



## Special Education Candidate Teachers' Metaphors about Social Media\*

Hakkı Bağcı<sup>1</sup> & Özlem Aslan Bağcı<sup>2</sup>

<sup>1,2</sup> Sakarya University, Turkey

### ARTICLE INFO

#### Article History:

Received 16.12.2019

Received in revised form

23.01.2020

Accepted 14.02.2020

Available online

04.05.2020

### ABSTRACT

Because technology is developing each day and internet is getting easier to access, the types of communication among the people also have a constant alteration. Social media being one of the leads, especially the students undergoing an education frequently use these new communication styles. Studies in this context suggest that students do not use social media only to communicate with each other but also to exchange information, cooperate and share their class materials. In this regard, the perspectives of those who will be teaching students with special needs regarding social media are important to focus on. Therefore, this inquiry aims to identify the approaches of special education candidate teachers about social media courses through metaphors. The phenomenological research design was applied in this study. Participants were chosen from the candidate teachers who studied Special Education Teaching at Sakarya University Education Faculty in 2017 and 2018. The data was collected through the forms which had expressions as "because it is ... social media is like ..." and content analysis was used to examine this data. The forms were filled by 87 participants and the results show that they have developed 81 different metaphors. Based on the reasons for these metaphors researchers formed 6 categories: life colour, side effect, object, dependency, necessity and waste of time. It was also observed that the perspectives of special education candidate teachers about social media courses were typically positive.

© 2020 IJPES. All rights reserved

#### Keywords:

Social media, metaphor, special education, teacher candidate

### 1. Introduction

Types of communication within the changing world are mostly supported by technology and the internet. Education systems in recent times also have been influenced by these rapid developments and alterations. Technology has then become an indissoluble part of education. These changes have reflected on the education of teachers as well. However, this reflection has become a matter of dispute. While some teachers find this speedy evolution quite scary and dizzy, some others find it as an advantage of education. Particularly students usually benefit from these communication methods.

Today, people's communication environments take a different form, especially with the rapid development of the internet. After increasing proper internet usage in the late 1990s, spreading webs in 2000s and approval of social media, these platforms became the most popular environments for individuals of all ages (Vural and Bat, 2010). People using social media do not perform unidirectional communication but they instantly interact and exchange information (Alav, 2014). Therefore, social media allow diverse opinions, perspectives and experiences to be shared on the internet (Weinberg, 2009). In another definition, social media is what allows people to express themselves, convey their thoughts to other people on the same courses such as blogs, social networks and video games (Kaplan and Haenlein 2010). Thanks to all these opportunities people almost at all

\* This study was presented as an oral presentation at the International Conference on Special Education (ICSE – 2017).

† Corresponding author's address: Sakarya University, Vocational School of Adapazarı, Turkey

Telephone: +902642953737

Fax: +902642956689

e-mail: [hbagci@sakarya.edu.tr](mailto:hbagci@sakarya.edu.tr)

<http://dx.doi.org/10.17220/ijpes.2020.02.017>

ages use social media. Distances get closer, even disappear and people can share anything without a need for face to face communication. Because it can be constantly updated, accessed by everyone and allows sharing on digital platforms, social media is one of the most practised communication tools.

In terms of the opportunities, social media features can be ordered as (Mayfird, 2008):

Encourages participants and receives feedback from all users.

Social media is the most open platform for feedbacks by the users and them. Therefore, these services trigger their users for issues such as commenting, voting and information exchange. These platforms are prohibited though rarely.

Because social media allows dual conversation it is better than traditional media organisations.

It allows users to produce rapid and efficient content. Thus, users share photos, opinions, entertainment and tabloids in which they are interested.

Since social media has these immersive features, it does inform people and direct communities. Through various platforms it has, the influence of social media on education, shopping and health increase each day.

People from different ages use social media for different purposes. It has become a stage and tool for recreation, entertaining, chatting, exchanging information and following the daily news (Solmaz, Tekin, Herzem and Demir, 2013). It is one of the most favoured communication tools by university students. Studies suggest that university students do not use social media only to communicate with each other but also to exchange information, cooperate and share their class materials. The literature about social media and why it is used increasing in recent years. The research conducted by Vural and Bat (2010) indicates that students use social media to spend time, chat online, update their profiles, check what their friends are doing, find new friends and play non-interactive video games. Horzum (2016) investigated whether the objectives of using Facebook are related to gender and five major personalities in the case of a Turkish university student. As a result of the study, it was seen that male students use Facebook mostly for social purposes and female students use educational purposes. Küçükali (2016) observed that students' intensive social media use is due to the intensity of cultural structure, affinity and friendship. Karaboga (2018) in a similar study found that university students actively use social media and they mostly use it to communicate their friends and speak with them. Another result demonstrated that students believe that people on social media do not behave frankly, are not helpful and do not develop sincere friendships. Correa, Hinsley and Zuniga (2010) similarly found that teenagers used social media to communicate and interact and structure a digital platform. Aküzüm & Saraçoğlu (2017), on the other hand, found that teacher candidates think that social media cause isolation and do not help to gain a social capacity.

Recent studies show that social media is increasing its importance in today's technology and information era. In other words, social media courses support university students, academics, institutions in enriching their experiences, widening participation and social connection and peer support (Jones, Blackey, Fitzgibbon & Chew, 2010). Besides, because these courses help with cooperative learning, intergroup interaction, instant feedback and information exchange, social media has a role in teacher education.

Unlike traditional media, digital media allows users to be active producers (Karasu & Arıkan, 2016). In this sense, it is possible to state that the perceptions of teachers that start to improve in their undergraduate educations and teacher education before service keep improving throughout their professional life (Aktekin, 2010).

The main purpose of special education is providing education for all people with all types of disability based on their needs. Technology usage in special education might be handled in three main areas: assisting technologies to cross specific hurdles, computerized technologies to support academic studies and social networks easing learning processes (Ludlow, 2001). Therefore, familiarity, attitudes and perceptions of special education teachers regarding social media have a direct effect on their teaching methods. Social media in this context help with teachers' communication with parents, open the ways for those who cannot contact their friends at school due to their disability. Furthermore, being able to use new technologies is one of the first rules of professional practice and education standards (CEC, 2014). In this regard, studying perspectives of special education teachers about social media is critical, as they will be teaching handicapped individuals in

future. Using metaphors as a data collection method in defining the perceptions of special education teachers about social media will be able to exhibit a different point of views. Metaphors could be seen as cognitive strategies to develop our perceptions about events and find an extra point of view (Palmquist, 1996). Although they are performed much in daily usage, not only in language, metaphors also have a significant effect on thought and movement (Lakoff & Mark, 2005).

Metaphor is a tool as it reveals how a human mind percept a concept. Through metaphors, it gets possible to comment on a concept and relate it to past issues. Using them for a social media study conducted on candidate teachers will allow understanding what social media is and if candidate teachers have any information regarding these platforms.

This study aims to identify the approaches of special education candidate teachers about "social media" concept through metaphors. Based on this main aim, we have tried to answer the following questions:

1. What kind of metaphors special education candidate teachers use in describing social media?
2. How these metaphors which are related to social media could be categorized according to their common traits.

## **2. Methodology**

In this part of the article the model of the research, participants, data collection tools and analyzing data will be given.

### **2.1. The model of the research**

Because this study identifies the experiences and knowledge of special education candidate teachers about social media courses, phenomenological research design, a qualitative method, was applied. Phenomenology is an inductive approach to qualitative research that focuses on the commonality of a lived experience within a particular group. The fundamental goal of the approach is to arrive at a description of the nature of the particular phenomenon (Saban & Ersoy, 2017).

### **2.2 Participants**

Participants were chosen from 87 candidate teachers who studied Special Education Teaching at Sakarya University Education Faculty in 2017 and 2018. As a sampling method, we applied convenience sampling that is used in qualitative studies. Convenience sampling is a method which helps the researchers to gain practicality and run up as they are working on an accessible and close situation (Yıldırım & Şimşek, 2005).

### **2.3. Data Collection Tool**

Researchers developed two forms as a way to collect the data. One is for the instructions and the second is for the social media questions.

Metaphors as a research and data collection method is an important technique through which notions are verified based on a wide range of variables (Jensen, 2006). Particularly in social sciences metaphors are indirectly benefitted when data cannot impartially be collected (Jensen, 2006; Saban, 2008). A metaphor which is meaningful and assessed is formed of two components called analogy and assimilable (Kovecses, 2002). Therefore, it is important to ask "why" to attribute a meaning to metaphors. These meanings are used to analyse metaphors (Yıldırım & Şimşek, 2005). To identify the perceptions of special education candidate teachers about social media courses they are requested to complete sentences as "because it is ... social media is like ...". These forms which were written by the participants were collected and analysed by the researchers. Although at the beginning we have explained the data process we tried not to direct/influence the teacher candidates. Candidate teachers were given 20-25 minutes to specify their metaphors and then the forms were collected.

## 2.4. Analysing the Data

Data gathered from the special education candidate teachers were organised after reading by the researchers. Some of the forms were not included in the analyses as they did not have metaphors, they were unclear or there were more than one metaphors. After excluding the inappropriate ones, 81 forms were metaphorically analysed. To analyse this data, we pursued the method developed by Saban, 2008; Güven & Güven, 2009; Ulukök, Bayram & Selvi, 2015. Phases of this analyse are ordered as: naming the metaphors, choosing, coding, categorising, verifying its validity and credibility.

At the level of naming, the metaphors mentioned by the special education candidate teachers were noted with their reasons and the convenience between the metaphors and reasons was examined.

At the level of choosing and coding, the metaphors mentioned by the special education candidate teachers were checked and carefully selected. They were then temporarily classified in terms of their similarities and common traits.

At the level of categorising, the metaphors mentioned by the special education candidate teachers were analysed in terms of their common traits.

At the level of validity and credibility, to double-check if the metaphors were represented by the categories, the credibility of the study were found by 90% after comparing the answers of two researchers separately based on the formula developed by Miles and Huberman in 1994 which is called divergence+agreement. Data which were found credible and suitable for analysing changed into codes; the codes were changed into themes and then they were interpreted in titles.

## 3. Findings

The metaphors which were developed by the special education candidate teachers about social media were interpreted after analysing them individually. The metaphors which were developed by 87 participants intended for inclusion analysed. Firstly, we checked what these metaphors were used for and then we classified them according to the results. 81 metaphors were obtained out of 87 special education candidate teachers and these metaphors were classified under 5 titles (Table 1).

**Table 1.** Distribution of developed metaphors by categories

Categories	N	%
Colour of Life	27	33,33
Side Effect	19	23,46
Object	14	17,28
Addiction	9	11,11
Necessity	7	8,64
Waste of Time	5	6,18
<b>Total</b>	<b>81</b>	<b>100</b>

Table 1 demonstrates that the "colour of life" is one of the most evident metaphors by 33.33%. "Side effect" by 23 % and "object" by 17 % are the following rates. Addiction by 11%, necessity by 8% and "waste of time" by 6% are some other metaphors developed by the special education candidate teachers. These categories have been ordered in titles below.

### The Metaphors Developed by the Special Education Candidate Teachers about Social Media in Terms of "Colour of Life" Category

The most preferred category by the special education candidate teachers was "Colour of Life" and the metaphors forming this category are showed in Table 2.

**Table 2.** Metaphors intended for Social Media Used in the “Color of Life” Category

Color of Life	f	%
Well	3	11,1
A Small World	3	11,1
Free Thinking Environment	2	7,41
News Environment	2	7,41
Rich Dump	2	7,41
Swamp	2	7,41
Space Void	2	7,41
Warehouse	2	7,41
A Closed Box	2	7,41
Virtual World	1	3,7
Swimming in the Wavy Sea	1	3,7
Brave Heart	1	3,7
Pit	1	3,7
Mountain	1	3,7
Village	1	3,7
Show Square	1	3,7
<b>Total</b>	<b>27</b>	<b>100</b>

Table 2 suggests that 27 special education candidate teachers used 16 different metaphors regarding the "colour of life" category. These metaphors also imply that special education candidate teachers see social media as “shining colour” of life. In other words, it can be stated that the majority of special education candidate teachers see social media as the bright color of life. The most visible metaphors in the “colour of life” category are “well” and “a small world”.

Some examples regarding “colour of life” category have been given below:

- *Because we can express our thoughts social media is like the platform for freedom of expression.*
- *Social media is like a bog which you cannot survive once you are down.*
- *It is just like the world. It has both enlightened and dark parts.*
- *It is just like a garbage dump. Like an enthalpy where some people find what they need and some others do not.*

### The Metaphors Developed by the Special Education Candidate Teachers about Social Media in Terms of “Side Effect” Category

One of the most preferred categories by the special education candidate teachers was “side effect” and the metaphors forming this category are given in Table 3.

**Table 3.** Metaphors intended for Social Media Used in the “Side Effect” Category

Side Effect	f	%
Drug	9	47.37
Alcohol	3	15.79
Medicine	3	15.79
Cigarette	2	10.53
Scorpion	1	5.26
Snake	1	5.26
<b>Total</b>	<b>19</b>	<b>100</b>

Table 3 shows that 19 special education candidate teachers used 6 different metaphors regarding the "side effect" category. These metaphors indicate that social media has “side effects” on users. The metaphor which has the highest frequency about social media is “drug”. “Alcohol” and “medicine” metaphors also were mentioned.

Some examples regarding “side effect” category have been given below:

- *Because once check you cannot leave until morning times it is like drugs.*
- *It is like medicine which helps only when you have it at the suggested dose.*
- *Social media is like a scorpion, poisons new generations.*
- *It like a snake. It has poison at head part but also antivenin at the tale which means it is both beneficial and harmful.*

### The Metaphors Developed by the Special Education Candidate Teachers about Social Media in Terms of “Object” Category

One of the most preferred categories by the special education candidate teachers was “object” and the metaphors forming this category are given in Table 4.

**Table 4.** Metaphors intended for Social Media Used in the “Object” Category

<b>Objcet</b>	<b>f</b>	<b>%</b>
Book	1	7.14
Tire	1	7.14
Key	1	7.14
Flower	1	7.14
Bulb	1	7.14
Coriander	1	7.14
Construction Machine	1	7.14
Ivy	1	7.14
Tree	1	7.14
Fossil fuel	1	7.14
Gum	1	7.14
Pebbles	1	7.14
Black cloud and sun	1	7.14
Cotton candy	1	7.14
<b>Total</b>	<b>14</b>	

Table 4 shows that 14 special education candidate teachers used 14 different metaphors regarding “object” category. These metaphors indicate that special education candidate teachers see social media something like a hand-held object. In other words, it can be stated that some of the special education candidate teachers see social media as a tangible object.

Some examples regarding “object” category have been given below:

- *Social media is like rubber. It goes wherever you pull it. Either good or bad.*
- *Social media is like pebbles. They are small but also, unlike each-other. Different approaches to social media are like pebbles.*
- *It is like a flower. If you are too much interested in you may kill it which means if we give too much time to it, it might become harmful for us.*

### The Metaphors Developed by the Special Education Candidate Teachers about Social Media in Terms of “Addiction” Category

One of the most preferred categories by the special education candidate teachers was “addiction” and the metaphors forming this category are given in Table 5.

**Table 5.** Metaphors intended for Social Media Used in the “Addiction” Category

Addiction	f	%
Whirlpool	3	33.33
Spider web	2	22.23
Bridge	1	11.11
Octopus	1	11.11
Tornado	1	11.11
Neighbourhood Gossip Headman	1	11.11
<b>Total</b>	<b>9</b>	<b>100</b>

Table 5 shows that 9 special education candidate teachers used 6 different metaphors regarding the "addiction" category. These metaphors indicate that special education candidate teachers think social media is addictive. The most visible metaphors in the “addiction” category are “whirlpool” and “spider web”.

Some examples regarding “addiction” category have been given below:

- *Social media is a spider web. Although it is a communication web we must always keep in mind that it is still a web which may imprison us.*
- *It is like a whirlpool. Once you start you cannot stop yourself. You simply want to stay in it.*
- *It is like an octopus. Through social media, our hands can access anywhere and any information.*

### The Metaphors Developed by the Special Education Candidate Teachers about Social Media in Terms of “Necessity” Category

One of the most preferred categories by the special education candidate teachers was “necessity” and the metaphors forming this category are given in Table 6.

**Table 6.** Metaphors intended for Social Media Used in the “Necessity” Category

Necessity	f	%
Food and Water	4	57.14
Oxygen	2	28.57
Friend	1	14.29
<b>Total</b>	<b>7</b>	<b>100</b>

Table 6 shows that 7 special education candidate teachers used 3 different metaphors regarding the "necessity" category. These metaphors indicate that special education candidate teachers think social media is a necessity which is a must. People need it. The most visible metaphors in the “necessity” category are “water” and “food”. “Oxygen” is also another metaphor that has a high frequency.

Some examples regarding the “necessity” category have been given below:

- *Because life is based on it, social media is like the breath we take.*
- *It is like oxygen which enables me to breath.*
- *It is like a friend who can either make or break. Yet you can still control this.*

### The Metaphors Developed by the Special Education Candidate Teachers about Social Media in Terms of “Waste of Time” Category

One of the preferred categories by the special education candidate teachers was “waste of time” and the metaphors forming this category are given in Table 7.

**Table 7.** Metaphors intended for Social Media Used in the “Waste of Time” Category

Waste of Time	f	%
Time killer	2	40.00
Virus	1	20.00
Bacterium	1	20.00
The habit we can't leave	1	20.00
<b>Total</b>	<b>5</b>	<b>100</b>

Table 7 figures that 5 special education candidate teachers used 4 different metaphors regarding “waste of time” category. These metaphors indicate that special education candidate teachers think social media is a waste of time. The most noticeable metaphor in the “waste of time” category is “time killer”.

Some examples regarding “waste of time” category have been given below:

- *Because you do not understand how time goes there, social media is like a time stealer.*
- *It is like an addictive habit which we can either use in a good way or bad way.*
- *It is a time killer and we spend all our time there, necessarily or not.*

#### 4. Conclusion and Recommendations

Social media enables people to get information and exchange it by presenting them with different alternatives. Especially university students intensively use social media while they are sharing information and experience with their friends wherever they are. It is crucial to study the approaches of the teacher candidates regarding social media in today’s world where and when information, communication and internet develop that fast. In this regard, studying the thoughts of 87 teacher candidates about social media, we have obtained the results below.

The approaches of special education teacher candidates about social media have been classified under 6 categories: life colour, side effect, object, dependency, necessity and waste of time. Analyses of these categories demonstrate that social media has influenced almost all life phases of special education teacher candidates.

The research conducted by Vural & Bat (2010) on university students indicates that students actively use social media and mostly use it to spend time. Ulusoy & Bostancı (2014) also concluded that people under 18 years are spending their times mostly on social media to communicate with others and create contents. Solmaz, Tekin, Herzem & Demir (2013) in their study about the social media usage of university students found that almost all of the students use social media and spend an important part of their daily lives on social media. Gül & Diken (2018) also found out that science teacher candidates are addicted to social media at a medium level. Aslan-Bağcı & Bağcı (2016) tell that child development students use social media to get informed most and to receive education least. In Karaboğa’s (2018) study where he examined the opinions of university students regarding social media, found that university students actively use social media and they mostly use it to communicate their friends and speak with them. Another result demonstrated that students believe that people on social media do not behave frankly, are not helpful and do not develop sincere friendships. Kucukali’s study suggests that most of the university students use social media to have enjoyment and to relax. Aküzüm & Saraçoğlu (2017), on the other hand, found that teacher candidates think that social media cause isolation and do not help to gain a social capacity. Ajjan & Harsthone (2008) state that it is better to use social media for educational aims and that social networks help students with learning.

The results of this study suggest that the most visible metaphors in the “colour of life” category are “well” and “a small world”. In other words, special education teacher candidates see social media as well that includes life apart from real life. This also shows that teacher candidates approach social media as a virtual world. Another finding indicates that special education candidate teachers think social media is a time killer in the “waste of time” category which means that teacher candidates find social media where people spend their times mostly in a negative way. This approach implies that teacher candidates believe that social media is separating them from the real world and kill their times.

Although they think social media is a waste of time, on the other hand, they also think it is a necessity. It is almost a must just like food and water in this century. Accordingly, the most visible metaphors in the “necessity” category are “water” and “food” which shows how much importance they give social media and what a noteworthy need the social media is. Another result suggests that the metaphor which has the highest frequency about social media is “drug” in the “side effects” category. These metaphors indicate that social media has an enormous effect on users which in the long run generates addiction. In parallel with this, a similar outcome suggests that the most visible metaphor in the “addiction” category is *a whirlpool*. In this

regard, special education teachers believe that social media puts people into a spiral which is difficult to escape. On the contrary, the more they escape the more they stuck in it.

Based on all outcomes, it is possible to indicate that special education teacher candidates' metaphors are mostly positive (colour of life, object, necessity). However, they also developed negative metaphors such as side effect, addiction and waste of time. These remarks suggest that special education teacher candidates need to be supported by social media literacy. Developing technology proves how much education will be influenced by digital media courses. Future education platforms will affect all components of education from design to use, from teachers to students and parents. The use of social media in teacher education programs is limited. Therefore, for special education teacher candidates to effectively use social media, they must have a social/new media literacy class at least as an elective one. People with weak access to online education platforms sometimes need to use social media courses. To help teacher candidates with improving their new media capabilities, authorities should organize seminars and conferences. In further studies, special education teacher candidates' perspectives can be studied through different methodologies.

## References

- Ajjan, H. & Hartshorne, R. (2008). Investigating faculty decisions to adopt web 2.0 technologies: Theory and empirical tests. *The Internet and Higher Education*, 11(2), 71-80. doi: 10.1016/j.iheduc.2008.05.002.
- Aktekin, S. (2010). *Hayat boyu öğrenme ve sürekli mesleki gelişim*. (Ed. M.Safran), *Tarih Nasıl Öğretilir? Tarih Öğretmenleri İçin Özel Öğretim Yöntemleri (377-384)*, İstanbul: Yeni İnsan Yayınevi.
- Aküzüm, C. & Saraçoğlu, M. (2017). Üniversite öğrencilerinin sosyal medyaya ilişkin tutumlarının incelenmesi. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 32, 803-817. doi: 10.14582/DUZGEF.789.
- Alav, O. (2014). Sosyal medya'nın birey ve toplumsal yapıya etkileri. *Elektronik Sosyal Bilgiler Eğitimi Dergisi*, 1(1), 1-22.
- Aslan-Bağcı, Ö. & Bağcı, H. (2016). *Çocuk gelişimi programı öğrencilerinin sosyal medya kullanım amaçları ve sosyal medya hakkındaki görüşleri*. International Academic Research Congress. 3-5 November 2016. Antalya-Side. 1186-1191.
- Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in human behavior*, 26(2), 247-253. doi: 10.1016/j.chb.2009.09.003.
- Council for Exceptional Children (CEC, 2014). CEC Professional Standards. <https://www.cec.sped.org/Standards>.
- Gül, Ş. & Diken, E. H. (2018). Fen bilgisi öğretmeni adaylarının sosyal medya bağımlılıklarının incelenmesi. *Kafkas Üniversitesi, e-Kafkas Eğitim Araştırmaları Dergisi*, 5(1), 41-50. doi: 10.30900/kafkasegt.386531.
- Güven, B. & Güven S., (2009). İlköğretim öğrencilerinin sosyal bilgiler dersinde metafor oluşturma becerilerine ilişkin nicel bir araştırma. *Kastamonu Eğitim Fakültesi Dergisi*, 17(2), 503-512.
- Horzum, M. B. (2016). Examining the relationship to gender and personality on the purpose of Facebook usage of Turkish university students. *Computers in Human Behavior*, 64, 319-328. doi: 10.1016/j.chb.2016.06.010
- Jensen, F.N. (2006). Metaphors as a bridge to understanding educational and social contexts. *International Journal of Qualitative Methods*, 5(1), 1-17. doi: 10.1177/160940690600500104.
- Jones, N., Blackey, H., Fitzgibbon, K., & Chew, E. (2010). Get out of MySpace!. *Computers&Education*, 54, 776-782. doi: 10.1016/j.compedu.2009.07.008.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68. doi: 10.1016/j.bushor.2009.09.003
- Karaboğa, M. T. (2018). Üniversite öğrencilerinin bir sosyalleşme alanı olarak sosyal medya hakkındaki görüşleri. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 14(3), 912-936. doi: 10.17860/mersinefd.475515

- Karasu, M., & Arıkan, D. (2016). Öğretmen adaylarının sosyal medya kullanım durumları ve medya okuryazarlık düzeyleri arasındaki ilişkinin incelenmesi. *Ege Eğitim Dergisi*, 17(2), 549-566. doi: 10.12984/egeefd.280757.
- Kovecses, Z. (2002). *Metaphor: A Practical Introduction*, Oxford University Press, New York.
- Küçükali, A. (2016). Üniversite öğrencilerinin sosyal medya Kullanımı: Atatürk üniversitesi örneği. *Bartın Üniversitesi İ.İ.B.F Dergisi*, 7(13), 531-546.
- Lakoff, G. & Mark, J. (2005). *Metaforlar: Hayat, Anlam ve Dil*. (Çev. Gökhan Yavuz Demir), İstanbul: Paradigma Yayınevi.
- Ludlow, B. L. (2001). Technology and teacher education in special education: Disaster or deliverance? *Teacher Education and Special Education*, 24(2), 143-163. doi: 10.1177/088840640102400209
- Mayfield, A. (2008). What Is Social Media?. [http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What\\_is\\_Social\\_Media\\_iCrossing\\_e\\_book.pdf](http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What_is_Social_Media_iCrossing_e_book.pdf).
- Palmquist, R. (1996). The Search for an Internet Metaphor: A Comparison of Literatures, American Society of Information Science Conference.
- Solmaz, B., Tekin, G., Herzem, Z. & Demir, M. (2013). İnternet ve sosyal medya kullanımı üzerine bir uygulama. *Selçuk İletişim*, 7(4), 23-32.
- Saban, A. (2008). Okula ilişkin metaforlar. *Educational Administration: Theory and Practice*, 55, 459-496.
- Saban, A. & Ersoy, A. (2017). *Eğitimde Nitel Araştırma Desenleri*. Ankara: Anı Yayıncılık
- Ulukök, Ş., Bayram, K. & Selvi, M. (2015). Fen bilgisi öğretmen adaylarının biyoloji kavramına ilişkin zihinsel imgeleri (Metafor analizi örneği). *International Online Journal of Educational Sciences*, 7(3), 244-259.
- Ulusoy, A. & Bostancı, M. (2014). Çocuklarda sosyal medya kullanımı ve ebeveyn rolü. *The Journal of Academic Social Sciences Studies*, 28, 559-572. doi: 10.9761/JASSS223.
- Vural, Z. B. A. & Bat, M. (2010). Yeni bir iletişim ortamı olarak sosyal medya: Ege üniversitesi iletişim fakültesine yönelik bir araştırma. *Journal of Yasar University*, 20(5), 3348-3382.
- Weinberg, T. (2009) *The New Community Rules: Marketing On The Social Rules*, O'Reilly Media, USA.
- Yıldırım, A. & Şimşek, H. (2005). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* (5. baskı), Ankara: Seçkin Yayıncılık.