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GIFTED AND TYPICALLY DEVELOPING STUDENTS' PERCEPTIONS OF THE COVID-19 OUTBREAK

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Abstract

This research aims to examine the perceptions of gifted and typically developing students regarding the COVID-19 epidemic through metaphors. In the study, in which phenomenology, one of the qualitative research methods, was used, the data were obtained by demographic information form and semi-structured interview form. A total of 130 students, 69 of whom are typically developing and 61 gifted, who are 5-8th-grade students between the ages of 10-14, were studied in the city center of Amasya. The students' "COVID-19 epidemic is like Because" when their answers to open-ended sentence completion are examined; the first three metaphors most frequently used by gifted students regarding COVID-19 are in the category of limiting and/or changing habits (f=18), fatal (f=15), and contagious and/or chronic (f=11). When we look at the metaphors of the students with typical development regarding COVID-19, the first three categories are limiting and/or changing habits (f=17), fatal (f=13), and preventable and/or temporary (f=12) categories. Because of the research, it was found that both groups used metaphors that were generally negatively affected by the epidemic process, and discussions and suggestions were made through literature studies.

Key Words: COVID-19, Giftedness, Metaphor

Özet

Bu araştırmanın amacı; üstün yetenekli ve tipik gelişim gösteren öğrencilerin COVID-19 salgınına ilişkin algılarını metaforlar yoluyla incelenmektir. Nitel araştırma yöntemlerinden olgubilim çalışmasının kullanıldığı araştırmada veriler demografik bilgi formu ve yarı yapılandırılmış görüşme formu ile elde edilmiştir. Amasya il merkezinde 10-14 yaş arası 5-8. sınıf öğrencisi olan 69 tipik gelişim gösteren ve 61 üstün yetenekli olmak üzere toplam 130 öğrenci ile çalışılmıştır. Öğrencilerin "COVID-19 salgını gibidir. Çünkü" açık uçlu cümle tamamlamaya verdikleri yanıtlar incelendiğinde; üstün yetenekli öğrencilerin COVID-19'a ilişkin en sık kullandıkları ilk üç metafor sırasıyla sınırlayıcı ve/veya alışkanlıkları değiştiren ($f=18$), ölümcül ($f=15$) ve bulaşıcı ve/veya süregelen kategorisindedir ($f=11$). Tipik gelişim gösteren öğrencilerin COVID-19'a ilişkin metaforlarına bakıldığında ise ilk üç sırada sınırlayıcı ve/veya alışkanlıkları değiştiren ($f=17$), ölümcül ($f=13$) ve önlenbilir ve/veya geçici ($f=12$) kategorisi yer almaktadır. Araştırma sonucunda her iki grubun da salgın sürecinden genel olarak olumsuz etkilendiklerine dair metaforlar kullandıkları bulgusuna ulaşılmış; literatür çalışmalarıyla tartışma ve önerilerde bulunulmuştur.

Anahtar Kelimeler: COVID-19, Üstün Yetenek, Metafor

1. Introduction

COVID-19 is a virus that was first identified on January 13, 2020, because of research conducted in a group of patients who developed respiratory symptoms such as fever, cough, and shortness of breath in Wuhan, China, in late December (T.C. Sağlık Bakanlığı, 2020). The COVID-19 epidemic, which shook many countries around the world, including our country, and brought about a rapid change in different areas of life from education to health, greatly affected the lives of our children.

Development; It is a process in which individual differences are observed, and shaped by interacting hereditary and environmental factors (Senemoğlu, 2020). Development requires maturation and learning (San Bayhan & Artan, 2012). Because of development, although children go through similar processes and stages in their developmental stages, they do not complete them simultaneously and at the same speed. However, children who show the average level of characteristics expected in terms of age and development level are defined as children

with typical development (Bee & Boyd, 2020). However, giftedness is the state of being at a higher level than their peers, which can be determined by field experts using various observation and measurement tools in one or more of the areas of motor development, cognitive development, receptive and expressive language development, social-emotional development and aesthetic development (Baykoç Dönmez, 2011). A gifted child is a child who shows superior performance in one or more skill areas and has average characteristics in other areas compared to their peers (Ataman, 2009).

Gifted children; can have features such as fast learning, a vast vocabulary, wide imagination, interest and curiosity about events, and displaying high attention and motivation (Akarsu, 2004; Levent, 2014; Sak, 2012). In addition to the intensity and depth of emotional life in gifted children, compassion and an increased sense of responsibility draw attention. Gifted children, who are sensitive to the needs of others and the changes in their environment, differ from their peers in producing solutions to social problems, as well as showing a high level of sensitivity toward social events (Baykoç Dönmez, 2011).

Metaphors are defined by Arslan and Bayrakçı (2006) as a powerful mind mapping and modeling mechanism for individuals to make sense of and construct their world. A metaphor is the transfer of meaning between two entities with perceptual similarities (Semerci, 2007). Metaphors are used to understand and perceive a subject from the perspective of another (Eraslan, 2011). Metaphors can be expressed as a powerful “pedagogical tool” that can be used to reveal, understand and change the mental images that individuals have or create regarding certain phenomena (Saban, 2008). However, Botha (2009) stated that metaphors are a form of communication in the field of education and should be used as a tool for revealing the findings intuitively. In short, the role of metaphors in revealing and determining students' views on a concept or subject is undeniable (Saban, 2009). Metaphors are used as a reflective technique, especially in explaining subjective experiences such as perception, emotion, and thought in a more understandable way. In this context, it can be argued that metaphors are one of the most important sources that can reveal the whole reality by highlighting and understanding the important and appropriate points of the perceptions of individuals.

In the literature, it is observed that metaphor studies conducted with gifted secondary school students are aimed at evaluating education, school, science, and art center, different branch courses and concepts (Turkish, music, mathematics, social studies), and teacher perception (Oğuz, 2020; Oğurlu, Öpengin, et al. Fast, 2015; Öztürk, Akkan, & Kaplan, 2014; Aslan & Doğan,

2016; Bolat, 2020; Akça, Şen & Kurtaslan, 2019; Su, Sağlam & Mutlu, 2017; Çelik Şahin, 2014). Metaphor studies on concepts such as media, future, and values conducted with gifted secondary school students also drawn attention in the literature (Karabulut, Mertol, & Alkan 2017; Yam, Çetinkaya, & Kurnaz, 2018; Kurnaz, Çiftçi, & Karapazar, 2013).

It is seen that metaphor studies carried out with middle school students with typical development are in different areas, such as physical education lessons, the concept of mathematics problems, visual arts lessons, social media perception, environment concepts, traditional and digital games, and illness perception (such as asthma) (Güllü, 2017; Turhan Türkkan and Yeşilpınar Uyar, 2016; Fidan and Fidan, 2016; Üztemur and Dinç, 2020; Doğan, 2017; Hazar, Tekkurşun Demir and Dalkıran, 2017; Peterson and Sterling, 2009).

Looking at the literature on COVID-19, it has been observed that many studies have been conducted, especially in the field of health (Eskici, 2020; Gökçay and Keskindemirci, 2020; Gümüşgül and Aydoğan, 2020; Ovalı, 2020; Telli Yamamoto and Altun, 2020; Tirmikçioğlu, 2020; Arı and Arslan, 2020). However, studies involving middle school students related to COVID-19 are seen to focus on the perception of distance education, self-regulation, class participation, and perceptions of branch courses (Çokyaman and Ünal, 2021; Akpolat, 2021; Öztürk and Koca, 2021; Doğan and Doğan, 2021; Arslan et al., 2021; Karataş, 2021; Bozkurt, 2020; Gülmez Güngörmez, 2020).

As of the detection of the first case in our country, how our children, who were considered as a priority in the measures, perceive COVID-19 and how they interpret this rapid change in their environment has become a question that needs to be answered. Understanding how typically developing and gifted students evaluate the COVID-19 outbreak will guide us in determining their needs during the pandemic. For this reason, it is thought that the results of this study will make an important contribution to the literature. It is important to examine the perceptions of typically developing and gifted secondary school students about the COVID-19 epidemic through metaphors, which is a reflective method, to determine their perspectives on the process and to reveal how they are affected by the COVID-19 epidemic. In this context, the aim of research is; this study examine the perceptions of gifted and typically developing secondary school students regarding the COVID-19 epidemic through metaphors.

Within the scope of these aims, answers to the following problems are sought:

- What metaphors do gifted students use to describe their perceptions of the COVID-19 pandemic?

- What metaphors do typically developing students use to describe their perceptions of the COVID-19 outbreak?
- Under which conceptual categories can the metaphors of gifted/typically developing students regarding the COVID-19 outbreak be gathered in the context of common features?

2. Materials and Methods

In this study, "phenomenological design," which is suitable for the research, was used among the qualitative research designs. phenomenology; events, perceptions, concepts, etc. that we are aware of but cannot fully understand in detail. It provides research on situations (Yıldırım & Şimşek, 2018). In the phenomenology design, the researcher deals with the participant's experiences and investigates the perceptions and meanings they attribute to the events (Akturan & Esen, 2008).

In the city center of Amasya, 6185 secondary school students are studying in the 2020-2021 academic year, of which 1529 are in the 5th grade, 1612 are in the 6th grade, 1493 are in the 7th grade and 1551 are in the 8th grade. The number of students attending Amasya Şehit Ferhat Üneli Science and Art Center is 118, among the secondary school students who have been diagnosed as gifted. 68 of these students are in 5th grade, 25 of them are in 6th grade, 16 of them are in 7th grade and 9 of them are in 8th grade. The study group of the research was determined by the purposeful random sampling method. It was carried out with 130 secondary school students, reaching 61 gifted and 69 typically developing students in the context of a 6% margin of error and 80% confidence.

In our country, the educational diagnosis and support education process of gifted students is carried out by the Ministry of National Education. Students who are diagnosed as gifted are included in the support education process in Science and Art Centers (BİLSEM). BİLSEM continues to formal education institutions; it is an institution opened to provide support education services to students with special talents in general mental, visual arts or musical talents to improve their abilities and enable them to use their capacities at the highest level (MEB, 2016).

In BİLSEM, students; participate in individual talent recognition programs, special talent development programs, project production, and management programs and compliance programs (MEB, 2016).

2.1. Data Collection Tools

The semi-structured interview form, which was created by the researchers in line with the literature, was sent to two different field experts order to analyze it in terms of language and content. The form, which took its final form with the feedback from the experts, includes a section with socio-demographic questions and a section where the will create metaphor answers. In the first part, socio-demographic questions such as age, gender, class level, preschool education status, parents' age, education level, and occupation were asked. In the second part; a sample sentence was given to the participants by defining the metaphor. "Metaphor is the label, meaning or conceptual expressions that a concept created in the individual (Eraslan, 2011). For example; school is like the sun because it illuminates the world of its students." In line with the explanation and example sentence given, "COVID-19 epidemic is like Because" were asked to fill in the blanks. Additionally, open-ended questions were also asked about following the written and visual media news sources regarding the COVID-19 epidemic, having the disease, and talking about the epidemic with their close relatives.

2.2. Data Collection

In the data collection phase of the research, first, secondary schools and BİLSEM were visited in the city center in accordance with the purpose of the research; Ethics committee permission and approval documents of the relevant ministries were shared with the authorities verbally, and in writing. Because the participants were in make-up training during the study process, necessary arrangements were made for the appropriate days and hours and the environment for the data collection process. Parent consent forms were sent to the families of the students who were reached on a voluntary basis to participate in the study. After the parent consent forms were signed, the participant student group was provided to fill in the forms by making the necessary explanations.

2.3. Data Analysis

The data obtained in the study were analyzed by the content analysis method (Yıldırım & Şimşek, 2018). The metaphors reported by the participants and the reasons for using metaphors were analyzed separately by the researchers and categories were created; evaluation was requested by two field experts. The categories were finalized in line with the feedback of the

experts. While analyzing the data obtained in the study, the following stages were followed (Ekici, 2016).

Coding and Extraction Phase: The data obtained from the students were numbered and transferred to the computer environment in order. Students' metaphors regarding the COVID-19 epidemic were evaluated separately as gifted students and typically developing. Metaphors were examined in terms of their meanings and coded.

Category Development: At this stage, the created metaphor groups are associated with a specific theme. Thus, 7 conceptual categories were formed for gifted students and 7 for students with typical development.

Phase of Ensuring Validity and Reliability: To ensure the reliability of the research, expert opinion was sought to determine whether the metaphors given under the 7 conceptual categories reached in the research represent a conceptual category in question. The reliability calculation between researchers and experts was calculated using the formula $(\text{consensus} / (\text{consensus} + \text{disagreement}) \times 100)$ (Miles & Huberman, 1994) and the reliability was found to be 0.89. After the analysis of the data, the frequency of the metaphors was calculated. Some examples of students' metaphors and explanations are stated by giving the student number and by quoting them exactly like " " (TPS55) and (GS61) (Yıldırım & Şimşek, 2018).

2.4. Ethical Principles

Order to conduct the research, the necessary approval was obtained from the Ministry of National Education Research, Competition and Social Activity Unit on 18.06.2021 and from the COVID-19 Scientific Research Evaluation Commission of the Ministry of Health on 21.06.2021. With this approval, data were collected with the permission of the Ethics Committee number 15.07.2021-24599.

3. Results

In this section, the findings of the analysis carried out in line with the purpose and questions of the research are given. Considering the ages of gifted students participating in the research; most of them are 11 (n=22) and 12 years old (n=21). Approximately half of the gifted students are girls (n=30), most of them are the first child (n=41), and their parents are between the ages of 40-49 (n=34; 44). The mother and/or fathers of most students are civil servants (n=40; 43) and university graduates (n=51; 50, respectively) (Table 1).

Table 1. Socio-demographic characteristics of students

Variable	Gifted students		Typically progressing students	
	n	%	n	%
Age				
10	9	14,8	0	0,0
11	22	36,1	11	15,9
12	21	34,4	17	24,6
13	7	11,5	26	37,7
14	2	3,3	15	21,7
Gender				
Female	30	49,2	42	60,9
Male	31	50,8	27	39,1
Mother's age				
30-39	26	42,6	44	63,8
40-49	34	55,7	24	34,8
50 years and older	1	1,6	1	1,4
Father's age				
30-39	14	23,0	30	43,5
40-49	44	72,1	30	43,5
50 years and older	3	4,9	9	13,0
Education status				
(Mother)				
Primary education	3	4,9	33	47,8
High school	7	11,5	23	33,3
University	51	83,6	9	13,0
Illiterate	0	0,0	4	5,8
Education status				
(Father)				
Primary education	1	1,6	29	42,0
High school	10	16,4	27	39,1
University	50	92,00	13	18,8
Profession				
(Mother)				
Homemaker	17	27,9	59	85,5
Officer	40	65,6	4	5,8
Employee	1	1,6	4	5,8
Independent	2	3,3	2	2,9
Other	1	1,6	0	0,0
Profession				
(Father)				
Officer	43	70,5	20	29,0
Employee	3	4,9	24	34,8
Small business	12	19,7	11	15,9
Other	3	4,9	14	20,3
Grade				
5th	20	32,8	9	13,0
6th	27	44,3	22	31,9
7th	9	14,8	24	34,8
8th	5	8,2	14	20,3
Total	61	100	69	100

The students' histories of obtaining information about the COVID-19 epidemic and catching the virus were examined. Almost half of the gifted students (n=31) reported that they watched a TV program about the COVID-19 epidemic, the number of cases, the ways of transmission, and the precautions to be taken, and most of them did not conduct research on the internet (n=35). Students talk about COVID-19 with family (n=48) and friends (n=26). Additionally, 14 of the gifted students were diagnosed with COVID-19 positive (+) (Table 2).

Most students with typical progress reported that they watched a TV program (n=39) and did research on the internet (n=39) to learn about the number of cases, transmission routes, precautions and restrictions of COVID-19. Most of the students talk about COVID-19 with their families (n=57) and not with their friends (n=38). Additionally, 10 of the students with typical development were diagnosed with COVID-19 positive (+) (Table 2).

Table 2. Characteristics of students regarding the COVID-19 outbreak

Variable	Gifted students		Typically students	Progressing
	n	%	n	%
Watching a TV program about the COVID-19 outbreak				
Yes	31	50,8	39	56,5
No	30	49,2	30	43,5
Doing internet research about the COVID-19 outbreak				
Yes	26	42,6	39	56,5
No	35	57,4	30	43,5
Talking to family about the COVID-19 outbreak				
Yes	48	78,7	57	82,6
No	13	21,3	12	17,4
Talking to friends about the COVID-19 outbreak				
Yes	26	42,6	31	44,9
No	35	57,4	38	55,1
COVID-19 positive (+)				
Yes	14	23,0	10	14,5
No	47	77,0	59	85,5
COVID-19 positive(+) (Family)				
Yes	25	41,0	20	29,0
No	36	59,0	49	71,0
COVID-19 positive (+) (Friends)				
Yes	39	63,9	54	78,3
No	22	36,1	15	21,7
Total	61	100	69	100

To understand students' perceptions and evaluations of COVID-19, the open-ended "COVID-19 Epidemic is like Because, the answers to the question" were analyzed in line with the metaphor used by the students and the conceptual meaning of the metaphor (Table 3 and 4).

When the metaphor categories of gifted students regarding COVID-19 are examined, there are 7 different categories as "dangerous and/or harmful, deadly, limiting and/or changing habits, educational/instructional, contagious and/or chronic, preventable and/or temporary, other" were found in the area (Table 3).

The first three metaphor categories most frequently used by gifted students regarding COVID-19 are "restrictive and/or habit-changing (f=18), fatal (f=15), contagious and/or chronic (f=11)," respectively. Metaphors such as "prison (f=4), captivity (f=2), cage (f=1)" are limiting and/or changing habits; metaphors such as "war (f=3), serial killer (f=2), black plague (f=2), poison (f=2)" are deadly; metaphors such as "flu (f=1), glue (f=1), dandelion (f=1), lice (f=1), gossip (f=1)" were associated with the conceptual categories of contagious and/or chronic (Table 3).

Examples of this relationship are given below:

- A COVID-19 pandemic is like captivity. Because it took away our freedom (GS9, 12 years old, male).
- The COVID-19 pandemic is like a cage. Because she confines everyone to her home (GS17, 11 years old, female).
- The COVID-19 pandemic is like a prison. Because it takes away our freedom (GS23, 12 years old, female).
- The COVID-19 pandemic is like war. Because it causes loss of life (GS5, 12 years old, female).
- COVID-19 outbreak black plague COVID-19 killed many people (GS7, 11 years old, male).
- The COVID-19 pandemic is like poison. Because he ruined everyone's life and suddenly took their loved ones (GS15, 11 years old, male).
- The COVID-19 pandemic is like a serial killer. Because it kills people (GS20, age 12, male).
- The COVID-19 pandemic is like the flu. Because both are contagious (GS14, 11 years old, female).

- A COVID-19 pandemic is like gossip. Because it spreads immediately (GS35, 14 years old, male).
- The COVID-19 pandemic is like lice. Because, like lice, it is also transmitted (GS37, 13 years old, male).
- The COVID-19 pandemic is like a dandelion. Because the dandelion, which is one at first, is spread by the wind to other places. In COVID-19, the virus, which was first in one person, spread to everyone by air (GS58, 12 years old, female).

"Creature (f=1), fire (f=1), hot pepper (f=1)" metaphors used by gifted students are dangerous and/or harmful, "exam (f=3), lesson (f=1)" metaphors educational/instructive and "rain (f=1), magnet (f=1)" metaphors were associated with the conceptual category of preventable and/or temporary situations (Table 3).

- The COVID-19 pandemic is like hot peppers. Because it hurts us (GS30, 10 years old, male).
- The COVID-19 pandemic is like a constantly growing and damaging creature. Because it harms as it grows and grows as it harms (GS49, 11 years old, girl).
- The COVID-19 pandemic is like fire. Because it burns where it falls (GS52, 13 years old, male).
- The COVID-19 pandemic is like a test that tests people. Because under the same conditions, some of them cannot leave the house, while they learn to obey the rules, some do not even wear masks anymore (GS2, 10 years old, girl).
- The COVID-19 pandemic was like a lesson. Because it teaches the value of patience, unity and togetherness (GS45, 10 years old, girl).
- The COVID-19 pandemic was like a magnet. Because it attracts those who do not take precautions (GS44, 11 years old, male).
- Covid -19 is like rain. Because those who do not take precautions get wet (GS57, 12 years old, male).

The metaphors associated with the other conceptual category of gifted students consist of answers such as "pray (f=1), fake friend (f=1)" (Table 3).

Examples of expressions are given below:

- The COVID-19 pandemic is like a fake friend. Because it doesn't make any difference at first, and when you do, it's too late (GS11, 11 years old, girl).

- The COVID-19 pandemic is like a prayer. Because I wish him well and never to live again (GS16, 11 years old, male).

Table 3. Metaphor-category table of gifted students

Metaphors Belonging to the Category of Limiters/ Habit Changers		Metaphors for the Fatal Categorys		Metaphors of the Infectious/Pe rsistent Category		Metaphors of the Dangerous/Har mful Category		Metaphors for the Education/ Tutorial Category		Metaphors Belonging to a Category of Avoidable/Temporary Situations		Metaphors of Other Categorys	
Metaphors	Fr.	Metaphors	Fr.	Metaphors	Fr.	Metaphors	Fr.	Metaphors	Fr.	Metaphors	Fr.	Metaphors	Fr.
Prison	4	War	3	Flu	1	Creature	1	Exam	3	Temporary State	1	Prayer	1
Beast	3	Serial Killer	2	Electric	1	Fire	1	Lesson	1	Rain	1	Game	1
Captivity	2	Black Plague	2	Glue	1	Hot pepper	1			Magnet	1	Fake Friend	1
Disease	2	Poison	2	Tick	1	Smoking addiction	1					Good news/bad news	1
Dark-Extinct sun	2	Flood	1	Bit	1	Hell	1					Disaster/a dvantage	1
Darned	1	Apocalypse	1	Gossip	1								
Cage	1	Shark	1	Ivy	1								
Lunar eclips	1	Cancer	1	Nightmare	1								
Dark Cloud	1	Cigaret	1	Dandelion	1								
House with a Broken Bulb	1	Feeling of Hatred	1	Curse	1								
				Mouse	1								
Total	18		15		11		5		4		3		5

When we look at the metaphors of the students with typical progress regarding COVID-19, we look at 7 conceptual metaphors as “limiting and/or habit-changing, fatal, preventable and/or temporary, contagious and/or chronic, dangerous and/or harmful, educational/educational and other” appears to be in the category (Table 4).

The first three metaphor categories related to COVID-19 most frequently used by students with typical development are “restrictive and/or habit-changing (f=17), fatal (f=13) and preventable and/or temporary (f=12) situations,” respectively. concentrates on topics (Table 4).

The metaphors of “punishment (f=2), dark clouds (f=2), trap (f=1) and anti-entertainment (f=1) used by students with typical progress are limiting and/or changing habits, microbe (f=2), Grim reaper (f=1), lead (f=1)” metaphors were associated with fatal and fog (f=2), snowman

(f=1), needle (f=1) metaphors, preventable and/or temporary situations conceptual category (Table 4).

- The COVID-19 pandemic is like a dark clouds that darkens our world. Because we couldn't leave your home (TPS22, 13 years old, male).
- The COVID-19 pandemic is like the enemy of entertainment. Because we cannot gather in one place (TPS30, 14 years old, male).
- The COVID-19 pandemic is like a trap. Because we are all at home. We can't see our friends. It's as if she doesn't lock us in and take us out (TPS48, 11 years old, female).
- The COVID-19 pandemic is like the punishment given to us. Because we spent time away from our family and friends, we could not go out (TPS68, 12 years old, female).
- The COVID-19 pandemic was like the Grim Reaper. Because it causes too many deaths when infected (TGG025, 13 years old, female).
- The COVID-19 pandemic is like lead. Because once it enters the body, it can be fatal (TGG027, 14 years old, male).
- The COVID-19 pandemic is like a bad germ. Because it makes us sick and kills us (TPS46, 11 years old, female).
- The COVID-19 pandemic is like fog. Because we are awaiting the fog to dissipate and the road to be cleared (TPS12, 12 years old, female).
- The COVID-19 pandemic is like a needle. Because the corona heals, just as the wound from the needle pricked our hand heals (TPS33, 14 years old, female).
- The COVID-19 pandemic is like a snowman. Because the snow will melt when the sun comes out, it will end when the COVID-19 vaccine is found (TPS38, 14 years old, girl).

Responses belonging to the typically developing contagious and/or chronic category include "sticky gum (f=2), movie (f=1), a computer game (f=1)," and responses belonging to the dangerous and/or harmful category include "monster (f =2), sulfuric acid (f=1), a bee wandering in the dark room (f=1)," and among the responses evaluated in the educator/teaching category, metaphors such as "lesson (f=2), advice (f=1)" were included takes (Table 4)..

- The COVID-19 pandemic is like an endless and constantly renewed movie. Because the same events happen all the time, but they never end (TPS2, age 14, male).
- The COVID-19 pandemic was like a computer game. Because it traps everyone and infects millions of people and affects their health (TPS19, 14 years old male).

- The COVID-19 outbreak is like a gum sticking to the hand. Because when chewing gum sticks to our hands, we stick it to the place we touch (TPS31, 13 years old, male).
- The COVID-19 pandemic is like a bee in a dark room. Because you know his voice and it's there, but you don't care because you don't see it, you don't know when it will be stung, but when it is stung, you writhe with great pain (TPS14, 12 years old, male).
- The COVID-19 pandemic is like sulfuric acid. Because it is harmful to human health like acid (TPS52, 12 years old, male).
- The COVID-19 pandemic is like a beast. Because it harms people (TPS65, 12 years old, female).
- The COVID-19 pandemic was like a lesson. Because it tells us the importance of people and the value of our loved ones (TPS41, 13 years old, female).
- The COVID-19 pandemic is like advice. Because the epidemic taught us to appreciate the people we love and to spend more time with them (TPS42, 13 years old, girl).

It is seen that the metaphor included in the other category among the answers given by the students with typical progress is "luck (f=1)" (Table 4).

- The COVID-19 pandemic is like luck. Because some get the disease, some do not (TPS43, 13 years old, female).

Table 4. Metaphor-category table of students with typical progress

Metaphor	Metaphors Belonging to the Category of Limiters/Habit Changers		Metaphors for the Fatal Categorys		Metaphors Belonging to the Category of Avoidable/Temporary Situations		Metaphors of the Infectious/Persistent Category		Dangerous/Harmful Metaphors of the category		Metaphors for the Education/Tutorial Category		Metaphors of Other Categories	
	Fr.	Metaphor	Fr.	Metaphor	Fr.	Metaphor	Fr.	Metaphor	Fr.	Metaphor	Fr.	Metaphor	Fr.	Metaphor
Dark clouds	2	Germ	2	Car crash	2	Sticky gum	2	Beast	2	Lesson	2	Chance	1	
Evil Being	2	Broken heart	2	Fog	2	Tick	1	Broken glass	1	Exam	1			
Punishment	2	grim reaper	1	Furniture	2	A Sick Person	1	Contaminated Apple	1	Advice	1			
Limited Facilities	1	Nightmare	1	Snowman	1	Film	1	Bee wandering in a dark room	1					
Enemy of Entertainment	1	Bullet	1	Earthquake	1	Detergent	1	Snake	1					

A boring day	1	black hole	1	Needle	1	Dump	1	Fire	1
Prison	1	Cartoon character	1	Light	1	Computer game	1	Sulfuric acid	1
Trap	1	Accident	1	Time	1	Ball	1	Fall from bicycle	1
Trouble-maker	1	Serial killer	1	World	1	Sick animals	1	Horror movie	1
Wind	1	Zombie	1	Fire	1	Evil person	1		
Glass bottle	1	Death	1						
Captivity	1								
Evil that spoils family happiness	1								
Electric Switch	1								
Total	17		13		13		11		10
								4	1

The metaphors used by gifted students are “limiting and/or changing habits (f=18), fatal (f=15), contagious and/or chronic (f=11), dangerous and/or harmful (f=5), other (f=5), educational/educative (f=4), preventable and/or temporary (f=3)”; the metaphors used by typically developing students are “limiting and/or habit-changing (f=17), fatal (f=13), preventable and/or temporary (f=12), contagious and/or chronic (f=11), dangerous and /or harmful (f=10), educational/educational (f=4) and other (f=1)” category. The metaphor categories used by gifted and typically developing students are presented in Table 5.

Table 5. Percentage and frequency values of the metaphors of gifted and typically developing students

No	Conceptual Category	*f Values of Gifted Students	% Values of Gifted Students	Typical Developing *f Values of Students	% Values of Students with Typical Progress
1	Infectious/Persistent	11	18,03	11	15,94
2	Tutorial/Tutorial	4	6,56	4	5,80
3	Fatal	15	24,59	13	18,84
4	Preventable/temporary	3	4,92	13	18,84
5	Limitier/Habit-changing	18	29,51	17	24,64
6	Dangerous/Harmful	5	8,20	10	14,49
7	Other	5	8,20	1	1,45
	Total	61	100,0	69	100,0

*f: Frequency

4. Discussion and Conclusion

According to the findings obtained from the research; The metaphor categories of gifted students regarding COVID-19 are in 7 different areas: “dangerous and/or harmful, deadly, limiting and/or habit-changing, educational/educational, contagious and/or chronic, preventable and/or temporary, other”. . It has been observed that the first three metaphor categories most frequently used by gifted students regarding COVID-19 are “limiting and/or habit-changing (f=18), fatal (f=15), contagious and/or chronic (f=11),” respectively. However, students with typical progress have 7 conceptual metaphors regarding COVID-19 as “limiting and/or habit-changing, fatal, preventable and/or temporary, contagious and/or chronic, dangerous and/or harmful, educational/educational and other.” collected in the categories. The first three metaphor categories related to COVID-19 most frequently used by students with typical development are “restrictive and/or habit-changing (f=17), fatal (f=13), and preventable and/or temporary (f=12) situations,” respectively. concentrates on topics.

Similarly, Görgülü Arı and Arslan (2020) examined the metaphorical perceptions of secondary school students toward COVID-19 in a study they conducted with 100 students studying at the 6th-grade level, and they produced negative metaphors for the COVID-19 epidemic and that most of the metaphors produced were a rapid response to the epidemic. It has been concluded that it is associated with its spread and lethality and grouped under 6 categories “Contagious,” “Deadly,” “Disease-Causing,” “Removing from Social Environments,” “Lately Recognized” and “Relation with Other Diseases.”

According to the data obtained from 50 science teachers, İmer Çetin, Timur, and Pehlivan (2021) examined the metaphorical perceptions of science teachers towards the concept of “virus” during the COVID-19 pandemic process; The teachers produced 43 different metaphors, and the metaphors were grouped under 4 different categories as a negative structural element, nature and natural element, war element and life-threatening element. They concluded that teachers generally perceive the concept of "virus" as a negative concept during the COVID-19 pandemic process.

In their study, Çokyaman and Ünal (2021), in which they examined the perception of distance education by students and teachers during the COVID-19 epidemic, through metaphors, 128 students from pre-school to secondary education and 135 teachers from different branches such as mathematics, literature, classroom, preschool, and science. In their interview with 263 participants, they concluded that especially students reported negative metaphors in the

affective and interaction category, so they had negative feelings and thoughts about distance education.

As a result, only 13.07% (f=17) of the 130 participants did not have a positive (+) history of COVID-19 in themselves or in their immediate surroundings; they watched TV programs and talked to their families to learn about the ways of transmission and protection of the virus, the number of cases, restrictions; it has been determined that they prefer to talk less about COVID-19 their friends and do not find the information on the internet reliable. It has been observed that both gifted and typically developing students express negative metaphors and thus, they are negatively affected by the epidemic process.

Limitations

This research is limited to a semi-structured interview form applied to secondary school students and participants who continue their education in the city center of Amasya in the 2020-2021 academic year.

Suggestions

1. Repetition of the research was with different ages and education levels,
2. Examining the effects of returning to school after restrictions and taking measures,
3. Examining the psychosocial effects of the disease in students and their families who have a history of COVID-19 in their immediate environment or in themselves,
4. Examining how information about the epidemic is shared in the press and how students are affected by this situation,
5. It may be suggested to evaluate the views of gifted and typically developing children on the epidemic using different techniques such as picture analysis, composition, and focus group interviews.

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Conflicts of interest

The authors declare that there are no potential conflicts of interest relevant to this article.

References

- Akarsu, F. (2004). Üstün Yetenekliler. Yer aldığı eser R. Şirin, A. Kulaksızoğlu, A.E. Bilgili (Ed.), *Üstün Yetenekli Çocuklar: Seçilmiş Makaleler Kitabı*. (ss. 127-153). İstanbul: Çocuk Vakfı Yayınları.
- Akça, O. M., Şen, Ç., Kurtaslan, Z. (2019). Bilim ve sanat merkezleri müzik alanı öğrencilerin müzik kavramına yönelik algılarının belirlenmesi: Bir metafor analizi çalışması . *Afyon Kocatepe Üniversitesi Akademik Müzik Araştırmaları Dergisi*, 5 (10), 123-145.
- Akpolat, T. (2021). Ortaokul Öğrencilerinin Uzaktan Eğitime İlişkin Metaforik Algılarının İncelenmesi . *Ankara University Journal of Faculty of Educational Sciences*, 54 (2) , 497-522 . DOI: 10.30964/aubfd.822101
- Akturan, U. ve Esen, A. (2008). Fenomenoloji. T. Baş ve U. Akturan (Ed.) içinde, Nitel araştırma yöntemleri (ss. 83-98). Ankara: Seçkin Yayıncılık.
- Arslan, K., Görgülü Arı, A. & Hayır Kanat M. (2021). Covid-19 pandemi sürecinde verilen uzaktan eğitim hakkında veli görüşleri. *Ulakbilge Sosyal Bilimler Dergisi*, 57, 192-206. doi:10.7816/ulakbilge-09-57-03
- Aslan, H. & Doğan, Ü. (2016). Üstün Yetenekli Öğrencilerin Devam Ettikleri Okulları ile Bilim ve Sanat Merkezine İlişkin Metaforik Algıları Karşılaştırmalı Durum Çalışması. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 16 (2), 0-0. DOI: 10.17240/aibuefd.2016.16.2-5000194931
- Ataman, A. (2009). Special needs children and introduction of special education. Gifted and talented children. Ankara: Gündüz Education and Publishing.
- Baykoç Dönmez, N. (2011). Üstün ve özel yetenekli çocuklar ve eğitimleri. (Ed: N. Baykoç Dönmez), *Özel Gereksinimli Çocuklar ve Özel Eğitim*, Ankara: Eğiten Kitap.
- Bee, H. & Boyd, D. (2020). Çocuk Gelişim Psikolojisi. (11. Baskı). Ankara: Kaknüs Yayıncılık.
- Bolat, H. (2020). Üstün Zekalı ve Yetenekli Öğrencilerin Bilim ve Sanat Merkezindeki ve Okuldaki Sosyal Bilgiler Dersine Yönelik Metaforik Algıları. *Anemon Muş Alparslan Üniversitesi Sosyal Bilimler Dergisi*, 8(4), 1135-1144 . DOI: 10.18506/anemon.647705
- Botha, E. (2009). Why Metaphor Matters in Education. *South African Journal of Education*, 29(4), 431-444.
- Bozkurt, A. (2020). Koronavirüs (Covid-19) Pandemisi sırasında ilköğretim öğrencilerinin uzaktan eğitime yönelik imge ve algıları: Bir metafor analizi. *Uşak Üniversitesi Eğitim Araştırmaları Dergisi*, 6 (2), 1-23.

- Çelik-Şahin, Ç. (2014). Bilim ve sanat merkezi öğrencilerinin bu kurumlara ilişkin görüşlerinin incelenmesi. *Hasan Ali Yücel Eğitim Fakültesi Dergisi*, 11 (1), 101-117.
- Çokyaman, M. & Ünal, M. (2021). Öğrenci ve Öğretmenlerin Covid-19 Salgını Dönemindeki Uzaktan Eğitim Algısı: Bir Metafor Analizi. *OPUS International Journal of Society Researches*, 1684-1715 . DOI: 10.26466/opus.913396
- Doğan, Ü. & Doğan, A. (2021). Öğrencilerin Uzaktan Eğitime İlişkin Algılarının Metafor Analizi Yoluyla İncelenmesi. *Disiplinlerarası Eğitim Araştırmaları Dergisi*, 5 (9), 12-23.
- Doğan, Y. (2017). Ortaokul öğrencilerinin çevre kavramına ilişkin sezgisel algıları: bir metafor analizi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 18 (1), 721-740.
- Ekici, G. (2016). Determination of the preservice biology teachers' perceptions of microscope: example for metaphor analysis. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 17(1), 615-636.
- Eraslan, L. (2011). Sosyolojik metaforlar. *Akademik Bakış Dergisi*, 27, 1-22.
- Eskici, G. (2020). Covid-19 Pandemisi: Karantina İçin Beslenme Önerileri. *Anatolian Clinic The Journal Of Medical Sciences*, 25 (1), 124-12.
- Fidan, B., Fidan, M. (2016).Ortaokul Öğrencilerinin Görsel Sanatlar Dersi Kavramına İlişkin Metaforik Algıları.*Trakya Eğitim Dergisi*, 6(2), 159-166.
- Gökçay, G. ve Keskindemirci, G. (2020). Anne Sütü ve Covid-19. *Journal of Istanbul Faculty of Medicine*, 50-55. DOI: 10.26650/IUITFD.2020.0025
- Görgülü Arı, A. & Arslan, K. (2020). Ortaokul öğrencilerinin Covid-19'a yönelik metaforik algıları. *Turkish Studies*, 15(6), 503-524. <https://dx.doi.org/10.7827/TurkishStudies.44425>
- Gülmez Güngörmez, H. (2020). Uzaktan eğitim alan ortaokul öğrencilerinin uzaktan fen bilimleri dersi eğitimine ilişkin algılarının metaforlar yoluyla incelenmesi (1st ed.), *Eğitim Bilimlerinde Teori ve Araştırmalar*, Gece Akademi.
- Gümüşgül, O. ve Aydoğan, R. (2020). Yeni Tip Koronavirüs-Covid 19 Kaynaklı Evde Geçirilen Boş Zamanların Ev İçi Rekreatif Oyunlar ile Değerlendirilmesi. *Spor Eğitim Dergisi*, 4 (1),107-114.
- Hazar, Z. , Tekkurşun, D. G. & Dalkıran, H. (2017). Ortaokul Öğrencilerinin Geleneksel Oyun ve Dijital Oyun Algılarının İncelenmesi: Karşılaştırmalı Metafor Çalışması . *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi*, 15 (4) , 179-190 . DOI: 10.1501/Sporm_0000000334
- İmer Çetin, N., Timur, S. & Pehlivan, H. (2021). Fen Bilimleri Öğretmenlerinin Covid-19 Pandemi Sürecinde "Virüs" Kavramına Yönelik Metaforik Algılarının İncelenmesi, *International Journal of Eurasia Social Sciences*, 12(43), 47-59. DOI: <http://dx.doi.org/10.35826/ijoess.2864>

- Karabulut, R. , Mertol, H. & Alkan, A. (2017). Üstün Yetenekli/Zekâlı Öğrencilerin Medyaya Yönelik Metafor Algıları. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 3 (2), 187-196.
- Karataş Öztürk, S. (2021). Covid-19 Salgını Sürecinde Taşımali Öğrencilerin Uzaktan Eğitim ile Verilen Fen Bilimleri Dersine Yönelik Görüşleri. *OPUS International Journal of Society Researches*, 3892-3917. DOI: 10.26466/opus.915874
- Kurnaz, A., Çiftci, Ü., & Karapazar, H. (2013). Üstün zekâlı ve yetenekli öğrencilerin değer algılarının betimsel bir analizi. *Değerler Eğitimi Dergisi*, 11(26), 185-225.
- Levent F. (2014). Üstün yetenekli çocukları anlamak. (2. Baskı). Ankara: Nobel Akademik Yayıncılık.
- Milli Eğitim Bakanlığı (2016). "Bilim ve Sanat Merkezleri Yönergesi", Tebliğler Dergisi, 2593. https://orgm.meb.gov.tr/meb_iys_dosyalar/2016_10/07031350_bilsem_yonergesi.pdf
- Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage.
- Namlı, A. , Temel, C. & Güllü, M. (2017). Ortaokul Öğrencilerinin Beden Eğitimi Dersine İlişkin Ürettikleri Metaforlar. *Kastamonu Eğitim Dergisi*, 25 (2), 479-496.
- Oğurlu, Ü., Öpengin, E., & Hızlı, E. (2015). Üstün yetenekli öğrencilerin okul ve öğretmene ilişkin metaforik algıları. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, (46), 67-83.
- Oğuz, B. (2020). Üstün Yetenekli Öğrencilerin Türkçe Öğretmeni ve Türkçe Dersine Yönelik Metaforik Algıları. *Uluslararası Bilim ve Eğitim Dergisi*, 3 (2), 80-91. DOI: 10.47477/ubed.777973
- Ovalı, F. (2020). Yenidoğanlarda Covid-19 Enfeksiyonları. *Anatolian Clinic The Journal of Medical Sciences*, 25 (1), 23-35.
- Öztürk, D. & Koca, A. H. (2021). Ortaokul öğrencilerinin laboratuvar ve uzaktan eğitim kavramlarına yönelik metaforik algıları, *Anadolu Öğretmen Dergisi*, 5(1), 179-199. DOI: 10.35346/aod.929576
- Öztürk, M., Akkan, Y., & Kaplan, A. (2014). Üstün yetenekli öğrencilerin matematik kavramına yönelik algılarının incelenmesi. *Journal for the Education of Gifted Young Scientists*, 2(2), 49-57.
- Peterson, J. W., & Sterling, Y. M. (2009). Children's perceptions of asthma: African American children use metaphors to make sense of asthma. *Journal of Pediatric Health Care*, 23(2), 93-100.

- Sağlık Bakanlığı (2020). COVID-19 Bilgilendirme Platformu, COVID-19 Nedir? (cited: 2021)
Retrieved from: <https://covid19.saglik.gov.tr/TR-66300/covid-19-nedir.html>
- Saban, A. (2008). Okula ilişkin metaforlar. *Kuram ve Uygulamada Eğitim Yönetim*, 14(55), 459-496
- Saban, A. (2009). Öğretmen adaylarının öğrenci kavramına ilişkin sahip olduğu zihinsel imgeler. *Türk Eğitim Bilimleri Dergisi*, 7 (2), 281-326
- Sak, U. (2012). Üstün zekâlılar: Özellikleri tanılanmaları 2. Baskı, Ankara: Vize Yayıncılık.
- San Bayhan, P. ve Artan, İ. (2012). Çocuk Gelişimi ve Eğitimi. İstanbul: Morpa Yayıncılık.
- Semerci, Ç. (2007). “Program geliştirme” kavramına ilişkin metaforlarla yeni ilköğretim programlarına farklı bir bakış. *Çukurova Üniversitesi Sosyal Bilimler Dergisi*, 31(1), 139-154.
- Senemoğlu, N. (2020). Gelişim, öğrenme ve öğretim (Kuramdan uygulamaya). 27. Baskı, Ankara: Anı Yayıncılık.
- Su, Ş. , Sağlam, A. & Mutlu, Y. (2017). Bilim ve Sanat Merkezi Öğrencilerinin “Bilsem” ve “Okul” Kavramlarına İlişkin Algı Düzeylerinin Metaforlarla Karşılaştırılması. *Journal of Gifted Education and Creativity*, 4 (3), 91-108.
- Telli, S. G. ve Altun, D. Coronavirüs ve Çevrimiçi (Online) Eğitimin Önlenemeyen Yükselişi. *Üniversite Araştırmaları Dergisi*, 3(1), 25-34.
- Tırmıkçioğlu, Z. (2020). Covid-19 Enfeksiyonu Olan Gebelerde İlaç Kullanımı. *Anatolian Clinic The Journal Of Medical Sciences*, 25 (1) , 51-58.
- Turhan Türkkın, B. & Yeşilpınar Uyar, M. (2016). The metaphors of secondary school students towards the concept of “mathematical problem”. *Cukurova University Faculty of Education Journal*, 45 (1) , 99-130.
- Üztemur, S. ve Dinç, E. (2020). Medya okuryazarlığı bağlamında ortaokul öğrencilerinin sosyal medya algıları: Bir metafor çalışması. *The Journal of International Lingual Social and Educational Sciences*, 6(1), 92-103. DOI: <https://doi.org/10.34137/jilses.698764>
- Yam, Z. , Çetinkaya, H. & Kurnaz, A. (2018). Özel yetenekli öğrencilerin “gelecek” kavramına ilişkin algılarının metaforik olarak incelenmesi. *Milli Eğitim Dergisi*, 67-90.
- Yıldırım, A. ve Şimşek, H. (2018). Sosyal bilimlerde nitel araştırma yöntemleri. (11. Basım) Ankara: Seçkin Yayıncılık.