



[www.ijres.net](http://www.ijres.net)

## Determining Teachers', Students', and Parents' Perceptions of Distance Education through Metaphors

Abdullatif Kaban   
Bayburt University, Turkey

### To cite this article:

Kaban, A. (2021). Determining teachers', students', and parents' perceptions of distance education through metaphors. *International Journal of Research in Education and Science (IJRES)*, 7(1), 245-264. <https://doi.org/10.46328/ijres.1316>

The International Journal of Research in Education and Science (IJRES) is a peer-reviewed scholarly online journal. This article may be used for research, teaching, and private study purposes. Authors alone are responsible for the contents of their articles. The journal owns the copyright of the articles. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of the research material. All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations regarding the submitted work.



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.



*International Journal of Research in Education and Science (IJRES)* is affiliated with the **[International Society for Technology, Education, and Science \(ISTES\): www.istes.org](http://www.istes.org)**

## Determining Teachers', Students', and Parents' Perceptions of Distance Education through Metaphors

Abdullatif Kaban

---

### Article Info

#### Article History

Received:

25 May 2020

Accepted:

19 October 2020

---

#### Keywords

Distance education

Perception

Metaphor

Teacher

Student

Parent

---

### Abstract

In this study, it was aimed to reveal the perceptions of teachers, students, and parents about the concept of “distance education” through metaphor. Phenomenology design, one of the qualitative research methods, was used in the study. 34 teachers, 131 students, and 44 parents who participated in the study were asked to make a metaphor sentence for distance education by the online data collection tool. The data obtained were analyzed by content analysis and categories were constituted by classifying the metaphors according to their common characteristics. Metaphors of the participants towards distance education were gathered in the categories of “uselessness”, “education type”, “offering opportunity”, “virtuality”, “individuality”, “irreplaceable”, “obligation”, “usage”, and “school independence”. Participants mostly used metaphors of “face-to-face education”, “school”, “video”, “open education”, and “sun” for distance education. When the sentences of metaphors made were examined, it was determined that the participants had a negative perception towards distance education in general. To change this perception, it is recommended to provide teachers, students, and parents with a quality distance education experience.

---

### Introduction

Distance education, which we used to see at the associate, undergraduate and postgraduate levels, has started to be seen in primary and secondary schools too as a result of Covid-19 virus, which affects the whole world. Following the Covid-19 virus also be seen in Turkey in March 2019, after one week of vacation in primary and secondary schools began to distance education. Similarly, all universities in the country started to give many courses through distance education. In this way, students and teachers from all levels in the country met with distance education. Distance education was handled in the form of lectures on television channels and online lessons that teachers gave at certain times. Thus, the students had the opportunity to take lessons by the virtual classroom and television, and to access various contents through the content sharing system called Education Information Network. Since it is known that having a distance education experience contributes to developing a positive attitude towards distance education (Ateş & Altun, 2008), this development has led to the need to reconsider thoughts against distance education.

Distance learning can be defined as a teaching method carried out from certain centers, aiming for the individual to learn on his own, and in which educational contents are provided through various media and tools especially prepared for learners (Banar & Fırat, 2015). The e-learning era in distance education has started with the use of the internet in educational environments (İşman, 2011). E-learning is defined as instruction distributed on digital devices such as a computer or mobile device (Clark & Mayer, 2016). When the literature is analyzed, it is seen that there are various results in views, perceptions, and attitudes towards distance education. The perceptions of students who think that they have received a higher quality education with the activities carried out by distance education are also positive (Hannay & Newvine, 2006). Similarly, Taşpınar (2014) states that the most important factor that can transform the perception towards distance education to positive is the quality of education provided. The higher the general interaction level perceived by students in distance education, the higher the student satisfaction and attitude towards interaction (Zhang & Fulford, 1994). For example, it is believed that students develop a positive attitude towards distance education because the use of video conferencing in distance education is beneficial for teacher contact and interaction (Gillies, 2008). Tao and Yeh (2008), concluded that teachers also have a positive perception of distance education. Some students believe that distance learning did not succeed, but they consider their advantages relatively high to their disadvantages (Doğan & Tatık, 2015). To get the benefit from distance education, students should have the skills to use online tools and believe that the distance education they encounter offers useful and flexible learning for them, and they have the opportunity to communicate and share (Sahin & Shelley, 2008). Because students need features in distance education such as open access, flexible learning opportunity, providing quality learning materials, and multimedia (Ojo & Olakulehin, 2006).

In addition to the positive results listed above, negative results are also encountered. Karal, Çebi, and Turgut (2011) stated that besides technical problems such as voice, image and connection speed, teachers, environment, distance, course type, and duration factors cause students to change their perception of distance education. Students who have had bad experience with distance education due to technical problems do not want to use it again and develop a negative perception of distance education (Mitchell, Banaji & MacRae, 2005). Lack of practice and communication in distance education causes low motivation and distraction towards students, which results in students developing negative perceptions towards distance education (Kan & Fidan, 2016). In a research conducted on elementary teacher candidates who have taken lessons with the synchronous distance education method, it was concluded that the participants perceive distance education mostly as an inefficient, boring, non-interactive, and insensitive form of education (Kaleli-Yılmaz & Güven, 2015).

To be successful in distance education, it is necessary to develop a positive perception against distance education (İbicioğlu & Antalyalı, 2005). For this, it is not enough to determine students' perceptions only against distance education. In this regard, it is necessary to get opinions from all of the stakeholders of education. One of the ways to express thoughts about a subject is through metaphors. Perceptions and thoughts of students, teachers, and parents of all ages and levels towards distance education can be determined through metaphors. The metaphor theory of Lakoff and Johnsen (1980; 1999) makes it possible to define everyday cognitive structures using linguistic models and thus reveal patterns of both individual and common ideas and actions (Schmitt, 2005). It is stated by Lakoff and Johnsen (2003) that the basic function of the metaphor, which

is summarized as experiencing something in terms of something else, is “understanding.” Considering that the conceptual system of individuals is largely metaphorical, then the ways of thinking, their experiences, and what they do every day appear as a matter of metaphor.

In other words, it can be said that the basic function of metaphor provides a partial understanding by using another type of experience about a kind of experience (Lakoff & Johnsen, 2003). In the literature, it is possible to come across studies in which perceptions are measured using metaphors. Martinez, Sauleda, and Huber (2001) analyzed metaphorical learning conceptions based on the reflections of 50 teachers and concluded that most of these teachers share traditional metaphors that describe teaching and learning as the transfer of knowledge, while a smaller group of teachers express constructivist metaphors. Eren and Tekinarslan (2013), on the other hand, stated that there is a significant and positive relationship between the concepts of Teacher, Teaching, Learning, Teaching Material and Assessment by using metaphor. Inbar (1996) showed that the problems and difficulties faced by schooling can be determined using metaphorical images. Wegner and Nückles (2015) also showed that academicians' perceptions of learning and teaching concepts were determined using metaphors.

Studies to determine the perceptions of distance education generally focus only on students (Forrester & Parkinson, 2004; Gillies, 2008; Hannay & Newvine, 2006; Howland & Moore, 2002; Kaleli-Yılmaz & Güven, 2015; Kan & Fidan, 2016; Karal, Çebi, & Turgut, 2011; Ojo & Olakulehin, 2006; Sahin & Shelley, 2008). Also, it is possible to come across studies investigating the perceptions of teachers for distance education (Broady-Ortmann, 2002; Schulte, 2010; Tao & Yeh, 2008). However, it is not possible to come across studies in which teachers', students', and parents' perceptions of distance education were determined. This research is important in terms of being a comprehensive study for determining the teachers', students', and parents' perceptions towards distance education who have experienced distance education. It is also important to determine the perceptions of the participants about distance education through metaphor. Shuell (1990) states that, if a picture is worth 1000 words, a metaphor is worth 1000 pictures, because a picture only presents a static image, whereas a metaphor offers a conceptual framework for thinking about a phenomenon. In the researches, it has been determined that the degree of similarity between the subject and the metaphor is positively related to the ability and interpretability of the metaphors (Johnson & Malgady, 1979). Meier et al. (2011) state that we do not only talk with metaphoric terms but also we think with metaphoric terms. For this reason, the metaphor method was chosen to determine the perceptions of teachers, students, and parents towards distance education. This study aims to reveal the perceptions of teachers, students and parents about the concept of distance education through metaphor. For this purpose, answers to the following questions are sought:

1. What are the metaphors and categories of participants regarding the concept of distance education?
2. What are the metaphors and categories of teachers regarding the concept of distance education?
3. What are the metaphors and categories of students regarding the concept of distance education?
4. What are the metaphors and categories of parents regarding the concept of distance education?
5. What are the differences between the metaphors and categories of teachers, students, and parents?

## Method

In this research, phenomenology design, one of the qualitative research methods, was used. Phenomenology design is a type of research that focuses on cases that we know about its existence but do not have detailed knowledge and understanding (Yıldırım & Şimşek, 2005). Phenomenology research, while expressing the experiences of the participants, is an in-depth study about the phenomenon defined by them (Creswell, 2014). Briefly, phenomenology is a common expression of a few people's experiences of a case (Creswell, 2013). The case emphasized in this study is determined as distance education in which teachers, students, and parents have experienced.

## Study Group

The data collected in phenomenology researches should be obtained from individuals or groups who experience the phenomenon that the research focuses on and who can express it (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2009). For this purpose, the participants were determined by the criterion sampling method. The basic understanding of this sampling method is to investigate all situations that meet several predetermined criteria (Yıldırım & Şimşek, 2005). For this reason, to determine the experiences related to the phenomenon of distance education, the study group was determined as teachers who gave lessons with distance education methods, students who took lessons, and parents. After the spread of the Covid-19 virus, all pieces of training have been given remotely as of March 2019. The data were collected in June 2019. The study involved 252 people from every region of Turkey. Since the data collected from the participants were based on online voluntary responses, not through official institutions, there was no need for official consent. While the teachers and parents filled out voluntarily, verbal permission was obtained from the parents of the students. 43 (% 17,06) of them gave answers that did not fit the metaphor structure. In some of these responses, the metaphor was missing, and in others, the justification was missing. Also, expressions consisting of one-word answers are not included too. When the records with expressions that did not match the metaphor structure were removed, the metaphor sentence formed by 209 participants remained. Participation in the study was primary, secondary, high school, and university level teachers, students, and parents, except high school teachers. It was observed that the participants in the study did not participate in the role of high school teacher since they were asked to participate voluntarily. The distribution of the participants according to their education levels and roles are provided in Table 1.

Table 1. Distribution of the Participants according to their Education Levels and Roles

Education Level	Teacher	Student	Parent	Total
University	28	99	6	133
High School	-	19	11	30
Secondary School	5	10	13	28
Primary School	1	3	14	18
<b>Total</b>	<b>34</b>	<b>131</b>	<b>44</b>	<b>209</b>

Participants contributed to the study with a large degree of university level and student role and expressed their views on distance education. Each participant was given the code P001, P002... to be used when giving sample opinions of the participants.

### **Data Collection Tool**

In this study, the structured online metaphor form was used as a data collection tool. The link address of the prepared form was delivered to the participants through social media tools and text messaging applications and asked to respond voluntarily. The form consists of two parts. In the first part of the prepared form, the participants were asked about their roles in the training process. Besides, students were asked about the levels of the education they received, parents were asked the education level of their students, and teachers were asked about the level of education they gave. In the second part of the form, the participants were asked to express metaphors for distance education. For this, only one open-ended question was asked. They were asked to construct a metaphor sentence suitable for the sample sentence structure given to them in the question. For this, participants were asked to make their own sentences by filling in the empty spaces in the sentence “Distance education is similar to/ like ...; because ...”. Yıldırım and Şimşek (2005) stated that the justification should be learned with the question “why” to understand what the metaphors expressed with the comparisons about a concept mean. Therefore, the participants were asked what they likened distance learning with the first gap and the rationale for this analogy with the second gap. The data obtained here constituted the main data source of the research.

### **Data Analysis**

The content analysis method was used on the data collected within the scope of the study and metaphors composed towards distance education were grouped under common categories. The purpose of content analysis is to encode the content as data (Berg & Lune, 2019). In the analysis of the data, the stages were followed by (1) coding the data to determine the metaphors, (2) forming the categories by arranging similar codes, (3) providing validity and reliability, and (4) composing the frequencies and categories belonging to the metaphors.

In the stage of coding of metaphors, comparison expressions, which are the first part of the metaphor sentences made by the participants, were analyzed. At this stage, the concepts that the participants likened distance education were coded. In the statements of the participants, those who do not have the meaning of analogy, those who do not have a justification, answers with a single word, and statements with different comments were not taken into consideration. In the stage of determining the categories, the second parts of the sentences made by the participants were analyzed. The participants expressed the meaning of the metaphor they constituted towards distance education with the justifications they stated. To ensure validity and reliability, two different experts were asked to check the analyzes of the researchers. Experts examined the compatibility of the codes and categories obtained as a result of the analysis and made a decision. The consensus was achieved by comparing the evaluations made by both experts. After adjustments made in line with the opinions of experts, the agreement of analysis result was calculated as 94% using the formula of Miles and Huberman (2016). After

determining the codes and categories, the Microsoft Excel program was used to calculate the frequencies of this data. At this stage, the metaphor categories were examined according to the roles of the participants, and the opinions of teachers, students, and parents were presented separately.

## Results

The data collected to determine teachers', students', and parents' perceptions of distance education through metaphors were analyzed and the findings were presented below within the framework of research questions.

### Metaphors and Categories regarding the Concept of Distance Education

Metaphors stated by teachers, students, and parents towards distance education were examined. It was observed that 209 participants stated 159 different metaphors. Metaphors expressing participants' perceptions of distance education and the categories in which they are grouped according to their common characteristics are given in Table 2 Table 3.

Table 2. Metaphors and Categories regarding the Concept of Distance Education

Category	Metaphor	N	f	%
Uselessness	Bird in a cage (2), Holiday (2), Inefficient process (2), Injustice (2), Open education (2), Atmosphere, Difficulty, Drum, Empty, Empty lesson, Evil, Exist but absent, Filling water in an empty container, Flower watering, Fruitless tree, Guest, Irresponsibility, Justice, Lecture with presentation , Letter "I" in "Trabzon", Lying on the floor, Motivation, Network, No school, Phone call, Prison, Punishment, Reading incomprehensible book, Riding a stationary bicycle, Rowing in vain, Thief, Tofaş, Undutiful child, Winter, Writing on the water	35	40	19.14
Education type	Face to face education (13), School (10), Class (2), Crutches (2), Blended education, Brain, Car, Correspondence, Hand, Synchronous education, Teacher, Web-based education	12	35	16.75
Offering opportunity	Life (2), Live broadcast (2), Technology (2), A never ending education, A parent away from children, Airplane, Dead end, Documentary film, Equal opportunity, Goodness, High level, Information age, Key, Lifeguard, Mobile phone, Money, Moon, Pillow, Rain, Remote control, Science, Window opening to the horizon, Zooming in	23	26	12.44

Category	Metaphor	N	f	%
Virtuality	Landscape painting (2), Video call (2), Artificial flower, Artificiality, Cloud, Hologram, Imagination, Loneliness, Looking through the glass, Love for animals, Presence behind glass, Pumpkin-infused watermelon, Shadow, Smelling roses behind the glass, Social media, Stuntman, Sun, Television, Virtual meeting, Virtual, Watching movies, Watching the rain behind the glass, Wind	23	25	11.96
Individuality	Video (6), Open education (3), Doing their best, Drawing a path to yourself, Freedom, Freelance work area, Giving recipe, Home office working, Home school, Homework, Individual learning, Notebook, Selfish person, Studying from a book, Team without coach, Telling a lesson to yourself, Working from home	17	24	11.48
Irreplaceable	Abroad (3), Course (3), Car without two wheels, Darkness, Dry ablution, Entertainment, Football match without audience, Free time, Low battery toy, Missing step, Orphan child, Play, Remote management, Spare tire, Wave	15	19	9.09
Obligation	Emergency exit (2), Coercion (2), Abdurrahman Çelebi, Black rose, Compensation of what is lost, First aid kit, Hot eating, Mandatory effort, Medication, Müslüm Father song, Relatives you do not meet, Sitting at the table, Teacher who passes his job, Water	14	16	7.66
Usage	Apple tree, Attracting rosary, Book, Core, Disabled road, Dough, Flower in flowerpot, Fruit, Growing the tree without watering, Mirror into the future, Spot shot, Wind, Windows	13	13	6.22
School independence	Sun (4), Comfort (2), Armed UAV, Flower, Internet, Mobile phone, Phone call	7	11	5.26
<b>Total</b>		<b>159</b>	<b>209</b>	<b>100</b>

When Table 2Table 3 is examined, it is seen that 159 different metaphors are classified under 9 categories. The category with the most metaphors is “uselessness” (19.14%). This category is followed by “education type” (16.75%), “offering opportunity” (12.44%), “virtuality” (11.96%), “individuality” (11.48%), “irreplaceable” (9.09%), “obligation” (7.66%), “usage” (6.22%), and “school independence” (5.26%) respectively.

### **Metaphors and Categories Constituted by Teachers**

It was observed that 33 teachers stated 34 different metaphors. Metaphors expressing teachers’ perceptions of distance education and the categories in which they are grouped according to their common characteristics are given in Table 3. When Table 3 is examined, it is seen that 33 different metaphors are classified under 9 categories. The categories with the most metaphors are “uselessness” (20.59%), “virtuality” (20.59%), and “irreplaceable” (20.59%). When these categories are examined, it is seen that teachers have the opinions that distance education is not as useful as face-to-face education. They think that distance education can be applied

when it is compulsory. They also think that distance education does not arouse a sense of reality as much as face-to-face training, and it does not replace it. These categories are followed by “education type” (14.71%) and “offering opportunity” (11.76%). When these categories are examined, it is seen that teachers have the view that activities that can be done face-to-face education can also be done by distance education, and that distance education offers various opportunities for distant students.

Table 3. Distance Education Metaphors and Categories Constituted by Teachers

Category	Metaphor	N	f	%
Uselessness	Rowing in vain, Motivation, Bird in a cage, Winter, Riding a stationary bicycle, Writing on the water, Holiday	7	7	20.59
Virtuality	Presence behind glass, Watching movies, Sun, Landscape painting, Virtual meeting, Artificial flower, Artificiality	7	7	20.59
Irreplaceable	Abroad (3), Missing step, Darkness, Play, Dry ablution	5	7	20.59
Education type	Class (2), Correspondence, School, Face to face education	4	5	14.71
Offering opportunity	A parent away from children, A never ending education, Window opening to the horizon, High level	4	4	11.76
Individuality	Giving recipe	1	1	2.94
Usage	Flower in flowerpot	1	1	2.94
School independence	Phone call	1	1	2.94
Obligation	Emergency exit	1	1	2.94
<b>Total</b>		<b>33</b>	<b>34</b>	<b>100</b>

Sample metaphor sentences towards distance education stated by teachers are given below. Bold words in the sentence express metaphors.

P105: “Distance education is similar to the **classroom**; because it enables interactive lessons like the classroom environment.”

P219: “Distance education is like **parents who are away from their children**; because for parents with distant children, if they do not neglect their education, knowledge, prayer, teachers do the same in distance education.”

P149: “Distance education is like **a flower in a flowerpot**; because if you look at it, it grows, matures.”

P022: “Distance education is like **riding a stationary bicycle**; because it has a lot of effort, no progress.”

P030: “It is similar to the **presence behind the glass**. You cannot touch, feel, and communicate after a certain period of time.”

P165: “Distance education is like **abroad**; because a person who goes abroad never feels like when he is together, even if he always remembers his loved ones.”

**Metaphors and Categories Constituted by Students**

It was observed that 75 students stated 54 different metaphors. Metaphors expressing students’ perceptions of distance education and the categories in which they are grouped according to their common characteristics are given in Table 4.

Table 4. Distance Education Metaphors and Categories Constituted by Students

<b>Category</b>	<b>Metaphor</b>	<b>N</b>	<b>f</b>	<b>%</b>
Uselessness	Open education (2), Injustice (2), Inefficient process (2), Justice, Network, Incomprehensible book reading, Atmosphere, Empty lesson, Punishment, Prison, Drum, Thief, Bird in cage, Evil, Fruitless tree, Irresponsibility, Lecture with presentation , Holiday, Tofaş, Letter “I” in “Trabzon”, Exist but absent, Lying on the floor, Difficulty	23	26	19.85
Education type	Face to face education (10), School (4), Car, Brain, Hand, Blended education, Crutches, Teacher, Synchronous education, Web-based education	10	22	16.79
Offering opportunity	Live broadcast (2), Technology (2), Life (2), Key, Moon, Documentary film, Information age, Science, Lifeguard, Dead end, Equal opportunity, Goodness, Money, Airplane, Zooming in, Rain	16	19	14.50
Individuality	Video (4), Open education (2), Selfish person, Individual learning, Notebook, Doing their best, Home school, Working from home, Home office working, Telling a lesson to yourself, Drawing a path to yourself, Studying from a book, Team without coach, Freelance work area	14	18	13.74
Virtuality	Cloud, Looking through the glass, Stuntman, Shadow, Video call, Imagination, Hologram, Pumpkin-infused watermelon, Landscape painting, Social media, Television, Loneliness	12	12	9.16
Obligation	Hot eating, Emergency exit, Relatives you do not meet, Medication, Teacher who passes his job, Black rose, Compensation of what is lost, Sitting at the table, Müslüm Father song, Water, Coercion	11	11	8.40
Usage	Growing the tree without watering, Core, Apple tree, Disabled road, Dough, Book, Fruit, Attracting rosary, Windows, Wind	10	10	7.63
Irreplaceable	Course (3), Free time, Wave, Football match without audience, Remote management	5	7	5.34
School independence	Sun (2), Comfort (2), Mobile phone, Internet	4	6	4.58
<b>Total</b>		<b>105</b>	<b>131</b>	<b>100</b>

When Table 4 is analyzed, it is seen that 105 different metaphors are classified under 9 categories. When these categories are examined, it is seen that they have similar perceptions with teachers. However, they expressed these perceptions with different metaphors and at different rates. The category with the most metaphors is “uselessness” (19.85%). When this category is examined, it is seen that distance education is perceived by students as entities that make their presence felt but are not useful. This category is followed by “education type” (16.79%), “offering opportunity” (14.50%), and “individuality” (13.74%) respectively. Students mostly used the face-to-face education metaphor under the category of education type. Besides, blended education, synchronous education, and web-based education metaphors are also seen. Students expressed the opportunities offered by distance education by likening it to technology, life, lifeguard, money, etc. Students stated that distance education is suitable for individual learning with the metaphors of watching videos, open education, coachless team, studying from books, etc. These categories are followed by “virtuality” (9.16%), “obligation” (8.40%), and “usage” (7.63%), “irreplaceable” (5.34%), and “school independence” (4.58%) respectively. Students who see distance education as a virtual form of face-to-face education expressed this situation by metaphors of shadow, hologram, looking through glass, etc. The perception that distance education should be used when obliged, not always, was expressed through metaphors such as emergency exit and medication. Students stated that efforts should be made to achieve success in distance education by likening distance education to growing trees. Students also stated that distance education does not replace face-to-face education by likening it to a football match without an audience. Students likened the school independence feature of distance education to the sun, comfort, mobile phone, and internet. Sample metaphor sentences towards distance education stated by students are given below. Bold words in the sentence express metaphors.

P004: “Distance education is like the **sun**; because no matter how far the student is from education, it reaches the student from every point like the sun.”

P013: “Distance education is like **home office work**; because working outside the office or school environment saves you from work or school stress and you are free from commuting every day.”

P059: “Distance education is like **dough**; Because it is up to the person to shape himself by using distance education like shape the dough.”

P088: “Distance education is similar to the **moon**; because it lights up education in the darkest and impossible days.”

P143: “Distance education is similar to **face to face education**; because it provides equal opportunities in education, it also enables people who cannot receive face-to-face education to attend classes and receive many educations.”

P081: “Distance education is like a **soccer game without spectators**; because there is a lesson, there is no excitement and anticipation like at school.”

P136: “It is similar to **stuntman**; because even if it tries to replace formal education, it will never be like it.”

P146: “Distance education is like **lying on the floor**, not in bed; you sleep but you don't understand anything from sleep.”

P195: “It is similar to a **black rose**; because when it is detached, it changes color, just like the students who leave their schools.”

**Metaphors and Categories Constituted by Parents**

It was observed that 44 parents stated 37 different metaphors. Metaphors expressing parents’ perceptions of distance education and the categories in which they are grouped according to their common characteristics are given in Table 5.

Table 5. Distance Education Metaphors and Categories Constituted by Parents

Category	Metaphor	N	f	%
Education type	School (5), Face to face education (2), Crutches	3	8	18.18
Uselessness	Empty, Filling water in an empty container, Flower watering, Undutiful child, Guest, No school, Phone call	7	7	15.91
Virtuality	Smelling roses behind the glass, Watching the rain behind the glass, Video call, Love for animals, Virtual, Wind	6	6	13.64
Individuality	Video (2), Open education, Homework, Freedom	4	5	11.36
Irreplaceable	Entertainment, Car without two wheels, Orphan child, Low battery toy, Spare tire	5	5	11.36
School independence	Sun (2), Flower, Armed UAV	3	4	9.09
Obligation	Abdurrahman Çelebi, First aid kit, Mandatory effort, Coercion	4	4	9.09
Offering opportunity	Mobile phone, Remote control, Pillow	3	3	6.82
Usage	Mirror into the future, Spot shot	2	2	4.55
<b>Total</b>		<b>37</b>	<b>44</b>	<b>100</b>

When Table 5 is analyzed, it is seen that 37 different metaphors are classified under 9 categories. When these categories are examined, it is seen that parents have similar perceptions with teachers and students. However, they expressed these perceptions with different metaphors and at different rates. The category with the most metaphors is “education type” (18.18%). Parents have mostly made analogies to school and face-to-face education under the category of education type and added crutches to them. This category is followed by “uselessness” (15.91%), “virtuality” (13.64%) “individuality” (11.36%), and “irreplaceable” (11.36%), respectively. When the metaphors expressed by the parents under the category of uselessness are examined, it is seen that they have the thought that the effort spent on distance education is in vain. Parents stated that distance education is not as real as face-to-face education, by likening it to the smelling roses behind the glass or watching rain behind the glass. Metaphors, which are under the category of individuality, are listed as homework and freedom metaphors in addition to video and open education, similar to students. Parents stated that distance education does not substitute for face-to-face education with metaphors such as two-wheeled car, orphan child, etc. These categories are followed by and “school independence” (9.09%), “obligation” (9.09%), “offering opportunity” (6.82%), and “usage” (4.55%) respectively. Parents have highlighted the school independence feature of distance education by likening distance education to the sun, flower and UAV. Parents stated that they should not be used unless distance education is compulsory through the metaphors such as Abdurrahman Çelebi and first aid kit. Abdurrahman Çelebi metaphor refers to a Turkish proverb. It is similar to; “in the country of the blind the one-eyed man is king”. Parents stated about the opportunities offered by distance

education through metaphors of mobile phone, remote control and pillow. Parents stated that it is necessary to be careful in distance education with the mirror to the future and point shot metaphors. Sample metaphor sentences towards distance education stated by parents are given below. Bold words in the sentence express metaphors.

P055: “Distance education is similar to **remote control**; because it provides ease of use without going to the TV.”

P214: “Distance education is similar to **crutches**; because it is supportive of face to face education.”

P236: “It is similar to a **flower**; because they are blooming everywhere and their teachers are trying to settle on them.”

P037: “Distance education is similar to **Abdurrahman Çelebi**; because where there is no sheep, the goat is called Abdurrahman Çelebi (Turkish proverb), and where there is no face-to-face education, it is called distance education.”

P047: “Distance education is like **watching the rain behind the glass**; because you see, you hear, but you can't feel it.”

P116: “It is like an **orphan**; because no one can replace the mother. 😊”

P203: “It is like **filling water in an empty container**; because it is not binding. The student does not take it seriously.”

### Differences between the Metaphors and Categories Constituted by Teachers, Students, and Parents

The metaphors and categories of teachers, students, and parents towards distance education were analyzed according to their frequencies, and the results obtained are given in Table 6 in percentages.

Table 6. Distributions of Participants according to Metaphor and Category Percentages

Category	Total	Teachers	Students	Parents
Uselessness	19.14%	20.59%	19.85%	15.91%
Education type	16.75%	14.71%	16.79%	18.18%
Offering opportunity	12.44%	11.76%	14.50%	6.82%
Virtuality	11.96%	20.59%	9.16%	13.64%
Individuality	11.48%	2.94%	13.74%	11.36%
Irreplaceable	9.09%	20.59%	5.34%	11.36%
Obligation	7.66%	2.94%	8.40%	9.09%
Usage	6.22%	2.94%	7.63%	4.55%
School independence	5.26%	2.94%	4.58%	9.09%

When Table 6 is examined, it is seen that the metaphor is mostly produced in the categories of “uselessness” and “education type” in all roles. Other categories that teachers produce the most metaphors are “virtuality” and

“irreplaceable”. While the “school independence” category has the least metaphor for teachers and students, the category with the least metaphor for parents is “usage”.

## **Discussion, Conclusions, and Recommendations**

In this study, perceptions of teachers, students, and parents towards distance education were determined through metaphors. It is argued that metaphor analysis, which is a very effective research method especially in the in-depth research of new and complex concepts, events, and facts, can be used as an effective qualitative research method in open and distance learning research (Güneş & Fırat, 2016). As a result of the study, a total of 159 unique metaphors classified under 9 categories were obtained from a total of 209 metaphor sentences stated by 34 teachers, 131 students, and 44 parents. Metaphors of the participants towards distance education were gathered in the categories of “uselessness”, “education type”, “offering opportunity”, “virtuality”, “individuality”, “irreplaceable”, “obligation”, “usage”, and “school independence”. Teachers, students, and parents mostly likened distance education to the metaphors of “face to face education” ( $f=13$ ), “school” ( $f=10$ ), “video” ( $f=6$ ), “sun” ( $f=5$ ), and “open education” ( $f=5$ ). In the study of Fidan (2017) with students, metaphors were gathered in 6 categories namely “technological”, “education”, “useful”, “negative”, “independence” and “other”. The most developed metaphors in the mentioned study are “open education”, “work in vain”, “fruit” and “computer”, respectively. In another study conducted with preservice teachers, it has been observed that metaphors for distance education are grouped under different categories such as “need-oriented”, “diversity”, “optional”, “necessity” (Kaleli-Yılmaz & Güven, 2015). In another study with students, metaphors were gathered into 5 categories such as “flexibility”, “accessibility”, “educational”, “interaction” and “effective” (Çivril, Aruğaslan, & Özaydın-Özkara, 2018).

With the category of **uselessness**, it is concluded that there is an opinion that distance education is not as efficient as face-to-face education, and that the effort spent on distance education is considered to be futile. In this regard, teachers and students likewise liken distance education to the “holiday” and “bird in the cage”. Generally, negative perceptions dominate this category. Participants stated that there are negative aspects of distance education as well as their positive aspects. The negative perceptions of the participants maybe originated because the distance education process is not well planned or organized. In the uselessness category, which has the most metaphors with 35 different metaphors of 40 participants, the metaphors of “writing in the water”, “rowing in vain”, “riding a stationary bicycle” and “reading incomprehensible books” attract attention. This attitude of participants who have a negative perception of distance education may be due to their unpreparedness for the distance education method implemented at all educational levels as a result of the Covid-19 pandemic. Those who did not have any experience had initially faltered and then tried to keep up with this system. Similarly, Ateş and Altun (2008) argue that negative perceptions and attitudes towards distance education stem from the lack of knowledge and experience about distance education. If students believe that distance education is beneficial, they will love it and succeed in it (Sahin & Shelley, 2008).

With the category of **education type**, the participants stated that distance education is an alternative to face-to-face education. Among the metaphors formed under this category, “face to face education” and “school”

metaphors were mostly mentioned by all roles. Also, the metaphor of the “crutches” is common in the role of students and parents. It is possible to say that the participants consider distance education as an alternative to face-to-face education. Also, they try to emphasize that faulted and troublesome aspects of distance education are also present. Participants perceive distance education as a different type of education such as “blended education”, “synchronous education”, “web-based education”. Considering the analogies made, it can be said that distance education is adopted as a type of education. Expressions such as navigating the virtual world, surfing, navigating between pages, etc. arise from the perception of abstract information fields as real geographical areas. For this reason, generally spatial metaphors are used for the internet. Spatial metaphors are a popular approach in which information is visualized, such as worlds of knowledge, fields of knowledge, and cyberspace (Fabrikant, Montello, & Mark, 2006). In this category, it is seen that distance education is likened to spatial metaphors such as “school” and “classroom”. People often refer to body parts that are important to them while expressing some abstract concepts. While doing this, they add the positive functions that these organs add to their own lives and transform them into metaphors (Kuzey, 2020). For example; in the study of Giesecke (2011), it was seen that the concept of the library was defined as the heart of the university. In this study, it was observed that students compared distance education to body organs such as “brain” and “hand”. While students compare distance education to various organs of the body, these metaphors are included under the category of education type because they touch on different features of education.

With the category of **offering opportunity**, it is seen that the opportunities offered by distance education are mentioned. Among the metaphors under this category, “technology”, “live broadcast”, and “life” come to the fore. Among the other metaphors, “high level”, “zooming in”, “distance to the horizon”, “remote control”, “equal opportunity” and “never-ending education” draw attention. Participants stated that distance education is an alternative educational approach that offers people equal opportunities and continuity in education. Considering the opportunities offered by distance education, it is known that some students prefer distance education instead of face-to-face education (Hannay & Newvine, 2006). Individuals who have a disability to go to school but who need to be educated in some way can easily meet these needs with the opportunities offered by distance education.

With the category of **virtuality**, the artificiality of distance education is emphasized. Participants likened distance education to “hologram”, “stunt”, “artificial flower”, “shadow”, and “dream”. The common metaphor by all roles was “look from behind the glass”. Distance education has been likened to the “presence behind the glass” by the teachers, to a “looking through the glass” by the students, and to “sniff a rose behind the glass” and “watch the rain behind the glass” by the parents. This means that they could not catch the naturalness like in face-to-face education. While “landscape painting” was the other common metaphor of the teachers and the students, the other common metaphor of the students and the parents was “video call”. Although technology has managed to virtualize many things, the fact that education is virtual is not widely adopted by people who love natural life. In this regard, Gillies (2008) declared that problems such as sound, image, etc. experienced during education prevented individuals from feeling like a real student and the interaction between teachers and students did not cause a real love feeling. Likewise, Karal, Çebi, and Turgut (2011), attributed negative perceptions towards distance education to technical problems.

With the **individuality** category, the participants touched on the feature of distance education to be suitable for individual learning. Among the metaphors formed under this category, “video” and “open education” metaphors came to the fore with the most analogy of students and parents. They explained the individuality of distance education by using metaphors such as “studying from the book”, “telling a lesson to yourself”, “drawing a path to yourself”, “individual learning” etc. The distance education during the Covid-19 pandemic has brought individual learning to the fore. The reason why distance education is perceived as appropriate for individuality may be because individuals think that it is a beneficial solution by being influenced by the education trend of pragmatism. In their study, Howland and Moore (2002) concluded that students who reported positive attitudes about their online course experiences demonstrate the characteristics of students who can structure their own learning.

With the category of **irreplaceable**, the view has emerged that distance education never replaces face-to-face education although it is an alternative to face-to-face education. Distance education, which is most likened to “abroad” and “course” in this category is also likened to “orphan child”, “spare tire”, “missing step”, “low battery toy”, “darkness” and “football match without an audience”. The formation of these perceptions of distance education may also result from the transformation of face-to-face education into distance education during the pandemic period. It is known that no form of teaching alone is sufficient and successful. In particular, the lack of knowledge and awareness of students about distance education will prevent them from developing a quality learning experience (White, 2005). Students' online readiness, motivation, and attitudes are key to the success of any educational program (Ardito, et al., 2006; Holsapple & Lee-Post, 2006; Zhang, Perris, & Yeung, 2005).

With the category of **obligation**, it has been stated that distance education should not be applied every time, but only when the need arises. Participants who were dissatisfied with the compulsory distance education applied at all educational levels due to the Covid-19 pandemic expressed metaphors such as “compensation of what is lost”, “relatives you do not meet”, “mandatory effort”, and “first aid kit”. While the common metaphor of the participants in the role of teachers and students was an “emergency exit”, the common metaphor of the participants in the role of students and parents was “coercion”. The reason why the dissatisfaction in this category is generally seen among students and parents, may be due to the habit of face-to-face education. Considering the results obtained in this study, in the obligation category, the lack of negative perception of teachers towards distance education may be due to the higher level of readiness than students and parents. In a study that examines teachers' perceptions of the Education Information Network they have used since 2012, it was concluded that teachers have a positive perception (Varışoğlu, 2019). The Education Information Network, designed by the Ministry of National Education, is an online social education platform. While teachers can upload their specially prepared content to Education Information Network, they can easily access the notes and presentations shared by other teachers.

With the category of **usage**, it has been suggested that success in distance education depends on using it properly. Although all metaphors under this category have the feature of being unique, the message wanted to be given is the same. It is argued that distance education requires the necessary infrastructure such as the internet

and computer, and success in distance education can be achieved only by spending the necessary time and effort and even patience. It is possible to say that the efficiency of distance education can vary depending on the infrastructure of the service provided, the purpose of the person, and the quality of the time spent in this process. Similarly, Forrester and Parkinson (2004) argue that the level of student satisfaction with distance education depends in part on their perception of the program, how they work and what they demand from them, and how effectively they prepare themselves for learning. Therefore, it is necessary to meet the expectations of the students in a more appropriate way to eliminate the current student dissatisfaction (Forrester & Parkinson, 2004). To develop a positive perception of distance education, the technical infrastructure that will meet the expectations of teachers, students, and parents must be healthy. Tao and Yeh (2008), examining teachers' perceptions about distance education, argue that to be successful in distance education, it is necessary to provide opportunities for teachers with negative perceptions to remove their doubts. Schulte (2010) argued that teachers with experience in distance education have a positive perception.

With the category of **school independence**, it has been stated that distance education eliminates the need for teachers and students to be in the same environment. Under this category, distance education was mostly likened to the “sun” by students and parents. It is perceived that distance education is equally distant to everyone like the sun sends heat and light equally to all sides. Just as the heat and light of the sun cover all people, distance education has an inclusive aspect to all people with school and time independence. The absence of having to go to school, which is one of the reasons why distance education is preferred, may have caused positive perceptions towards distance education. In a study on this subject, it was concluded that, with synchronous distance education, students have minimized the distance between them and that they developed positive perceptions towards distance education (Yıldız, 2011).

Within the scope of the study, it was seen that different perceptions have been formed although they are likened to the same metaphor. With the metaphor of “open education”, while some students cited the individual learning feature of distance education, some students cited the fact that it was not as efficient as face-to-face education. Therefore, the metaphor of "open education" is seen in both “uselessness” and “individuality” categories. Similarly, while some students using the metaphor of “studying from a book” emphasize its individuality, some students have associated the metaphor of “book” with the use of the book. Since a teacher stated the invisible and inaccessible feature of the sun, the metaphor of the "sun" is also included under the category of “virtuality”. For the metaphor of the “phone call”, a teacher evaluated it in terms of school independence, while a parent emphasized that he was useless because the spoken were forgotten later. A parent saw the “mobile phone” metaphor as an opportunity because he is always at hand. But a student sees his “mobile phone” metaphor as school independence because it can be accessed from anywhere. The last metaphor used in different meanings is the “wind”. A parent described the “wind” metaphor as “virtual” because it is not permanent although it exists. One student mentioned that it is necessary to stay firm in order not to fly in the wind, as well as the need for a solid infrastructure to benefit from distance education.

It is possible to summarize the results obtained in this study which tries to reveal the perceptions of teachers, students, and parents about the concept of “distance education” through metaphors as follows:

- As a result of the study, the metaphors towards distance education were gathered in the categories of “uselessness”, “education type”, “offering opportunity”, “virtuality”, “individuality”, “irreplaceable”, “obligation”, “usage”, and “school independence”.
- Participants mostly likened distance education to the metaphors of “face to face education”, “school”, “video”, “sun”, and “open education”.
- It has been observed that teachers' metaphors are mostly collected in categories of “uselessness” (20.59%), “virtuality” (20.59%), and “irreplaceable” (20.59%). It can be said that teachers have mostly negative perceptions of distance education.
- Students' metaphors are mostly collected in categories of “uselessness” (19.85%), “education type” (16.79%), “offering opportunity” (14.50%), and “individuality” (13.74%). It can be said that students have positive perceptions of distance education.
- Parents' metaphors are mostly collected in categories of “education type” (18.18%), “uselessness” (15.91%), “virtuality” (13.64%), “individuality” (11.36%), and “irreplaceable” (11.36%). It can be said that parents have neutral perception of distance education.

In line with these results, the following suggestions were made:

- Considering the results obtained from the research, it can be said that the participants generally do not have positive perceptions of distance education at the desired level. To achieve success in distance education, teachers, students, and parents should have a positive perception of distance education. To have this perception, it is necessary to make teachers and parents, especially students, experience quality education.
- According to the teacher participants, distance education is useless, virtual, and cannot replace face-to-face education. Techniques that will provide success in distance education should be explained to the teachers who try to use virtual class activities with the method they apply in face-to-face education. It is recommended to give system usage seminars to teachers who will teach for the first time with distance education and to provide uninterrupted technical service whenever they need it.
- We are in a period where distance education is applied at all education levels for the first time. Studies in which perceptions of distance education are determined to have information about the progress can be repeated periodically.

## **References**

- Ardito, C., Costabile, M. F., De Marsico, M., Lanzilotti, R., Levialdi, S., Roselli, T., & Rossano, V. (2006). An approach to usability evaluation of e-learning applications. *Universal Access in the Information Society*, 4(3), 270-283.
- Ateş, A., & Altun, E. (2008). Bilgisayar öğretmeni adaylarının uzaktan eğitime yönelik tutumlarının çeşitli değişkenler açısından incelenmesi [Investigating preservice computer teachers' attitudes towards distance learning regarding various variables]. *GÜ, Gazi Eğitim Fakültesi Dergisi*, 28(3), 125-145.
- Banar, K., & Fırat, M. (2015). Bütüncül bir bakıştan açık ve uzaktan eğitim: Türkiye özeli [A holistic overview of open and distance learning: Turkey specials]. *YEGÖTEK*(12), 18-21.

- Berg, B., & Lune, H. (2019). *Sosyal bilimlerde araştırma yöntemleri [Qualitative research methods for the social sciences]* (Translation from 9th Edition, 4 ed.). (A. Arı, Trans.) Konya: Eğitim Yayınevi.
- Broadly-Ortmann, C. (2002). Teachers' perceptions of a professional development distance learning course. *Journal of Research on Technology in Education*, 35(1), 107-116.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2009). *Bilimsel araştırma yöntemleri [Scientific research methods]*. Ankara: Pegem Akademi.
- Clark, R. C., & Mayer, R. E. (2016). *e-Learning and the science of instruction* (4 ed.). Hoboken, NJ: Wiley.
- Creswell, J. W. (2013). *Nitel araştırma yöntemleri [Qualitative research methods]*. (M. Bütün, & S. Demir, Trans.) Ankara: Siyasal Yayın Dağıtım.
- Creswell, J. W. (2014). *Araştırma deseni [Research design]* (4 ed.). (S. B. Demir, Trans.) Ankara: Eğiten Kitap.
- Çivril, H., Aruğaslan, E., & Özyayın-Özkara, B. (2018). Uzaktan eğitim öğrencilerinin uzaktan eğitime yönelik metaforları [Distance education perceptions of distance education students: A metaphor analysis]. *Eğitim Teknolojisi Kuram ve Uygulama*, 8(1), 39-59.
- Doğan, S., & Tatık, R. Ş. (2015). Evaluation of distance education program in Marmara University according to the views of students. *Route Educational and Social Science Journal*, 2(1), 247-261.
- Eren, A., & Tekinarslan, E. (2013). Metaphors regarding teacher, teaching, learning, instructional material and evaluation: A structural analysis. *Gaziantep University Journal of Social Sciences*, 12(3), 443-467.
- Fabrikant, S., Montello, D., & Mark, D. (2006). The distance-similarity metaphor in region-display spatializations. *IEEE Computer Graphics and Applications*, 26(4), 34-44.
- Fidan, M. (2017). Metaphors of blended learning' students regarding the concept of distance education. *International Online Journal of Educational Sciences*, 9(1), 276-291.
- Forrester, G., & Parkinson, G. (2004). Mind the gap: Students' expectations and perceptions of induction to distance learning in higher education. *British Educational Research Association Annual Conference*. Manchester, UK: University of Manchester.
- Giesecke, J. (2011). Finding the right metaphor: Restructuring, realigning, and repackaging today's research libraries. *Journal of Library Administration*, 51(1), 54-65.
- Gillies, D. (2008). Student perspectives on video-conferencing in teacher education at a distance. *Distance Education*, 29(1), 107-118.
- Güneş, A., & Fırat, M. (2016). Açık ve uzaktan öğrenmede metafor analizi araştırmaları [Metaphor analysis researches in open and distance learning]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 2(3), 115-129.
- Hannay, M., & Newvine, T. (2006). Perceptions of distance learning: A comparison of online and traditional learning. *MERLOT Journal of Online Learning and Teaching*, 2(1), 1-11.
- Holsapple, C., & Lee-Post, A. (2006). Defining, assessing, and promoting e-learning success: An information systems perspective. *Decision Sciences Journal of Innovative Education*, 4(1), 67-85.
- Howland, J., & Moore, J. (2002). Student perceptions as distance learners in internet-based courses. *Distance Education*, 23(2), 183-195.
- İbicioğlu, H., & Antalyalı, Ö. L. (2005). Uzaktan eğitimin başarısında imkan algı motivasyon ve etkileşim faktörlerinin etkileri: karşılaştırmalı bir uygulama [Effects of possibility, perception, motivation and

- interaction factors in success of distance education: A comparative implementation]. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 14(2), 325-338.
- Inbar, D. (1996). The free educational prison: metaphors and images. *Educational Research*, 38(1), 77-92. doi:https://doi.org/10.1080/0013188960380106
- İşman, A. (2011). *Uzaktan eğitim [Distance Education]* (4 ed.). Ankara: Pegem Akademi.
- Johnson, M., & Malgady, R. (1979). Some cognitive aspects of figurative language: Association and metaphor. *Journal of Psycholinguistic Research*, 8(3), 249-265.
- Kaleli-Yılmaz, G., & Güven, B. (2015). Öğretmen adaylarının uzaktan eğitime yönelik algılarının metaforlar yoluyla belirlenmesi [Determining pre-service teachers' perceptions of distance education through metaphors]. *Turkish Journal of Computer and Mathematics Education*, 6(2), 299-322.
- Kan, A. Ü., & Fidan, E. K. (2016). Türk Dili dersinin uzaktan eğitimle yürütülmesine ilişkin öğrenci algıları [Student perceptions of distance education on Turkish language courses]. *Turkish Journal of Educational Studies*, 3(2), 23-45.
- Karal, H., Çebi, A., & Turgut, Y. E. (2011). Perceptions of students who take synchronous courses through video conferencing about distance education. *The Turkish Online Journal of Educational Technology-TOJET*, 10(4), 276-293.
- Kuzey, M. (2020). Preservice teachers' metaphors about the concept of space perception. *Review of International Geographical Education (RIGEO)*, 10(1), 140-158.
- Lakoff, G., & Johnsen, M. (2003). *Metaphors we live by*. London: The University of Chicago Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: The University of Chicago Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Martinez, M. A., Sauleda, N., & Huber, G. L. (2001). Metaphors as blueprints of thinking about teaching and learning. *Teaching and Teacher Education*, 17, 965-977. doi:https://doi.org/10.1016/S0742-051X(01)00043-9
- Meier, B., Moller, A., Chen, J., & Riemer-Peltz, M. (2011). Spatial metaphor and real estate: North-South location biases housing preference. *Social Psychological and Personality Science*, 2(5), 547-553.
- Miles, M. B., & Huberman, A. M. (2016). *Nitel veri analizi [Qualitative data analysis]* (2 ed.). (S. Akbaba-Altun, & A. Ersoy, Trans.) Ankara: Pegem Akademi.
- Ojo, D. O., & Olakulehin, F. K. (2006). Attitudes and perceptions of students to open and distance learning in Nigeria. *International Review of Research in Open and Distance Learning*, 7(1), 1-10.
- Sahin, I., & Shelley, M. (2008). Considering students' perceptions: The distance education student satisfaction model. *Educational Technology & Society*, 11(3), 216-223.
- Schmitt, R. (2005). Systematic metaphor analysis as a method of qualitative research. *The Qualitative Report*, 10(2), 358-394.
- Schulte, M. (2010). Faculty perceptions of technology distance education transactions: Qualitative outcomes to inform teaching practices. *TCC 2010* (pp. 77-101). Hawaii: TCC.
- Shuell, T. J. (1990). Teaching and learning as problem solving. *Theory into Practice*, 29(2), 102-108.
- Tao, Y.-H., & Yeh, C.-C. (2008). Typology of teacher perception toward distance education issues-A study of college information department teachers in Taiwan. *Computers & Education*, 50(1), 2336.

- Taşpınar, M. (2014). Mesleki eğitimde uzaktan eğitim ve toplumsal algı [Distance education in vocational training and societal perception]. *Journal of Research in Education and Teaching*, 3(4), 1-7.
- Varişoğlu, B. (2019). Öğretmenlerin Eğitim Bilişim Ağı (EBA) tutumlarının incelenmesi [An investigation of teachers' attitudes of Educational Informatics Network (EBA)]. *Turkish Studies - Social Sciences*, 14(6), 3511-3521.
- Wegner, E., & Nückles, M. (2015). Knowledge acquisition or participation in communities of practice? Academics' metaphors of teaching and learning at the university. *Studies in Higher Education*, 40(4), 624-643. doi:<https://doi.org/10.1080/03075079.2013.842213>
- White, C. (2005). Contribution of distance education to the development of individual learners. *Distance Education*, 26(2), 165-181.
- Yıldırım, A., & Şimşek, H. (2005). *Sosyal bilimlerde nitel araştırma yöntemleri [Qualitative research methods for the social sciences]* (5 ed.). Ankara: Seçkin Yayıncılık.
- Yıldız, E. (2011). *The effects of the synchronous web conferences on the attitudes of the candidate teachers to the distance learning and their acceptance of synchronous technologies*. (Published Master Thesis) Balıkesir: Balıkesir Üniversitesi, Fen Bilimleri Enstitüsü.
- Zhang, S., & Fulford, C. (1994). Are interaction time and psychological interactivity the same thing in the distance learning television classroom? *Educational Technology*, 34(6), 58-64.
- Zhang, W.-Y., Perris, K., & Yeung, L. (2005). Online tutorial support in open and distance learning: Students' perceptions. *British Journal of Educational Technology*, 36(5), 789-804.

---

### Author Information

---

**Abdullatif Kaban**

 <http://orcid.org/0000-0003-4465-3145>

Bayburt University

Bayburt

Turkey

Contact e-mail: [abdullatif.kaban@gmail.com](mailto:abdullatif.kaban@gmail.com)

---