A Metaphorical Analysis of Giftedness and Inclusive Education for Pre-Service Teachers

Öğretmen Adaylarının Özel Yeteneklilik ve Kaynaştırma Eğitimi Kavramlarına İlişkin Algılarının Metafor Analizi Yoluyla İncelenmesi

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Abstract

The purpose of present study is to ascertain how prospective pre-service teachers see the notions of *Gifted student* and *Inclusive Education*. The study was carried out with 92 pre-service teachers studying in Tokat Gaziosmanpaşa University Education Faculty and Muğla Sıtkı Koçman University Education Faculty Department of foreign languages and science education during the academic year 2022–2023. This study is descriptive since it tries to present the current condition. The metaphors created by pre-service teachers were examined and commented upon within this framework in five steps: Identifying metaphors, categorizing metaphors, creating categories, assessing validity and reliability, and transferring quantitative data into the SPSS package program are the first three steps. To learn the pre-service teachers' opinions regarding the chosen ideas, an open-ended question survey with two open-ended questions was employed as a data collection instrument. In the questionnaire, the questions "A gifted student is like...... because......" and "Inclusive Education is like...... because......" were to be answered by the participants. Through the use of content analysis, the survey question data was examined. The lists of metaphors and categories were distributed to three faculty members who are authorities in the subject of study in order to assess the accuracy of the metaphors identified as a consequence of the analysis and the categories derived from them. Following the expert opinions, the non-overlapping metaphors were discussed in order to determine the final metaphors and categories for the study. It was concluded as a result that pre-service teachers created 92 valid metaphors for the idea of giftedness and inclusive education. As a result, it was discovered that pre-service teachers had positive opinions of the term "giftedness," additionally, they also created some favorable metaphors for the inclusive education.

Keywords: Metaphorical analysis, Inclusive education, Prospective teachers, Gifted students

Özet

Bu çalışmanın amacı, öğretmen adaylarının Özel Yetenekli Öğrenci ve Kaynaştırma Eğitimi kavramlarını nasıl algıladıklarını tespit etmektir. Araştırma, 2022-2023 Eğitim-Öğretim yılında Tokat Gaziosmanpaşa Üniversitesi Eğitim Fakültesi ve Muğla Üniversitesi'nde Yabancı Diller ve Fen Bilimleri Eğitimi Bölümü'nde öğrenim gören 92 öğretmen adayı ile gerçekleştirilmiştir. Bu çalışma mevcut durumu ortaya koymaya çalıştığı için betimseldir. Öğretmen adaylarının oluşturdukları metaforlar bu çerçevede beş adımda incelenmiş ve yorumlanmıştır: Metaforların belirlenmesi, metaforların sınıflandırılması, kategorilerin oluşturulması, geçerlik ve güvenirliğin değerlendirilmesi ve nicel verilerin SPSS paket programına aktarılması ilk üç adımdır. Öğretmen adaylarının seçilen fikirlere ilişkin görüşlerini öğrenmek için veri toplama aracı olarak iki açık uçlu sorudan oluşan bir açık uçlu soru anketi kullanılmıştır. Ankette "Özel yetenekli öğrenci...... gibidir çünkü......" ve "Kaynaştırma Eğitimi .... gibidir, çünkü......" soruları katılımcılar tarafından yanıtlanmıştır. İçerik analizi kullanılarak anket soru verileri incelenmiştir. Analiz sonucunda tespit edilen metaforların ve bunlardan türetilen kategorilerin doğruluğunu değerlendirmek için metafor ve kategori listeleri çalışma konusunda uzman olan üç öğretim üyesine dağıtılmıştır. Uzman görüşlerinin ardından, çalışmanın nihai metaforlarını ve kategorilerini belirlemek amacıyla örtüşmeyen metaforlar tartışılmıştır. Öğretmen adaylarının üstün zekalılık fikri ve Kaynaştırma eğitimi için 92 geçerli metafor ürettikleri sonucuna ulaşılmıştır. Sonuç olarak, öğretmen adaylarının üstün zekalılık kavramına ilişkin olumlu görüşlere sahip oldukları ayrıca kaynaştırma eğitimine yönelik olumlu metaforlar oluşturdukları tespit edilmiştir.

Anahtar Kelimeler: Metaforik analiz, Kaynaştırma, Öğretmen adayları, Özel yetenekli öğrenci

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INTRODUCTION

The main purpose of the education systems is the general structure of the countries they are affiliated with and to train individuals who will be in line with its philosophy; in this way, to support the development of the country. It is known that many stakeholders and components play a role in achieving the said goal. Although it is true; in this role distribution, teachers' commitment to education systems contributions and their critical status should be underlined. No doubt teachers, as well as their own professional experience, as well as their personal qualities. Within a long process in which it gained importance; future generations and accordingly the country. It would be correct to define them as social architects who determine and change its structure.

Many definitions have been made on the concepts of intelligence and talent from past to present. Intelligence in the dictionary of Turkish language institution; while human's ability to think, perceive facts, reason, and judge and reach conclusions is all, talent is the individual's state of being able to do anything or dance (www.sozluk.gov.tr). Intelligence is a phenomenon with more than one aspect that arises as a result of the interaction of the mental system and the brain in the individual (Ataman, 2012); ability refers to the skills that a person can potentially do well in any subject (Altınöz, 2009). The last definition of gifted individuals was updated in 2019. According to this definition; a gifted individual is an individual who learns faster than their peers, has special academic abilities, is ahead in the capacity of art, creativity and leadership, can understand abstract ideas, likes to act autonomously, and performs at a higher level compared to their peers (MEB, 2019).

When considered as a detailed definition, special and giftedness; physical development and growth, motor development, perception-attention control, mental development such as synthesis, analysis, problem solving, language development, emotional, social and aesthetic development such as improvement in receptive and expressive language skills It is the state of being ahead of its peers, which can be measured and observed by experts in the field with different measurement tools and observation in one or more or all of them (Baykoç-Dönmez, 2009). Our earthly resources and even the correct identification of gifted/intelligent children (GUIs), who are considered a gift to the society, paves the way for supporting their potential through education (Tanık-Önal, 2019). The idea of inclusive education is currently popular in Turkey, where it is utilized in conjunction with or in instead of the ideas of inclusive or integrative education. The interchangeability of these terms does not adequately communicate their meaning and leads to misunderstandings (Alar, 2012). In order to give all people equal opportunities in education, inclusive education is a type of education that began to be implemented in our nation with the implementation of the Law on Children in Need of Special Education in 1983, especially in countries located in the European and American continents. In the context of the principle of normalization in the education of people with special needs, inclusive education is the education that is implemented in three ways as full-time, part-time, and reverse inclusion practices, depending on the child's inadequacy and the degree of need (Aral & Gürsoy, 2007).The use of metaphors is seen as a functional technique. It has many different definitions as well. For example, Morgan (1998) uses the word metaphor as "a way of thinking and seeing"; Saban & Koçbeker (2006) as "a powerful mental tool that an individual can use to understand and explain a highly abstract, complex or theoretical phenomenon". If it is necessary to make a different definition apart from what has been said, metaphor means "concrete or their perceptions and attitudes about any abstract phenomenon, situation and/or process, conceptual understanding of the elements in question, which can be

defined as "repayments". As seen in the definitions, metaphors are many things that are desired to be expressed in daily life what is wanted to be known or said, which is within the scope of many words. They are words that help to express in the most practical, creative and permanent way. In this context, it is also stated that metaphors have a function such as strengthening and deepening communication. Metaphors can be thought of as an interpretive communication tool. Because they open up a new perspective to understand a complex situation and allows for an analysis in the organizational context. Metaphors coordination and can be seen as concrete expressions of order (Pipen, 2001). Metaphors are a poetic fantasy and rhetorical gimmick for most people. It's not a problem with ordinary/casual language, it's a problem with unusual language. Also, metaphor is often seen only as a characteristic of language, a question of words rather than of thought or action. For this reason, most people think that a perfect life can be lived without metaphors. On the contrary, it can be said that the conceptual system of everyday life, which has been discovered to be widespread not only in language but also in thought and action, is metaphorical in nature (Lakoff & Johnson, 2005). Metaphors are the creative result of theoretical thinking applied to enrich our perceptions of educational phenomena (Sticht, 1993). For this reason, it can be said that it contributes to revealing what is hidden in details beyond what is known or first thought about any event or phenomenon. Metaphors also enable people to understand nature and their environment, to make meanings from the seemingly meaningless objective reality through certain interpretations, and to "know" as means of giving meaning to life and experience (Yıldırım & Şimşek, 2006). In every language, one of the rhetoric used to strengthen the expression and make it lively is simile. Comparison; In order to better explain the quality of an object, the feature of an action, by making use of another object and actions, by reminding it performed (Aksan, 1998). Similarly, analogy is used in the process of determining the metaphorical perceptions of individuals. However, it would be more accurate to consider the process of determining metaphor as a process of perceiving and recognizing the individual, rather than a rhetoric. Beyond the literary and verbal richness of metaphors, it also adds depth to academic studies; it should be considered as an increasingly common technique. How metaphors have guided activities in certain social settings in recent years; there has been increased interest in how it shapes beliefs, attitudes and values, how it illustrates organizational processes, and how it is emphasized in the creation of organizational life. (Çelikten, 2006). Metaphors have started to become tools used by many researchers in the process of finding answers to the problems they have identified. The main features of metaphors given below have led to this tendency.

 Metaphors;

- It saves the work carried out from a monotonous and boring structure; creates a new alternative to conventional techniques,
- It provides a libertarian working environment that supports creative thinking, offers the opportunity to reveal different perspectives, and proceeds completely according to the thought system of individuals, not within certain limits,
- In addition to gaining depth in the content of the studies, it also contributes to the practicality of the operation. It is seen that the participants gave more sincere answers to such questions compared to the survey studies in which dozens of items were included.
- In many situations where individuals can express themselves incompletely even with more than one word, it allows them to express their thoughts clearly with a single word in a much shorter time frame.

As a result of assimilation of the determined concept to different concepts, linking and comparison are made.

- It enables researchers to see the invisible beyond the known or predicted facts, to notice the details, and also to raise new research questions.
- It contributes to the determination of abstract attitudes that are difficult to determine by researchers and to obtain data on the affective domain.

As can be seen, working with metaphors provides many contributions to both the researchers conducting the study and the participants. In general, it would be correct to say that the created metaphors enable researchers to make situation analysis by determining the approaches of individuals regarding any phenomenon, situation or process, and offer the opportunity to take necessary precautions regarding the subject. Behaviors of individuals are shaped as a result of perception, perspective, belief, level of understanding and attitudes. In order for the desired changes to be observed in the behaviors, first of all, the affective qualities of the individuals should be determined. For example, in a study conducted by Yalçın (2011) the metaphors of high school students regarding the concepts of mathematics teacher, learning mathematics and being successful in mathematics lesson were related to their success and attitudes towards mathematics lesson.

Undoubtedly, there are many factors involved in reaching the goals set in education systems, but the degree of realization of the desired goals can be achieved or prevented by teachers to a significant extent. Professional perceptions and attitudes of teachers are among the important factors that directly affect their experiences with students. These characteristics are both their own professional life and have critical importance in terms of the individual profile they will raise. For this reason, by determining the professional perceptions and existing individual characteristics of teacher candidates with the results of the study, it is determined which attitudes to the candidate teachers in the teacher training process. In addition, when the literature is examined; No study was found in which the perceptions of teacher candidates studying in science and English Language Education Programs towards both gifted students and inclusive education were examined through metaphor analysis. In light of this, the purpose of this study is to ascertain the perspectives of teacher candidates in science education and English language education programs who have not yet taken special education and inclusion courses on gifted students and inclusive education.

Purpose of the research

The aim of this research is to determine the perceptions of teacher candidates about the terms of "giftedness" and "inclusive education". For the purpose of the research, answers to the questions presented below were sought.

- What are the metaphors put forward by the pre-service teachers regarding the concept of "*Gifted student*"?
- What are the metaphors put forward by the pre-service teachers regarding the concept of "*Inclusive Education*"?

METHODOLOGY

The research is based on the phenomenological approach. Phenomenology studies are studies that focus on how individuals make sense of events or phenomena through their experiences in

internal processes. In this study, the phenomenology method was adopted because it focuses on determining how pre-service teachers perceive gifted students and inclusive education through metaphors. Phenomenological research is based on two philosophical foundations, descriptive and interpretive (Kıral, 2021). This research is based on the descriptive phenomenology approach defined by Husserl (2003). Metaphor research is a technique used to deepen the mental meaning of a concept by associating it with another concept, in other words, it is a technique that helps to reveal the perceptions of the participants through simulations. Metaphor questions have a two-stage structure. The questions asked to teacher candidates in this study are as follows;

1. The gifted student is like……………………….……...because …………….……………..

2. Inclusive education is like ……………………., because ……….……………………..

Research Participants

The population of the study was appropriate for its goal, and criteria sampling technique was used to determine the sample. It is the creation of the sample from people, events, objects or situations with the qualities determined in relation to the problem (Marshall & Rossman, 2014).The research data were collected in the Faculty of Education of two state universities in two different cities in Turkey (Tokat Gaziosmanpaşa University and Muğla Sıtkı Koçman University) in the fall semester of the 2022-2023 academic year. In this context, the total number of prospective teachers who continue their education in the faculty of education, determined according to the criteria of not taking inclusive or special education courses, and who want to participate in the research voluntarily. From 92 pre-service teachers participated in the research. 36.7% (N: 34) of the 92 teacher candidates participating in the research are male and 63.3% (N: 62) are female students. 42.9% (N: 40) of the 92 pre-service teachers participating in the research consists of 3rd grade students and 57.1% (N: 52) 1st grade students. 58.2% (N: 54) of the 92 pre-service teachers who participated in the study consisted of pre-service teachers studying in Science Teaching and 41.8% (N: 38) in English Language Education Programs.

Data Collection Tools and Data Analysis

During the development of the data collection tool, which was created in accordance with the purpose of the research, expert opinion was obtained from three faculty members working in the special education department. Content analysis technique was adopted by considering the interpretive nature of the metaphor researches in the data analysis process. In addition, due to the inductive structure of the research, themes were reached from the codes. Interpretive philosophy is based on the creation of the themes. In the data analysis process, the coding process was carried out simultaneously by the researchers due to the confirmatory nature of the research.

The metaphors written by the students were reviewed one by one, and each metaphor was analyzed in terms of (1) the subject of the metaphor, (2) the source of the metaphor, and (3) the relationship between the subject and the source of the metaphor. The process of analyzing and interpreting the metaphors produced; (1) naming phase, (2) sorting (elimination and refinement) phase, (3) reorganizing and compiling phase, (4) category development phase, and (5) transferring data to computer for quantitative data analysis (Saban et al., 2006:541). The coding process was carried out according to the image below.

Figure 1

Consistency of Conceptual Answers and Explanations given to the Questions
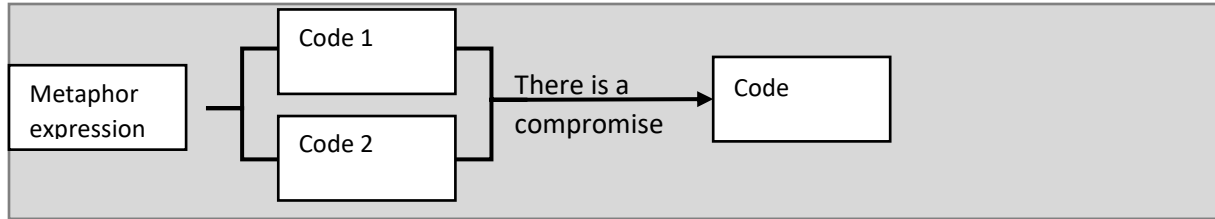
While coding the opinions of teacher candidates, three alternative situations occur. The first situation is that the concept stated by the teachers and the explanation of this concept are consistent. For example, a pre-service teacher who uses the "diamond" metaphor for a gifted student uses the phrase "self-made and valuable" as an explanation for this metaphor, which shows that the created metaphor is consistent.

There is a similar setup in terms of other metaphor questions. Consistency checks were made between the two questions asked. In the analysis process similar to the given example, the code was written directly in the case of the researchers' compliance. In the second case, for example, the use of the "rare" metaphor for a gifted student by a candidate teacher using this metaphor as "not necessary" shows the inconsistency of the metaphor created. In this case, the semantic confusion that occurred was not considered by the researchers as a code with a common view. In the third case, it was seen that some metaphor data caused a contradiction about the consistency of the metaphor. For example; In the metaphor of inclusive education, "it is the season" and the explanation of this concept is associated with the statement "it teaches different things just like the season". In this case, it was ensured that the researchers reached a consensus on similar metaphors, such as the metaphor of different seasons being together and forming a whole year, and whether inclusive education could be associated with the differences in education in a single classroom.

Ethics Committee Permission

Ethical permission of this research was obtained from the ethics committee of Tokat Gaziosmanpaşa University Social and Humanities Research with the decision dated 16.11.2022 and numbered as 14.23.

RESULTS

The codes obtained within the scope of the research were first gathered under the theme of "gifted student". The codes were grouped, and categories were created. The "preciousness" category, which includes expressions that are important for the country and the collective, and expresses that gifted students are valuable, rare and few in number, includes eight codes. The "sensitivity" category, which expresses the concepts including the ability to empathize with social events and injustices due to the emotional fragility of gifted students and their high emotional intelligence, includes four codes. Statements emphasizing the executive qualities of the students were gathered under the category of "leadership", which includes six codes. In order to show themselves easily compared to other individuals, the "attention" category, which includes eight codes, was created. Similarly, the "special education" category was created, which includes eight codes related to the need for a special education. The statements that the limits of these students' capacities and many

features are not yet known are gathered under the category of "mystery", which includes four codes. Finally, the "chance" category was created, which emphasizes the innate and non-acquired characteristics of the students and includes four codes. Figure 4, which includes the codes and categories obtained for the main theme of the gifted student, is given below.

Figure 2

Categories and Codes of the Special Talented Student Main Theme
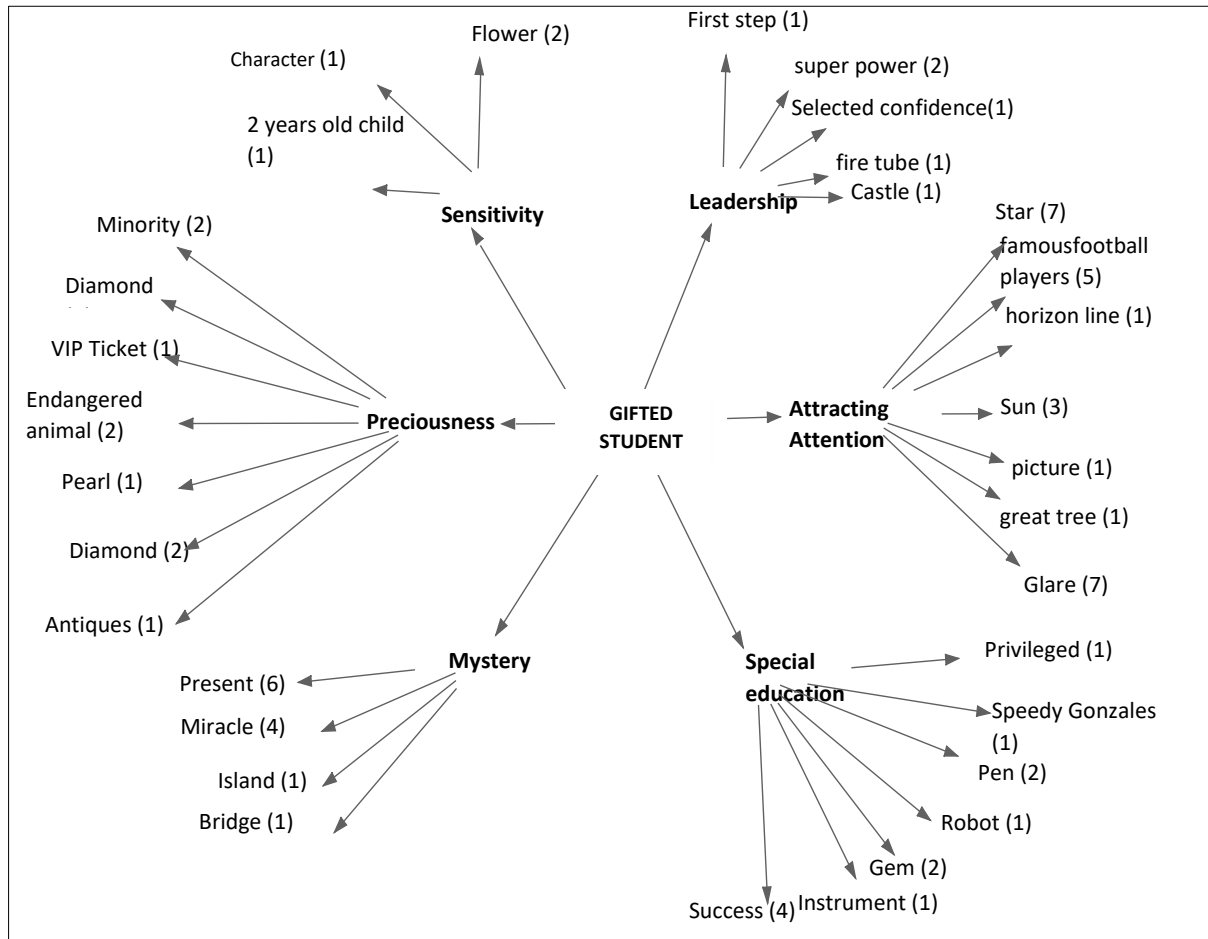
In the analysis of the research data, it is seen that the data are collected in seven categories. A total of 92 code frequencies were obtained under 42 codes. In figure 2; there are metaphors of "2-year-old child", "character", "flower" and "feelings" in the "sensitivity" category, which expresses the fragility and empathic abilities of gifted children. In the category of "preciousness", which emphasizes that gifted children have some rare and valuable features in terms of society, "famous scientists", "minority", "diamond", "VIP ticket", "endangered animal", "pearl", "diamond" and "antique items" metaphors. There are metaphors of "gift", "miracle", "island" and "bridge" in the category of "mystery", which includes expressions about the intriguing, surprising and yet undiscovered aspects of gifted children. In the category of "chance", which was created for the statements about the fact that being gifted is completely innate and accidental, there are metaphors of "noble", "tone of voice", "gene" and "DNA".

Due to the fact that gifted students have some different characteristics compared to their peers, and they need to receive a different education in education, the "special education" category has

been created. Based on the statements of the pre-service teachers, the metaphors of "success", "musical instrument", "jewel", "robot", "pen", "quick grasp" and "privileged" are included under the category of "special education". For expressions that are innate in gifted children and include directing the society, being a pioneer, and leadership, for the "leadership" category, "teacher", "first step", "super power", "chosen self-confidence", "fire tube" and "fortress". " metaphors are gathered under the title of "attracting attention" and "planet", "star", "famous football players", "skyline", "sun", "picture painting", "great tree" and "glow" metaphors were created. The categories obtained are examined in detail, respectively, below. The comments of the candidate teachers for each category are given with the teacher code name.

Findings and Pre-service Teachers' Comments on the "Sensitivity" Category

The codes and candidate teacher statements obtained under this category are presented in Table 1 below.

Table 1

"Sensitivity" category codes and opinions

Category	Metaphor	Expressions
Sensitivity	2-year-old boy (1)	Babies are always very delicate, curious and fragile, while always wanting to learn something. (A82)
	Character (1)	They are touchy in something volatile and negative, like our characters, and happy in something positive. (A37)
	Flower (2)	The more successful and good you are in your ability, the more you add health, beauty and happiness to your environment like a flower. (A65) If you nourish it with kindness, if you talk, it will bloom like a flower, and if you talk badly, it will wither. (A59)
	Feelings (1)	Just as our feelings and talents come together, if they have good feelings, they become more talented, productive, creative; if they have bad feelings, they become more introverted and unwilling to work. (A12)

In Table 1, a total of four codes and five frequencies were obtained in the sensitivity dimension. Gifted students are most often described with the metaphor of "flower". The metaphors created were associated with the vulnerability of gifted students in case of more negative situations. In this dimension, it is also seen that if the variability is positive, it also emphasizes creativity and the emergence of good results. A65 emphasizes the importance of the interest to be shown with the statement "the more successful and good you are in your talent, the more health, beauty and happiness you add to your environment like a flower".

Findings and Pre-service Teachers' Comments on the "Preciousness" Category

The code and candidate teacher statements obtained under this category are presented in Table 2 below.

Table 2

Codes and opinions of the "Preciousness" category

Category	Metaphor	Expressions
Preciousness	Famous Scientists (2)	They can think and invent differently than the average person. (A58)
	Minority (2)	They are valuable because they are special and few. (A10)
	Diamond (7)	It is difficult to find. (A36) It takes a lot of effort to achieve. Every diamond is unique to itself. (A64).
	VIP Ticket (1)	It is so rare that it brings with it privilege. (A14)

Endangered Animal (2)	... because it is a unique species. (A27)
Pearl (1)	It is rarity. (A55)
Diamond (2)	It is so rare that it is both precious and delicate. (A63)
Antiques (1)	It is both precious and not found everywhere. (A79)

In Table 2, a total of eight codes and 18 frequencies were obtained in the preciousness dimension. Gifted students are most often described with the "diamond" metaphor. The metaphors created are associated with the fact that gifted students are less in number compared to the total population, and some differences are associated with the fact that gifted students are valuable, precious and rare. A63, "It is so rare it is both precious and delicate." He emphasizes that gifted students are rare and valuable.

Findings and Pre-service Teachers' Comments on the "Mystery" Category

The codes and candidate teacher statements obtained under this category are presented in Table 3 below.

Table 3

"Mystery" category codes and opinions

Category	Metaphor	Expression
Mystery	Present (6)	Gifted students have features that are mentioned and that arouse curiosity that distinguish them from their environment (A1)
	Miracle (4)	Not everyone has that talent, and it's miraculous, unbelievable, mysterious that only that person has it. (A18)
	Island (1)	It is like a newly discovered island, which is intriguing. (A34)
	Bridge (1)	There is a hidden bridge between success and unexplored. (A92)

In Table 3, a total of four codes and 12 frequencies were obtained in the mystery dimension. Gifted students are mostly defined with the metaphor of "gift". The metaphors created were associated with the characteristics that gifted students are more innate and the reasons why and how are unknown but desired to be discovered. Emphasis is placed on the ambiguity, unexplored (A1, A92) and arousing curiosity (A18, A34) of the existing features of gifted students by the novice teachers.

Findings of the "Chance" Category and Comments of the Teacher Candidates

The codes and candidate teacher statements obtained under this category are presented in Table 4 below.

Table 4

"Chance" Category Codes and Opinions

Category	Metaphor	Expression
Chance	Noble (6)	It comes naturally. (A48). It cannot be earned later. (A39)
	Tone (4)	Everyone's tone is different. Whether the tone of voice is beautiful or ugly is completely innate (A35)
	Gene (1)	Each gene is different and unique to itself. (A91)
	DNA (1)	It is unique to each individual and is purely by chance (A5)

In Table 4, a total of four codes and 12 frequencies were obtained in this dimension. Gifted students are most often described with the metaphor of "noble". It is seen that the created metaphors center on the concepts of "innate" and "personalized". In this dimension, it is striking that the differences of gifted students are innate. While it is stated that the reasons for the differences are not known exactly and that they are obtained by chance in the dimension of chance, it is emphasized that more positive features are obtained by chance in this category. In the metaphors of noble and tone of voice, it is emphasized that it is a feature that cannot be acquired later. A39 "Everyone's tone of voice is different from each other. Being beautiful or ugly in tone of voice is completely innate" emphasizes the importance of being born lucky.

Findings of the "Special Education" Category and Comments of the Teacher Candidates

The codes and candidate teacher statements obtained under this category are presented in Table 5 below.

Table 5

"Special Education" Category Codes and Opinions

Category	Metaphor	Expression
Special education	Success (4)	Because the development of talents, a good education, and success comes when you receive different training for your special talents (A90)
	Musical Instrument (1)	Gifted students create a beautiful harmony only if they are taught how to use them with a good education, such as different musical instruments in symphonies and choirs. (A77)
	Jewelry (2)	Precious jewelry will be revealed only if it is handled well. If given a good education, it becomes a jewel. (A7)
	Robot (1)	If you learn and know the language of the software installed on the robots, you can do wonders with the robots. Just like special talents (A56)
	Pen (2)	You determine how and why you will use it by training (A60)
	Speedy Gonzales (1)	They learn most of the things that are told and taught very quickly if they are conveyed in their language (A81)
	Privileged (1)	The needs of special talents with special needs should be met with special applications (A85).

According to Table 5, a total of seven codes and 12 frequencies were obtained in this dimension. Gifted students are most often described with the metaphor of "success". It is seen that the metaphors created mostly focus on the concepts of "processing" and "education". In this dimension, the emphasis on education is striking. While it is stated that the characteristics of the students are not fully known in the dimension of mystery, the benefit to be provided by education is emphasized in this category. The importance of education in robot, musical instrument and pen metaphors is emphasized. A81, on the other hand, emphasizes the importance of the education to be given with the statement that "they learn most of what is told and taught very quickly if they are conveyed in accordance with their language".

Findings of the "Leadership" Category and Comments of the Teacher Candidates

The codes and candidate teacher statements obtained under this category are presented in Table 6 below.

Table 6

"Leadership" Category Codes and Opinions

Category	Metaphor	Expression
Leadership	Teacher (4)	He is an exemplary person. (A33) He is a guide, he guides the class. (A80). He is the one who knows the best and is curious (A54). He is always omniscient (A26).
	First Step (1)	After all, she is the person who will take the first step to reach the beauties (A62)
	Super Power (2)	They have super powers. He is the leader. It is not available to others. (A24)
	Selected Self-Confidence (1)	The principle of self-confidence is the one chosen in the classroom, whatever she does, others are encouraged (A25).
	Fire Extinguisher (2)	It is the first responder in a fire (A28)
	Castle (1)	It is like an indestructible fortress. The interior is intriguing, you have to conquer the inside of the castle in battle. It is strong. It gives confidence to other students. exemplary (A13)

In Table 6, the metaphor of "teacher" mentioned by A33 is followed by the expression "The person who sets an example" is used in the statement made. Here, the emphasis is placed on the person who sets an example to the students. In addition, in other metaphors, it is seen that the metaphors of "first step", "super power" and chosen self-confidence are emphasized to be a pioneer.

Findings and Pre-service Teachers' Comments on the "Attention" Category

The codes and candidate teacher statements obtained under this category are presented in Table 7 below.

Table 7

"Attention" Category Codes and Opinions

| Category	Metaphor	Expression
Attract attention	Planet (2)	Like planets with constant light in the sky, it never goes out, it attracts attention, it is different. (A11) Each one is different from the other and attracts attention. (A15)
	Star (7)	It always draws attention. (A66) In the dark night, it attracts people's attention. (78) It is bright, but it is also noticeable among other multiplicities. (A16)
	Famous Football Players (5)	It attracts attention due to its special abilities. (A57). Only with talent, he became the best in the world, recognized by everyone (A9). Talented people are unique in every field (A2). It's your talents that make you strong, famous, and keep everyone's eye on you. (A3). You make a difference with your skills (A88).
	Horizon Line (1)	Where it begins and where it ends is unclear and attracts attention. (A83)
	Sun (3)	It shines like the sun. (A70) Shines light around (A76) It is bright. If the cloud does not get in the way, it illuminates its surroundings (A52).
	Picture (1)	Each individual has a different perspective. Therefore, the differences vary according to the characteristics. Special talent requires a special situation from the perspective of looking at the tables, such as the original situation of people. (A73)
	Great Tree (1)	Because it attracts attention everywhere with its great light. (A42).
	Glare (7)	It always shines bright, attracts attention in the crowd. (A74) Allows to distinguish between many people (A68)

Details make it noticeable among many people. (A4)
Because it only comes from within, it belongs to you and it makes you different, it gets the attention of others. (A17).
It is the child who always draws attention (A23)
It makes you shine both differently and in other people (A20).
Even a small amount is enough for you to shine. You will be noticed in the crowd. (M19).

In table 7, the metaphors in the attention-grabbing category focus on "light", "attracting attention" and "shining". He emphasizes the "being bright" of the metaphors of star, sun and shine. In the metaphor made by A23, the expression "the child is always the one who draws attention" emphasizes the recognizability.

The codes obtained within the scope of the research were gathered under the theme of inclusive education. In the inclusive education category; the "necessity" category, which includes statements stating that it is necessary for the country and society, includes five codes. The "advantage" category, which includes statements about the advantages of inclusive education, includes four codes. When the expressions belonging to the advantage category are examined in terms of content, it is seen that there are expressions focusing on the advantages of inclusive education for both inclusive students and students with normal development. Expressions emphasizing the different individuals of inclusive education and its unifying power were gathered in the "unifying" category in five codes. Expressions that focus on special individuals and the characteristics of inclusive education in terms of including a special education compared to other educations are grouped under the category of "special education" in five codes. The expressions that compare these special students' education together with the students with normal development in interaction with the different students forming a whole together with their peers were gathered in eight categories under the category of "combination of differences". Figure 6, which includes the codes and categories obtained for the main theme of inclusive education within the scope of the research, is given below.

Figure 3

Categories and Codes of the Main Theme of Inclusive Education
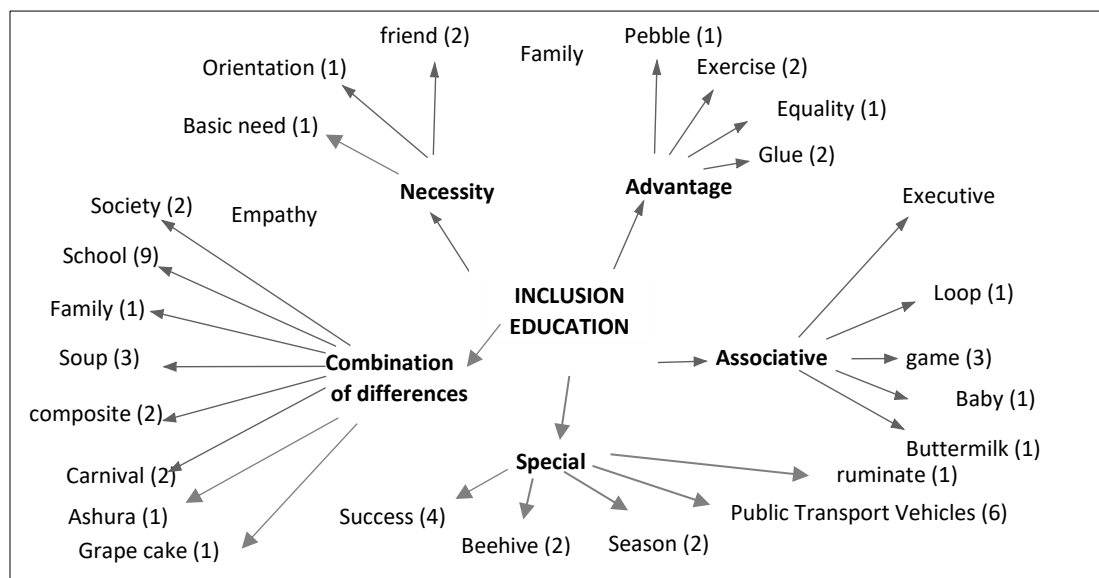
In the analysis of the research data, it was seen that only 65 of the data obtained from 96 participants could be analyzed, and 65 data belonging to inclusive education were collected in five

categories, under 27 codes and under 65 code frequencies. According to figure 3, "Purple cake", "ashure", "carnival", "alloy", "soup", "family", "school" in the category of "Combination of differences", which means that inclusive education allows individuals who are different in the society to know each other and form a whole in harmony. It is seen that the metaphor of "school", which is in the category of "combination of differences", has a frequency of 9 and the expression that teacher candidates use most under the name of inclusive education. The metaphors of "empathy", "basic need", "orientation", "friend" and "family" were created in the second "necessity" category of inclusive education. The metaphor of "family" is the metaphor that consists of the most expressions with five code frequencies.

Expressions emphasizing the need for inclusive students to receive special education were gathered under the category of "special education" and under the metaphors of "success", "beehive", "season", "public transport" and "rumination". When Figure 6 is examined; It is seen that the expressions emphasizing that inclusive education is also an education that connects students to each other are gathered under the category of "unifying" and the metaphors of "knot", "game", "baby", "ayran" and "manager" are collected with 13 code frequencies. Finally, in the "advantage" category, which includes statements focusing on the advantageous aspects of inclusive education, it is seen that there are 6 codes in total with the codes "pebble", "practice", "equality" and "glue". The categories obtained are examined in detail, respectively, below. The statements containing the comments of the candidate teachers for each category were given with the teacher's code name.

Findings and Pre-service Teachers' Comments on the "Combination of Differences" Category

The codes and candidate teacher statements obtained under this category are presented in Table 8 below.

Table 8

Codes and Expressions in the Category of "Combination of Differences"

Category	Metaphor	Expression
Combination of Differences	Society (2)	The differences together form the society (A42). It helps people get closer and live together peacefully like different parts of the society (A37).
	School (9)	Where it is not, only the experience rises, just as the differences of the same society are left behind. A good school makes the differences one (A1). Even if you go by different routes, you will eventually reach the school (A9). Wants to export what he has learned like a school (A16). It brings out the interests and talents of all children. The aim is not to normalize the individual with special needs, but to gather them with their peers under a roof like a school (A36). It shows us that different students are no different from us, in fact, we are all (A35). Like the rooms in the school, like the furniture, they all serve one purpose, the equal education of all. (A34).
	Family (1)	Because it enables people to get closer to each other and makes them endure (A13).
	Soup (3)	Because the taste color of each ingredient is different. But it is delicious together (A4). Students from all abilities and at all levels are together (A14). If its class is soup, one is like salt, one is like vermicelli, one is like pepper. It will be delicious if they are cooked together (A10).

Composite (1)	Elements found in nature also exist on their own, but if iron becomes steel, it becomes stronger and more abundant. It becomes more solid and whole, inclusive education is similar to this (A33).
Carnival (2)	We can liken it to different people coming together and interacting (A8)
Ashura (1)	It tastes amazing when made with every ingredient in the house, but is delicious together. (A2)
Grape cake (1)	It can be compared to the fact that it gains flavor thanks to the grapes that can be noticed in the cake. (A5).

In table 8, in the category of "combination of differences", it is seen that there are mostly statements that what is obtained by the combination of different elements is better than the one that creates it and that it creates a whole. While the metaphors of alloy, soup, raisin cake and "ashure" focus more on creating a new formation when students come together in inclusive education, the metaphors of "carnival", "family", "school" and "society" contain expressions that point to the elements that make up the whole. In the metaphor made by A5, we can say that the expression "it can be likened to the flavor gaining thanks to the grapes that can be noticed in the cake" emphasizes that the differences actually change the whole in a positive way.

Findings of the "Special Education" Category and Comments of the Teacher Candidates

The codes and candidate teacher statements obtained under this category are presented in Table 9 below.

Table 9

"Special Education" Category Codes and Expressions

Category	Metaphor	Expression
Special education	Success (4)	It is achieved through the education of differences. (A24)
	Beehive (1)	The more work is done on inclusive education, the more success is achieved. (A3)
	Season (2)	Just like the seasons, each student requires a different education (A15). Just as the seasons are different, inclusive education also includes differences, so it requires a special education (A18).
	Public Transport Vehicles (6)	To pick up each person from a different stop and drop them to the same place (A40). They are all different but require a different training to ride or ride. (A11) There's a place for everyone, a boarding pass is required (A65). Anyone can be there regardless of race, religion or language. You have to be in the same environment even if they go different ways, and a different education is required in order to get along (A64). Inclusive education is a special education, just as public transportation vehicles are diverse and it is necessary to have information about where and how they go (A7). You must be at the same level to communicate with passengers (A17).
	Rumination (1)	When they receive information, some understand it immediately, while others need to be told repeatedly in order to ruminate (A29).

Table 9 shows that A total of five codes and 14 frequencies were obtained in the "special education" category. Inclusive education is mostly defined with the metaphor of "public transportation vehicles". In this category, the focus is on the benefits to be provided by special education for students in inclusive education. In the metaphors of "success", it is seen that the emphasis is placed on the fact that education will bring success. A24 is a statement that the training to be given and the moves to be made towards the differences will bring success with the expression "differences are achieved through education". In addition, with the metaphor of the beehive, it is focused on the necessity of education in order to be able to interact or use the area

due to differences in seasons, public transportation vehicles, and that success will be achieved through studies on inclusive education.

Findings of the "Associative" Category and Comments of Pre-service Teachers

The codes and candidate teacher statements obtained under this category are presented in Table 10 below.

Table 10

"Associative" Category Codes and Expressions

Category	Metaphor	Expression
Associative	Executive (7)	Inclusive education raises people's awareness and ensures unity as a whole (A63)
	Loop (1)	They have different meanings for each rope and interact with each other and transfer information and culture. It offers the opportunity to get to know different features (A23).
	game (3)	Since the purpose of the game is entertainment, inclusive education is also like a game, it is fun, it is done together with friends (A19). It connects young people like a game (A20) Only when different people come together can an exciting and beautiful game emerge. (A6).
	Baby (1)	Everyone loves babies, they spread happiness around them. Where there are babies there is happiness, because where there are babies there are smiling faces. If babies cry, they cry together; if they laugh, they laugh together. (A31)
	Container (1)	You need yogurt, water and salt for ayran. These materials are mixed in different proportions. After all, materials do not lose their properties, but a container that combines them is required. Only then does ayran become ayran. (A57)
	Glue (1)	It brings different children together like glue and ensures that they will never be separated (A22)

Table 10 showed that a total of five codes and 13 frequencies were obtained in the "combinant" category. Inclusive education is mostly defined with the metaphor of "manager". It is striking that the created metaphors center the concept of "unifying differences". In this category, in inclusive education, it is emphasized that there will be a social cohesion and cooperation with the benefit to be provided for the development of social skills by ensuring that the students get to know their other friends with the education to be given to the students. A19 focused on making inclusive education together with children, with the statement "Since the purpose of the game is entertainment, inclusive education is also like a game, it is fun, it is done together with friends". A63, on the other hand, points out that inclusive education has an integrative aspect like the managers in the administrations, with the comment that "inclusive education raises people's awareness and ensures unity as a whole".

Findings of the "Advantage" Category and Comments of the Teacher Candidates

The codes and candidate teacher statements obtained under this category are presented in Table 11 below.

Table 11

"Advantage" Category Codes and Expressions

Category	Metaphor	Expression
Advantage	Pebble (1)	Inclusive education enables all kinds of people to receive education differently and is therefore advantageous (A54)

	Exercise (2)	It enables children to make the best use of their knowledge and abilities, so it is like practice, it has many advantages (A51). It gives some kind of prior experience, thus reducing the risk of making mistakes (A28).
	Equality (1)	Inclusive education equalizes those who are behind and those who are ahead, so it makes good use of time and creates equality. (A38).

Table 11 shows that a total of three codes and 4 frequencies were obtained in the "advantage" category. Inclusive education is most often defined with the metaphor of "practice". A28 writes that "it gives some kind of preliminary experience, thus reducing the risk of making mistakes", that inclusive education will also reduce the risk of making mistakes by gaining experience for students. A38, on the other hand, stated that "Inclusive education equalizes those who are behind and those who are ahead, so it makes good use of time and creates equality." He draws attention to the fact that inclusive education has an equal aspect.

Findings and Pre-service Teachers' Comments on the "Necessity" Category

The codes and candidate teacher statements obtained under this category are presented in Table 12 below.

Table 12

Codes and Expressions in the "Requirement" Category

Category	Metaphor	Expression
Necessity	Friend (2)	It provides socialization of children, increases self-confidence, makes them feel happy, in this respect, they are just like friends, they are not alone (A26). Inclusion activities are like being in a friend environment as they usually consist of fun activities (A25)
	Orientation (1)	It makes the student comfortable before the education, it is a must (A21).
	Basic Need (1)	It is the most important thing in education, because it makes it easier for children with special needs to live in society in the future (A60).
	Family (5)	It can only exist as long as we are together, so it is necessary (A61). As in the family, the integration of information from all aspects is ensured, it is indispensable (A55) Being a family socializes and brings people closer, makes them bond, and inclusive education provides the most basic skills like family (A53). Not everyone can be at the same level as us, with inclusive education, everyone learns to tolerate each other and get down to the same level as in the family. (A56). It provides bonding by forming a whole of differences like each individual in the family (A39).
	Empathy (1)	Everyone sees what they are experiencing and what others are experiencing and relaxes. In this sense, it helps in establishing empathy. Thus, bullying in the society decreases (A41).

Table 12 shows that a total of five codes and 10 code frequencies were obtained in the "necessity" category. Inclusive education is defined mostly with the metaphor of "family" in the category of necessity. It is seen that the created metaphors center the concept of "the most basic need". A39 With the statement "It provides unity by forming a whole of the differences like every individual in the family", we can say that inclusive education creates a whole from the differences and resembles a basic structure like the family.

DISCUSSION AND CONCLUSION

The aim of this research is to determine the perceptions of teacher candidates about the terms of giftedness and inclusive education and to reveal the metaphorical categories for these terms. As for the perceptions of pre-service teachers for the term of gifted students, in the analysis of the

research data, it is seen that the data are collected in seven categories; sensitivity, preciousness, mystery, chance, special education, and leadership and attracting attention. The first category obtained from the research was sensitivity, which expresses the fragility and empathic abilities of gifted children. This finding of the study aligns with the literature (Cross, 2021; Fonseca, 2021; Neihart, 2021) which emphasized that the emotional intensity of gifted children is more likely to be higher than that of normal children. Emotional intensity is a predictor for the fragile characteristics of these children.

As for other categories, the current study revealed the metaphorical categories of *preciousness*, which emphasizes that gifted children have some rare and valuable features in terms of society; *mystery,* which includes expressions about the intriguing, surprising and yet undiscovered aspects of gifted children; *chance*, which was created for the statements about the fact that being gifted is completely innate and accidental; *special education* category which emphasizes the importance of the education to be given to these children; *leadership* category which emphasizes the person who sets an example to the other students; *attention-grabbing* category which signifies recognizability in which "the child is always the one who draws attention."

In the light of the findings obtained from the current study, it is understood that the metaphors expressed by pre-service teachers contain positive judgments. The results were aligns with other studies in the literature (Duran & Dağlıoğlu, 2017; Çapan, 2010). Lee (1999), in his phenomenological research, revealed that teachers consider gifted students as "excellent, potential, being rare, being recognizable, and possessing innate God-given ability, being motivated as well as acting asynchronous improvement". As a result of this study, as for the positive perceptions about gifted children, it can be stated that teacher candidates' views were parallel with those of teachers.

Among the findings obtained from the current study, it was revealed that due to the fact that gifted students have some different characteristics compared to their peers, and they need to receive a different education in education. This finding was in conformity with other studies conducted by Barnard-Brak, Johnsen, Pond Hannig, & Wei, (2015); and Dixon et al. (2020). As for the leadership category, the findings indicated that the emphasis is placed on the person who sets an example to the students. It is understood that a character trait that gives confidence to other people is emphasized by the pre-service teachers. Similarly, a study conducted by Green (2016) found that teachers had the views that the gifted and talented students had higher leadership abilities than non-gifted and talented students.

Regarding the second question, another purpose of this research was to examine prospective teachers' perceptions of inclusive education through metaphor analysis. The codes obtained within the scope of the research were gathered under the theme of inclusive education. In the inclusive education category, data were collected in five categories: *advantage* which focus on the advantages of inclusive education for both inclusive students and students with normal development; *combination of differences* which means that inclusive education allows individuals who are different in the society to know each other and form a whole in harmony; *special education* which the emphasis is placed on the fact that education will bring success; associative which connects people like a game, and necessity which is necessary for the country and society. It can be stated that prospective teachers had a positive attitude towards inclusive education. This finding was in line with other studies (Gürsoy et al., 2019; Kumaş & Süer, 2020). A study conducted by Akman, Mercan- Uzun & Yazıcı (2018) revealed that teacher candidates stated that inclusive

education was important; because every child has equal opportunities for education, and they see it as an important step for the socialization of children with special needs.

This current study has some important implications. It is recommended that the number of the special education courses could be increased in order to raise the awareness of prospective teachers during the undergraduate education. Additionally, prospective teachers could work with inclusive students in their compulsory internship education.

This study has some restrictions. This study, which was prepared with the qualitative research method within the scope of the research, can be supported by the quantitative research method with more participants. Another drawback is that since this study covers the 1st and 3th grades, researches can be conducted covering all grade levels and teacher candidates studying in different departments. For future research, more volunteers from various departments and from other areas could be included in order to produce more valid and generalizable results.

Author Contribution Statement

All authors have the same contribution rate.

Conflict of Interest Statement

All authors declare that they have no conflicts of interest.

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