



A Meta-Synthesis on Turkish Metaphor Studies of Teachers

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Abstract

The present study aimed to evaluate the Turkish metaphor studies of the concept “teacher” via a meta-synthesis approach. A total of 11 masters dissertations and 32 research articles which followed a qualitative research methodology or reported qualitative findings on metaphors of the concept “teacher” and published between 2004 and 2016 were included in the meta-synthesis. The following databases were used in the selection of the dissertations and articles; Google Scholar, YÖK Academic, YÖK National Dissertation Centre, TÜBİTAK ULAKBİM, EBSCOhost-ERIC, and Web of science. Each study was evaluated based on the following matrix; importance, data collection tools, method (including participants), research design, reliability and validity, data analysis, metaphors and themes, and suggestions. Frequencies, tables and direct quotations from the studies were included in this paper. The results of the theme ‘importance’ revealed that metaphors were considered to be important tools in representing self and professional awareness, educational productivity, professional beliefs, and classroom dynamics, all of which emphasized the worthy of using metaphors. Also, the results of the theme ‘methods’ revealed that while most studies employed phenomenology as a research strategy, few studies utilized such methods as surveys and metaphor/discourse analysis. The results of the theme ‘data collection tools’ showed that most studies employed open-ended questions (i.e. “A teacher is like... Because...” and “A teacher is similar to... Because...”) or interview protocol. Nevertheless, it was also found that a number of studies employed data collection strategies such as composition writing, interviews, and picture drawing. The results of the theme ‘reliability and validity’ illuminated that most studies, in line with the qualitative research paradigm, provided details of their research processes, and mainly used content analysis for data analysis. It was also observed that a number of studies utilized such methods as metaphor analysis. The participants of those studies

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ranged from students to parents, from prospective teachers and school principals. The themes that emerged in those studies, in spite of the range of participants, did not differ remarkably from each other. Their suggestion included detailed information and implications for implementation, teachers, and future research. Overall, this meta-synthesis metaphor studies showed that most of the Turkish metaphor studies consisted of case studies. In light of the results of this meta-synthesis, how to use metaphors more effectively is discussed.

Introduction

“There are three types of people in this world; athletes, salesmen, and spectators. The athletes’ aim is to compete in order to win. On the other hand, the salesmen’s aim is to earn money and lastly the spectators’ aim is neither winning nor earning money. Spectators are content with just watching the things as they happen” (Plato).

Metaphor

We want the ideas in our mind and the things we want to say to be understood by the audience, affect them, and be long lasting. In order to achieve this purpose, we develop various ways to express our feelings and ideas and try to be more comprehensible. In fact, Plato did the same in the above quote. Taking it a step further, he tried to depict his ideas about life by comparing it to a competition and linking what people in competitions do to what is done in real life. Thus, this case of “taking it a step further” foregrounded the concept of metaphor.

“Simile” is used as the equivalent of “metaphor” in Turkish dictionary and simile is defined as; 1) a word that has been used outside its actual meaning for the purposes of comparison and/or analogy, and 2) using a word or a concept in ways that will mean something different than its widely accepted meaning, metaphor (figure of speech). It is also used as the meaning of a word that has separated from its actual meaning. In view of Lakoff and Johnson (2005), representatives of the modern metaphor theory, metaphor is denoting an experience in comparison to another experience that is more widely known, or making a concept/expression more meaningful through another expression that is acknowledged by most and easier to understand. Kemal (2003, p. 1) defined it with the following definition: “(m)etaphors are open expressions about how people perceive the world and what they think about objects, incidents, activities and so on”. These open expressions consist of indicators and displays that verbalize how we perceive the world in our daily life and make sense of it. The language that develops such expressions realizes its organization and system within a certain order and harmony like “A is B”. Within this system, there is an evident compatibility among culture, language (written and spoken language as well as grammar rules), and logic. Thus, as a result of this harmony, metaphors emerge in the form of “A is B” (Yıldızlı, 2011). Metaphors are closely related to the emotions and ideas within human mind and especially to *thought* that serves as the foundation of individuals’ creative views and that helps them comprehend the nature and the world (Kemal, 2003). Metaphors are also closely related to comparisons and analogies which are considered to be important ways of perceiving the world (Kemal, 2003). In addition to this close relation “*metaphors should not only be considered as a figure of speech, but also as a mental process, and metaphor is the case of schematizing, or so to say, mapping a concept from the source domain onto another concept in the target domain*” (Erdem, 2003, p. 36)

The metaphors that emerge not only help people better understand the world but also ease the process of their messages reaching interlocutors, and increase the power of expression and impact within a sentence. In this sense, it can be said that a narration that is based on art emerges. This artistic power is important in terms of strengthening one’s arguments and imposing them.

At this point, one of the problems that emerge in relation to the term “metaphor” is the confusion that this concept causes with regards to Turkish art. Although Turkish researchers have tried

to explain this situation by creating and using various terms with similar meanings, it is widely accepted that the source of this problem is the difference between perceptions of art in the East and the West (Yıldızlı, 2011). Therefore, when studies of researchers who focus on Turkish rhetoric are analyzed, it can be seen that metaphor is defined as using terms such as “transfer of idioms” and “borrowing” *eğreltileme*”, “beliğ teşbih” and “metaphor” definitions are provided within the scope of these terms (Bilgegil, 1989; Erdem, 2003; Kemal, 2003; Aksan, 2006a; Coşkun, 2007). The examination of those definitions shows that the form required for metaphors to be considered as rhetoric is the use of a word that resembles something different and/or a word that is resembled to something different. These forms constitute metaphorical expression. Additionally, analogy, which has appeared as the equivalent of simile in Turkish rhetoric sources (Bilgegil, 1989) should also be mentioned because analogy, in spite of having a number of characteristics that differentiate it from metaphors, also has similarities to metaphors. Analogy is defined as “the process of explaining unknown attributes of a phenomenon, incident, or object through known attributes of another phenomenon, incident, or object” (Cin, 2005, p. 159). The most significant difference between analogy and metaphor is that when a comparison is made using analogy, it is required that there is an exact match between the target domain and the source domain. In other words, there needs to be a complete harmony between the two. Furthermore, in analogy, a comparison is made using terms such as “like” and “as as” (Bilgegil, 1989). In analogic thinking, the aspects of resembling remain as a component of the concept that is resembled to the other. In metaphorical thinking, however, the characteristic that forms the metaphor is lent to the one that resembles it. In metaphor, which is understood to be an art form that is based on speaking and stress, the expression that is lent can be exchanged with its opposite depending on one’s emotional state. In other words, there must be similarities between the target concept that is to be described in analogies and a previously known concept. However, there is no such requirement in using metaphors. Metaphors can be used to effectively to describe two concepts or situations that share similarities, or to make comparisons between two concepts or situations that share no similarity (Özgürbüz, 2013). The common characteristic that analogies and metaphors share is the effective explanation of the relationship between two concepts or situations. The difference between this common characteristic that analogies and metaphors share is the use of terms such as “like” and “as as” in analogies.

In the light of above explanations, it can be understood that the statement “A strong child like a lion” does not include a metaphorical expression but an analogic one. On the other hand, statements like “Lion” and “Lion child” include metaphorical expressions. Following these brief descriptions and evaluations, a number of examples that include metaphorical expressions are provided: “*Argument is war*” (Lakoff & Johnson, 2005, p. 27); “*The world is a caravanserai*” (Yıldızlı, 2011, p. 34); “*Human is animal*” (Pourhossein, 2016, p. 199); “*Sun is human*” (Koca Sarı, 2012, p.181).

It is clear from the examples and explanations above that metaphorical expressions correspond to expressing the accumulation of knowledge and experiences within the human mind in an effective and artistic way. Being able to express thoughts and feelings in this way is positively correlated to the abundance of concept maps in the human mind and the strong link between thought and discourse. In the light of the discussion presented so far, it can be said that metaphor studies, beyond classically being studies of language art and discourse, have an important role in uncovering the mind maps within the human brain. Metaphors help human beings better understand the world and include clues to the cultural, economic, and social situations in which human beings take metaphors a step further than just being an art of discourse. Metaphors are described as a mental process that enables the observation of processes such as individuals’ or societies’ knowledge accumulation, intellectual and cultural development, and perceiving and making sense of the world. They are also considered as a guide to be able to understand the connections within the human mind.

Metaphor in Education

Metaphors are powerful tools to generate new ideas. This highlights why metaphors are important in scientific development (D’Hanis, 2002). Metaphors are not only linguistic expressions, but their cognitive functions should also be considered. It is their cognitive functions that make metaphors

a powerful tool in education. New trends and approaches in education focus on how knowledge is built. In addition, the experiences that take place during learning as well as how individuals perceive those experiences have become an important topic for research. In other words, metaphors can help us obtain new information regarding how individuals perceive the context in which their experiences take place (Morgan, 1997). Focusing on educators and learners' previous experiences, metaphors can also act as a powerful cognitive model to understand educational phenomena through educators and students' previous experiences (Botha, 2009). It has been observed that metaphors have been used in education to; a) make things more interesting and understandable, b) find a salient and unforgettable label for a difficult concept, c) expand thinking and clarifying a concept that is disorderly, abstract or generally complex (Low, 2008), d) motivate students, e) enable teachers to adapt to students' levels of understanding and their individual needs (Duit, 1991), and f) externalize ideas and experiences in a more meaningful way (Ho, 2005). Moreover, metaphors can be used effectively in shaping educational policies, understanding the nature of learning, and communicating with others (Botha, 2009). Metaphors help us better understand our conceptual system and experiences within different social and cultural contexts. Therefore, metaphors can help educators self-reflect at a deeper level and rearrange their pedagogical maps (Lakoff & Johnson, 2003).

The analyses of metaphor studies within the context of education show that those studies have been conducted on several concepts, and there is a continuing interest on studying metaphors. The way we make thought clearer via the use of metaphors allows us to exploit them. In other words, metaphors offer mental maps of the ways in which individuals create meaning about various educational concepts within the dynamics of school-class-home and are used as important tools in increasing our awareness (Mahlios, 2002). The fact that the use of metaphor in education is excessive due to the reasons we have mentioned above has contributed to a lot of studies on the metaphor in the field. When these researches are examined, there are studies on the concepts of student, teacher, family, branch etc.. For example, some of these are studies on the concept of school (Gordon & Lahelma, 1996; Lahelma, 2002; Özdemir, 2012; Örüçü, 2014; Saban, 2008; Toker Gökçe & Bülbül, 2014), studies on the concept of class and classroom management (Örüçü, 2012; Singh, 2010), studies which reveal the metaphors of various branches (Aydın, 2010; Aydın & Yalmançı, 2013; Güveli, İpek, Atasoy, & Güveli, 2011; Güvendir & Özkan, 2016; Reeder, Utley, & Cassel, 2009; Semerci, 2007; Schinck, Neale, Pugalee, & Cirafelli, 2008). This research also focused on the metaphor studies on the concept of teacher in Turkey.

The "Teacher" Metaphor and Culture

"Since the language that a society speaks reflects its material and spiritual culture, traditions, and lifestyle, different ways of expressions are used during the phase of conceptualization even though the objects and emotions are the same everywhere, thus semantic structures usually differ across societies" (Aksan, 2006b, p. 78). In other words, languages develop as they get influenced by different societal factors such as history, geography, culture, and so on. The language that develops as a result of internal and external factors naturally holds all the cultural products that a particular society uses the language with. This way of thinking, which has become a general view for all languages, will have to significantly distinguish itself from other languages and cultures when a single language is under consideration. This is because the vocabulary of each language will ensure its own way of conveying emotions and thoughts based on experiences it has gained and the diversity of linguistic expressions. The diversity of these linguistic expressions naturally suggests that metaphors are also the products of culture. In line with this view, according to cognitive linguists, metaphor is not only a linguistic phenomenon, but also belongs to the language, thought, social-cultural atmosphere, brain, and body (Kövecses, 2005). Therefore, the socio-cultural environment is one of the most important factors in the formation of metaphors. While noting that our experiences would become metaphors consistent with our cultural accumulation within our conceptual system, Lakoff and Johnson (2005, p. 45) also point out that metaphors can change from one culture to another. When the metaphors that have been grouped under "Orientation Metaphors" by Lakoff and Johnson are analysed, the difference between English and Turkish expressions clearly indicates how languages choose their own way of expressions. The English equivalent of the statement "İşler düzeliyor" is provided as "Things are looking up" (Lakoff & Johnson,

2005, p. 39). This metaphor forms an orientation metaphor in English because of the use of the preposition “up”, whereas it becomes a structural metaphor in Turkish because of the use of the verb “düzelme (to improve)”. This is a good example of how languages and cultures develop their own systems and how they employ their own rules during the creation of metaphors. Similarly, Fowler and Hodges (2016) also highlight that metaphors can only be analyzed in socio-cultural contexts in which they emerge, and even those analyses might sometimes be inadequate. They also note that in such analyses, it is impossible to be able to take all of the visually perceived components of the irregular environment into account. They provided the example of a speaker who states: “This dog is a throw rug”. When this example is examined, it can be seen that it is necessary to see what the dog that is being talked about looks like in order to be able to understand what the speaker means.

As can be seen in above examples, metaphorical expressions, to a great extent, emerge as a reflection of culture and complete the logical framework so long as they are compatible with culture. Based on this, metaphor studies that have been conducted in Turkey on the concept of “teacher” will be discussed in the present study. The reason for not including studies of metaphors conducted in other countries on the concept of “teacher” is, as mentioned above, the fact that, metaphors are the products of cultures in which they emerge. Studying metaphors in different cultures would have made it more difficult to find meaningful results. An expression that is used in a different culture may not necessarily have a meaningful or logical counterpart in Turkish culture. For example, while the expression “Ömür Törpüsü Olarak Öğretmen (Teacher as Life-Drainer)” and “Takoz (Wedge)”, which have been mentioned in studies that have been analysed and included in the discussion and conclusion sections of the present study, has a negative connotation in the Turkish language, it would not be correct to interpret what it might mean in another culture. Additionally, when metaphor studies conducted on the concept of “teacher” across the world are examined, it could be seen, for example, that “bag lady”, a term that is used for teachers in Parks’ (1996) study, translates into Turkish as “homeless woman” or “woman carrying all her goods in a bag and living in streets” which cannot be considered as an equivalent counterpart for the original term. It has been argued that while there are universal metaphors on the concept of “teacher” in the literature, metaphors are closely related to experiences, and they can only serve the purposes of semantics through the experiences created within a specific culture (Lakoff & Johnson, 2005). In other words, cultural gaps can be considered a major obstacle preventing a full understanding of the concepts that are formed within individuals’ minds about the actions that take place in their surroundings.

Importance of the Study

When the metaphors related to the concept of “teacher” have been examined in this study, many metaphors such as “teacher as a book”, “teacher as a mother”, “teacher as a gardener”, “teacher as a sun”, “teacher as a key”, “teacher as a cornerstone of patience” and etc. were noticed. As examples of metaphors related to “teacher” throughout history, metaphors such as “teacher as a midwife” (Socrates), “teacher as an artist/scientist” (Skinner), “teacher as a researcher” (Stenhouse) can be mentioned (De Castell, 1988). These metaphors actually illustrate uncertainties in the complexity of educational processes and work environments experienced by teachers, and how they are visible and recognizable (Clandinin, Murphy, Huber, & Orr, 2009). Hence, finding out who teachers are and what they do is important to understand teachers’ world of teaching (Izadinia, 2012).

When relevant literature has been examined including the studies related to this research as well, many metaphor studies on teacher (Alger, 2009; Carlson, 2001; Domović, VidovićVlasta, & Bouillet, 2017; Guerrero & Villamil, 2002; Hagstrom vd., 2000; Johnson, 2006; Marchant, 1992; Martinez, Sauleda, & Huber, 2001; Oxford et al., 1998; Thomas & Beauchamp, 2011) have been found among national and international publications. The presentation of the meanings for teachers through the metaphor and the evaluation of these meanings represent important data to reveal teachers’ perceptions in the educational systems of countries. When it is considered in terms of Turkish education system, studies conducted in this manner also provide important data to researchers, administrators, and education policy makers on how the concept of “teacher” is perceived. Due to this importance, there is

a need for research that qualitatively synthesizes the situation by analyzing the metaphor studies conducted on teachers in Turkey. Meta-synthesis studies which attempted to combine and interpret research done in the field are considered relevant since they might create broader interpretive conventions (Sandelowski & Barroso, 2003). In this context, it is crucial to determine the orientation of the studies examined within the main themes emerging within the framework of the study. And, it is also important to answer the following research questions by examining the studies carried out: (1) What meanings have been implied in terms of importance to metaphors in creating mental maps for teaching?, (2) What data collection methods have been used to discover these perceptions?, (3) What working groups have been studied?, (4) What kind of metaphors have emerged from these working groups in terms of teachers?, (5) How did researchers evaluate the emerged metaphors, and (6) What did they suggest for these results? It seems that this study, which aims to elucidate the situation qualitatively, might provide important information to comparative metaphor studies to be carried out internationally in the future for teacher. With this research, the increase in the number of metaphor studies conducted about teachers in Turkey over the last years will be evaluated, and it is also important that this evaluation will lead to other national and international researches. Moreover, meta-synthesis research has not been used among the types of content analysis that synthesize metaphor studies for teachers in the field. It is crucial that this research is the first in this context.

Purpose of the Research

This study aimed to analyze the metaphor studies about the teacher in Turkey by using the meta-synthesis method within the themes determined by the framework. Within the frame of this goal, answers for the following questions were sought:

- 1) How was the importance dimension of metaphor studies conducted on “teacher” approached?
- 2) What measurement tools have been developed for metaphor studies conducted on “teacher”?
- 3) What method has been used in metaphor studies conducted on “teacher”?
- 4) How is the validity and reliability provided in the metaphor studies conducted on teacher?
- 5) What evaluation criteria have been used to analyze the results of metaphor studies conducted on “teacher”?
- 6) What themes and metaphors emerged most frequently (3) and least frequently (3) in metaphor studies on “teacher”?
- 7) How metaphors which emerged from the concept of “teacher” can be used functionally in education according to the findings of the metaphor studies conducted on “teacher”?

This study aimed to explain in detail how to carry out research in order to make metaphors functional in education.

Method

Research Design

Meta-synthesis (one of the content analysis methods) has been used in this research. The meta-synthesis within the tradition of meta-research includes interpretation and evaluation from the critical point of view of the qualitative findings of research carried out in the same subject domain by creating themes or templates and drawing new conclusions by specifying the common and different aspects of research (Au, 2007; Çalık & Sözbilir, 2014; Polat & Ay, 2016). In meta-synthesis, the goal is to figure out broader interpretive transformations by combining the findings of the investigations, comparing them, or both, by being loyal to products that came out as a result of researching (Sandelowski & Barroso, 2003).

Collection of Data

The following steps were undertaken in determining the work that would constitute the data of the study.

1. Key words "teacher metaphor", "teacher mental image" (both in Turkish and English) have been searched in the databases such as Google Academic, YÖK Academic, YÖK National Dissertation Centre, TÜBİTAK ULAKBİM, EBSCOhost-ERIC and SSCI databases and articles and theses published in full between 2004 and 2016 were evaluated.
2. Proceedings, posters, articles and theses summaries and publications found in other indexes were not included in the research.
3. As a result of the scanning, 13 master theses and 36 articles were obtained and no doctoral dissertation about the topic that was being researched was found. Two postgraduate theses have been excluded from the research due to lack of open access. Three of the articles were not taken into consideration since it was research review compilation for the academics who were teacher trainers.
4. Since meta-synthesis involves the synthesis of the results of qualitative research (Au, 2007), studies in which only qualitative methods are used in this research have been examined. Two metaphor studies using quantitative methods have been excluded from the scope of this research.
5. 11 MA dissertations and 32 articles have been analyzed.
6. Apart from "teacher" in some studies examined within the scope of the research, the metaphors about discipline, school principle, class rules, reward and punishment were analyzed. However, the analysis in this study was limited to metaphors about the teacher in the studies that were analyzed.

Table 1 contains information about the years in which metaphor research on "teacher" was published, about who was in the study groups, about the number of the study groups, and about information to which discipline teachers the metaphor referred.

Table 1. Characteristics of Studies Analyzed in the Context of the Research

<i>Publication Year</i>			
Year	f	Year	f
2004	1	2012	3
2006	2	2013	11
2009	1	2014	8
2010	1	2015	11
2011	4	2016	1
<i>Study group Type *</i>			
Participants	f	Participants	f
Prospective teachers	23	Primary School Students	2
Teachers	11	Science and Art Center Students	2
Secondary School Students	8	University Students (Outside the Faculty of Education)	1
School Administrators	3	Parents	1
<i>Number of Study Groups</i>			
Number	f	Number	f
1-100	11	401-500	1
101-200	15	501-600	2
201-300	8	601-700	1
301-400	3	1000+	2
<i>Disciplines of Metaphors **</i>			
Discipline	f	Discipline	f
General	22	Visual arts	2
Pre-school	3	Turkish	1
Foreign language	3	History	1

Mathematics	3	Guidance and Psychological Counseling	1
Science	3	Vision and hearing impaired	1
Social Sciences	2	Physical education	1
Computer	2		

* Since some studies have included more than one study group type, the total number of study group subjects is more than the number of studies.

** In this survey, the sum of the number of disciplines is more than the number of surveys, since both the metaphors for teachers of visually and hearing impaired and the metaphors for teaching are examined.

When Table 1 is examined, it can be seen that the number of studies carried out between the years 2004 and 2016 had increased since 2011 and this increase had continued until 2016. It can be said that interest in the metaphor studies about “teacher” in Turkey has been growing with each passing year, and the studies have concentrated in this context. One of the reasons for the decline in the number of research related to metaphors in 2016 could be the fact that the analysis started in September 2016 ,so the publications of this year have not been completed yet. Another reason is that it can be assumed that satisfaction in the studies about this topic has been achieved.

When the studies included in the meta-synthesis are examined from the point of view of the type of study group, it can be observed that most of the studies are carried out with prospective teachers. It is noteworthy that the number of school administrators and parents in particular is low while teachers participate in all four of the studies. While mostly secondary school students are involved in the study groups, no metaphor research is done with high school students.

The number of participants of groups in the investigated publications ranges from 16 to 1222. This suggests that there is no clear number of participants for the study group in metaphor studies and that the number of participants in study groups varies from one research to another. The most commonly used workgroup size is 101-200. Among investigated publications, there were fewer studies which involved higher number of participants”.

When the studies have been examined in terms of disciplines in which the metaphor is viewed, it is seen that teacher metaphors are examined most generally (not to mention branch). Afterwards, metaphors for pre-school, mathematics, science, foreign language teachers and so on have been examined.

Data Collection Tools and Analysis of Data

Content analysis method was utilized to analyze the data used in research. Content analysis is the method that helps the researcher and the reader understand the data and construct the theories. By means of the content analysis, implications can be obtained by converting large data fragments into codes and categories with a limited number of generated words (Elo & Kyngäs, 2008). In this research, the analysis of the data was carried out in three stages as preliminary preparation, coding and reporting. This step-by-step description is included below.

1. Preliminary Preparation

The studies included in the scope of the study were read by the researchers, and the first impressions were noted.

A code was given to each study examined in the research. In the process of giving the code to the study, before starting to analyse the studies, the studies were listed in alphabetical order and coded in the form of A1, A2, and A3....

In accordance with the first impressions of the researchers, themes under which the analyses should be made were determined, and a data collection tool was developed for this purpose. During the coding and evaluation of the studies, the form given in Table 2 was used as data collection tool.

A draft form was first drawn up about the form used in the research, and then, opinions about the data collection tool and the dimensions of the 3 researchers specialized in research methods and their knowledge about the research topic were taken. In addition, the exchange of views between researchers was made possible, and the data collection tool was rearranged in accordance with these views.

The Research Form consists of two parts. In the first part, (a) the research code including the characteristics of the introduction and methodology of the research, (b) the year of publication, (c) the discipline in which it is conducted (Turkish, mathematic etc.), (d) the number of study groups, (e) importance, research design, (f) data collection tool, (g) data analysis methods, (h) validity and reliability sections are included. Second part of the research consists of 12 sections under the headings of (a) the first three emerging themes / metaphors, (b) the last three emerging themes / metaphors, (c) results, which cover the characteristics of the findings of the research.

Table 2. Form Used as Data Collection Tool

<i>A. Features of the Introduction and Method Section of Research</i>								
Publication Code	Publication Year	Discipline	Number of study groups	Importance	Research Design	Data Collection Tool	Data Analysis Method	Validity and Reliability
<i>B. Features of the Findings and Suggestions Section of the Research</i>								
The First 3 Themes / Metaphor			Last 3 Themes / Metaphor			Suggestions for Results		

2. Data Coding

The researches were read in detail by two researchers and the data which were considered to be important were recorded in the "Form used as data collection tool".

The data recorded in the form were re-read by the researchers and categorized based on the similarities and differences of the information in each theme (the analysis units included in the form were accepted as the theme).

The theses included in meta-synthesis were analysed together by two researchers. Analyses of the articles were done by the researchers separately, and they came together and checked the categories and the codes under those categories.

As a result of the analysis of the data, 30 categories and/or subcategories were obtained under seven themes. These themes and categories are shown in Table 3.

Table 3. Themes and Categories

1. The Importance of Metaphor Studies on Teacher
1.1. Determining Perception
1.2. Comparing Perception
1.3. Trend setting
1.4. Directing by affecting
1.5. Contribution
1.6. Other
2. Tools for Data Collection in Metaphor Researches on Teacher
2.1. Research form (general)
2.2. Research form (branch)
2.3. Semi-structured interview form
3. Research Patterns in Metaphor Researches on Teacher
3.1. Studies where qualitative approach is used and design is not explicitly stated
3.2. Pattern design in phenomenon studies
3.3. Studies in case study design
4. Validity and Reliability Studies in Metaphor Researches on Teacher
4.1. Validity studies
4.1.1. Direct citation and detailed reporting

4.1.2. Receiving participant confirmation

4.1.3. Not including validity studies

4.2. Reliability studies

4.2.1. Getting expert opinion

4.2.2. Reliability coefficient calculation

4.2.3. Not including reliability study

5. Data Analysis Methods Used in Metaphors Research on Teacher

5.1. Content analysis + Descriptive analysis

5.2. Content analysis

5.3. Metaphor analysis

5.4. Descriptive analysis

6. The First and Last 3 Themes Emerging from Metaphor Researches on Teacher and the Metaphors of These Themes

6.1. In parent study group

6.2. In teacher study group

6.3. In prospective teacher study group

6.4. In student study group

6.5. In school manager study group

7. Suggestions for Metaphor Researches on Teacher

7.1. Practice-Oriented

7.2. New Research- Oriented

3. Reporting

Reporting the data was done in accordance with the themes.

In order to facilitate the reading and understanding of the findings, a table for each theme, in which the categories, subcategories and related research codes were included, was made.

The studies investigated within the scope of the research have been explained in terms of the similarities and differences between the related thematic units and supported directly by direct citations.

Validity and Reliability of the Study

The following aspects have been taken into consideration in order to ensure validity and reliability of this study:

- The general purpose and sub-objectives of research have been clearly expressed.
- The stages of determining the work of research on validity of the findings are explained in detail.
- The studies that make up the data of this research, year of publication, type of study group, number of study groups, discipline teachers, research designs and data analysis methods are presented in tables.
- The articles were coded separately by two investigators to ensure reliability of the data analysis. Consensus and disagreement were determined, and the coefficient of consistency between Miles and Huberman (1994) coder was found to be 94.06.
- The analysis of the data started on September 2016 and was completed on February 2017, and sufficient time for synthesis was allocated.

Direct citation was given from studies that were analyzed to increase the credibility of the research.

Another situation that needs to be emphasized in the research is the relevance of the work to ethical rules. The research process has been carried out carefully to ensure that possible mistakes do not occur as a result of metaphor research on "teacher" in Turkey. Furthermore, during research process

including the analysis and analysis of the findings, our purpose was to be objective, honest and open. Besides, we aimed to be respectful to the labor of researchers and to maintain these attitudes in the process of preparing and writing articles. Taking into consideration the recommendation of the Scientific Ethics Committee of the Turkish Academy of Sciences (TUBA) Bilim Etiği Komitesi (BEK, 2002), we have considered the abovementioned ethical rules.

Results

In this section, the subheadings of metaphor studies such as importance, design, data collection tool, validity-reliability, data analysis, findings and suggestions which were studied within the framework of sub-problems will be mentioned.

The Importance of Metaphor Research on Teacher

Table 4. The Importance of Metaphor Studies on Teacher

Importance		Research Codes
Determining Perception	Recognizing the mutual perception of individuals and the awareness of being a teacher	A10, A33, A37, A23
	Uncovering personal perceptions	A5, A7, A13, A21, A24, A34
	Demonstrating the implications of the belief that they can fulfill their duties and responsibilities	A42
Comparison of Comparing Perception	Making comparisons between the metaphors produced among different groups and investigating the correspondence / discrepancy in these comparisons	A15, A17, A28, A32, A37
	As a result of comparisons with different branch teachers, revealing how teachers' perceptions are shaped	A35
	Achieving more holistic findings by comparing the teachings of different segments of society	A18
Determining Determining Tendency	Demonstrating trends in the teaching profession and correcting misconceptions about this profession	A4
	Reaching the data on whether the teachers are educated according to the current of National Education Paradigm	A16, A19
Guiding by Affecting	Affecting teachers' opinions, the topics they will emphasize in the program, the teaching methods and techniques they will use, and also guidance teaching practices	A12, A21
	Guiding the teacher trainers through the various personal attitudes they have developed	A29, A31
	Orienting school principle-teacher policies of the country	A8
	Enable researchers and education bureaucracies to examine the education from a different perspective	A18
Contribution	Providing efficiency in the teacher education process and in this way, carrying out the teaching practice studies effectively and beneficially	A13, A17, A30, A33, A36, A39, A40
	Guiding new programs to be prepared	A1, A6, A17, A18, A22
	Representing important information and perspective to field employees	A20
	Providing significant contributions to better analyzing the dynamics of teacher and student behaviours	A38
	Encouraging learning and developing creativity	A21
	Reflecting on teaching disciplines, ensuring that the educational environment is more appropriately organized for the success of the students by determining the attitudes of the students towards the lessons and teachers	A1, A2, A22
	To contribute to the guidance services for perceptions of students of school and teacher, evaluating the opportunities provided with the school	A27
Other	Dimension of importance was not emphasized	A3, A9, A11, A14, A25, A26, A41, A43

When the studies involved in meta-synthesis were examined from the perspective of the importance of publications, "determining perception, comparing perception, determining tendency, directing by affecting, contribution and other" themes emerged. As a matter of fact, it has been stated that it is extremely important to reveal how individuals perceive each other through metaphors and to reveal awareness of being teachers through metaphors (A10, A33, A37). Similarly, there are important studies in terms of studying the compatibility and incompatibility sourced from the difference between how teachers see their professional identities and how they are seen by their students and in terms of comparing the differences in forming different metaphors among different groups.

It has been also emphasized that the role and responsibilities of the individuals will be improved according to the results of the studies carried out by this importance, and this situation will contribute to the productivity in the education process and to the literature in the education process (A17, A33, A36). In addition, it has been stated that it is important to show how "teacher" concept is being shaped as the consequence of encountering teacher of the different disciplines (A35). The examination of the perceptions of prospective teachers is important in terms of revealing the tendencies towards the profession and correcting their misconceptions about the profession (A4). It is believed that metaphors will help teachers to build a new framework to assess themselves (A23). Thanks to metaphors, reassessing themselves will contribute to the effective and useful conduct of teaching practice (A40).

It has been emphasized that metaphors are important tools in revealing the perceptions of teachers of the concept of "teacher" (A5, A7, A24) and also in discovering the implications of belief that teachers can fulfill their duties and responsibilities fully (A42). It has been stated that the development of various personal attitudes towards the profession and the concept of "teacher" is vital for teacher educators because these attitudes depend on experience of students as a result of their informal observations, communication and interaction with their teachers (A31). Moreover, it has been emphasized that the way out of the generated metaphors will provide important contributions to better analysis of dynamics in teacher and student behaviors (A38). It has been established that the way teachers define themselves affects subjects, teaching methods and techniques they use, and most importantly, their views on whether the subjects they teach are necessary and what the purpose of the subject they teach is (A12).

In some publications in which the metaphors pose importance, it was put forward that it would be an important source for the literature (A8, A16, A17, A20, A30, A36, A39) in obtaining data about whether or not the teachers are trained in align with the current National Education Paradigm, in evaluating the current teaching programs and the educational system, in determining the appropriateness of the points of views about the concept of 'teacher' to the constructivist paradigm, in understanding whether or not prospective teachers have internalized constructivism, in predetermining the success of teaching programs that were shaped according to constructivism in terms of practice (A16, A19), in shedding light to future programs (A1, A6, A17, A18, A22).

It is also important to note that the perspectives gained from the metaphor research done for specific disciplines will illuminate the teaching of disciplines, teachers might be able to better organize educational environments for their students' success by determining the attitudes of their students to lessons and to themselves through metaphors (A1, A2, A22). It has been emphasized that the metaphorical perceptions of some researches may lead to the shaping the school administrators-teacher-centered policies of the country (A8). In some studies it was also seen that the dimension of importance was not emphasized (A3, A9, A14, A25, A26, A41, A43).

Tools for Data Collection in Metaphor Research on Teacher

Table 5. Tools for Data Collection in Metaphor Research on Teacher

Data Collection Tools	Research codes
The teacher is ... / similar to ... because....	A6, A7, A9, A18, A19, A23, A24, A27-A32*, A38, A39, A42
How can you express the concept of "Teacher" with different words? Why?	A15
Teacher / teaching profession is like a.... Because....	A13, A24, A26
Constructivist teacher is like aBecause....	A25
Think piece about the teacher	A18
Teacher is like ...in.....because.... (In different settings, in teachers' rooms, on vacation and in different duties, while being hall monitor, close to retirement, in class etc.)	A8
I want to be a teacher in the future ... like.....because....	A43
The first three words that come to your mind in the sense of teacher	A1
Write the desired features in teacher in an essay form	A1, A3
Write your thoughts about your teacher	A34
... teacher is like a / similar to ... because	A1-A6, A10-A12, A14, A16, A17, A20-A22, A33, A35-A37, A41
My teacher was like ... because.... "and" my teacher should be like ... because ... "	A30, A40
If she or he were an artist....	
If she or he were a cartoon hero....	A1
If she or he had another profession ... he would be, because....	
Draw a picture of your teacher and explain your drawing	A1, A22
Semi-structured Interview Negotiations with study groups (Interviews in addition to research forms) What are your strengths and weaknesses as teachers? Who are you as teachers?	A3, A19, A32
Questionnaire What metaphor would you use to describe yourself as ateacher? Why?	

* "." sign is used between some encodings. For example: A1 in A6 covers the order and A1, A2, A3, A4, A5 and A6.

According to Table 5, in the studies included in research, it is generally seen that the research data have been collected by means of the research questionnaire and the interview questions. When the data collection tools of the studies investigated in current research have been examined, in general, (without regard to the discipline) it has been found out that research forms such as "Teacher is like / similar to ..." because "(A6, A7, A9, A18, A19, A23, A24, A27-A29, A31, A32, A38, A39, A42) were used. In addition, data collection tools such as "How can you describe the "Teacher" concept with different words? Why? (A15), "Teacher/teaching profession is like a.....because"(A13, A24, A26). In some branches of the same transaction "... the teacher is like .../ similar to..., because" (A1-A6, A10-A12, A14, A16, A17, A20-A22, A33, A35-A37, A41) were used to conduct research.

It can be seen that data collected with open-ended questions such as " In the future I want to be a teacher likebecause...." (A43). In the (A18) coded study, the data about "teacher" has been taken at different times from the study group, and the questionnaire was used to determine the metaphors. In one study (A25), data were collected in the form of an open-ended interview for the constructivist teacher. There were also publications in which data collection was carried out through interviews with study groups (A3, A19, A32).

Also, research data have been gathered by asking "Which *metaphor will you use to represent yourself as an English teacher?*" (A32), "Write the first three words when ... teacher comes to mind" (A1), "Write an essay about desired features that can be found in ... "teacher" " (A3, A1), "Draw pictures about ... teacher and explain the picture" (A1, A22), "Write essays about your mathematics teacher thinking about your mathematics teachers who have taught you in your previous learning life" (A34). In some studies (A19, A32), interviews were conducted with study groups in addition to these data collection methods. Again, in some studies, researchers asked study groups to write essays along with participation in interviews (A3).

In a few studies (A8), there were presented data on how teachers worked in different settings (in teacher's room, on vacation) and on different tasks (monitoring, retirement, class etc.; those data have been obtained through data collection tools such as "Teacher ... is like in.... because....". Similarly, in a few studies (A1), metaphors for "teacher" have been gathered in the context of certain themes, such as "... if the teacher had another profession / were a cartoon hero ... she or he would have been because".

Research Designs in Metaphor Research on Teacher

Table 6. Research Designs in Metaphor Research on Teacher

Research Designs	Research Codes
Studies where qualitative approach is used and its pattern remained unclear: Qualitative approach/Qualitative research / Qualitative research/ Qualitative research method qualitative research method + Descriptive study/ Descriptive survey method/ Survey method	A2, A3, A6, A9, A11-A14, A16, A18, A23, A26, A28, A29, A31-A33, A36, A37, A39, A41, A42,
Phenomenology	A1, A4, A5, A7, A8, A10, A15, A20-A22, A27, A30, A35, A38, A40
Case Study	A19
Quantitative and qualitative research methods /approach	A5, A34, A43

As it is seen in Table 6, there were 24 studies which employed qualitative method; therefore, they used different discourse. These different discourses are expressed differently as expressed above. For example: "qualitative research method", "qualitative research method" or "qualitative research approach", "descriptive study", "descriptive survey method". It is stated that 15 studies were carried out with qualitative research design with phenomenology design, and 1 study was supported with case study design. Moreover, 3 studies were supported with quantitative research method.

The following is a sample citation from the method sections mentioned in the studies included in the scope of the research:

- *Descriptive method has been used to reveal the current situation in the study.* (A6)
- *The perceptions of individuals and their implications for a phenomenon are determined. The researcher tried to make use of the students' existing perceptions of mathematics and mathematics as a source: the phenomenological approach to the research of qualitative research.* (A1)

*Validity and Reliability Study in Metaphor Research on Teacher***Table 7.** Analysis of the studies included in Meta-synthesis according to the theme of "Validity and Reliability"

Validity	Publication Codes
Direct citation and detailed reporting	A1, A4-A10, A12-A14, A16, A17, A19, A21-A25, A27-A33, A35, A36, A39-A43
Receiving participant confirmation	A32
Not including validity studies	A2, A3, A11, A15, A18, A20, A26, A34, A37, A38,
Reliability	
Getting expert opinion	A1-A9, A12, A13, A17, A18, A20-A25, A27, A30-A43
Calculation reliability co-efficient	A1, A2, A4, A5, A7, A12, A13, A17, A18, A20-A25, A27, A30-A36, A38-A43
Others	A10, A14, A15, A16, A19, A26, A28, A29,

As shown in Table 7, when the studies included in the meta-synthesis were examined in terms of validity and reliability, it was found out that 33 of 43 researches had a direct citation of the participants' statements and the data were reported in detail to ensure their validity. In some studies, it is seen that internal validity (A19) was emphasized in detail. For example, it was reported that in order to ensure internal validity a pilot study had been conducted before the actual implementation and that the interview questions had been rearranged in this context.

In A5 coded study, it is stated that "*for every metaphor produced, it is tried to provide descriptive validity of the research by making a sample metaphor which is supposed to be the best representative and by making direct citation of the participants' expressions*". In some studies, although it was found out that there is direct citation or detailed analysis of the data analysis process and results, it was understood that this was carried out to ensure validity and that they were not written under a separate heading to provide validity. The validity is not mentioned in A4 coded study, but it is stated that the purpose of presenting some answers of students as a direct citation is to increase the reliability of the research. Unlike these, it is stated in the study validity was achieved thanks to the "purposeful sampling and checking of members"(A32) and "the sampling of all the conceptual metaphors obtained together with the reasons" (A6). A list of the validity sections of the studies included in the research has been given below:

- *In order to ensure the validity of the results, the data analysis process is explained and the metaphors representing the categories formed in the research are included in the findings. Furthermore, the features of the conceptual categories are explained through direct quotations from the participants' expressions (A33).*
- *How each of 9 categories was reached was explained during the data analysis process in detail for the teacher.*
- . *Direct citations have been used by ensuring the authenticity of the study and keeping the identities of the participants safe (A39).*

When the researches included in the meta-synthesis were examined in terms of reliability, it has been noted that expert opinions were taken to confirm that the metaphors obtained in 34 studies represented the relevant conceptual categories and themes and that the calculation of the consistency coefficient in the data analyses with Miles and Huberman (1994) formula in 28 studies are factors that provide reliability.

While *desired level* criterion is accepted for the conformity between expert and researcher evaluations in cases where the value of that consistency coefficient is 90% and above (A2, A27), 70% and above is accepted to be the desired level in some studies (A30, A40). However, it is seen that no factor related to reliability is found in 8 studies.

It is seen that there are some studies that internal reliability is included. In addition, in the study coded A22, it is stated that the expert opinion was taken for the internal reliability in order to confirm that the metaphors and drawings of the conceptual categories represent the relevant conceptual categories. In the study coded A8, it was stated that preliminary application was carried out for internal reliability, and observations were made about school administrators' way of perceiving the questions, and that expert opinion was taken for this observation.

In some studies, it is stated that the reliability was achieved by achieving validity.

"Quotes were extracted from structured forms and interviews, and these quotes were written as they were stated by the teacher candidates. No correction was made on them, and in this way the validity element was brought to the forefront and reliability was tried to be reached." (A19).

In addition, it is seen that reliability was ensured through various implementations such as detailed analysis of the data (A37), a detailed description of the process of setting metaphors the presentation of individual samples and direct citations from the participants' statements in the findings of the study (A4, A11, A25), and use of discourse and metaphorical analysis techniques together (A18).

Although reliability is achieved in some studies, it is not explicitly stated that this process is intended to achieve reliability in this study. For example, in the study coded A9, the categories were further evaluated by two specialist teaching staff besides the researchers, and it was not clearly stated that this was done for reliability. Similarly, in the A35 coded study, it was stated that the data obtained underwent the analysis and interpretation steps separately by all researchers, and that this was related to the validity and reliability.

The following is extract of the reliability sections given in the studies included in the research:

- the expert opinion was taken with the purpose of confirmation. Miles and Huberman's reliability formula was calculated for the reliability of the research ... Conceptual categories that were developed for each question in the research.... and lists of metaphors belonging to the categories were given to field specialist, and the specialist was asked to match the metaphors in the lists to the conceptual categories. The matches made by the expert were compared with the matches made by the researcher. (A33)

- Created metaphor table was compared with the themes and categories by presenting them to 3 expert opinions, and the reliability of the research was calculated with Miles and Huberman's formula by determining the number of dissensus and consensus. (A42)

Data Analysis in Metaphor Research on Teacher

Table 8. Analysis of the Studies Included in the Meta-Synthesis According to the "Analysis of Data (Evaluation Criteria)" Theme

The data analysis process of the studies	Research codes
Content analysis + Descriptive analysis	A17, A33
Content analysis	A17,A33
Descriptive analysis	A1-A4, A6-A9, A11-A16, A19, A22, A24, A25, A28-A31, A34-A36, A37, A38, A40, A41
Metaphor analysis	A42
Qualitative (content analysis) + quantitative (% / frequency)	A5, A10, A18, A20, A21, A27, A32, A37, A39

When the studies included in the meta-synthesis are examined in terms of data analysis, it is seen that 29 studies use content analysis, 2 studies use both content and descriptive analysis, 9 studies use metaphor analysis based on content analysis and metaphor discourse analysis, 1 study uses descriptive analysis and 2 studies use content analysis as qualitative and percentage and frequency as quantitative. It was mentioned that as a qualitative data analysis method, the content analysis technique

was performed at different stages (naming, elimination, category development, creation of the themes, provision of validity and reliability, determining frequency and percentage of the data, evaluation of the data ... etc.) (A1, A6, A8, A16, A19, A22, A33, A39, A43, etc.).

And in the studies examined, the type of analysis in which frequency and percentage calculations are usually made is defined as descriptive statistics or descriptive analysis, and this analysis is included as a quantitative data analysis technique. In some studies, it was stated that the descriptive analysis approach of qualitative research methods was adopted, and that the conceptual structure of the research was determined, and that the metaphor was supported by direct quotations from the relevant metaphoric considerations of the participants(A42). In the data analysis of some studies, although the list of metaphors obtained from the research was made, it was seen that the category and the theme were not established (A28). Sample citations from other studies in which metaphor analysis is performed:

- *In the process of classification of metaphors, using "metaphor analysis" techniques, each metaphor is segmented and analysed by examining individual data in terms of similarities or commonalities with other metaphors. (A20).*

- *Analysing and interpreting the metaphors developed by participants is done in four stages: Determining metaphors, classification, categorization, validation and reliability of metaphors. During the classification of metaphors, the metaphor analysis technique is used. Each metaphor is segmented and analyzed in terms of similarities or commonalities with other metaphors. (A21)*

Themes and Metaphors That Emerged In Metaphors Researches Conducted on Teacher

Considering the findings of the researches included in this study, at most 3 themes emerged for teacher and metaphors under these themes, and at least 3 themes and metaphors under these themes are taken into account. In some studies, the metaphors obtained from the study groups have been put into themes while in some studies, only the emerging metaphors were mentioned without the category. Due to this reason, both metaphors and themes were examined separately according to the study groups studied in the study.

Table 9. Generated Themes and Metaphors For Teacher in Studies Conducted with Parent Study Group

SG	RC	Top 3 themes	Metaphors	Last 3 themes	Metaphors
Parent	A33	Information Source and book		Therapeutic/	
		Transporter	light, water,	Remedial	doctor, syrup
		Formative/Shaper	sculptor, construction master, Entertaining		abacus
		Character Developer	painter mother psychologist	A Mechanical being steel	
			wise personality		

SG: Study Group RC: Research Code

When Table 9 is examined, it was found out that when metaphors that parents produced about teachers and the emerged themes in this context were analyzed, teacher roles were mostly found to be *resources of information and transfer* (example metaphors: books, light, water), *student formative/shaper* (sculptor, master builder and painter) and *developer of the characters of the students* (mother, psychologist, wise personality). In addition, very few parents perceive teachers as *therapeutic, entertaining* (abacus), and *a mechanical being* (steel).

Table 10. Themes and Metaphors that Emerged for Teachers in Studies that based on Workgroup of Teacher

SG	RC	Top 3 themes	Metaphors	Last 3 themes	Metaphors	RC	Top 3 themes	Metaphors	Last 3 themes	Metaphors	
TEACHER	A6	Teacher	Director / Guiding	light, sign	Sacrifice Performer	pencil	A7	Formative-Shaper	cook, ebru artist, rainbow	Router and Guidance	coach, eye, commander
			Helper	key, sun	Shaper	sculptor		Information Transmitter	sun, candle, water	Patience Example	patience, chicken
			Other	assistant director, aged wine,	-	-		Support for Individual Development	gardener, parent	-	-
	A6	Hearing impaired student / Teacher	patient	patience stone, patience cube	Helper	ear	A5	Guider	lantern, map, light,	Leader	head, ship captain, locomotive
			Problem solver	magic wand, chameleon, pantomime artist	Router / Guiding map			Noticer	mirror, solver of subconscious, cleaner of smoked glass	Uncertain	dough, nothing, anonymous hero
			Productive	machine	Parent/Compassionate	mom		Developer	sun, light, third eye	Information source	sun, hard disk, library
	A6	Teacher	Director / Guiding	light, love, guide	Information source	encyclopedia	A38	An illuminating element	sun, light, candle	A Reflective Element	mirror
			Parent / Compassionate	mother, parents	Patient	patience tree		An Artist	sculptor, actor	-	-
			Other	liquid, mirror, balloon	Happiness Source	a flower in a garbage		Information Source-Transmitter	book, fruit tree	-	-
	A6	Visually impaired student	Developing / Learning / Progressive	flowerpot	Helper	roof	A12	Guide	explorer, guiding mirror	Vehicle-Provider requested by Students	world map
			Director / Guiding	sun, walking stick, student eye	Sacrifice Author	a full glass		Developer of Society and self in Society	construction master, student, friend	shaper of Students	eye, parent, road worker
			Parent / Compassionate	mother, parents	Considering Individual Differences	gardener		Transmitting Unchanged Information to Students	aspirin, tree, northern star	Person Feeding / Growing Students	sea, water
			miner, explorer	Other	half-moon, mirror						

A25	Guide	guide, guide, compass	Hardworking	student, ant, collaborator	A21	Trainer Didactic and Guidance	guide, sun, light	Love Indicator	spring, love, happiness tool
	Formative / Shaper	architect, construction engineer, cook	Life source	tree, water, mountain		Indicator of Creativity	magician, artist, fine-spirited	Formative & shaper	gardener, sculptor, design
	Information Transfer Illuminators	sun, candle, moon	Master	master, painter, chameleon		Statement and Expression of Feelings	nature, photography machine, observer	As Therapeutic	psychologist, warrior, consultant
A15	As Growers and Developers	gardener, building master, cook	Router and guiding	guide, leader and manager, captain	A14	Technical personnel	computer technician, technical staff, technical service	Guide	guide teacher, technology guide, electric power,
	As Carer and Parent	babysitter, mother, father	Energy and information source	sun, candle / battery, 0 rh + blood group carer, bird		Being Multifunctional	Google, knows everything-joker	-	-
A33	Information Source and Transmitter	candle, water, light	Protective and Trusting		A32	New-born baby, entertainer in front of the crowd, computer speakers, Butterfly, footed dictionary, an unfinished book, light house, coach, candle, and babysitter			
	Formative Shaper	sculptor, cook, artist	Supporting Individual Development	gardener, earth					
	Character Developer	mother, friend	A Mechanical being	robot					

SG: study group RC: Research code

When Table 10 is examined, the studies that review teacher's perceptions of preschool teachers (A33), foreign language teachers (A32), teachers of hearing impaired/visually impaired and healthy students (A6), all discipline teachers (A7, A15, A25, A38), guidance teachers (A5), social science teachers (A12), visual arts teachers (A21) and computer teachers (A14) could be seen. Regardless of the type and the discipline of participants, it is noteworthy that the metaphors that teachers produce for "teacher" are often focused in themes such as *director/guidance* (light, sun, compass, map, guide), *information source/transmitter* (candle, sun water), *formative/shaper* (sculptor, artist, architect, cook). To give a more detailed example from the research, for example; the themes generated from metaphors related to the pre-school teachers are mostly *source of information and transmitter of information* (candle, water, light), *shaper-formative* (sculptors, cooks, artists), *character developers* (mother, friend). Nevertheless, a small proportion of teachers perceived teachers as *protective and reassuring* (carer, bird), *personal development promoter* (gardener, earth), *mechanical being* (robot). Metaphors produced by foreign languages teachers have often been found to be metaphors such as *brand new* (new-born baby), *source of amusement* (entertainers in front of a crowd), and *inspiring interest* (computer speakers). Moreover, it has been observed that very few of the teachers produce themes as *experts, guides and educators*. Teachers of the Hearing Impaired segment produced metaphors for "teacher" as mostly *directing - guiding* (light, sign), *helper* (key, sun), while a relatively small proportion of teachers perceived teachers as *self-sacrificing* (pencil), *shaper* (sculptor). It has been determined that the themes established by the school counselor about "school (psychological) counselors" are mostly *guiding* (lantern, map, light, compass), *helping notice* (mirror, solver of sub-conscious, cleaner of smoked glass) and *developer* (sun, light, third eye). Additionally, a small proportion of teachers perceived teachers as *leaders* (head, ship captain, locomotive), *ambiguous* (dough, nothing, anonymous hero), and *information source* (sun, hard disk, library).

Information Technology Teachers' themes about "information technology teachers" are often found to be *technical staff* (computer technician, technical staff, technical service) and *multi-functional* (GGoogle, all knowing-joker, technology dictionary). Nevertheless, it has emerged that a small proportion of teachers regard themselves as *guides* (guidance teachers, technology guides, electricity).

When the produced metaphors and categories of teachers (A7, A15, A25, A38) are examined in general terms regardless the branch of teachers, it is determined that as a result of these categories, perceptions of teachers mostly are *formative-shaper* (cook, ebru artist, rainbow, architect, construction engineer, cook), *information transmitter* (sun, candle, water), *information spreader, illuminator* (sun, candle, moon) or *an illuminating element* (sun, light, candle), *personal development promoter* (gardener, parent), *guide* (guide, guideline, compass), *educator and developer* (gardener, building master, cook), *career and parent* (babysitter, mother, father). However, only a small part of the teachers perceives teachers as *directing and guiding* (coach, eye, commander), *patience example* (cornerstone of patience, chicken); *a reflective factor* (mirror), *an artist* (sculptor, theatre actor), *a hard worker* (student, ant, collaborator), *a source of life* (tree, water, mountain), *a master* (master, painter, chameleon), *director and guiding* (guide, leader and manager, captain), *energy and information source* (sun, candle/battery, 0 rh + blood group). As a general evaluation, it is seen that the same themes appear under the least and most repetitive themes since the metaphors are individual constructs.

When the metaphors produced by the teachers about the "teacher" and the themes formed in this context are examined, the most repetitive themes in the scope of the research are *directing /guiding/ instructor* (light, sign, love, guide sun, cane, student eye etc.) *formative - shaper/educator - developer* (cook, ebru artist, rainbow architect, civil engineer, engineer, etc.), *information transmitter /information spreader illuminator* (sun, candle, water, encyclopaedia sun, candle, moon etc.), *developer, guide, parent/compassionate/carer and parent* (sun, light, third eye, mother, parent, childminder etc.), *developing/learning (flowerpot) progressivel/developer of and in the society, illuminator, explorer/ indicator of creativity, productivel multifunctional* (sun, light, candle, miner, explorer, Google, all-knowing-joker etc.)

When Table 11 is examined, when the metaphors produced by the prospective teachers about "the teacher" and the themes formed in this context are examined, it is seen that studies on the prospective teachers' perceptions of foreign language teachers (A3, A32, A37), history teachers (A11), pre-school teachers (A17), visual arts teachers (A20), computer teachers (A30), science teachers (A2), mathematics teachers (A34), all discipline teachers without any branch (A9, A18, A19, A23, A24, A28, A39, A40, A42), school counselors (A5), social sciences teachers (A12), visual arts teachers (A21) and computer teachers (A14) are conducted. If we are to give an example about the studies; for example, it is seen in the study coded A26 that before taking an introductory course to the teaching profession, prospective teachers perceive the teacher as *self-sacrificing* (love, sharing, sacred, duty, happiness), *information source* (library, Google site, battery, dictionary) and *illuminative* (sun, rainbow, light, light candle), but after taking the course, their perceptions of teachers gather around the themes of *information source* (library, GGoogle, battery, dictionary), *illuminative* (sun, rainbow, enlightenment, light, candle), *formative* (carpenter, painter, baker, gardener, tailor). It is noteworthy that in the study coded A34, the prospective teachers' metaphors for high school and junior high school mathematics teachers mostly changed, and the "knowledgeable" metaphor was common for teachers at both grade levels. While the metaphors produced by prospective teachers for high school mathematics teachers are often *knowledgeable, intelligent, and successful*, only a small proportion of prospective teachers produced the metaphors *strong, polite and hard*. Moreover, while the metaphor produced by the prospective teachers for the secondary school mathematics teacher is often *authoritarian, knowledgeable, and hard*, a small proportion of the prospective teachers produced the metaphors *powerful, polite and patient*. When we look at the generated metaphors about what kind of teacher they want to be in the future in the study coded A43, , it was found out that 4 categories are formed: *progressive teacher* (sample metaphors: sun, philosopher, light), *restructuring teacher* (gardener, sun, philosopher, ant), *perennialist teacher* (diamond, book, star) and *essentialist teacher* (king, candle, lion, painter), and while mostly perception of progressive and restructuring teacher was found to be in the foreground, perception of perennialist and essentialist was the minority. Similarly, in the study coded A30, metaphors of prospective teachers' for experienced and idealized computer teacher were examined, and it was seen that the metaphors produced by the prospective teachers for experienced computer teachers were gathered in the themes of *super authority figure* (control desk, animal ranger, train), *information provider* (parrot, old time radio) and *shaper-formative* (barbers, robots). The idealized computer teacher of prospective teachers often are *director and guiding* (user manual, compass, route map), *the information provider* (live internet, books, transformers, website) and *shaper-formative* (cook, potter), and it is seen that there is not much difference between prospective teachers' perception of experienced and idealized teachers in their minds. In the research about the pedagogical formation students (A13), it was seen that the metaphors that they produced about teachers mostly consisted of *guidance* (compass, lantern, star, guide, map, orchestra conductor), *quality* (rainbow, hunger for information, chamber, dough, magic wand, mirror) *information source* (tree, dervish, faucet, sculpture shaver, baker). However, a relatively small part of the pedagogical formation students perceives teachers as *devotion* (mountain peak, candles, a long journey, and patience), *challenge/frustration* (worthless stamps, prostitute, and infectious diseases), *director/challenge* (executive, commander, captain). There are also studies where metaphors were not distinguished according to themes. For example, in the study coded A28, it was seen that the prospective teachers' metaphors for the teacher were mostly *sun, gardener, tree*, and a few of the metaphors are *musician, ocean, prism, dealer of gold and precious metals, water, magic wand*.

Table 11. The Study Group Consisted of the Themes and Metaphors that Emerged towards the Teaching in the Prospective Teacher Studies

SG	RC	Top 3 themes	metaphors	Last 3 themes	Metaphors	RC	Top 3 themes	Metaphors	Last 3 themes	Metaphors
PROSPECTIVE TEACHER	A3	Enlightening	light, sun, bulb, month	Discovery	new world	A32	Patience abide	patience, calm sea	Grower	sun, family, tree
		Decision Maker	referee, manager, judge	Shaper	sculpture, architect		As authority	soldier, holy book, orchestra conductor, warrior	In the pitch	puzzles, soup, music, perfume
		Information source	book, dictionary	Treatment	drugstore		Teacher as duty lover	bee, ant, book, clock	Teacher as lifelong	explosive bomb, Fire, steam trailer
	A19	Information source and transfer	car, flash disk, cook, computer	Multidirectional	library, piano, surprise striker, heart	A37	Information source	parents, shining sun, educator	Patch job	thespian
		Devoted	snowdrop, state, candle, mother	Quarrelsome	animal rascal, bad music, winter, lion,		Collaborative leader	orchestra leader, director, coach	Beaver with beer	ant
		Guide	guide, a person who guides, a torch,	Giving perspective	revolutionary window		Joy	clown, toy, actor, theatre	Restorative, therapeutic	doctor, mechanic
	A11	Transporter of historical information	mirror, time machine, water	History researcher	treasure hunter, hungry man	A42	formative	gardener, parents, farmer	Flexible Teacher	tree, family, chameleon
		The repository of historical information	book, piggy bank, hard disk	The person who shape society	community memory, tracker, architect		Guidance	guide, parents, life	Model Teacher	mirror, parent, guide
		As a person who illuminates / guides	key, night light, main beam	Curriculum watchdog	late period Abbasid Caliph, rotten fruits, bananas,		Information source	parent, tree, computer	Teacher doing a sacred job	angel, mother, holy entity
	A39	Information source	newspaper, book, encyclopedia	As a Leader	director, dictator, authority	A18	Guide	guide, advisor, model, compass	Necessary	medicine, aspirin, water
		Guiding / director	guide, consultant, guide	Therapeutic	vitamin, medicine, doctor		Leader	pioneer, commander, president, prime minister	Sacred	holy, angel, god's gift, patience stone
		Formative	gardener, carpenter sculptor	Patience Example	Nature, patience stone, scales		formative	artist, sculptor, painter	Other	television, encrypted box, chocolate
	A24	Information source	tree, lamp, bulb, search engine	Therapeutic and Curative	Medicine, doctor	A17	An educator	gold mine, water, candle, light	-	-
		Motivation Source	atom, food source, sky	Personal Development Source	friend, parent		Model	idol, mother	-	-

	Guidance	lantern, map, light	Leader	shepherd, prophet, coach	Fulfiller of Social needs	flower, quilt, mother, angel-	-		
	Information source	sun, tree	Healing & Restorative	doctor	Information Provider	water, sun, tree	Entertaining theatre player		
A9	Manufacturer and Formative	gardener, sculptor	For example	diamond	A29	Formative & shaper	sculptor, construction master, painter	Therapeutic doctor, psychologist	
	Guidance and director	sea lighthouse, captain, map, compass	Power Indicator	seal		Guidance and director	compass, sea lighthouse, tourist guide	Supporting Individual Development	gardener, farmer, parent
	Information provider	sun, candle, tree / fruit tree	Therapeutic and restorative	doctor, medicine, repairman	Guide	compass, light, projection	Authoritarian	general	
A31	Formative and formative	sculptor, painter, construction master	Entertaining	comedian / entertainer, theatre player	A4	Shaper of Student	tree, orchestra conductor, gardener	Information provider	parrot, chauffeur, machine
	Guidance and guidance	sea lighthouse, compass, polar star	Change agent	fashion designer, script writer		Trainer	parents, sun, friend	Developing Self in Society	shadow, example, hero
	Instructor, tutor and guide	light, sun, guide	Expression of Despair	despair, unemployed, poor	Relaxing / Tranquillizer	doctor, psychologist, medicine	Pusher / Unwanted entity	thorn, dictator, executioner	
A20	As a reflection of life	mirror, rainbow, nature	Expression of love	flower, mother, child	A23	Information source	book, sun, candle	Mechanical entity	clock, television, glasses
	As an expression of diversity	different, freedom, imagination	Artist	artist, aesthetics, art		Guidance / director	compass, guide, parents	Goodbye / Loved	being angel, rose, treasure
	Has information in every field	knowledge, world, human	Supporting Individual Development	parent, person teaching life, explorer	Guidance and counseling	compass, lantern, star, guide, map, orchestra conductor	Vitality	water, family, parents	
A2	As a scientist-researcher	scientist, spectator, researcher	formative	architect	A13	Quality	rainbow, hungry, hopper box, dough	Difficulty / Disappointment	worthless stamp, prostitute, infectious disease
	In terms of personality features	doctor, science, virus	Guidance-Router	guide		Information source	tree, dervish, faucet, shaving sculpture, baker	management / Struggle	administrator, commander, captain
A43	Progressive Teachers of Future	sun, philosopher, light mother, moon, wolf	Perennialist Teachers of Future	diamond, book, star	An educator	water, guide, candle			

	Restructuring Teachers of Future	gardener, sun, ant, philosopher	Essentialist Teachers of Future	king, candle, lion, painter	-	-		
A28	-	sun,	-	musician, ocean,	High school teacher	knowledgeable, intelligent, - successful	strong, polite, hard	
	-	gardener,	-	prism, banker,	Secondary school teacher	authoritarian, knowledgeable, hard	strong, kind, patient	
	1) Before getting a teaching profession course 2) After taking the teaching profession course				1) Experienced teacher-ideal teacher 2) Experienced teacher-ideal teacher			
	1) Devoted, 2) Source of Information	1) love, sharing, holy, duty, happiness, 2) library, Google site, battery, dictionary	1) Authoritarian, 2) Authoritarian	1) commander, chieftain, king, Leader, 2) commander, leader, king, leader	1) Super Authority Figure Guidance and Router	2) 1) control desk, animal rider, train track, 2) user manual, compass, Road map	2) Therapeutic and Restorative program	2) anti-virus program
					1) Information Provider, 2) Information Provider	1) old time radio, 2) live internet, book, transformer, website	2) Collaborative and Democratic Leader	2) opera chef
A26	1) Information Source, 2) Illuminator	1) library, Google site, battery, dictionary, 2) sun, rainbow, light, light, candle	1) Integrator, 2) Innovative	1) wood / pine Tree / tree root, octopus, 2) future, modern Agriculture tool, technology	1) Formative and shaper, 2) Formative and shaper	1) barber, robot, 2) cook, - potter		
					1) Inefficient, 2) Love	1) ornamental plant, ineffective element, empty sheet, 2) sun, mother, spring	1) Researcher, 2) Personal Development	1) intelligence organization, 2) Source mother
	1) Illuminator, 2) Shaper	1) sun, rainbow, light, light, candle, 2) carpenter painter, baker, gardener, tailor	1) Directory, 2) Integrator	1) guide, map, compass, traffic police, 2) tree / pine Tree / tree root, octopus	1) Authority, 2) Information Resource	1) sultan, intelligence organization, 2) Sun, light, candle president	1) Information Resource, 2) Entertaining	1) mathematics, form teacher, 2) song
					1) Productive, 2) Guidance	1) bee, functioning sun, 2) guide, key, flashlight	1) Variable	1) angry birds, earthquake

The metaphors produced by the prospective teachers for the "teacher", regardless of the participants' type and discipline seems mostly to be *information sources/information transmitter/information providers/informed in every field* (book, dictionary, car, flash disk, cook, computer, newspaper, encyclopedia), *illuminator/illuminative/guide* (light, sun, lamp, moon, key, nightlight, main beam) *director/educator, didactic and guide* (guide, consulter, mentor, sea lantern, compass, polar star etc.), *productive and formative/shaper/shaper and formative/shaper of student* (gardener, sculptor, parent, farmer, carpenter etc.), *leader/ collaborator leader/collaborator and democratic leader* (orchestra leader, director, coach, shepherd, prophet, football coach), *authoritarian/power indicator guide* (seal, general, pioneer, commander, president, prime minister, soldier, holy book, conductor, fighters etc.) *source of motivation/joy/recreational, therapeutic and healing* (theatre actor, comedian/entertainer, clown, toy, actor, vitamins, medicines, doctors, etc.). Furthermore, it is also noteworthy that such themes as the *repellent/unwanted being* (thorns, the dictator, the executioner), *challenge/frustration* (worthless stamps, prostitute, infectious diseases), *the expression of hopelessness* (despair, the unemployed, the poor), *teacher as a life-draining* (explosive bombs, fire, steam trailer) emerge.

When Tables 12 and 13 are examined, it is seen there are many studies within the meta-synthesis that examine the perceptions of middle school students in different characteristics and qualifications about the teacher. When studies (A1, A10, A16, A22, A35, and A36) of secondary school students' metaphors about teachers are examined, it is seen that their teacher metaphors are mostly *information providers* (book, sun, encyclopedia, technology) and *a good person* (angel, patient, flower). However, it is also seen that middle school students often produce contradictory metaphors at the same time. To give some examples from the studies conducted, in the study A1, it is seen that the teacher is seen as a good and bad person, while in the study of A22, it is seen that metaphors such as the teacher is a nervous and good person are produced. In the case of the hearing-impaired students, it is observed that the perceptions of teachers are mostly *information sources* (books, students, computers), *helpers* (doctor, father, student), *happiness source* (computer, hairdresser, baby), and a small number of the students produce metaphors similar to *patience* (camel), *in need for help* (parent), *friend* (friend) for teachers. It was found out that the perceptions of the visually impaired students are mainly information sources (books, computers, parents), *parents/compassion* (mother, father) while a few visually impaired students perceive teachers as *director/guiding* (parents, angels), *helpers* (parents, trees), *others* (pearls, fairy tales). When the study of the metaphors produced by foreign secondary school students about teachers (A10) is examined; it is observed that the metaphor for teacher are mostly *intelligent* (genius, dolphin, smart book), *happy and amusing* (rainbow, funny), and *knowledge teaching* (science, new things). It seems that the majority of these Swedish pupils' perceptions differ from the metaphors that most Turkish students have produced in terms of the *intelligent and happy-fun* categorization of teacher perceptions. For the Turkish students, the majority of the good teacher perception was found to be different from the majority perception of the Swedish students. It is seen that a few of the Swedish students produce metaphors for teachers such as only a teacher (normal person, chemist), *helpful* (extra course, friendly), and *important part of our life* (water, banana shell).

It was found out in the study coded (A38) that the middle school students mostly see teacher as *a reassuring and protective element* (mother, father, angel), *information source and transmitter* (book, cloud, computer), *illuminative element* (lantern, sun, star) a small portion of the students perceive the teacher as *a beloved element* (flower, rose), and it is noteworthy that the metaphors formed for teachers are positive.

When the studies investigating the metaphors about the teachers produced by the school administrators are examined, it is noticed that the study coded (A8) differs from the other studies in determining the perceptions of the administrators under the teacher themes of different qualities and different duty positions. The metaphors produced by the administrators about teachers in this study

are *novice* (baby, defenseless birds) for newly appointed teachers, *inefficient* (turtles and extinguished candle) for teachers close to retirement, *powerful* and *selective* (radar, falcon) for single teachers,, *inefficient* (tired people) for married teachers, *strong* (superman) for teachers with children, *powerful* (lion and commander) while lecturing, *talkative* (budgies) while at the teacher's room, *catcher* (police) while on monitor duty, *restless* (students waiting for exam) for teachers on inspection week, *happy* (angel, fun box) for teachers on summer holiday.

When the findings obtained from the researches are evaluated in general, a category that is found to be maximum in a study that examines the metaphors that are formed for teachers may come up as minimum in another study. For example, while the "patience" category in the study coded A32, which examines the metaphorical perceptions of prospective teachers for foreign language teaching, is a metaphor detected at a high rate, it has the least rate in the study coded A3. In this context, it is pointed out that the prospective teachers in the same field may have different metaphors about the teachers in the same discipline, and that many factors such as individual differences, having different experiences or different lifestyle etc. can be considered as a factor as a cause.

It is noteworthy that themes formed for teacher and the metaphors are both positive and negative at the same time, and there are opposite categories emerging through these produced metaphors (A1, A22, A27). Moreover, it is also seen that the perceptions of participants of different qualities and characteristics about teachers in the studies carried out are determined and these perceptions are compared. For example, while the perceptions of the parents and the teachers of teachers were determined in the study coded A33, teacher and students' perceptions of the teacher were determined in the study coded A38. It is also clear that the different participants have positive and negative perceptions of the teacher.

The metaphors produced by the students for the "teacher" are mostly in the themes of *information source/information transfer-transmitter/informed in every field/information provider/information treasure/ information teaching-illuminative* (computer, bee, parent, encyclopedia, (sun, technology, book, computer, parent, book, spider, light, book, cloud) *direction giver/guide/guide - directive - router - effectual* (sun, mirror, candle, eraser , parent, angel, friend, etc.), *parent/compassion/family member/reassuring/observer-protector – concerned-helper-good/lover/protecting supporting person/helper* (parents, angel, doctor, lion, blanket, owl etc.) , *happy and fun* (rainbow, funny, Cem Yilmaz, angel, the person who manages the fun game, extra course, warm-blooded). It is also noteworthy that there are negative themes such as a being to be corrected (wedge), *a bad person* (monster, ruthless, death angel), *an oppressive person* (guardian, queen bee, homework giver), *a selfish person* (self-righteous, egoist, selfish).

Table 12. Themes and Metaphors for the Teacher that Emerged in the Studies that Study Group Consisted of the Student and Administrator

SG	RC	Top 3 themes	Metaphors	Last 3 themes	Metaphors	RC	Top 3 themes	Metaphors	Last 3 themes	Metaphors
SECONDARY SCHOOL STUDENT	A1	An intelligent person	superhero, calculator, intelligent	A creative person	creative, magician, juggler	A16	Information Source-Transmitter	computer, bee, parent, encyclopedia	A being that needs to be adjusted	wedge
		A bad person	monster, ruthless, the reaper	A person who needs to work continuously	at the same time student, hardworking		Guiding-Router-Impressive	sun, mirror, candle, eraser	Who loves and makes love the reading books	knowledge, book
		A good person	angel, patient, patient, understanding	A selfish person	selfish, egoistic, selfish		Observer-protective-Related-Vice-Good	mother, lion, blanket, owl	Patient	butterfly, ink pen, rose
	A22	An angry person	lion, nerve cube, angry bull	Fair	judge, king, sultan	A10	Other	compliment, meaningless,	nature Scientist	green, naturalist
		A sporty person	flexible body, rubber, basketball player, lion, football player, octopus	Hero	angel, saviour, cape		Good	angel, flower	Only a Teacher	only a Teacher
		A good person	angel, cotton, butterfly	Coach	coach		Knowledge Teaching	sun, technology	An Important Part of Our Life	sun, water
	A35	Instructive	flower, book, parent, brain	Guide	sun, gardener, fern	A36	Information Transfer Format	doctor, server, book	Required / Important	nucleotide, light bulb
		Positive Thoughts	flower, angel, gold	Enjoyable	Cem Yilmaz, the angel, the person who manages the fun game,		Information Provider	book, sun, lamp	formative	carpenter, sculptor, architect
		Other (Metaphors that were not be able to place in a categorization)	sun, zombie, bee, chalk	Negative Thoughts	catastrophe, rose, blind knot, math, nervous, traffic accident		Information Owner in every field	in knowledge, intelligence box, info box	Reflective	projection, light, moon
	A27	Seven, the supporting person who protects	mother, father, mother, friend	The main source of education	water, pen, candle	A10	Other	unfinished metaphor, meaningless, slang	Only a Teacher	Seven, the supporting person who protects
		The person who ordered printing	guardian, queen bee, homemaker	Thousand kinds	computer, plant, variable		clever	genius, dolphin, smart book	Helpful	The person who ordered printing
		Information treasure	book, spider, light	-	-		Happy and Fun	rainbow, funny	Important part of our life	Information treasure

A6 Visually Impaired Student	Information source	book, computer, parents	Director / Guiding	parents, angel	Student with Hearing	Information source	Book, student, computer	authority	Information source
	Parenting / Compassionate	mom dad	Help	parents tree		Help	Doctor, father, student	Patient	Parenting / Compassionate
	-	-	Other	Pearl, fairy tale		Source of Happiness	Computer, hairdresser, baby	Need for help	-
A38	A Trusting and Protective Element	mother, father, angel	A popular element	flower, rose	A41	Family member	Mother, proxy mother, second mother	The element of nature	A Trusting and Protective Element
	Information source and transporter	book, cloud, computer transporter				Non-teaching occupation	Guide, baby sitter, gardener	Uncategorized	Information source and transporter
	An Illuminating Element	lantern, sun, star				As a Product, Tool and Source	Lamp, dough machine, sugar		An Illuminating Element

Table 13. School Administrators' Metaphor for Teacher

School Administrators'	Mission New Beginning Teachers (Novice)	baby, vulnerable bird	Idealism	idealist friend, state president, MEB minister, governor	A8	In the class (power)	Lion, commander, bee	Negative image	clerk, telephone, microphone
	Retirement Approaching Teachers (Inefficiency)	turtle and candlelight	Sensuality	goodbye, happy child		While in teachers room (conversation)	Budgerigar, canary, speaker	Comfort	child, flower
	Single Teachers (Power and Selectivity)	lion, wolf, radar, falcon	Freedom	tourists, free birds,		At Monitor Task (catcher)	Mugger, guard, lion	guidance counseling	shepherd, commander, pole star
	Married Teachers (inefficiency)	tired man, train, still water	Guardianship	eagle, umbrella, antivirus		Teachers During Inspection Week (Uneasiness)	Exam waiting student, worried person, hourly bomb	Happiness	happy person
	Teachers with Children (strength)	supermen, lion, captain	Inefficiency	faded flower,		Teachers at Summer Holiday (happiness)	Angel, fun box	Willingness to Renewal	august beetle, planner, student

Suggestions in Metaphorical Studies Targeting Teachers

The studies included in meta-synthesis were examined under 3 themes in terms of suggestions, practice-oriented, new research- oriented, and other.

Table 14. Suggestions in Metaphor Studies Targeting Teachers

	Suggestions	Research Codes	
Practice-oriented	Reorganizing the content of undergraduate pedagogy courses and teaching practice courses	A6, A11-A13, A17, A18-A22, A24, A26, A36, A40	
	Transferring metaphors under the name of professional formation	A15, A26, A31	
	Improving teachers' working conditions in order to make perception of teachers more positive	A42	
	Providing school environments to satisfy the needs of students	A27	
	Prioritization of the joint activities of the Ministry of National Education and universities	A8, A43	
	Using imaginary metaphors in the preparation of visual materials for students	A26	
	Using metaphors as mental tools in the teaching process	A8, A15, A16	
	Improving teachers' professional and personal competences	A1, A6, A16, A18, A23, A35, A38	
	Redefining teachers' job descriptions	A29	
	Providing practice for prospective teachers to increase their motivation for the profession	A13	
New research-oriented	The case studies that reflect the real life practices of teachers can be included	A29	
	The metaphor can be used as a research tool to reveal, perceive, and explain personal perceptions	A33, A42	
	The emerged metaphors can be used as metaphor lists or Likert type scales	A33	
	Comparative studies with various study groups	A3, A19, A29, A32, A33	
	For more diverse and important results, more participants can be included in study	A3, A6, A25, A28, A37, A39,	
	Define perceptions of teachers in different disciplines	A41	
	Perception can be examined according to various variables	A3, A11, A15, A17, A20, A22-A25, A28, A29, A37, A42	
	The diaries can be used as a measurement tool	A3	
	Different data collection tools can be used together	A12, A22, A32, A37	
	Metaphor studies can be conducted in different countries	A32, A37	
	Conducting interdisciplinary studies with the participation of linguistics experts	A6	
	Longitudinal studies which reveal change in beliefs, views and perceptions can be done	A5, A10, A11, A16, A19	
	In order to generalize data in the qualitative type, quantitative research can be done	A5, A29, A34, A39, A40	
	The views of prospective teachers regarding their future professional status can be examined through philosophical, sociological, political and economic perspectives	A43	
	Metaphor researches that focus on what the attitudes are towards teachers and what their ideal teacher roles are can be explored	A2, A4	
	The social status of teachers can be determined through metaphors	A15, A26	
	Other	The dimension of suggestion is not highlighted	A7, A9, A30

When the studies included in Table 14 are examined, it is seen that there are suggestions for current practice as well as new research and other themes.

a) Practice-Oriented Suggestions

Regarding the undergraduate education of prospective teachers, the re-organization of content and applications of pedagogy lectures (A6, A11, A12, A17, A18, A20-A22, A24, A26, A36, A40), the internalization of constructivism, the reorganization of teaching practice lessons (A19, A40), emphasizing solution-oriented, flexible and new educational developments in educational environments, helping to educate faculties of education to carry on educational activities in a closer manner with the state (MEB) schools (A8), the inclusion of case studies reflecting teachers' real life practices (A29), the inclusion of new educational developments in schools, the transfer of certain metaphors under the name of professional formation (A15, A26), asking teachers to produce these certain metaphors for many cases in education system (A26, A31) are proposed.

It is suggested in studies that the need to train leader teachers (A18) who have the knowledge of social identity and citizenship consciousness and who are equipped with essentials of professions is proposed. In this context, improving the working conditions of the teachers (A42) in order to make the teacher perception more positive, providing the school environments that will meet the needs of the students (A27), and putting forward the positive teacher models with the cooperation of the Ministry of National Education and the universities (A43), using of imaginary metaphors in the preparation of visual materials for students (A26), using of metaphors as a powerful mental instrument in the teaching process (A15, A16), the development of professional and personal competences of teachers on the basis of branch (A1, A6, A16, A23, A35, A38), redefining the teacher's job descriptions with the participation of the Ministry of National Education officials and all interested parties (A14) are suggested.

b) Suggestions for New Research

Following points are suggested: Using metaphors as a powerful research tool to reveal, understand and explain personal perceptions (A33, A42), using metaphors produced during research as a source for researchers who will prepare metaphor lists or Likert scales (A33), conducting comparative studies with various study groups (A3, A19, A29, A32, A33), conducting studies with more participants for more different and important results (A3, A6, A25, A28, A37, A39), examining perception according to various variables (A3, A11, A15, A17, A20, A22-A25, A28, A29, A37, A42), using diaries as measurement tools (A3), conducting similar studies in different countries to identify global differences between how teachers describe themselves as teachers and how they are described by their students (A32, A37), using different data collection tools together (A12, A22, A32, A37), performing an interdisciplinary notion of work in the metaphor studies with the contribution of experts in the field of linguistics (A6), conducting researches and longitudinal studies that reveal changes in beliefs, views and perceptions (A5, A29, A34, A39, A40), conducting a qualitative type of study to determine the reason of perception deeper and a quantitative type of study to generalize the data (A5, A29, A34, A39, A40), examining opinions of the prospective teachers related to their future professional positions and their philosophical views towards it in addition to their sociological, political and economic perspectives (A43), identifying teachers' social status through metaphors (A15, A26). Finally, no suggestion for new research could be found in the studies coded A7, A9 and A30.

Discussion, Conclusion and Suggestions

The aim of this study was to do a qualitative meta-synthesis of metaphor studies conducted in Turkey in the area of education and focusing on the concept of “teacher” based on variables that have been pre-determined. In line with this aim, the findings obtained from the meta-synthesis of the 43 studies are presented below.

It has been observed that most studies have focused on the importance of finding out students’, teachers’, teacher candidates’, parents’, and principals’ perceptions of the concept of “teacher” through the use of metaphors. It can be argued that the perceptions of those individuals who constantly communicate with teachers in educational environments and also perceptions of teachers themselves are important. In agreement with this importance, it is possible that those studies were conducted with those individuals who constantly communicate with teachers in order to ensure that those mutual experiences are visible and understandable. In addition, those studies can be considered to be valuable since they have contributed towards a better understanding of what teachers’ individual roles and responsibilities should be through the revelation of their awareness of being a teacher and their perceptions of their professional identity. Moreover, it has been noted that the use of metaphors in the process of training teachers can be effective in correcting teacher candidates’ misconceptions about their future profession and determining the roadmap for their personal and professional development. Since the use of metaphors is an important way of expression that can reveal mind maps, it is possible to argue that the use of metaphors can be an effective tool in finding out teachers’ negative perceptions. It has also been emphasized that the perspectives gained from metaphoric studies conducted in a specific subject area will lead the way to teaching specific subjects and enable a more appropriate organization of the educational environments for students’ success by informing teachers about students’ attitudes towards their teaching and themselves (the teachers). In general, when we consider the *importance* of those studies, it is possible to group them in terms of awareness of the profession, efficiency in education, contribution to the literature, and sense of duty and responsibility. With regards to the teaching profession, it can be said that revealing the qualities that teachers should have is considered to be essential. The fact that language provides substantial clues about thought has increased the importance of metaphors and allowed conceptual analyses to be done intensely. In fact, all of those metaphor studies indicate the significance of using metaphors in education.

When metaphor studies are examined in terms of the data collection tools used in forming the metaphors about the concept of “teacher”, it can be seen that most studies (regardless of the subject area) employed open-ended questionnaire that includes questions such as “*Teacher is like .../ Teacher resembles... because...*”, “*How do you think the concept of ‘teacher’ can be explained using different words? Why?*”, “*Teaching is like... because...*”, and “*In the future, I would like to be a teacher like... because...*”. It is possible that the high frequency of the use of the same data collection tools in studies conducted abroad and in Turkey has increased researchers’ tendency to use the same data collection tools. It can be seen that data collection tools similar to the above mentioned ones are used in a number of studies that aimed to find out what kind of “teacher” metaphors are used by teachers and students in specific subject areas. Nevertheless, it can also be seen that researchers interviewed students and made them write compositions and draw pictures in a number of studies. If the aim is to unfold the images in individuals’ minds about the phenomenon under investigation, then the use of tools that allow in-depth data collection will help researchers find out detailed information. The fact that several studies employed data collection techniques such as interviews, composition writing, and drawing pictures has allowed to find more detailed and key information regarding metaphors. Therefore, the concept of “teacher” within an individual’s mind can be better explored with questions like “*What has caused you to think or feel this way? What happened?*” in addition to questions like “*Teacher is like .../ Teacher resembles...*”

because...". According to Connelly and Clandinin (1988), perhaps listening to conversations is the best way to describe metaphors. This can help the emergence of emotions and thoughts regarding the concept of "teacher" in one's mind.

Phenomena are objects and/or aspects that are known to us through experience. Thus, emotions, ideas, and experiences can be expanded through more detailed questions about whether they belong to the past, present, or the future. For example, the meaning or emotions that a teacher candidate created in his/her mind regarding "teacher" as a result of their past experiences of a bad teacher behaviour might not necessarily be the same as the meaning or emotions about "teacher" that they currently possess. This ambiguity should be made clear. We observe that metaphors have been described as enablers to create links between phenomena or to reflect a mental schema on the other (Saban, 2008), and "a strong mental mapping and modeling tool that help individuals understand the world and structure it" (Arslan & Bayrakçı, 2006, p. 103). Based on these definitions, it is possible to make use of individuals' mind maps in uncovering metaphors. This is because mind maps are processes of revealing the ideas in our mind (Brinkmann, 2003). From this perspective, mind maps can be used as visual tools to create representations of knowledge, or rediscover the experiences or knowledge within our mind. Thanks to these visual tools, "teacher" metaphors that are created as a result of our experiences can offer us more detailed information. In other words, by creating more metaphors, we are not considering only one aspect of the phenomenon under investigation, but several aspects of it. Below is an example of a "teacher" mind map prepared by a ninth grade student for the purposes of this study presented (see Figure 1). Providing an example of a real application is important since it offers a concrete example for the present research.

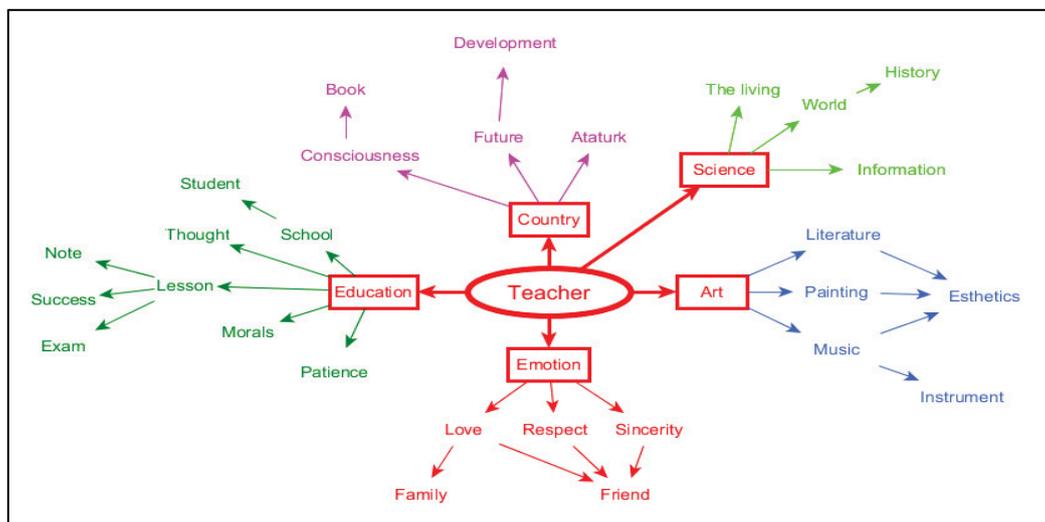


Figure 1. Example of a Real Application

When the studies included in the meta-synthesis are examined in terms of research design, it can be seen that various research strategies have been utilized within the qualitative paradigm. There is an abundance of research methods sources in studies reviewed in this meta-analysis, and different concepts have been used in relation to similar research methods. It has been found that a number of studies included terms such as "qualitative research method" + "a descriptive study utilizing survey"/ "descriptive survey model"/ "survey method". A few included "qualitative research method"/ "qualitative research strategy" or "qualitative research approach". Some included "qualitative research method" + "descriptive study utilizing survey method"/ "descriptive survey method". Others included "phenomenology"/ "phenomenological design", and few included "metaphor analysis"/ "discourse based metaphor analysis techniques"/ "metaphor analysis methodology". A number of sources consider

the survey method within qualitative research while others consider it as a separate research methodology. The reason for this variety could be the different sources that those researchers made use of or the different perspectives they might have on research methods. A number of the studies examined have been found to utilize quantitative research methods. However, since the present study is a qualitative one, only qualitative findings have been considered. Few studies have been found to adopt phenomenology. Phenomenology is one of the most important methods within the qualitative research paradigm. Phenomenological research studies the essence of phenomena (Van Manen, 1990). These essences constitute the basic meanings of our understandings which have been formed as a result of mutually experienced phenomenon (Patton, 2014). Finding how we combine those experiences is the main purpose of phenomenological research. Analyzing metaphors in phenomenological research can be quite effective since it can reveal individuals' experiences through symbols. However, phenomenological studies should not be reduced to metaphorical analysis. This is because phenomenological research involves an in-depth analysis of individual experiences of a given phenomenon, and the primary sources of data collection are participatory observation and interviews (Patton, 2014). Therefore, metaphor analyses, on their own, may not be sufficient for phenomenological research though they may form a dimension of the experience. Miller and Fredericks (1988) note that metaphors, in addition to providing rich data about topics related to subjectivism and positivism, can be used for triangulation in qualitative research. The fact that a number of studies utilized data collection strategies apart from linguistic analysis of concepts (i.e. few researchers conducted interviews) can be considered to have contributed towards phenomenological research to reach its objective.

Validity and reliability analysis of studies included in the meta-analysis show that researchers consulted experts and calculated reliability coefficients to increase reliability, and included direct quotations to increase the validity. Additionally, few studies considered internal and external validity and internal and external reliability. Validity and reliability are important concerns related to the creation of a conceptual framework, the collection, analysis and interpretation of data, and the presentation of findings in research studies (Merriam, 2009). Lincoln and Guba (1985) have proposed alternative concepts in qualitative research to the concepts of validity and reliability used in the quantitative research. They used the concepts of 'transferability', 'credibility', 'confirmability' and 'dependability' in qualitative research instead of quantitative research concepts of 'external reliability', 'internal reliability', 'external validity' and 'internal validity' respectively. These concepts can also be used in research studies. Credibility is a key measure in qualitative research. This is because the answer given to the question "*Do researchers really measure what they think they are measuring?*" is important. Credibility is also important in metaphor studies. This is because credibility highlights that research studies need to be more convincing to be able to infer meanings from the discourse about the concept of "teacher" and create themes based on those meanings. Therefore, as mentioned above, triangulation can be carried out. Findings can be triangulated in terms of research methods, data sources, investigators, or theory (Patton, 2014). It has been observed that a number of studies included in the meta-analysis provided details of how they triangulated their findings. It has also been observed that researchers did member checks after they analysed the data in order to increase the credibility of their findings. Furthermore, it can be seen that credibility has been established in most of the studies included in this meta-analysis since they have explained their research process in detail.

As for the data analysis techniques used, it has been found that most of the studies included in the meta-analysis utilized content analysis to analyze the collected data while few studies utilized both content analysis and descriptive analysis. It has also been found that content-based metaphorical analysis, discourse analysis (of metaphors), and categorical analysis, a type of content analysis in which the data is categorized and frequencies (f) and percentages (%) are calculated, have been used. In most

studies, the categories for metaphors were developed in the following order: 1) naming, 2) elimination, 3) development of categories, 4) creation of themes, 5) establishing reliability and validity, 6) measuring frequencies and percentages, and 7) evaluation. Few studies have been found to have included the list of metaphors generated in the study without the creation of categories and themes. As explained, in most studies, metaphors about the concept of “teacher” as perceived by participants have been identified, and those metaphors have been categorized in search of conceptual categories (themes). These conceptual categories can be referred to as hyper-metaphors. This is because the categories that researchers create at the end of such analyses can also be considered as metaphors. That is to say, what has been told is being retold in a new way. In development of categories, researchers need to be certain about whether the metaphor serves the category or the category serves the metaphor. In some cases, it is possible that researchers make the mistake of manipulating metaphors in order to adapt it to the category. Therefore, since metaphors can carry implied associations, researchers need to be certain about whether the conveyed message is actually the message that they want to convey (Patton, 2014). One of the most important considerations in the process of categorizing metaphors is whether there is a substantive consistency between the target field and the source domain. The metaphor under investigation needs to semantically correspond to the source domain. Since linguistic analysis processes are foregrounded in the analysis process, it becomes imperative that researchers collaborate with linguists in such studies. It has been observed that few studies made suggestions with regards to this issue. Additionally, it has been found that a number of studies made use of pictures to identify metaphors about the concept of “teacher”. Pictures can be considered as a good data collection tool to identify metaphors. The reason for this is that, similar to words and letters, pictures can be considered to be convenient tools to reveal individuals’ ideas about different concepts (Köseoğlu, 2015). It is important that researchers collaborate with experts, who have the skills to analyze psychological picture tests, in studies that include an element of picture analysis. This is because there are several things to consider when analyzing pictures (i.e. the locations of the drawings on the page, the use of the paper, the shape of the drawings). Since interpreting pictures requires a special area of expertise, it would be helpful if details of experts with whom researchers collaborate and the analyses they carry out are provided.

The metaphors that have been found on the concept of “teacher” in the studies included in the meta-analysis have been examined and presented in detail in the results section of the paper. Even though participants in those studies have been different, it has been found that the concept of “teacher” has been described within the frame of similar themes across studies. For example, when the metaphors about the concept of “teacher” which were developed by parents and the created themes are examined, teacher roles have been found as source and transmitter of information (example metaphors: book, light, water), developers and moulders of students (sculptor, constructor, painter), and developers of learners’ characters (mother, psychologist, wise person). Regardless of the types of participants (i.e. student, teacher, parent) and the subject area of teaching, the metaphors that teachers themselves have reported about the concept of “teacher” have been found to be centered around themes such as guide (light, sun, compass, map, mentor), source and transmitter of knowledge (candle, sun, water), and developers and moulders (sculptor, artist, architect, cook). Similarly, in most studies the metaphors that preservice teachers reported on the concept of “teacher” have been found to be centered around themes such as source and transmitter of knowledge (book, tree, sun, candle), developers and moulders (sculptor, constructor, painter, artist), and guide (lighthouse, compass, light, sun, mentor). In addition, the analysis of studies that have been conducted with secondary school students has shown that the metaphors students have reported could be categorized as transmitters of knowledge (book, sun, encyclopaedia, technology) and developers-moulders and a good person (angel, patient, flower). It can be concluded that the mental images of “teacher” did not differ significantly across parents, students, preservice

teachers and teachers. Thus, it can be interpreted that the experiences participants gained about “teacher” are mutually visible and recognizable. On the other hand, it should also be noted that negative themes such as unlikable/undesirable entity (thorn, dictator, executioner), difficulty/ disappointment (worthless stamp, prostitute, infectious disease), expression of despair (despair, unemployed, poor), teacher as life-drainer (bomb, fire, steam tug), an entity that needs straightening (wedge), a bad person (monster, merciless, the angel of death), an oppressor/someone who orders others (warden, queen bee, s/he who gives homework), and a selfish person (narcissist, egoist, self-centered) have emerged in studies the participants of which were students and preservice teachers. It is possible that individuals’ previous experiences with their teachers have been influential in the emergence of such negative metaphors. Based on this, it is possible that the innovation movements have not have reached their goals within the context of changing paradigms in the education system. As for prospective teachers, it is possible that the applications that teacher-training institutions have undertaken in order to reach the affective domain goals for the teaching profession have been inadequate. In Acar Erdol, Erginer, and Erginer’s (2015) study, pre-service teachers defined the teachers who had left their marks on students as materialist, troublemaker, boring, egoist, merciless, s/he who has made students experience failure, unjust, and cruel. The fact that teachers have been associated with negative characteristics by students in those studies creates the necessity to observe teachers’ behaviour in educational environments. This is because a teacher with negative personality and professional characteristics can cause student failure and alienate them from educational environments (Erden, 1998).

When the findings of the studies included in the meta-synthesis are taken into account, the evaluation of the created categories based on metaphors suggest that the aim of metaphorical expressions are not to state an issue in a simple way as it normally is, but rather to state it in a way that will cause a certain effect and leave a mark (Porzig, 1995). Metaphors lead to the start of cognitive processes within readers or listeners’ minds, and these cognitive processes result in affective effects on individuals (Girmen, 2007). These processes mutually feed and affect each other (Girmen, 2007). Metaphors should therefore be chosen with the consideration of how the people depicted in metaphors would feel and how the targeted readers would react (Patton, 2014). It has been observed that negative categories have been created based on “teacher” metaphors that have been reported in studies included in the meta-analysis (Such as the category of *lazy* that has been developed based on metaphors such as free loader, empty bottle, and disinterested; the category of *difficulty/disappointment* based on metaphors such as worthless stamp, prostitute, and infectious disease; the category of *teacher as life-drainer* based on metaphors such as bomb, fire, steam tug, and boss, and so on). These hyper-metaphors (themes) on the concept of “teacher” may disturb teachers and teacher candidates. In other words, it is possible that readers develop biases towards teachers which may, later on, become stereotypes.

Considering the suggestions provided in the studies included in the meta-analysis, it has been implied that that metaphor studies should be conducted in detail on various issues related to teachers, students, teaching/learning process, parents, and pre-service teachers. With regards to this, various suggestions have been made in relation to the teacher training system such as redesigning lessons about professional teaching knowledge, that teachers professional and personal development is important and should be paid attention to, that metaphors be used in teacher training programs since they can reveal teachers’ negative attitudes and beliefs regarding their profession, that teachers’ working conditions should be improved, and that metaphors should be used mutually within the classroom as a part of teacher-student interaction. Additionally, a number of researchers have noted that further research can be carried out using Likert scales. Utilizing Likert scales can be considered to limit metaphors or cause metaphors’ meaning not to be the same as the meaning created within an individual’s mind. If the aim is to reveal the meaning within an individual’s mind in detail, then, anchors such as “I do not agree”, “I partly agree”, “I am not sure”, and “I partly agree” could prevent

the researcher from understanding what the individual actually tries to convey. Considering this, the following question becomes an important issue: "Should Likert scales be used in such situations?". Furthermore, researchers have noted that further research can be carried out with more participants. Regarding this, the question that needs to be asked is: "Does the number of participants really matter for a better understanding of metaphors?".

In conclusion, the general evaluation of the metaphor studies on the concept of "teacher" shows that most of the research in this area has been conducted as case studies. However, metaphors can be useful tools to analyze all types of variables that affect the teaching/learning process (i.e. the classroom environment, student-teacher relationships, individual perceptions, family-teacher relationships, and affective domains). For example, metaphors can serve as the basis for an action research project. In such research, reciprocal perceptions can be elaborated via the use of metaphors, and, thanks to that, metaphors can be transformed into more useful and functional tools in solving problems of education. Extracurricular activities in which teachers and students can comfortably express their thoughts about each other should be organized so that the metaphors, which students and teachers have about the concept of "teacher", can be rendered as positive. In such activities, reciprocal thoughts should be shared, and it is necessary to ensure that the resulting ideas are considered as data which can help with providing a solution to the negativities that emerge. Teachers have an important responsibility in ensuring the successful completion of such processes. With regards to this, the necessity arises to provide learning environments in which candidates are encouraged to develop reflective thinking skills during their training to become teachers. It is seen that such studies are needed in the literature. Additionally, since single metaphors, which are created in the context of the questions asked to individuals, can only reflect a little part of individuals' mental maps of the phenomenon under investigation, it can be concluded that further metaphor studies in which multiple data collection tools are used need to be conducted. Expanding on and detailed studies, especially those conducted with pre-service teachers who would become teachers of tomorrow and who still have negative images, would have significant contributions to the field. This is because the process of preparing teacher candidates who have negative perceptions of their profession would not be productive. Additionally, the state of having a negative perception would also prevent candidates from fully committing themselves to their future jobs. Therefore, first of all, it is necessary to present pre-service teachers who have recently started their training process with learning experiences that will enable them to constantly interact with real environments that can be good examples for the development of positive perceptions. This highlights the necessity to include subjects that can enable real classroom interaction in initial years of preservice teachers' training process rather than the final year. Furthermore, metaphors can be used effectively in teacher training programs in the processes of understanding the "self" and increasing awareness of the profession. Last but not least, metaphors can also be important tools in the process of teachers' reflecting on their teaching.

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Appendix 1. The Studies Included in Meta-Synthesis

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