç-Yıldız, 2019; Çetinkaya and Sönmez, 2019; Oğuz, 2017; Onarıcıoğlu, 2011; Öztürk, 2018; Urhan, 2016; Yemenici, 2019). It is thought that the effect of tales on the development of Turkish language skills has been investigated at primary and middle school levels because of the conviction that tales are suitable for the language development levels of children in young age groups, and that they may attract more attention at primary and middle school levels compared to other levels of education. In the context of teaching Turkish, although there are studies examining the effect of tales on students' conceptual development (Akin, 2018), academic achievement and attitudes (Çinici, 2019), no applied research examining the effect of tales on the development of Turkish language skills of students at both secondary and higher education levels has not been found. In this context, instead of making a generalization that tales are effective on the development of Turkish language skills of students at all education levels, it can be said that they are effective at primary and secondary school levels, based on the results of the current study.

In light of the current meta-analysis study, it was concluded that tales are an effective method to be used to develop students' Turkish language skills. Thus, tales can be used to support the development of students' language skills in mother tongue education. According to results, it can be argued that tales have a positive effect on the development of all the Turkish language skills in all the Turkish language skill areas and different grade levels. Thus, tales can be used in every age group in the development of Turkish language skills. But, it has been observed that applied research on the use of tales as a learning tool in Turkish language education is quite limited. Therefore, the number of applied studies that examine the effects of tales on the development of Turkish language skills as well as on academic achievement, student motivation, and the retention of the learned information can be increased. Conducting these applied studies at all education levels from pre-school period to higher education will provide healthier results in terms of the education level-dependent effects of tales. Therefore, the number of studies examining the effects of tales on the development of students' Turkish language skills at high school and undergraduate levels, as well as in younger age groups, can be increased. Also, in the light of current study, there is no significant difference between the variances in terms of publication type shows that the studies included in the current study can represent the general. In this meta-analysis research, if the articles produced from the postgraduate theses were accessed while the data were collected, the postgraduate theses were included in the meta-analysis. Thus, more reliable results were tried to be obtained. In order to reduce publication bias while collecting data in meta-analysis studies, if articles produced from postgraduate theses are accessed, postgraduate theses can be included in the meta-analysis with the foresight that they contain more data and the probability of publication bias is relatively low.

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(*The researches marked with an asterisk indicate the studies included in the meta-analysis)

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