

# Pedagogical Formation Program Students' Perceptions of Social Network Concept

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## Abstract

*The aim of the present study is to reveal the perceptions of pedagogical formation program students of the concept of social networks through metaphors. The study was conducted with 70 students attending the pedagogical formation program at Anadolu University. Study data were collected with the data collection tool that included a demographic information survey and the following phrase: "A social network is like ..., because ..." The students' perceptions of the concept of social network were analyzed with the content analysis technique. The Cramer's V test was used to examine the relationship between gender and the department of graduation and the students' perceptions of the concept of social network. As a result of the study, a total of 44 valid metaphors produced by the pedagogical formation program students on the social network concept were classified as eight conceptual categories. In the study, it was observed that "communication tool", "world" and "infectious disease" were the most produced metaphors on the concept of social network, the produced metaphors did not differ based on gender and department, and the perception of the concept of social network generally concentrated on positive categories.*

**Key words:** metaphor; social network; teacher training certificate program.

## Introduction

In the age of information we live in, web technologies develop and spread every day. The widespread use of Internet technologies has become popular with the emergence of web 2.0 technology (Ekici & Kiyıcı, 2012), which is described as the second-generation web tools or social software, and briefly defined as readable and writable web (Köseoğlu, 2012). In the Internet environment, social networks are defined as

media in which users communicate with different users in different cultures by defining themselves. Furthermore, they express their emotions and thoughts virtually, using symbols that reflect gestures and mimics used in everyday life, thus establishing social communication (Koç & Karabatak, 2011). Social networks are used extensively among the Internet users by enabling sharing and interaction on different topics such as pictures, videos and content (Selwyn, 2007). Household information technology use research (Turkish Statistical Institute-TURKSTAT, 2016) showed that 82.4% of the Internet users in Turkey use it to create profiles and send messages or photographs on social media. When considered as an educational technology tool, social networks provide several benefits for students and educators due to their widespread use, and communication, interaction and cooperation tools they provide for users (Munoz & Towner, 2009). Although a social network is an informal environment, it has an important potential for use in teaching-learning activities (Ellison, 2008). Social networks enrich blended teaching experiences and support learning processes of learners and evaluation processes of educators (Gülbahar, Kalelioglu, & Madran, 2010). Social networking in education provides an alternative to traditional learning environment as it helps students to develop digital citizenship and digital literacy skills while addressing students with different learning styles (Ekici & Kiyici, 2012). In integrating social networks into the existing learning environments, the study findings on educational social networking carry a great significance (Bartlett Bragg, 2006).

## **Literature Review**

In this framework, literature review demonstrated that there are different studies on the use of social networks in the field of education. According to Munoz and Towner (2009), social networks and their applications offer various opportunities for learners. While social networks increase student-teacher and student-student interaction in the learning process, they are gaining importance as significant alternative to learning management systems, which are widely used in the field of distance education. Similarly, Lim (2010) examined the use of Facebook as an academic discussion platform for distance education students. According to the findings of the research carried out through students' weekly reflection questions, Facebook has an important potential as an academic discussion environment. Madge, Meek, Wellens, and Hooley (2009) emphasize the concept of interaction in studying the use of Facebook and its influence on the experiences of university students. According to the research findings obtained through the questionnaire, students use Facebook occasionally for educational purposes and more often for socialization purposes. Similarly, Pempek (2010) conducted a survey of university students' social networking experiences on Facebook. Students reported their weekly Facebook usage through checklists. According to research findings, students use Facebook mostly for social interaction. Robyler, McDaniel, Webb, and Herman (2010) investigated how social networks are used for personal and educational purposes in higher education. For this purpose,

data were collected from students and educators about the use of Facebook and traditional technologies through a questionnaire. According to research findings, while students prefer social networks for both personal and educational purposes, educators prefer traditional technologies. It is stated that educators' perception of social networks as social tools affected these findings. Albion (2008) emphasized the use of technological tools in the field of education during the development and expansion of these tools, and stated that it is not possible to exclude educators from this period of development. Therefore, it could be argued that in the process of using social networks in the context of learning activities, the educators who are in the role of the practitioner undertake significant tasks. The effectiveness of this process depends on the educators' perceptions of the concept of social networks. Gürtekin (2013) stated that metaphors have an important role in the process of revealing the affective traits of pre-service teachers. Patton (1990) referred to the concept of metaphor to explain certain properties of an object or event, while Saban (2004) expressed the concept of metaphor in brief, as a form of establishing a relationship between abstract concepts and known material things. Metaphors are therefore quite powerful mental tools in learning abstract concepts (Lakoff & Johnson, 1980).

Literature review on the meaning of the social network concept for educators demonstrated that there is a limited number of studies on the topic. In a study conducted by Gürol and Donmuş (2010), pre-service teachers' perceptions of information technology and the concept of social networks were examined through metaphors. Based on the findings of the study, 76 different metaphors established by pre-service teachers on the concept of social networks were grouped under seven categories: "rapidly developing and changing", "communication", "addictive", "positive", "negative" and "both positive and negative". With reference to social networks, the metaphors of "chameleon", "tree" and "spider" were mostly established. In a study conducted by Fidan (2014) pre-service teachers' perceptions of the concept of technology and social network were examined via metaphors. Based on the findings of the study, 82 different metaphors developed by pre-service teachers on the concept of technology were grouped under eight categories: "need", "development-change", "source of information", "infinity", "both beneficial and harmful", "beneficial", "harmful", and "others", while 108 different metaphors that they have established for the concept of social network were classified under nine categories: "need", "communication", "addiction", "magnitude", "harmful", "entertainment", "sociality", "source of information", and "others". With reference to the concept of technology, the metaphors of "children", "water", "human" and "life" were developed the most, while for the concept of social networks, the metaphors of "swamp", "language" and "letter" were developed the most. No studies were found in the literature review that aimed to determine the perceptions of the concept of social networks by the pedagogical formation program students (students enrolled in a specific teacher training program in Turkey), future teachers who belong to a community that will actively utilize social networks in teaching-learning activities. Thus, in the present study, the pedagogical formation program

students' perceptions of the concept of social networks are attempted to be determined using metaphors. For this purpose, the following research questions were identified:

- How do pedagogical formation program students explain the concept of social networking using metaphors?
- Which conceptual categories could be used to group the common characteristics of the metaphors expressed about the concept of social networking?
- Do obtained conceptual categories differ based on gender and the departments in which students are enrolled?

## **Methodology**

### **Research Design**

The present study that aims to reveal the perceptions of the pedagogical formation program students of social network concept through metaphors was designed with phenomenology, which falls under the scope of qualitative research designs. Phenomenology is a research design that depicts the experiences of individuals in relation to a phenomenon, and it is based on philosophy and psychology (Creswell, 2013). Phenomenology design focuses on phenomena that we are aware of, but do not have an in-depth and detailed understanding of (Yıldırım & Şimşek, 2006).

### **Participants**

The study was conducted with 70 students attending the Pedagogical Formation Program at Anadolu University, Faculty of Education. The study data analysis was conducted with the data obtained from 60 students since the metaphoric structure provided by 10 students was either not suitable or their responses were left blank. The characteristics of the students who participated in the study and provided valid metaphors are presented in Table 1.

Table 1  
*Participant characteristics*

Department	Female	Male	Total
Turkish Language and Literature	19	4	23
Sociology	10	0	10
Mathematics	5	2	7
Russian Language and Literature	4	0	4
Others	11	5	16
Total	49	11	60

### **Data Collection Tools**

To determine the perceptions of the students participating in the study of the social network concept, a data collection tool that included two sections was designed. In the first section, the students were asked about their department and gender to identify the characteristics of the participants. In the second section, students were asked to complete the following phrase: "Social network is like ..... , because .....".

## **Data Analysis and Interpretation**

The metaphors established by pedagogical formation program students about the social networks concept were analyzed using the content analysis technique. The main objective in content analysis is to group similar data under certain concepts and themes to reach concepts and associations that could explain the collected data. For this purpose, the collected data are first conceptualized, then they are organized in a logical manner based on emerging concepts, and the themes explaining the data are determined accordingly (Yıldırım & Şimşek, 2006). Saban (2008) used a five-stage structure in metaphor analysis, parallel to the stages of content analysis. These stages were “coding and sorting”, “compiling a sample metaphor image”, “category development”, “providing validity and reliability” and “transferring data to SPSS software for quantitative data analysis”. Thus, the analysis of the metaphors established by the pedagogical formation program students was conducted by following the above-mentioned stages.

**Coding and Sorting Step:** To determine the metaphors that pedagogical formation program students identified about the concept of social networks, the participant responses were analyzed by assigning codes such as K<sub>1</sub>, K<sub>2</sub> to each participant. At this stage, it was examined whether the participants clearly expressed the metaphor they had identified, and 10 expressions that did not reflect any metaphor characteristic were excluded.

**Sample Metaphor Image Compilation Step:** A total of 44 different validated metaphors were identified. At this stage, these metaphors were re-examined and a sample metaphor list was created by compiling participant expressions for each metaphor.

**Category Development Step:** At this stage, the metaphors created by the participants were analyzed based on “the theme of the metaphor”, “the source of the metaphor” and “the relationship between the subject and the source of the metaphor.” Also at this stage, each metaphor was grouped under similar themes by association. Thus, eight social network concept categories were formed by considering the metaphors established by the participants.

**Provision of Validity and Reliability Step:** Data collection and analysis methods utilized in the study are explained in detail and direct quotes of the participants on the metaphors were provided to establish the validity of the study. To ensure the reliability of the study, two field experts were consulted to confirm the accuracy of the conceptual categories. Experts were asked to match the metaphors and the categories, and then the categories were compared, and the percentage of agreement between independent observers was considered. The reliability coefficient was calculated based on the number of agreements and disagreements obtained from the experts. In this framework, Miles and Huberman's (1994) Reliability=(Agreement / [Agreement + Disagreement]) \* 100 formula was used and the reliability coefficient was determined

as 91%. The reliability coefficient required for study results to be considered reliable is 80% and above (Miles & Huberman, 1994).

**Transferring the Data to SPSS Software for Quantitative Data Analysis:** All data obtained by the determination of the 44 metaphors identified in the study and the eight conceptual categories formed by these metaphors were transferred to the SPSS software. In the SPSS environment, the number of participants (f) representing all metaphors and conceptual categories was calculated. Furthermore, the results of the Cramer's V test, which is used to determine a possible relationship between two nominal variables (Huck, 2012) and which was applied to determine a possible relationship between genders, department and the conceptual categories gathered on the basis of participants' metaphors, were interpreted.

## Results

This section includes the metaphors produced by the participants, the conceptual categories formed by these metaphors and the results of the Cramer's V test that was conducted to determine the relationship between the metaphors created by the participants based on gender and the departments.

Within the scope of the study, 44 valid metaphors were identified by the participants about the concept of social networks. The metaphors created by the participants about the concept of social networks are presented in Table 2.

Table 2

*The frequency distribution of the metaphors identified by pedagogical formation program students about the concept of social network*

Metaphor	f	Metaphor	f	Metaphor	f
Communication tool	5	Boomerang	1	Playdough	1
World	4	Entertainment tool	1	Utopia of freedom	1
Infectious disease	3	Heroin	1	Drawing paper	1
Friend	2	Film strip	1	Lover	1
Newspaper	2	Diary	1	Cigarette	1
Teacher	2	Vortex	1	Magic wand	1
Spider's web	2	Double-edged knife	1	Eternity	1
Basic need	2	Opium	1	Empty board	1
Virtual world	2	Excavation site	1	Sleep	1
Nucleus	1	A ship without harbor	1	Virus	1
Chocolate	1	Magnet	1	Solitude	1
Revolution	1	Fashion	1	Net	1
Mute individual	1	Love	1	Useful microorganism	1
Bottomless well	1	Ocean	1	Time machine	1
Button	1	Fishnet	1		

Table 2 demonstrates that the most frequent metaphors produced about the concept of social network were communication tool (f=5), world (f= 4) and infectious disease (f=3).

Frequency distribution of the conceptual categories that emerged in the research is presented in Table 3.

Table 3

*Frequency distribution of conceptual categories identified about social network concept by pedagogical formation program students*

Conceptual Categories	f
Addictive social network	16
Informative social network	15
Limitless and infinite social network	7
Both beneficial and harmful social network	6
Socializing social network	5
Social network as a communication tool	5
Social network as a basic need	3
Social network as a data storage area	3

Table 3 demonstrates that the most frequent conceptual categories were addictive ( $f=16$ ) and informative social network ( $f=15$ ).

### ***Analysis of Conceptual Categories about Social Network Concept***

Based on the metaphors produced by 16 participants about the concept of social network, the addictive nature of social networks was emphasized. The frequency distribution of the metaphors produced by the participants is presented in Table 4.

Table 4

*Frequency distribution of metaphors used by participants who emphasized the "addictive social networks" conceptual category*

Conceptual Categories	f
Infectious disease	3
Virtual world	2
Heroin	1
Nucleus	1
Vortex	1
Virus	1
Boomerang	1
Sleep	1
Opium	1
Fishnet	1
Fashion	1
Chocolate	1
Cigarette	1
Total	16

Table 4 demonstrates that the most frequent metaphors created in the category of "addictive social networks" were infectious disease ( $f=3$ ) and virtual world ( $f=2$ ). "Social networks are like infectious diseases," said K<sub>12</sub>, "because social networks spread like viruses, and they enter the lives of people of all walks through their PCs, tablets and

*phones, including their pockets.*" K<sub>57</sub>, who compared the concept of social network to a "virtual world", explained this idea as follows: "...they separate people from the real social world and trap them in a virtual world."

Based on the metaphors that 15 participants produced about the concept of social network, the effectiveness of the concept of social network in the information access process was emphasized. The frequency distribution of the metaphors identified by these participants is presented in Table 5.

Table 5  
*Frequency distribution of metaphors used by the participants who emphasized the "informative social networks" conceptual category*

Conceptual Categories	f
World	3
Newspaper	2
Teacher	2
Network	1
Eternity	1
Useful microorganism	1
Revolution	1
Magic wand	1
World	1
Button	1
Empty board	1
Total	15

Table 5 demonstrates that the most frequent metaphors established in the category of "informative social networks" were world (f=3), newspaper (f=2) and teacher (f=2). K<sub>21</sub>, who compared the concept of social network to the "world", explained this idea as follows: "*Social networks are a structure where different ideas and opinions could be accessed and information on everything can be obtained.*" "*Social networks are like newspapers,*" K<sub>28</sub> said, "*because they convey the events that take place in the world to people and ensure that individuals are constantly knowledgeable.*" K<sub>39</sub>, who likened the concept of social network to a "teacher", expressed this view as follows: "*Social networks provide information.*"

Based on the metaphors that six participants indicated about the concept of social network, limitlessness and infinity of social networks were emphasized. The frequency distribution of the metaphors identified by these participants is presented in Table 6.

Table 6 demonstrates that the most frequent metaphor in the "limitless and infinite social networks" category was the spider web (f=2). K<sub>42</sub>, who compared social networks to a "spider web", said the following: "*Social networks are spreading across all spheres. So, if you cannot resolve its complex structure, you may get lost.*" "*The social networks are like a bottomless well,*" commented K<sub>18</sub>, "*because it is full of surprises. It is not known what will come out of it.*"

Table 6

*Frequency distribution of metaphors used by the participants who emphasized the "limitless and indefinite social networks" conceptual category*

Conceptual Categories	f
Spider web	2
Ocean	1
Bottomless well	1
Utopia of freedoms	1
Ship without harbor	1
Excavation area	1
Total	6

Based on the metaphors indicated by six participants, the concept of social networks as both beneficial and harmful was emphasized. The frequency distribution of the metaphors indicated by these participants is presented in Table 7.

Table 7

*Frequency distribution of metaphors used by the participants who emphasized the "both beneficial and harmful social networks" conceptual category*

Conceptual Categories	f
Love	1
Devil	1
Double-edged knife	1
Mute individual	1
Playdough	1
Drawing paper	1
Total	6

Table 7 demonstrated that the metaphors constructed in the category of "both beneficial and harmful social networks" were expressed using different concepts. K<sub>46</sub>, who compared social networks to "drawing paper", explained this as follows: "*The individual could both shape and color it. We can utilize it for good by drawing a nice picture or we could use it for no good.*" "*Social networks are like mute people,*" says K<sub>17</sub>, "*because we are the ones that enrich or damp it down. It is also up to us to benefit from social networks.*"

Based on the metaphors indicated by five participants on the concept of social network, the advantages and disadvantages of social networks are emphasized in the socialization process. The frequency distribution of the metaphors indicated by these participants is presented in Table 8.

Table 8 demonstrates that the metaphors constructed in the category of "social networks as a socialization tool" were collected under two themes: positive (f=3) and negative (f=2). "*Social networks are like friends,*" explained K<sub>5</sub>, "*because they often make*

people forget about their loneliness and socialize with other people." "Social networks are like magnets," said K<sub>37</sub>, "because they free people from their social realities, making them social beings."

Table 8

*Frequency distribution of metaphors used by the participants who emphasized the "social networks as a socialization tool" conceptual category*

Conceptual Categories	f
Positive	Friend
	Entertainment tool
Negative	Magnet
	Solitude
Total	5

Based on the metaphors indicated by five participants, the concept of social network as a communication tool was emphasized. The frequency distribution of the metaphors indicated by these participants is presented in Table 9.

Table 9

*Frequency distribution of metaphors used by participants who emphasized the "social networks as a communication tool" conceptual category*

Conceptual Categories	f
Communication tool	5
Total	5

Table 9 demonstrates that all the metaphors indicated in the category of "social networks as a communication tool" were grouped under the topic of communication tool (f=5). "Social networks are central to quick and easy communication," wrote K<sub>35</sub>, who compared social networks to a "communication tool." "They became the phenomena of our age thanks to this aspect."

Based on the metaphors indicated by three participants on the concept of social network, it was emphasized that social networks have become a basic need for individuals today. The frequency distribution of the metaphors indicated by these participants is presented in Table 10.

Table 10 demonstrated that the most frequent metaphor indicated in the category of "social networks as a basic need" was the basic need (f=2). "Social networks are like basic needs of individuals," explained K<sub>53</sub>, "because we feel incomplete before we use social networks and share in those networks."

Based on the metaphors indicated by three participants, social networks are emphasized as an effective tool in the process of storing individuals' significant moments. The frequency distribution of the metaphors indicated by these participants is presented in Table 11.

Table 10

*Frequency distribution of metaphors used by participants who emphasized the "social networks as a basic need" conceptual category*

Conceptual Categories	f
Basic need	2
Lover	1
Total	3

Table 11

*Frequency distribution of metaphors used by participants who emphasized the "social networks as a data storage area" conceptual category*

Conceptual Categories	f
Diary	1
Film strip	1
Time machine	1
Total	3

Table 11 demonstrates that metaphors indicated in the category of "social networks as a data storage area" are expressed using different concepts. "Social networks are like strips of film," K<sub>26</sub> said, "because we can see what we have shared in certain periods of our lives."

### ***Correlation between the Participants' Perceptions of the Concept of Social Network and Gender and Department***

In this section, the findings on the correlation between the participants' perceptions of the concept of social network and their gender and departments are presented. The results of the Cramer's V test implemented to determine the effect of gender on the perceptions of the participants of the concept of social network are presented in Table 12.

Table 12

*Cramer's V test results on the correlation between the participants' perceptions of the concept of social network and their gender*

Conceptual Categories	Female		Male		Total	
	f	%	f	%	f	%
Informative Social Network	13	26.5	2	18.2	15	25.0
Both Beneficial and Harmful Social Network	5	10.2	1	9.1	6	10.0
Social Network as a Communication Tool	3	6.1	2	18.2	5	8.3
Limitless and Infinite Social Network	5	10.2	2	18.2	7	11.7
Social Network as a Socialization Tool	4	8.2	1	9.1	5	8.3
Social Network as a Basic Need	3	6.1	0	0.0	3	5.0
Social Network as a Data Storage Area	3	6.1	0	0.0	3	5.0
Addictive Social Network	13	26.5	3	27.3	16	26.7
Total	49	100.0	11	100.0	60	100.0

Cramer's V=.248; p=.816

As seen in Table 12, there was no statistically significant relationship found between gender and participants' perceptions of the concept of social network (Cramer's V=.248; p>.05) based on the results of the Cramer's V test that was conducted to determine the correlation between gender and participants' perceptions of the concept of social network. In other words, the metaphors that the participants indicated about social networks did not differ based on their gender.

The results of the Cramer's V test implemented to determine the correlation between the department and the perceptions of the participants of the concept of social network are presented in Table 13.

Table 13

*Cramer's V test results on the correlation between the participants' perceptions of the concept of social network and their department of graduation*

Conceptual Categories	Sociology		Russian Language and Literature		Turkish Language and Literature		Mathematics		Other		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
Informative Social Network	3	30.0	0	0.0	5	21.7	3	42.9	4	25.0	15	25.0
Both Beneficial and Harmful Social Network	0	0.0	0	0.0	3	13.0	1	14.3	2	12.5	6	10.0
Social Network as a Communication Tool	2	20.0	0	0.0	3	13.0	0	0.0	0	0.0	5	8.3
Limitless and Infinite Social Network	1	10.0	0	0.0	3	13.0	0	0.0	3	18.8	7	11.7
Social Network as a Socialization Tool	1	10.0	1	25.0	2	8.7	0	0.0	1	6.3	5	8.3
Social Network as a Basic Need	0	0.0	1	25.0	1	4.3	0	0.0	1	6.3	3	5.0
Social Network as a Data Storage Area	0	0.0	0	0.0	2	8.7	0	0.0	1	6.3	3	5.0
Addictive Social Network	3	30.0	2	50.0	4	17.4	3	42.9	4	25.0	16	26.7
Total	10	100.0	4	100.0	23	100.0	7	100.0	16	100.0	60	100.0

Cramer's V=.293; p=.840

Based on the results of the Cramer's V test conducted to determine the relationship between the department of graduation and the participants' perceptions of the concept of social network, no statistically significant correlation was found (Cramer's V=.293; p>.05). In other words, the metaphors indicated by the participants about social networks did not differ based on their departments.

## Discussion and Conclusions

In the present study, which aimed to determine the perceptions of the pedagogical formation program students of social networks through metaphors, 44 valid metaphors were indicated by the participants. The indicated metaphors were grouped

under the following eight categories: "addictive social network", "informative social network", "limitless and infinite social network", "both beneficial and harmful social network", "social network as a basic need" and "social network as a data storage area". The metaphors indicated the most were: communication tool ( $f=5$ ), world ( $f=3$ ) and contagious disease ( $f=3$ ), when the categories are assessed as a whole. The findings of the study demonstrated similarities to the findings of other studies in which metaphors related to the concept of social network were analyzed (Eren, Çelik, & Aktürk, 2014; Fidan, 2014; Gürol & Donmuş, 2010). In the context of the study that investigated the perceptions of middle school students of Facebook, Facebook was addressed under the categories of "a beneficial tool", "a tool that should be used with caution", "a part of real life", "the source of addiction" and "the resource of evil" (Eren et al., 2014), while in the context of a study that examined the metaphorical perceptions of pre-service teachers of technology and social network concepts, social networks were defined under these categories: "a need", "communication", "addiction", "magnitude", "harmful", "entertainment", "sociality" and "other" (Fidan, 2014). Similarly, in a study conducted on the metaphorical perceptions of information technologies pre-service teachers of the concept of social network, social networks were classified as "rapidly developing and changing", "communications", "addictive", "positive", "negative", "both positive and negative" and "a basic need" (Gürol & Donmuş, 2010). Unlike the findings of the above-mentioned studies, it was emphasized in the present study that social networks are an effective tool in the process of storing significant moments of individuals.

Participants in the present research mostly emphasized the addictive social network and informative social network categories, while emphasizing social network as a basic need and social network as a data storage area categories the least. The categories obtained in the present study could be evaluated within the framework of social network use. Previous studies on social network use demonstrated that the users generally consulted social networks to acquire information, maintain old friendships, communicate, acquire new friendships, share entertainment, news, information and resources, and follow innovations (Ellison, Steinfield, & Lampe, 2007; Özmen, Aküzüm, Sünkür, & Baysal, 2011; Valenzuela, Park, & Kee, 2009). Berigel, Kokoç, and Karal (2012) addressed social networks as a tool significant for daily communications and entertainment activities, and Özmen et al. (2011) considered the same as a time- and place-independent element that offers certain opportunities for information and communication and a complimentary element for socialization. The metaphors established in the present study, namely communication ( $f=5$ ), world ( $f=3$ ), newspaper ( $f=2$ ) and friends ( $f=2$ ), revealed that the participants perceived social networks as used for the purposes of acquiring information, establishing communications and for socialization.

Social networks were also addressed based on their limitations as much as the opportunities they offered in the literature. The limitations of social network usage as addressed in the literature demonstrated that security and privacy problems,

socialization and a waste of time were emphasized (İşman & Albayrak, 2014; Özmen et al., 2011; Öztürk & Akgün, 2012). It was also stated that social networks could cause adverse consequences such as addiction, as well as creating environments that provide opportunities for socialization, acquiring information and establishing communication (İşman & Albayrak, 2014; Özmen et al., 2011). The addictions that social networks could cause were among the important findings of the metaphor analysis studies on the concept of social network (Eren et al., 2014; Fidan, 2014; Gürol & Donmuş, 2010). Metaphors such as “contagious disease” ( $f=3$ ) and “virtual world” ( $f=2$ ) identified in the present study emphasized the addictive aspect of social networks.

Another finding of the current study was that the participants considered social networks to be both beneficial and harmful. This finding was consistent with the findings of the study conducted by Eren et al. (2014). The perception of the participants that social networks are both a beneficial and harmful tool could be influenced by the experiences of participants in these environments. When social networks are considered as a basic need, it could be argued that it was one of the least emphasized categories in the present study, similar to the findings of the study conducted by Gürol and Donmuş (2010).

Considering the learning processes that take place outside the formal curricula, Ekici and Kiyıcı (2012) stated that widely utilized social networks could be employed to increase the efficiency in learning and in the diversification of teaching-learning environments. Such a use would provide an environment empowered with technologies, while supporting the use of extracurricular time for learning (Öztürk & Akgün, 2010). When social networks are considered as an educational technology tool, they provide several advantages for students and educators through their widespread use, and the communication, interaction and cooperation tools they provide (Lim, 2010; Madge et al., 2009; Munoz & Towner, 2009). Albion (2008) emphasized the use of these tools in the field of education during the development and expansion of technological tools and stated that it is not possible to exclude educators from this developmental process. Therefore, in the process of using social networks for learning activities, educators, who are also practitioners, have important tasks. In this context, it is important to train the educators on the educational use of social networks in the pre-service and in-service period, and to organize educational activities to develop technological pedagogical content knowledge competencies in applied environments. It could be argued that the perceptions of the educators of the concept of social networks should be improved to the point that educators could use social networks effectively and efficiently. Since there is only a limited number of direct studies on the concept of social networks, metaphor analysis studies on the concept of technologies demonstrated that department and gender variables were among significant factors that determine the perceptions of the educators on technologies (Çoklar & Bağcı, 2010; Gök & Erdoğan, 2010; Kabakçı & Tanyeri, 2006; Kurt & Özer, 2013) and in the process of creating metaphors (Eripek, 1998).

In the present study, based on the results of the Cramer's V test conducted to determine the relationship between gender and the participants' perceptions of the concept of social network, there was no significant correlation found between gender and the perception of the concept of social network. The findings were consistent with the results of the studies carried out by Gürol and Donmus (2010) and Kurt and Özer (2013), while they were inconsistent with the findings of the study conducted by Gök and Erdoğan (2010). The interpretation of the above-mentioned finding should not ignore the fact that the distribution of the participants among the genders was not equal. Similarly, there was no statistically significant correlation found between their department and the participants' perceptions of the concept of social network. The findings were inconsistent with the results of other studies found in the literature (Çoklar & Bağcı, 2010; Kabakçı & Tanyeri, 2006; Kurt & Özer, 2013). This could be due to the fact that the number of participants in different departments was not equal.

### **Suggestions**

The present study, which aims to determine the perceptions of the pedagogical formation program students on social networks, was conducted with 70 students attending the Pedagogical Formation Program at Anadolu University, Faculty of Education. Raising awareness of the use of educational social networking for teacher candidates and conducting practical work to encourage them to use technology will be effective in the development of positive perceptions about the use of technology in education. Future in-depth qualitative research could establish a more holistic perspective on social networks by collecting data based on variables such as time spent daily on social networks, the purposes of using social networks, social network preferences, etc. In that way it would be possible to test the findings on larger samples that include a group of participants with similar characteristics, and also to investigate the reasons for the negative perceptions of social networks.

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# Shvaćanje pojma društvenih mreža kod studenata programa pedagoškog obrazovanja

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## Sažetak

*Cilj je ovog istraživanja prikazati način na koji studenti programa pedagoškog obrazovanja shvaćaju pojam društvenih mreža s pomoću metafora. Istraživanje je provedeno na uzorku od 70 studenata koji su pohađali program pedagoškog obrazovanja na Sveučilištu Anadolu. Podatci za istraživanje prikupljeni su s pomoću alata koji je uključivao anketu o demografskim podatcima i sljedeći izraz: „Društvena mreža je poput...., jer ....” Različiti načini shvaćanja pojma društvenih mreža kod studenata analizirani su primjenom tehnike analize sadržaja. Cramerov V test koristio se kako bi se ispitala veza između spola i odsjeka na kojem studenti studiraju, i njihovo shvaćanje pojma društvenih mreža. Kao rezultat istraživanja dobivene su ukupno 44 valjane metafore koje su o pojmu društvenih mreža naveli studenti programa pedagoškog obrazovanja. One su grupirane u osam konceptualnih kategorija. U istraživanju je primijećeno da su najčešće korištene metafore o pojmu društvenih mreža bile: „komunikacijski alat”, „svijet” i „zarazna bolest”. Te se metafore nisu razlikovale s obzirom na spol ispitanika i odsjek na kojem su studirali, a njihovo shvaćanje pojma društvenih mreža uglavnom je bilo usmjereno prema pozitivnim kategorijama.*

**Ključne riječi:** društvena mreža; izobrazba nastavnika; metafora.

## Uvod

U informatičkom dobu u kojem živimo web tehnologije se razvijaju i svakim danom postaju sve rasprostranjenije. Široka upotreba internetskih tehnologija postala je popularna kada su se pojavile web 2.0 tehnologije (Ekici i Kiyıcı, 2012), koje se smatra drugom generacijom web alata i društvenim programom te koja se ukratko može opisati kao web koji se može čitati i po kojemu se može pisati (Köseoğlu, 2012). U internetskom okruženju društvene mreže definiraju se kao mediji u kojima korisnici komuniciraju s raznim drugim korisnicima iz različitih kultura, definirajući sami sebe. Nadalje, izražavaju svoje emocije i mišljenje virtualno, koristeći se simbolima koji reflektiraju geste i mimiku koja se koristi u svakodnevnom životu i tako uspostavljaju društvenu komunikaciju (Koç i Karabatak, 2011). Korisnici

interneta uvelike upotrebljavaju društvene mreže jer omogućavaju dijeljenje raznolikih sadržaja, poput slika, videosadržaja i raznih drugih sadržaja (Selwyn, 2007) i razgovore o različitim temama. Prema istraživanju provedenom o upotrebi informacijske tehnologije u kućanstvima (Turski statistički institut – TURKSTAT, 2016) 82,4% korisnika interneta u Turskoj koristi se internetom za kreiranje profila i slanje poruka ili fotografija na društvenim medijima. Kada se promatraju kao alat obrazovne tehnologije, društvene mreže imaju nekoliko prednosti za studente i nastavnike upravo zbog svoje široke upotrebe, komunikacije, interakcije i suradničkih alata koji su na raspolaganju korisnicima (Munoz i Towner, 2009). Iako je društvena mreža neformalno okruženje, ona ima važan potencijal za upotrebu u aktivnostima učenja i poučavanja (Ellison, 2008). Društvene mreže obogaćuju iskustvo hibridnog učenja i podržavaju proces učenja kod učenika i proces evaluacije kod nastavnika (Gülbahar, Kalelioğlu, i Madran, 2010). Društvena mreža u obrazovanju predstavlja alternativu tradicionalnom obrazovnom okruženju, jer pomaže učenicima da razviju digitalno građanstvo i vještine digitalne pismenosti, a istodobno odgovara učenicima s različitim stilovima učenja (Ekici i Kiyıcı, 2012). Pri integriranju društvenih mreža u postojeće okruženje učenja, rezultati istraživanja o obrazovnim društvenim mrežama imaju veliku važnost (Bartlett Bragg, 2006).

## Pregled literature

U ovom okviru pregled literature pokazao je da postoje različita istraživanja o korištenju društvenih mreža u području obrazovanja. Prema Munozu i Towneru (2009), društvene mreže i njihova primjena pružaju različite mogućnosti učenicima. Dok društvene mreže povećavaju interakciju između učenika i nastavnika i učenika s drugim učenicima u procesu učenja, postaju sve važnije i kao važna alternativa sustavima za upravljanje učenjem koji imaju široku upotrebu u području učenja na daljinu. Slično tomu, Lim (2010) je ispitivao upotrebu Facebooka kao platforme za akademsku raspravu za učenike koji sudjeluju u procesu učenja na daljinu. Prema rezultatima istraživanja provedenog s pomoću pitanja kojima su se dobivale refleksije studenata na tjednoj bazi, Facebook ima velik potencijal kao okruženje za akademske rasprave. Madge, Meek, Wellens, i Hooley (2009) naglašavaju pojam interakcije u svojem istraživanju o upotrebi Facebooka, i njegov utjecaj na iskustva studenata. Prema rezultatima istraživanja dobivenima putem ankete, studenti se povremeno koriste Facebookom u obrazovne svrhe, a češće kao vidom druženja. Slično tomu, Pempek (2010) je proveo istraživanje o iskustvima studenata u korištenju društvenih mreža, tj. Facebooka. Studenti su davali informacije o svojem tjednom korištenju Facebooka s pomoću kontrolne liste. Kako pokazuju rezultati istraživanja, studenti uglavnom se koriste Facebookom za društvenu interakciju. Robyler, McDaniel, Webb, i Herman (2010) ispitivali su kako se u visokom obrazovanju društvene mreže koriste za osobnu i obrazovnu namjenu. S tim u vidu, od studenata i nastavnika su s pomoću ankete prikupljeni podatci o upotrebi Facebooka i tradicionalnih tehnologija. Rezultati

istraživanja pokazali su da, iako studenti preferiraju društvene mreže i za osobne i za obrazovne potrebe, nastavnici više vole tradicionalne tehnologije. Navodi se da je stav nastavnika o društvenim mrežama kao društvenim alatima utjecao na te rezultate. Albion (2008) je naglasio upotrebu tehnoloških alata u području obrazovanja tijekom procesa razvoja i širenja tih alata te je naveo da se nastavnike ne može isključiti iz tog razvojnog razdoblja. Stoga se može tvrditi da, u procesu korištenja društvenih mreža u kontekstu aktivnosti učenja, nastavnici koji imaju ulogu praktičara dobivaju važne zadatke. Učinkovitost tog procesa ovisi o nastavnikovu shvaćanju pojma društvenih mreža. Gültekin (2013) navodi da metafore imaju važnu ulogu u procesu otkrivanja afektivnih karakteristika budućih nastavnika. Patton (1990) je upotrebljavao pojam metafore kako bi objasnio određena svojstva predmeta ili događaja, a Saban (2004) je ukratko objasnio pojam metafore kao oblika uspostavljanja veze između apstraktnih pojmove i poznatih materijalnih stvari. Metafore su stoga prilično moćni mentalni alati za učenje apstraktnih pojmove (Lakoff i Johnson, 1980).

Pregled literature o značenju pojma društvenih mreža kod nastavnika pokazao je da postoji malen broj istraživanja provedenih o toj temi. U istraživanju koje su proveli Gürol i Donmuş (2010) način na koji su budući nastavnici informatike percipirali pojam društvenih mreža ispitani je putem metafora. Na temelju rezultata istraživanja budući nastavnici naveli su 76 različitih metafora o pojmu društvenih mreža. Te metafore grupirane su u sedam kategorija: „brzo razvijajuća i promjenjiva”, „komunikacija”, „izaziva ovisnost”, „pozitivna”, „negativna” i „i pozitivna i negativna”. Kada se radi o društvenim mrežama, izdvojene su uglavnom ove metafore: „kameleon”, „drvo” i „pauk”. U istraživanju koje je proveo Fidan (2014), način na koji su budući nastavnici percipirali pojam tehnologije i društvenih mreža ispitani je s pomoću metafora. Na temelju rezultata istraživanja 82 različite metafore koje su naveli budući nastavnici o pojmu tehnologije grupirane su u osam kategorija: „potreba”, „razvoj-promjena”, „izvor informacija”, „beskonačnost”, „i korisna i štetna”, „korisna”, „štetna” i „ostalo”. 108 različitih metafora koje su naveli o pojmu društvenih mreža grupirano je u devet kategorija: „potreba”, „komunikacija”, „ovisnost”, „veličina”, „štetna”, „zabava”, „društvenost”, „izvor informacija” i „ostalo”. U vezi s pojmom tehnologije najviše su bile razrađene metafore „djeca”, „voda”, „ljudski” i „život”, a metafore vezane uz pojam društvenih mreža bile su: „močvara”, „jezik” i „slovo”. U literaturi nisu pronađena istraživanja provedena s ciljem utvrđivanja shvaćanja pojma društvenih mreža kod studenata koji pohađaju program pedagoškog obrazovanja (koji je poseban vid edukacije u Turskoj), a koji će u budućnosti biti nastavnici i tako pripadati zajednici koja će aktivno koristiti društvene mreže u aktivnostima učenja i poučavanja. Stoga se u ovom istraživanju s pomoću metafora pokušalo utvrditi shvaćanje pojma društvenih mreža kod studenata koji pohađaju program pedagoškog obrazovanja. S tom svrhom postavljena su sljedeća pitanja istraživanja:

- Kako studenti koji pohađaju program pedagoškog obrazovanja objašnjavaju pojam društvenih mreža koristeći se metaforama?

- Koje bi se kategorije pojmove mogle koristiti za grupiranje zajedničkih karakteristika metafora koje su oni naveli o pojmu društvenih mreža?
- Razlikuju li se dobivene kategorije pojmove s obzirom na spol studenata i odsjek na kojemu studiraju?

## **Metodologija**

### **Dizajn istraživanja**

Ovo istraživanje ima za cilj utvrditi na koji način studenti koji pohađaju program pedagoškog obrazovanja shvaćaju pojam društvenih mreža. Istraživanje je osmišljeno s pomoću fenomenologije, koja pripada kategoriji kvalitativnih istraživanja. Fenomenologija kao dizajn opisuje iskustva pojedinaca vezana uz fenomene te se temelji na filozofiji i psihologiji (Creswell, 2013). Fenomenološki dizajn istraživanja usredotočuje se na fenomene kojih smo svjesni, no o kojima nemamo duboko i detaljno razumijevanje (Yıldırım i Şimşek, 2006).

### **Sudionici**

Istraživanje je provedeno na uzorku od 70 studenata koji su pohađali Program pedagoškog obrazovanja na Fakultetu obrazovnih znanosti Sveučilišta Anadolu. Analiza podataka provedena je na podatcima dobivenima od 60 studenata, jer oblik metafora koje je dalo 10 studenata ili nije bio odgovarajući, ili studenti nisu dali odgovore na ta pitanja. Karakteristike studenata koji su sudjelovali u istraživanju i koji su dali valjane metafore prikazane su u Tablici 1.

Tablica 1

### **Alati za prikupljanje podataka**

Kako bi se utvrdila shvaćanja pojma društvenih mreža kod studenata koji su sudjelovali u istraživanju, osmišljen je alat za prikupljanje podataka koji se sastojao od dva dijela. U prvom dijelu studenti su odgovarali na pitanja o odsjeku na kojem studiraju i o spolu, kako bi se utvrdile karakteristike sudionika. U drugom dijelu od njih se tražilo da dopune sljedeću rečenicu: „Društvena mreža je poput..., jer ....”

### **Analiza i interpretacija podataka**

Metafore koje su naveli studenti koji pohađaju program pedagoškog obrazovanja o svojem shvaćanju pojma društvenih mreža analizirane su s pomoću tehnike analize sadržaja. Glavni cilj analize sadržaja je grupirati slične podatke o određenim pojmovima i temama kako bismo došli do poveznica koje bi mogле objasniti prikupljene podatke. S tom svrhom prikupljeni su podatci najprije konceptualizirani, a zatim logički organizirani na temelju pojmove koji su se pojavili, a teme koje objašnjavaju podatke određene su u skladu s tim (Yıldırım i Şimşek, 2006). Saban (2008) se koristio strukturon od pet faza u analizi metafora, u skladu s fazama analize sadržaja. Te su faze bile: „kodiranje i sortiranje”, „sastavljanje oglednog primjerka metafore”, „izrada

kategorije”, „utvrđivanje valjanosti i pouzdanosti” i „transfer podataka u SPSS računalni program za kvantitativnu analizu podataka”. Stoga je analiza metafora koje su naveli studenti programa pedagoškog obrazovanja provedena slijedeći navedene faze.

**Faza kodiranja i sortiranja:** Kako bi se odredile metafore koje su polaznici programa pedagoškog obrazovanja naveli o pojmu društvenih mreža, odgovori sudionika analizirani su tako da se svakom sudioniku dodijelila šifra poput  $K_1$ ,  $K_2$ , itd. U ovoj fazi ispitivalo se jesu li sudionici jasno izrazili metafore koje su željeli izraziti. 10 izraza nije sadržavalo nikakve karakteristike metafore, te su stoga eliminirani.

**Faza sastavljanja oglednog primjerka metafore:** Ukupno su utvrđene 44 valjane metafore. U ovoj su fazi metafore ponovno pregledane te je sastavljen ogledni popis metafora prikupljanjem izraza sudionika za svaku metaforu.

**Faza izrade kategorije:** U ovoj fazi metafore koje su napisali sudionici bile su analizirane na temelju „teme metafore”, „izvora metafore” i „veze između ispitanika i izvora metafore”. Također je u ovoj fazi svaka metafora grupirana prema sličnim temama, asocijacijom. Tako je izrađeno osam kategorija pojma društvenih mreža analizom metafora koje su ispitanici naveli.

**Faza utvrđivanja valjanosti i pouzdanosti:** Metode prikupljanja i analize podataka koje su se koristile u istraživanju detaljno su objašnjene, a navedeni su i točni citati metafora koje su napisali ispitanici, kako bi se utvrdila valjanost istraživanja. Kako bi se osigurala pouzdanost istraživanja, konzultirana su dva stručnjaka u tom području koji su potvrdili točnost kategorija pojmove. Stručnjaci su trebali spojiti metafore i kategorije, a tada su se kategorije usporedile i razmotren je postotak slaganja među neovisnim promatračima. Izračunat je koeficijent pouzdanosti na temelju broja slaganja i neslaganja dobivenih od stručnjaka. U tom kontekstu koristila se Milesova i Hubermanova (1994) formula – Pouzdanost =  $(Slaganje / [Slaganje + Neslaganje]) * 100$ . Izračunat je koeficijent od 91%. Potreban koeficijent pouzdanosti je 80% ili više kako bi se rezultati istraživanja smatrali pouzdanima (Miles i Huberman, 1994).

**Faza transfera podataka u SPSS računalni program za kvantitativnu analizu podataka:** Svi podaci dobiveni analizom 44 metafore navedene u istraživanju i osam kategorija pojmove koje te metafore sačinjavaju prebačeni su u računalni program SPSS. U SPSS programu izračunat je broj sudionika ( $f$ ) koji predstavlja sve metafore i kategorije pojmove. Nadalje, interpretirani su rezultati Cramerova V testa, koji se koristi za određivanje moguće veze između dviju nominalnih varijabli (Huck, 2012) i koji se ovdje koristio za određivanje moguće veze između spola, odsjeka na kojem studenti studiraju i kategorija pojmove izrađenih na temelju njihovih metafora.

## Rezultati

U ovom dijelu rada daje se pregled metafora koje su naveli studenti, kategorija pojmove izrađenih na temelju tih metafora i rezultata Cramerova V testa koji se koristio za određivanje veze između metafora koje su naveli sudionici s obzirom na njihov spol i odsjek na kojem studiraju.

U sklopu istraživanja sudionici su naveli 44 valjane metafore o pojmu društvenih mreža. Metafore koje su naveli studenti o pojmu društvenih mreža prikazane su u Tablici 2.

Tablica 2

*Distribucija frekvencije metafora koje su naveli studenti koji pohađaju program pedagoškog obrazovanja o pojmu društvenih mreža*

Metafora	f	Metafora	f	Metafora	f
Komunikacijski alat	5	Bumerang	1	Playdough plastelin	1
Svijet	4	Alat za zabavu	1	Utopija slobode	1
Zarazna bolest	3	Heroin	1	Papir za crtanje	1
Prijatelj	2	Filmska vrpca	1	Ljubavnik	1
Novine	2	Dnevnik	1	Cigareta	1
Nastavnik	2	Vrtlog	1	Čarobni štapić	1
Paukova mreža	2	Nož s dvije oštice	1	Vječnost	1
Osnovna potreba	2	Opijum	1	Prazna ploča	1
Virtualni svijet	2	Mjesto iskopavanja	1	San	1
Jezgra	1	Brod bez luke	1	Virus	1
Čokolada	1	Magnet	1	Samoča	1
Revolucija	1	Moda	1	Mreža	1
Nijemi pojedinac	1	Ljubav	1	Koristan mikroorganizam	1
Bunar bez dna	1	Ocean	1	Vremenski stroj	1
Gumb	1	Ribarska mreža	1		

Tablica 2 pokazuje da su najčešće navedene metafore o pojmu društvenih mreža bile komunikacijski alat ( $f=5$ ), svijet ( $f=4$ ) i zarazna bolest ( $f=3$ ).

Distribucije frekvencije kategorija pojmove koje su se pojavile u istraživanju prikazane su u Tablici 3.

Tablica 3

*Distribucija frekvencija kategorija pojmove o društvenim mrežama koje su naveli studenti koji pohađaju program pedagoškog obrazovanja*

Kategorije pojmove	f
Društvena mreža koja izaziva ovisnost	16
Informativna društvena mreža	15
Neograničena i beskrajna društvena mreža	7
Korisna i štetna društvena mreža	6
Društvena mreža za druženje	5
Društvena mreža kao komunikacijski alat	5
Društvena mreža kao osnovna potreba	3
Društvena mreža kao prostor za pohranu podataka	3

Tablica 3 pokazuje da su najčešće kategorije pojmove bile društvena mreža koja izaziva ovisnost ( $f=16$ ) i informativna društvena mreža ( $f=15$ ).

### **Analiza kategorija pojmove o društvenim mrežama**

Na temelju metafora koje je navelo 16 sudionika o pojmu društvenih mreža, naglašena je činjenica da one izazivaju ovisnost. Distribucija frekvencija metafora koje su naveli sudionici prikazana je u Tablici 4.

Tablica 4

Tablica 4 pokazuje da su najčešće metafore u kategoriji „društvene mreže koje izazivaju ovisnost“ bile zarazna bolest ( $f=3$ ) i virtualni svijet ( $f=2$ ). „*Društvene mreže su poput zaraznih bolesti*”, rekao je K<sub>12</sub>, „*jer se društvene mreže šire poput virusa, te ulaze u sve sfere ljudskog života preko računala, tableta i telefona, uključujući i džepove.*” Student K<sub>57</sub>, koji je usporedio pojam društvene mreže s „virtualnim svijetom”, ovako je objasnio tu ideju: „*...one odvajaju ljudi od stvarnog, društvenog svijeta i zatvaraju ih u zamku virtualnog svijeta.*”

Na temelju metafora koje je 15 sudionika navelo o pojmu društvenih mreža, naglašena je učinkovitost društvenih mreža u pristupu informacijama. Distribucija frekvencije metafora koje su naveli ti ispitanici prikazana je u Tablici 5.

Tablica 5

Tablica 5 pokazuje da su najčešće navedene metafore koje su uvrštene u kategoriju „informativne društvene mreže“ bile svijet ( $f=3$ ), novine ( $f=2$ ) i nastavnik ( $f=2$ ). K<sub>21</sub>, ispitanik koji je usporedio pojam društvene mreže sa „svijetom”, ovako je to objasnio: „*Društvene mreže su struktura u kojoj se mogu pronaći različite ideje i mišljenja, a mogu se i dobiti informacije o svemu.*” „*Društvene mreže su poput novina,*” rekao je K<sub>28</sub>, „*jer one ljudima prenose sve događaje koji se događaju u svijetu i vode računa o tome da su ljudi stalno upućeni u njih.*” K<sub>39</sub>, koji je usporedio pojam društvene mreže s „nastavnikom”, to je ovako objasnio: „*Društvene mreže pružaju informacije.*”

Na temelju metafora koje je šest sudionika navelo o pojmu društvene mreže, naglašena je neograničenost i beskonačnost društvenih mreža. Distribucija frekvencije metafora koje su naveli ti sudionici prikazana je u Tablici 6.

Tablica 6

Tablica 6 pokazuje da je najčešća metafora u kategoriji „neograničena i beskonačna društvena mreža“ paukova mreža ( $f=2$ ). K<sub>42</sub>, koji je usporedio društvenu mrežu s „paukovom mrežom”, rekao je sljedeće: „*Društvene mreže šire se kroz sve sfere. Zato se, ako ne možete razriješiti njihovu kompleksnu strukturu, možete izgubiti.*” „*Društvene mreže su poput bunara bez dna,*” komentirao je K<sub>18</sub>, „*jer su pune iznenadenja. Ne zna se što može proizvesti iz njih.*”

Na temelju metafora koje je šest sudionika navelo o pojmu društvenih mreža, naglašena je i korisna i štetna priroda pojma društvenih mreža. Distribucija frekvencije metafora koje su naveli sudionici prikazana je u Tablici 7.

Tablica 7

Tablica 7 pokazuje da su metafore u kategoriji „i korisne i štetne društvene mreže“ bile izražene preko različitih pojmoveva. K<sub>46</sub>, koji je usporedio društvene mreže s „papirom za crtanje“, ovako je to objasnio: „*Pojedinac ih može i oblikovati i obojati. Njima se možemo koristiti za dobre stvari tako što ćemo nacrtati lijepu sliku ili se njima možemo koristiti za bezvezne stvari.*“ „*Društvene mreže su poput nijemih ljudi,*“ kaže K<sub>17</sub>, „*jer smo mi ti koji ih obogaćuju ili uništavaju. Također, o nama ovisi hoćemo li iz društvenih mreža izvući korist.*“

Na temelju metafora koje je pet sudionika navelo o pojmu društvenih mreža, u procesu socijalizacije naglašavaju se prednosti i nedostatci društvenih mreža. Distribucija frekvencije metafora koje su naveli sudionici prikazana je u Tablici 8.

Tablica 8

Tablica 8 pokazuje kako su metafore koje sačinjavaju kategoriju „društvene mreže kao alat za socijalizaciju“ prikupljene u sklopu dviju tema: i kao pozitivne (f=3) i kao negativne (f=2). „*Društvene mreže su poput prijatelja,*“ objasnio je K<sub>5</sub>, „*jer često pomažu ljudima zaboraviti na svoju samoću i potiču ih da se druže s drugim ljudima.*“ „*Društvene mreže su poput magneta,*“ rekao je K<sub>37</sub>, „*jer oslobađaju ljude njihove društvene stvarnosti, čine ih društvenim bićima.*“

Na temelju metafora koje je pet sudionika navelo o pojmu društvenih mreža, naglašen je pojam društvene mreže kao komunikacijskog alata. Distribucija frekvencije metafora koje su naveli ti sudionici prikazana je u Tablici 9.

Tablica 9

Tablica 9 pokazuje da su sve metafore navedene u kategoriji „društvene mreže kao komunikacijski alati“ grupirane pod temom komunikacijskog alata (f=5). „*Društvene mreže su neophodne za brzu i laku komunikaciju,*“ napisao je K<sub>35</sub>, koji je usporedio društvene mreže s „komunikacijskim alatima“. „*Postale su fenomeni našeg doba zahvaljujući upravo tom aspektu.*“

Na temelju metafora koje je navelo troje sudionika o pojmu društvene mreže, naglašeno je da su društvene mreže postale osnovna potreba ljudi današnjega doba. Distribucija frekvencije metafora koje su naveli ti sudionici prikazana je u Tablici 10.

Tablica 10

Tablica 10 pokazuje kako je najčešća metafora navedena u kategoriji „društvene mreže kao osnovna potreba“ bila osnovna potreba (f=2). „*Društvene mreže su poput osnovnih potreba ljudi,*“ objasnio je K<sub>53</sub>, „*jer se ne osjećamo potpunima dok se ne koristimo društvenim mrežama i dok nešto na njima ne podijelimo.*“

Na temelju metafora koje je navelo troje sudionika, naglašeno je da su društvene mreže učinkovit alat u procesu bilježenja važnih trenutaka u životu ljudi. Distribucija frekvencije metafora koje su naveli ti sudionici prikazana je u Tablici 11.

Tablica 11

Tablica 11 pokazuje da su metafore koje su navedene u kategoriji „društvene mreže kao prostor za pohranjivanje podataka“ izražene upotrebom različitih pojmljiva. „Društvene mreže su poput filmske vrpce,“ rekao je K<sub>26</sub>, „jer možemo vidjeti što smo podijelili s drugima u određenim razdobljima našeg života.“

Korelacija između načina na koji sudionici shvaćaju pojam društvene mreže, njihova spola i odsjeka na kojem studiraju

U ovom odjeljku prikazuju se rezultati o korelaciji između načina na koji sudionici shvaćaju pojam društvene mreže, njihova spola i odsjeka na kojem studiraju. Rezultati Cramerova V testa koji je proveden s ciljem utvrđivanja utjecaja spola na shvaćanje pojma društvene mreže kod sudionika prikazan je u Tablici 12.

Tablica 12

Kako se može vidjeti u Tablici 12, nije pronađena statistički značajna veza između spola sudionika i njihova shvaćanja pojma društvene mreže (Cramerov V=0,248;  $p>0,05$ ) na temelju rezultata Cramerova V testa koji je proveden kako bi se utvrdila korelacija između spola i načina na koji ispitanici shvaćaju pojam društvene mreže. Drugim riječima, metafore koje su sudionici naveli o društvenim mrežama nisu se razlikovale s obzirom na njihov spol.

Rezultati Cramerova V testa, provedena s ciljem utvrđivanja korelacije između odsjeka na kojem sudionici studiraju i njihova shvaćanja pojma društvene mreže, prikazani su u Tablici 13.

Tablica 13

Na temelju rezultata Cramerova V testa provedena s ciljem utvrđivanja veze između odsjeka na kojem sudionici studiraju i njihova shvaćanja pojma društvene mreže, nije utvrđena statistički značajna korelacija između odsjeka i načina na koji sudionici shvaćaju pojam društvene mreže (Cramerov V=0,293;  $p>0,05$ ). Drugim riječima, metafore koje su sudionici naveli o društvenim mrežama nisu se razlikovale s obzirom na odsjek na kojem studiraju.

## Rasprava i zaključci

U ovom istraživanju, u kojemu se s pomoću metafora pokušalo odrediti kako studenti koji pohađaju program pedagoškog obrazovanja shvaćaju pojam društvenih mreža, sudionici su naveli ukupno 44 valjane metafore. Navedene metafore grupirane su u osam kategorija: „društvene mreže koje izazivaju ovisnost“, „informativne društvene mreže“, „neograničena i beskonačna društvena mreža“, „i korisna i štetna društvena mreža“, „društvena mreža kao osnovna potreba“ i „društvena mreža kao prostor za pohranu podataka“. Metafore koje su najčešće spomenute bile su: komunikacijski alat ( $f=5$ ), svijet ( $f=3$ ) i zarazna bolest ( $f=3$ ), kada se u cijelosti sagledaju sve kategorije. Rezultati istraživanja pokazali su sličnosti s rezultatima drugih istraživanja u kojima su analizirane metafore povezane s pojmom društvene mreže (Eren, Çelik, i Aktürk,

2014; Fidan, 2014; Gürol i Donmuş, 2010). U kontekstu istraživanja u kojem se pokušalo utvrditi kako osnovnoškolci shvaćaju Facebook, Facebook je naveden u kategorijama: „koristan alat”, „alat koji bi se trebalo oprezno koristiti”, „dio stvarnog života”, „izvor ovisnosti” i „izvor zla” (Eren i sur., 2014). U kontekstu istraživanja u kojemu se s pomoću metafora ispitivao način na koji budući nastavnici shvaćaju pojmove tehnologije i društvenih mreža, društvene mreže definirane su pod ovim kategorijama: „potreba”, „komunikacija”, „ovisnost”, „veličina”, „štetna”, „zabava”, „društvenost” i „ostalo” (Fidan, 2014). Slično tomu, u istraživanju koje je provedeno s pomoću metafora o načinu na koji budući nastavnici informatike shvaćaju pojam društvene mreže, društvene su mreže ovako klasificirane: „brzo se razvijaju i mijenjaju”, „komunikacija”, „izazivaju ovisnost”, „pozitivne”, „negativne”, „i pozitivne i negativne” i „osnovna potreba” (Gürol i Donmuş, 2010). Za razliku od rezultata spomenutih istraživanja, u ovom je istraživanju naglašeno da su društvene mreže učinkovit alat u procesu spremanja i čuvanja važnih trenutaka u životu ljudi.

Sudionici su uglavnom naglasili kategorije u kojima se smatra da društvene mreže izazivaju ovisnost i da su informativne prirode, a najmanje su spomenute kategorije društvene mreže kao osnovne potrebe i društvene mreže kao prostor za pohranu podataka. Kategorije dobivene u ovom istraživanju mogле bi se procijeniti u kontekstu upotrebe društvenih mreža. Prijašnja istraživanja o društvenim mrežama pokazala su da se njihovi korisnici njima uglavnom koriste za dobivanje informacija, za održavanje kontakta sa starim prijateljima, za komunikaciju, za stvaranje novih prijateljstava, za dijeljenje zabavnih sadržaja, vijesti, informacija i resursa, te za praćenje inovacija (Ellison, Steinfield, i Lampe, 2007; Özmen, Aküzüm, Sünkür, i Baysal, 2011; Valenzuela, Park, i Kee, 2009). Berigel, Kokoç, i Karal (2012) smatraju da su društvene mreže jako važan alat za dnevnu komunikaciju i zabavu, a Özmen i sur. (2011) ih smatraju elementom koji je neovisan o vremenu i mjestu, a koji nudi određene mogućnosti za stjecanje znanja, za komunikaciju i kao besplatan oblik socijalizacije. Metafore koje su navedene u ovom istraživanju, prije svega komunikacija ( $f=5$ ), svijet ( $f=3$ ), novine ( $f=2$ ) i prijatelji ( $f=2$ ), pokazale su da sudionici smatraju da su društvene mreže korisne za prikupljanje informacija, uspostavljanje komunikacije i socijalizaciju.

Društvene mreže su u literaturi također spomenute i u kontekstu svojih ograničenja, jednako kao i mogućnosti koje nude. Ograničenja upotrebe društvenih mreža koja su spomenuta u literaturi pokazala su da su naglašeni problemi sa sigurnošću, privatnošću, socijalizacijom i gubitak vremena (İşman i Albayrak, 2014; Özmen i sur., 2011; Öztürk i Akgün, 2012). Također je navedeno da bi društvene mreže mogle imati i suprotan učinak kao što je ovisnost, kao i da bi mogле stvoriti okruženje koje pruža mogućnost za socijalizaciju, dobivanje informacija i uspostavljanje komunikacije. Ovisnosti koje društvene mreže mogu izazvati među važnim su rezultatima istraživanja koja obuhvaćaju analizu metafora o pojmu društvene mreže (Eren i sur., 2014; Fidan, 2014; Gürol i Donmuş, 2010). Metafore kao što su „zarazna bolest” ( $f=3$ ) i „virtualni svijet” ( $f=2$ ), a koje su navedene u ovom istraživanju, naglasile su da društvene mreže izazivaju ovisnost.

Drugi rezultat ovog istraživanja bio je da su sudionici smatrali da društvene mreže mogu biti i korisne i štetne. Taj je rezultat u skladu s rezultatima istraživanja koje su proveli Eren i sur. (2014). Činjenica da sudionici smatraju društvene mreže i korisnim i štetnim alatom, mogla je biti rezultatom iskustava sudionika u tim okruženjima. Kada se društvene mreže gledaju kao osnovna potreba, može se reći da je to bila jedna od najmanje naglašenih kategorija u ovom istraživanju, slično rezultatima istraživanja koje su proveli Gürol i Donmuş (2010).

Analizirajući procese učenja koji se odvijaju izvan formalnih kurikuluma, Ekici i Kiyıcı (2012) smatraju da se ionako već naveliko korištene društvene mreže mogu upotrijebiti za povećanu učinkovitost učenja i veću raznolikost okruženja za učenje i poučavanje. Takva bi upotreba omogućila okruženje osnaženo tehnologijom, a ujedno bi se koristilo i vrijeme izvan nastave za aktivnosti učenja (Öztürk i Akgün, 2010). Kada se društvene mreže razmatraju kao alat obrazovne tehnologije, one učenicima i nastavnicima pružaju nekoliko prednosti upravo zbog svoje velike upotrebe, kao i zbog alata za komunikaciju, interakciju i suradnju (Lim, 2010; Madge i sur., 2009; Munoz i Towner, 2009). Albion (2008) je naglasio upotrebu tih alata u području obrazovanja tijekom razvoja i širenja tehnoloških alata te je naveo da je nemoguće isključiti nastavnike iz procesa razvoja tih alata. Stoga u procesu upotrebe društvenih mreža za aktivnosti učenja nastavnici, koji imaju ulogu praktičara, imaju jako važne zadatke. U ovom je kontekstu važno educirati nastavnike o edukativnom načinu upotrebe društvenih mreža tijekom njihove izobrazbe prije i tijekom nastavničke karijere te organizirati obrazovne aktivnosti koje bi razvile njihova tehnološka i pedagoška znanja i kompetencije u području primjene društvenih mreža. Također bi se moglo reći da se način na koji nastavnici shvaćaju pojam društvenih mreža mora popraviti do te mjere da bi se nastavnici njima mogli učinkovito i uspješno koristiti. Kako postoji samo malen broj direktnih istraživanja o pojmu društvene mreže, analize metafora o pojmu tehnologije pokazale su da su odsjek na kojem sudionici studiraju i njihov spol varijable koje su vrlo bitni faktori koji određuju način na koji nastavnici shvaćaju tehnologiju (Çoklar i Bağcı, 2010; Erdoğań i Gök, 2008; Kabakçı i Tanyeri, 2006; Kurt i Özer, 2013), a važni su čimbenici i u procesu stvaranja metafora (Eripek, 1998).

U ovom istraživanju, na temelju rezultata Cramerova V testa, koji je proveden s ciljem određivanja veze između spola i načina na koji sudionici shvaćaju pojam društvene mreže, nije utvrđena značajna korelacija između spola i shvaćanja pojma društvene mreže. Rezultati su u skladu s rezultatima istraživanja koja su proveli Gürol i Donmus (2010) i Kurt i Özer (2013), a nisu u skladu s rezultatima istraživanja koje su proveli Erdoğań i Gök (2008). Interpretacija spomenutih rezultata ne bi trebala zanemariti činjenicu da distribucija sudionika s obzirom na spol nije bila jednak. Slično tomu, nije utvrđena statistički značajna korelacija između odsjeka na kojem sudionici studiraju i načina na koji oni shvaćaju pojam društvene mreže. Ti rezultati nisu u skladu s rezultatima drugih istraživanja spomenutih u literaturi (Çoklar i Bağcı, 2010; Kabakçı i Tanyeri, 2006; Kurt i Özer, 2013). To bi se moglo pripisati činjenici da broj sudionika iz različitih odsjeka nije bio jednak.

### **Prijedlozi**

Ovo istraživanje, koje ima za cilj utvrditi način na koji studenti koji pohađaju program pedagoškog obrazovanja shvaćaju pojam društvene mreže, provedeno je na uzorku od 70 studenata koji pohađaju Program pedagoškog obrazovanja na Fakultetu obrazovnih znanosti na Sveučilištu Anadolju. Podizanje svijesti o upotrebi društvenih mreža u obrazovne svrhe kod budućih nastavnika i provedba praktičnog rada kako bi ih se potaknulo da se koriste tehnologijom bit će uspješni u razvijanju pozitivnih stavova prema upotrebi tehnologije u obrazovanju. Buduća detaljna kvalitativna istraživanja mogla bi pružiti cjelovitiji pogled na društvene mreže prikupljanjem podataka na temelju varijabli poput vremena koje se dnevno provede na društvenim mrežama, svrhe društvenih mreža, preferiranih društvenih mreža itd. Rezultati bi se testirali na većem uzorku koji bi se sastojao od skupine sudionika sa sličnim karakteristikama, a također bi se analizirali razlozi za negativan stav prema društvenim mrežama.