

## Examining Children's Simile Comprehension Skills

**Nihat Bayat**<sup>a \*</sup>, Faculty of Education, Department of Elementary Education, Akdeniz University, 07058 Antalya, Turkey <https://orcid.org/0000-0002-1452-285X>

**Esra Kuz**<sup>b</sup>, Silvan Vocational High School, Child Development Program, Dicle University, 21640 Diyarbakır, Turkey. <https://orcid.org/0000-0002-0395-0699>

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### Abstract

This study aimed to determine the children's skills of comprehending similes. The participants of the research consisted of 120 children that were aged 5-6 and enrolled in preschool education institutions. The data were collected with a 16-item success test. The items in the test were orally administered to the participants during the interviews. The responses were recorded, and the analysis was carried out through the evaluation of the content of the recordings by two experts. The answers were encoded and transferred to the statistics program. Depending on the research questions, descriptive statistics were calculated, and a series of Mann Whitney U test was performed. According to the findings, the success rate of the item about simile comprehension at which participants were most successful appeared to be 56.7%. In addition, it was found that the participants' levels of simile comprehension did not differ based on gender, but they differed based on their duration of continuing preschool education. Participants attending public schools were more successful than those attending private preschools, and the 6-year-old children appeared to be more successful than the 5-year-olds.

Keywords: Comprehension, figurative language, language acquisition, simile, metaphor;

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\* ADDRESS FOR CORRESPONDENCE: Nihat Bayat, Faculty of Education, Department of Elementary Education, Akdeniz University, 07058 Antalya, Turkey. E-mail address: [nihatbayat@gmail.com](mailto:nihatbayat@gmail.com) / Tel.: +90-532-176-4952

## 1. Introduction

Language is one of the productive areas which allows the observation of children's thinking skills and development. The level of figurative language acquisition especially indicates a significant milestone in the development of a child's thinking. Figurative language, formerly considered a characteristic of literature and art in particular, has been approached as a feature of the natural language following the research on the field of cognitive linguistics (Lakoff & Johnson, 1980). Therefore, studies concerning the figurative language can be functional in the understanding of a child's developmental sequence.

Figurative language is a distinct aspect of the natural language that can be regarded as a more rule-governed form of daily communication. Being comprised of several types such as simile, metaphor, idiom and irony, figurative language generally emerges following the sufficient acquisition of the natural language. The notion that children are capable of comprehending similes and metaphors at an early age (Gambell, 1977) makes it plausible to consider that language development can be observed with such mindset. Upon reviewing the literature, no studies that focus on this aspect in children's language development in Turkish have been encountered. That is why, determining to what extent children comprehend similes as a figurative language type can help specify their levels of comprehending figurative language as well as their levels of natural language processing and cognitive development.

Cognitive, linguistic, and pragmatic dimensions serve a function in the utilization of figurative language (Merwe & Adendorff, 2012). Cognitive aspect functions in establishing a certain connection between two entities taking place in a figure. Linguistic maturation arises from the need for children to have semantic and syntactic knowledge of the language they encounter in order to comprehend the figure (Gentner, 1983). Pragmatic aspect, on the other hand, is related to children being conscious of the speaker's intention during the communication (Demorest, Silberstein, Gardner & Winner, 1983). Individuals equipped with these three dimensions usually comprehend and use the figures of a language.

In the research conducted on children's comprehension of figurative language types (Gibbs, 2001; Levorato & Cacciari, 1995; Nippold & Martin, 1989), some noteworthy outcomes were reached apart from the points mentioned above: 1) considerable need for context, 2) lack of ontological knowledge, awareness and general life experience, 3) tendency for denotative interpretation, and 4) possession of an exceptional skill for the comprehension of figurative language are among the prominent themes of these studies. As the children mature, their comprehension of figurative language increases depending on these points.

Simile is one of the most explicit types of figurative language. Descending from the Latin word *similis*, it is a comparison made between at least two entities (Fadaee, 2011). In the sentence "*Laborers are working like bees.*", the concepts of *laborer* and *bee* are compared to one another; thus, it can be stated that the sentence harbors a simile. The comparison made between the concepts that generate the simile is clearly remarked on the plane of language. Gibbs (1994) emphasizes that the relationship established between the source and target is explicit; therefore, the construct that ties them together is apparent. In Turkish, this explicitness is ensured with prepositions of *gibi* and *kadar* (*as* and *like* in English).

Similes are frequently resorted to in daily language. Stating that simile as a semantic figure constructs links between distinct areas, Bredin (1998) puts forward that simile is a mental process. Simile is addressed as one of the clearest language figures in the literature. Glucksberg (2001) notes that simile is a direct comparison. In such comparison, one thing is portrayed like something else.

Identifying children's levels of comprehending of similes in the process of language acquisition may generate clues about their language acquisition, thinking skills and success in comprehending figurative language. It can be proclaimed that children who can comprehend similes are capable of using

language faculties and comprehending the figures in thinking, because simile is initially activated in mind, then in the language (Lakoff & Johnson, 1980). This is applicable for other figurative language types.

As the figurative language types clearly contain the linguistic units that require similes, they are prioritized among others in order of acquisition. For instance, metaphor occurs when one of the two main units in a simile, namely the source or target, is reduced. Due to this reduction, it is more difficult for children who have not completed the language acquisition process to understand metaphors compared to simile. In contrast to metaphors, no unit is reduced in the simile, they are all clearly stated. There are studies showing that children begin to understand the figurative language, which includes metaphors, even at the age of 3-4 (Katis & Selimis, 2005). Comprehension of figurative language occurs in early childhood, continues in adolescence and develops in adulthood (Ackerman, 1982; Pexman & Glenwright, 2007; Semrud-Clikeman & Glass, 2010). It is important to determine to what extent this situation has progressed in Turkish children's language. Determining the children's levels of simile comprehension can also provide insights into their natural language acquisition and therefore their socialization levels.

Studies on simile acquisition and comprehension have not been encountered in Turkish. On the other hand, similes were mostly examined with their characteristics in literary works (Akkus, 2011; Özcan, 2010; Pektaş, 2011). The viewpoint to the figurative language and simile is different in this study. Simile is considered as a language acquisition item. It is a phenomenon that takes place first in the mind and then in the language like other language figures (Lakoff & Johnson, 1980). Children's metaphor comprehension indicates that an important stage has been reached in language acquisition cognitively and linguistically. The importance of this study stems from the effort to fill the gap in Turkish literature regarding the studies on the acquisition of simile.

Departing from the assumption that simile comprehension is a crucial indicator of language acquisition, the current study sought answers for the following research questions:

1. What is the children's comprehension level of similes?
2. Do the children's comprehension levels of similes differ based on gender?
3. Do the children's comprehension levels of similes differ based on age?
4. Do the children's comprehension levels of similes differ depending on the length of their pre-school education?
5. Do the children's comprehension levels of similes differ based on the type of school they attend?

## **2. Method**

The present study that aims to determine the children's level of simile comprehension adopts a survey model, which is one of the quantitative research methods. The research studies using the survey model are studies aiming to collect data in order to determine certain characteristics of a group (Buyukozturk, Cakmak, Akgun, Karadeniz & Demirel, 2017). As the study attempts to detect comprehension levels of children at the age of 5-6 regarding similes, the survey model corresponds to the current study.

### **2.1. Participants**

The participants of the research consisted of 120 children in two public schools and two preschool education classes within the scope of private institutions in Anamur, Mersin. Participants of the study were 5-6 years old children. While 52 of the participants were 5 years old, 68 were at the age of 6. Of

these participants, 59 were male and 61 were female. The participants were selected from 5-6 years old children for two reasons: Firstly, they are the oldest children in preschool period, which is important for having the knowledge on similes, and secondly, language development takes place rapidly in this period.

## 2..2. Data Collection Tool

Data were collected through the Simile Comprehension Test. The test included 16 items. Items in the test were devised by modeling the similes in children's books. In forming the items, asking about the *quality* that is transferred from the *source* to *target* was taken into consideration. For instance, the item "*Roofs are like umbrellas of buildings (houses). If it wasn't for them, we would be out in the open.*", aimed to receive an answer as to why the roofs are seen (quality) like umbrellas.

For the reliability of the Simile Comprehension Test, Lawshe technique was applied. According to Yurdugul (2005), Lawshe technique is related to tests' rate of content validity. This technique is used to convert qualitative research that is based on expert opinion into quantitative studies. In Lawshe technique, 5 to 40 experts are consulted for their opinions. To design the items for the Simile Comprehension Test utilized in this research, 20 similes were devised, and opinions of five experts were asked. Three of those experts were scholars in the field of language while the two were experts in preschool area. Items on which a consensus was reached among experts were used in the study whereas the rest was excluded from the pilot test. Therefore, it can be stated that the content validity of the Simile Comprehension Test is complete.

Another calculation concerning item difficulty and discrimination rates of the items in the test was run. Accordingly, item statistics calculated with the consideration of upper and lower 27% of groups are presented in Table 1.

**Table 1. Item Statistics**

Item	Difficulty	Discrimination
1	0,167	0,273
2	0,470	0,515
3	0,288	0,515
4	0,167	0,333
5	0,424	0,667
6	0,152	0,303
7	0,303	0,485
8	0,348	0,636
9	0,258	0,515
10	0,197	0,333
11	0,424	0,606
12	0,273	0,545
13	0,545	0,242
14	0,227	0,333
15	0,242	0,424
16	0,258	0,455

Upon examination of Table 1 with regard to the Simile Comprehension Test's items, it is apparent that item difficulty indices were in the range of 0,152-0,545, and item discrimination indices ranged from 0,242 to 0,667. Majority of the items were difficult (item difficulty indices in the range of 0,00-0,40) for the preschoolers in the participant group. Items 2, 5, 11, and 13 were moderately difficult (item difficulty indices in the range of 0,40-0,60). Considering item discrimination values, there was no item

in the test that needed to be removed (discrimination index of <0,20). Items 1 and 13 (discrimination indices between 0,20-0,29) indicated a need for revision and improvement. The rest of the items were in the categories of fairly good and very good (0,40 and above).

It was due to the topic that some items were found difficult by participants. It might be wrong to expect 5- and 6-year-old children to detect a language figure such as simile in its entirety since figurative language appears adequate in adulthood phase. However, all the items of the test were preserved because the aim of the study was to determine *to what extent* children are capable of using simile as a language figure.

### 2.3. Collection and Analysis of the Data

Data collection was performed by the researcher, for which face to face interviews were conducted with participants. After getting the required permissions, interviews were held in an available room located within the schools of participants. With the sample item, they were instructed about the process. Then, items in the test were presented to them. No interference took place during the interviews. Voice recordings of participants' answers were taken. Recorded answers were listened, coded and analyzed. This step was carried out by two experts. The level of agreement between the raters were calculated as .98. In calculating the percentage of agreement, the ratio of the number of agreement between experts and the number of agreement and non-agreement was taken into account (Frick & Semmel, 1978; Miles & Huberman, 1994). The obtained data were transferred to statistics software (SPSS). Based on the research questions, descriptive statistics were calculated and a series of Mann Whitney U test was run on the data due to the non-normal distribution of data.

### 3. Result

The first sub-problem of the research was about determining the participants' comprehension level of similes. Accordingly, the results of related frequency and percentage calculations are shown in Table 2.

Table 2. Frequency Table Regarding Simile Comprehension Test

Item No	Items		f	%
1	The kid approached the man to ask for help. But it was like talking to a wall. He didn't even flinch.	Y	100	83.3
		D	20	16.7
		Total	120	100.0
2	She dressed up in so many layers that she looked like a cauliflower.	Y	62	51.7
		D	58	48.3
		Total	120	100.0
3	When his dad got sick, he grew thin like a stick.	Y	87	72.5
		D	33	27.5
		Total	120	100.0
4	The kid's dad was so huge that together, they looked like a pitcher and a glass.	Y	105	87.5
		D	15	12.5
		Total	120	100.0
5	Roofs are like umbrellas of buildings (houses). If it wasn't for them, we would be out in the open.	F	64	53.5
		T	56	46.7
		Total	120	100.0
6		F	100	83.3

Item No	Items		f	%
	Forests are like families of trees. If one of the trees dries up, others feel sad.	T	20	16.7
		Total	120	100.0
7	When Mehmet, Zeynep, Damla and Ufuk filed into the classroom like cars of a train, teacher asked where they were coming from.	F	91	75.8
		T	29	24.2
		Total	120	100.0
8	Internet is like an information box. You can find anything you search in there.	F	86	71.7
		T	34	28.3
		Total	120	100.0
9	Ali was like a stray cat under the heavy rain.	F	94	78.3
		T	26	21.7
		Total	120	100.0
10	I never get unmotivated to tidy up my room. It is like eating cookies for me.	F	103	85.8
		T	17	14.2
		Total	120	100.0
11	I miss my mother so much in a day that whenever I am home, I hug her like an ivy.	F	65	54.2
		T	55	45.8
		Total	120	100.0
12	We should never skip the school because education is like a road leading to bright days.	F	82	68.3
		T	38	31.7
		Total	120	100.0
13	Lying is like swinging on a rotten branch. It will eventually break down.	F	52	43.3
		T	68	56.7
		Total	120	100.0
14	Human mind is like a pool. All our knowledge, memories, and dreams are poured into our minds.	F	97	80.8
		T	23	19.2
		Total	120	100.0
15	If we had a trailer (caravan) we could live like a turtle. We wouldn't need to buy a house.	F	90	75.0
		T	30	25.0
		Total	120	100.0
16	In war, children become like flowers smothered by snow.	F	92	76.7
		T	28	23.3
		Total	120	100.0

As can be seen in Table 2, out of the 16 items on simile comprehension, participants responded with a valid answer for 28,65% whereas they either failed to give responses to or were mistaken on 71,38% of the test items.

The second sub-problem of the research aimed to determine whether gender had any effect on participants' levels of simile comprehension. To address this, a Mann Whitney U Test was run, and the results are presented in Table 3.

Table 3. Difference of Scores Based on Gender

	Gender	N	Mean Rank	Sum of Ranks	U	p
<b>SC Total Score</b>	Male	59	60.42	3564.50	1794.500	.979
	Female	61	60.58	3695.50		
	Total	120				

Based on Table 3, it is seen that no statistically significant difference was detected in children's total scores on Simile Comprehension Test ( $U=1794.50$ ,  $p>0.05$ ) in terms of gender.

The results of the Mann Whitney U Test run for determining whether simile comprehension levels of participants differed based on their age with regard to the third sub-problem are shown in Table 4.

Table 4. Difference of Scores Based on Age

	Age	N	Mean Rank	Sum of Ranks	U	p
SC Total Score	5.00	52	40.21	2091.00	713.000	.000
	6.00	68	76.01	5169.00		
	Total	120				

According to Table 4, children's total scores on Simile Comprehension Test ( $U=713.00$ ,  $p<0.05$ ) indicated a statistically significant difference based on their ages. SCT total scores of six-year-old children were higher than those of the five-year-old children.

With regard to the fourth sub-problem of the study, outcomes of the Mann Whitney U Test utilized to determine whether the participants' levels of simile comprehension differed based on the length of their pre-school education are shown in Table 5.

Table 5. Length of Pre-School Education

	Preschool Ed. Length	N	Mean Rank	Sum of Ranks	U	p
SC Total Score	1.00	66	45.61	3010.00	799.000	.000
	2.00	54	78.70	4250.00		
	Total	120				

After the examination of Table 5, it is seen that children's total scores on Simile Comprehension Test ( $U=799.00$ ,  $p<0.05$ ) indicated a statistically significant difference depending on the length of pre-school education. The pre-school children who attended kindergarten for two years scored higher than those having attended the kindergarten for one year.

Considering the fifth sub-problem of the research, results of the Mann Whitney U Test which was run to determine whether the participants' total scores on simile comprehension test differed in terms of school types are presented in Table 6.

Table 6. Difference of Scores Based on School Type

	School Type	N	Mean Rank	Sum of Ranks	U	p
SC Total Score	Private School	56	40.52	2269.00	673.000	.000
	State School	64	77.98	4991.00		
	Total	120				

Regarding the data on Table 6, the children's total scores on Simile Comprehension Test ( $U=673.00$ ,  $p<0.05$ ) showed a statistically significant difference with regard to the type of school they attended. Total Simile Comprehension Test scores of the preschoolers who attended public schools were higher than those of the preschoolers from private institutions.

#### 4. Conclusion and Discussion

In this study, children's skills of comprehending similes, which is a type of figurative language, were investigated. In a broad perspective, the results of the study revealed that children's skills of comprehending similes were at a low level, that there was no difference among them regarding age, that six-year-old children were more successful at comprehending similes than those who were five years old, that children who attended preschool for two years understood similes better than those who received education in preschool for one year, and that state school students were better at comprehending similes than private school students.

According to the results of the extent to which children understood similes, 28.65% of the 16 items were answered correctly while 71.38% was either unanswered or wrongly responded. Three items at which participants were most successful generated the following comprehension rates: 56.7%, 48.3%, and 46.7%. These percentages suggest that even the items that were correctly answered by most of the children were merely understood by almost the half of the participants. Apart from that, the rates of the items which were wrongly answered by most of the participants were 87.5%, 85.8%, and 83.3% respectively. These rates indicate that the items that were the most difficult for the participants were quite high in the level of failure to comprehend. To sum up, it was determined that only a small number of children in 5-6 age group could comprehend similes.

Considering the items that were the least understood by the participants, some differences are noteworthy in comparison with the most understood items. Similes used in the items that were difficult for comprehension consisted of concepts which were challenging to make relation. Additionally, the narration in these items are relatively longer and more complex. In the first item whose failure rate was the highest, (4. *The kid's dad was so huge that together, they looked like a pitcher and a glass.*), the concepts of *kid-dad* and *pitcher-glass* were used for simile. In the second item, (10. *I never get unmotivated to tidy up my room. It is like eating cooking for me.*), the concepts of *tidying up* and *eating cookies* were employed. In the third item (1. *The kid approached the man to ask for help. But it was like talking to a wall. He didn't even flinch.*), the concepts of *man* and *wall* were used to produce simile. It is considered that such concepts that were used in the process of generating these similes were rare occasions for the participants. That is why, participants might have had difficulties in associating these concepts. As Haught (2013) proclaimed, similes produced with concepts between which no relations can be established might not be understood. It is thought that participants might have struggled to decipher the linguistic structure in the item because concepts that were hard to comprehend were presented in long and detailed statements.

Another matter that was dealt with in the research was whether children's simile comprehension levels differed based on gender. As a consequence of the analyses, no statistically significant difference was detected in simile comprehension scores in terms of gender. In addition, when the mean scores were considered, it was revealed that girls were slightly more successful than boys even though gender difference was not statistically significant. Similar research outcomes suggesting that girls are more successful than boys in language development can be found in the literature (Gunalp, 2007; Yildirim, 2008; Tulu, 2009). This generalized outcome held true for the matter of simile comprehension.



In the research, the children's total scores on the simile comprehension test indicated a significant difference in the sense of their ages. Preschool children who were six years old performed better than five-year-old children in term of comprehending similes. This is an expected outcome. It is a known phenomenon that older individuals have more advanced language acquisition level. Language acquisition develops as the age progresses along with the impact of maturing (Owens, 1996). Advances in the age provide individuals with a wealth of experience. Similar results were found in other studies. For instance, in the study conducted by Magded and Gundoğan (2009), when boys and girls from the six-year-old group were compared to the five-year-old group, it was revealed that six-year-old children were more successful in comprehending figurative concepts. Saban (2008) deduced similar findings with regards to metaphor, which is another type of figurative language. Children of higher-grade levels comprehending the figures better is directly related to their age level. As Miller (1987) noted, it is considered that a simile generated on properties about which children have experiences will be understood more quickly and easily.

Concerning the duration of preschool education of the children, the total scores on the simile comprehension achievement test revealed a significant difference between groups. According to this, participants with two years of preschool experience were more successful than those with one-year experience. In preschool education institutions, there is an abundance of educational activities organized for children. Each learning subject and area require a unique set of steps to take. Based on the research findings of Ergin (2012) with regards to language development, a significant difference was detected in the language development levels of children aged 5-6 depending on their duration of education. Furthermore, children with two years of experience in preschool education were more advanced than the ones that attended preschool for one year. One of the fundamental reasons for this is the quality of educational experiences offered for children in pre-school education (Logue, 2007). Moreover, as Kosan (2015) reported, preschool has a vital importance in the development of children's creativity and skills of effective language comprehension. Consequently, experiential abundance that presents new language contexts and supports language in preschool institutions has a positive impact on simile comprehension skills of the participants.

The last finding of the research was that preschool children from state schools were more successful than the ones that receive private education. This can be explained with the nature of sociocultural diversity present in state schools. Distinct sociocultural levels ensure various language structures and vocabulary. Individuals who experience such diverse environments can advance more in linguistic faculties. This can be linked with Ilhan's (2005) emphasis on that children learn and develop the language from their environments. Therefore, experiencing expressional structures on different levels promotes individuals' language development. On the other hand, children from a specific sociocultural background dominantly attending private institutions create a social structure that is non-diverse in these contexts. That is why, it can be considered that state schools have a wider range of diversity in the sense of social constructs. This situation allows for a diversity in expressional means as well. It might be due to these reasons that the children from the state schools were more successful in comprehending similes.

Based on the results obtained from the research, some recommendations can be made. Firstly, it can be suggested that the simile comprehension skill be tested in different study groups. Secondly, further studies on figurative language types other than similes should be conducted. Lastly, longitudinal research on the development of figurative language acquisition should be carried out.

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