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# Preschool Teachers' Informal Learning Behaviors

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## Abstract

Informal learning is the primary feature that transforms educational activities into lifelong learning. Informal learning refers to people's discovering new things and improving their experience in everyday life. That is, it refers to learning outside the classroom. Teachers' informal learning styles are thought of as ways in which they overcome their deficiencies while continuing their profession. This study aims to reveal preschool teachers' informal learning behaviors in their workplaces. Thus, it is a descriptive survey study. The study group was selected through simple random sampling. The participants include 117 preschool teachers working in Kütahya province of Turkey in the 2018-2019 academic year. The study showed that the most frequently employed informal learning activity by preschool teachers is "search the internet" while the least employed one is "consult to an online community that you are a member of". Focusing on informal learning activities of information technologies teachers in their workplaces. An overall evaluation of environmental inhibitors to informal learning of preschool teachers shows that "lack of free time" affects the teachers most while "lack of monetary rewards" affects them least. An overall evaluation of personal characteristics that enhance informal learning for preschool teachers shows that "love of learning" affects teachers' involvement in informal learning activities most while "initiative" has the least effect on informal learning activities.

***Keywords:*** : Informal learning, preschool, teacher, child.

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# Okul Öncesi Öğretmenlerinin İnformal Öğrenme Davranışları


| Makale Türü | Başvuru Tarihi | Kabul Tarihi |
|---|---|---|
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## Öz

Eğitim öğretim faaliyetlerini yaşam boyu öğrenmeye dönüştüren özelliklerin başında informal öğrenme gelmektedir. İnformal öğrenme, insanların yeni şeyleri keşfetmesi ve tecrübelerini artırması, gündelik hayat içinde gerçekleşebilen, okullarda veya okul dışında meydana gelen öğrenmeler şeklinde de tanımlanmaktadır. Öğretmenlerin informal öğrenme şekilleri, onların mesleklerini devam ettirirken eksikliklerini giderdikleri yollar olarak düşünülmektedir. Bu araştırma okul öncesi öğretmenlerinin iş ortamlarındaki informal öğrenme davranışlarının belirlenmesi amacı ile gerçekleştirilmiştir. Araştırma, betimsel tarama modelinde gerçekleştirilmiştir. Araştırmanın çalışma grubu seçkisiz örnekleme yöntemlerinden basit seçkisiz örnekleme yoluyla belirlenmiş ve 2018-2019 eğitim öğretim yılında Kütahya ilinde görev yapan 117 okul öncesi öğretmeni ile çalışma yürütülmüştür. Araştırma sonucunda okul öncesi öğretmenlerin en sık başvurdukları informal öğrenme etkinliğinin internette arama yapmak olduğu, en az ise üyesi olduğu çevrimiçi topluluğa sormak/danışmak olduğu sonucuna ulaşılmıştır. Okul öncesi öğretmenlerinin informal öğrenme etkinliklerinde bulunmalarını etkileyen çevresel engelleyicilere en fazla zaman eksikliği engelini söylerken en az ise parasal ödüllerin olmasını ifade etmişlerdir. Okul öncesi öğretmenlerinin informal öğrenme etkinliklerinde bulunmalarını etkileyen kişisel özelliklere ise en fazla öğrenme arzusu/hevesi, en az ise bir etkinliğe başlama ve devam etme kararlılığını ifade etmişlerdir.

***Anahtar Sözcükler*:** İnformal öğrenme, okul öncesi, öğretmen, çocuk.

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## Introduction

International organizations such as the Council of Europe, UNESCO, and the OECD have indicated the concept of lifelong learning as a general principle in the reshaping and implementation of education (Kaya, 2016). Many countries have developed policies, strategies, or mechanisms aimed at establishing lifelong learning systems. Efficient lifelong learning policies aim to make learning a part of the everyday life of citizens (Hanemann, 2015; Yang and Valdes-Cotera, 2011). While the European Union defines lifelong learning as a period of training activities to improve knowledge, skills, and competences (Odabaş and Polat, 2008), another definition describes it as any formal or informal, continuous learning activities carried out for the purpose of fostering knowledge, skills, and abilities within the framework of personal, social, or business life (Güleç, Çelik and Demirhan, 2012). The European Commission shows the scope of lifelong learning as all formal and informal learning from preschool to retirement (Kıvrak, 2007). The European Community Commission (2000) states that informal learning activities should be further supported with an emphasis on lifelong learning activities in education and training processes in the course of transition to information-based society as well as economic and social change. The concept of lifelong learning for teachers is thought to involve identification of the current challenges, demands, and needs by creating various educational pathways in schools (Bedmar and Palma, 2012).

Informal learning is the primary feature that transforms educational activities into lifelong learning (Göğebakan Yıldız, 2017). It is also at the heart of economic, workplace, and educational reform discourses (Garrick, 2001). Informal learning refers to people's discovering new things and improving their experience (Bozdoğan, 2007) in everyday life (Gerber and Marek, 2001). That is, it refers to learning outside the classroom (Kara, 2010). While there are different definitions of informal learning, a brief literature review shows that different features of informal learning are emphasized in previous studies. Watkins and Marsick (1992) state that informal learning is a) based on learning from experience; b) embedded in the organizational context; c) oriented to a focus on action; d) governed by non-routine conditions; e) concerned with tacit dimensions that must be made explicit; f) delimited by the nature of the task; and g) improved by critical reflectivity and creativity. Schugurensky (2000) argues that there are three forms of informal learning, which are self-directed learning, incidental learning, and socialization. Informal learning environments are as important as informal learning itself. In informal learning environments, the aim is to increase the knowledge of individuals and make them gain the ability to solve the problems they may face in their daily lives (Türkmen, 2010). Eraut (2004) states that informal learning allows much more freedom and flexibility to learners than formal environments, and it is more commonly employed in adult education as it draws attention to learning in daily activities and makes individuals learn from their experiences. Research shows that the role and effect of informal learning on individuals' learning efficiency becomes more important as of high school period. Livingstone (2002) stated that more than 90% of adults were involved in informal learning activities and that the time allocated to informal learning activities had increased to 15 hours per week among adults in the last year.

It is stated that the main purpose of activities carried out in informal learning environments is to contribute to active learning, and activities in informal learning environments can be used to strengthen the learning activities carried out in the classroom (Tatar and Bağrıyanık, 2012). Previous studies showed that the skills we aim to equip children with in schools are learned faster by them in informal environments outside the school (Braund and Reiss, 2006; Hofstein and Rosenfeld, 1996; Melber and Brown, 2008; Stocklmayer, Rennie and Gilbert, 2010; Wulf, Mayhew and Finkelstein, 2010).

Taking into account the results of previous studies, it is believed that teachers, also being adults, prefer to learn informally. The literature review showed that there is no study dwelling on preschool teachers' informal learning. Therefore, we believe that this study will contribute to the related literature. To this end, this study aims to reveal preschool teachers' informal learning behaviors in their workplaces.

In this sense, the research questions below are addressed:

1. Which informal learning activities are available in preschool teachers' workplaces?
2. What are the environmental inhibitors that prevent preschool teachers from getting involved in informal learning activities?
3. What are the personal characteristics that enhance the involvement of preschool teachers in informal learning activities?

## Method

### Research Model

This study seeks to reveal preschool teachers' informal learning behaviors in their workplaces. Thus, it is a descriptive survey study. The survey model is a research model that aims to describe a past or present case as it is and tries to define the individual or the object of study as it is within its own context (Karasar, 2012).

### Study Group

The study group was selected through simple random sampling. The participants include 117 preschool teachers working in Kütahya province of Turkey in the 2018-2019 academic year. Table 1 shows the participating teachers' personal details.

**Table 1**
*Personal details of the study group*

| | N | % | | N | % |
|---|---|---|---|---|---|
| **Gender** | | | **Level of Education** | | |
| Female | 107 | 91.5 | Minor in child development | 5 | 4.3 |
| Male | 10 | 8.5 | Bachelor's degree from an open education program | 21 | 17.9 |
| | | | Bachelor's degree from a formal education program | 91 | 77.8 |
| **Age** | | | **Workplace** | | |
| Less than 25 | 21 | 17.9 | Preschool | 97 | 82.9 |
| Between 26 and 30 | 37 | 31.6 | Kindergarten | 17 | 14.5 |
| Between 31 and 35 | 35 | 29.9 | Practice kindergarten | 3 | 2.6 |
| Between 36 and 40 | 18 | 15.4 | **Seniority** | | |
| 41 or over | 6 | 5.2 | 1 to 5 years | 41 | 35.1 |
| **Membership to Any Organization** | | | 6 to 10 years | 44 | 37.6 |
| Yes | 48 | 41.0 | 11 to 15 years | 21 | 17.9 |
| No | 69 | 59.0 | 16 years and over | 11 | 9.4 |

Table 1 shows that 91.5% (107) of the participating teachers are female while 8.5% (10) are male. 4.5% (5) of the teachers have a minor in child development, 17.9% (21) a bachelor's degree in preschool education from an open education program, and 77.8% (91) a bachelor's degree in preschool education from a formal education program. 17.9% (21) of the participating teachers are younger than 25, 31.6% (37) aged between 26 and 30, 29.9% (35) aged between 31 and 35, 15.4% (18) aged between 36 and 40, and 5.2% (6) aged 41 or over. 82.9% (97) of the teachers work in preschools, 14.5% (17) in kindergartens, and 2.6% (3) in practice kindergartens. 35.1% (41) of the teachers have an experience of 1 to 5 years, 37.6% (44) an experience of 6 to 10 years, 17.9% (21) an experience of 11 to 15 years, and 9.4% (11) an experience of 16 years or more. The table also shows that 41.0% (48) of the teachers have a membership to one of the organizations that are relevant to their field whereas 59.0% (69) do not.

### Research Instruments and Procedures

The data collection tool is "Informal Learning Survey" developed by Lohman (2005) and adapted into Turkish by Alakurt (2015). Informal Learning Survey has three sections that are types of

informal learning activities, environmental inhibitors to informal learning, and personal characteristics enhancing informal learning.

There are nine questions in the first section to reveal which informal learning activities the participants engage in their workplaces. The section aims to reveal which features of the participants' workplaces (lack of free time, lack of access to computer technology, lack of proximity to colleagues' work areas, lack of recognition, and lack of monetary rewards) that inhibit their engagement in the informal learning activities which are given in the first section. The third section deals with personal characteristics that enhance their motivation to engage in informal learning activities given in the first section (interest in professional field/subject area, love of learning, initiative, and self-efficacy). A Likert-type scale ranging from 1 (never) to 5 (always) was used for these items. Reliability coefficients were calculated for groups of closed-ended items, yielding the following alpha coefficients: Informal learning activities .63; Environmental influence—Lack of free time, .79; Lack of proximity to colleagues' work areas, .84; Lack of access to computer technology, .93; Lack of monetary rewards, .94; Lack of recognition, .96; Personal characteristic—Initiative, .89; Self-efficacy, .93; Love of learning, .85; and Interest in profession, .88.

**Data Collection and Analysis**

In the study, the data were collected as a result of the Informal Learning Questionnaire applied face-to-face to preservice teachers. The study is descriptive research and descriptive statistics were used in the analysis of the data.

## Results

In this section, there are tables showing types of informal learning activities preschool teachers engage in their workplaces, their environmental inhibitors to informal learning, and personal characteristics enhancing informal learning.

**Results Regarding the Types of Informal Learning Activities Preschool Teachers Engage in Their Workplaces**

**Table 2**
*Types of informal learning activities preschool teachers engage in their workplaces*

| **Informal Activities*** | **N** | **Min** | **Max** | **Mean** $\bar{x}$ | **Mod** | **Standard Deviation** |
|---|---|---|---|---|---|---|
| Search the Internet | 117 | 3 | 5 | 4.61 | 5 | .617 |
| Share materials and resources with others (friends, colleagues, etc.) | 117 | 3 | 5 | 4.48 | 5 | .690 |
| Talk to others (friends, colleagues, etc.) | 117 | 3 | 5 | 4.42 | 5 | .685 |
| Collaborate with others (friends, colleagues, etc.) | 117 | 2 | 5 | 4.32 | 5 | .729 |
| Reflect on your actions | 117 | 1 | 5 | 4.22 | 4 | .862 |
| Observe others (friends, colleagues, etc.) | 117 | 1 | 5 | 4.16 | 4 | .787 |
| Trial and error | 117 | 2 | 5 | 3.85 | 4 | .912 |
| Scan professional magazines and journals | 117 | 1 | 5 | 3.71 | 4 | .992 |
| Consult to an online community that you are a member of | 117 | 1 | 5 | 2.97 | 3 | 1.303 |

Based on the mean scores, Table 2 shows that the most frequent informal learning activity that the preschool teachers engage in is "search the Internet" ($\bar{x}$= 4.61). Other informal learning activities in which the teachers engage are respectively as follows: "share materials and sources with others" ($\bar{x}$= 4.48); "talk to others" ($\bar{x}$= 4.42); "collaborate with others" ($\bar{x}$= 4.32); "reflect on your actions" ($\bar{x}$= 4.22); "observe others" ($\bar{x}$= 4.16); "trial and error" ($\bar{x}$= 3.85); "scan the professional magazines and journals" ($\bar{x}$= 3.71); and "consult to an online community that you are a member of" ($\bar{x}$= 2.97). Results regarding preschool teachers' environmental ınhibitors to ınformal learning are shown in table 3.

**Table 3**

*Results regarding preschool teachers' environmental inhibitors to informal learning*

| | | Talk to others (friends, colleagues, etc.) | Collaborate with others (friends, colleagues, etc.) | Observe others (friends, colleagues, etc.) | Share materials and resources with others (friends, colleagues, etc.) | Search the Internet | Scan professional magazines and journals | Trial and error | Reflect on your actions | Consult to an online community that you are a member of |
|---|---|---|---|---|---|---|---|---|---|---|
| *Lack of free time* | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 3,15 | 3,14 | **3,24** | 2,88 | 2,77 | 3,16 | 2,89 | **2,70** | 2,71 |
| | Mod | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 3 |
| | Ss | 1,127 | 1,050 | 1,039 | 1,100 | 1,109 | 1,066 | 1,143 | 1,075 | 1,209 |
| *Lack of proximity to colleagues' work areas* | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 3,20 | 3,27 | **3,42** | 3,18 | 2,29 | 2,26 | 2,15 | **2,11** | 2,31 |
| | Mod | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 1 |
| | Ss | 1,212 | 1,229 | 1,169 | 1,243 | 1,239 | 1,153 | 1,172 | 1,135 | 1,323 |
| *Lack of access to computer technology* | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 2,62 | 2,58 | 2,62 | 2,80 | **3,81** | 3,06 | 2,15 | **2,10** | 3,19 |
| | Mod | 1 | 1 | 1 | 4 | 5 | 4 | 1 | 1 | 5 |
| | Ss | 1,382 | 1,346 | 1,369 | 1,310 | 1,306 | 1.398 | 1,236 | 1,258 | 1,587 |
| *Lack of monetary rewards* | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 1,32 | **1,30** | 1,36 | 1,50 | 1,47 | **1,51** | 1,38 | 1,31 | 1,37 |
| | Mod | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Ss | ,772 | ,772 | ,843 | 1,047 | 1,039 | 1,064 | ,936 | ,793 | ,906 |
| *Lack of recognition* | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 2,98 | **3,11** | 2,89 | 2,85 | 1,57 | 1,62 | 1,58 | **1,54** | 1,90 |
| | Mod | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 1 |
| | Ss | 1,203 | 1,158 | 1,202 | 1,302 | ,958 | 1,089 | 1,069 | ,987 | 1,262 |

Table shows that "lack of free time" affects the informal activity to "observe others" ($\bar{x}$= 3.24) most whereas it has the least effect on the informal activity to "reflect on your actions" ($\bar{x}$= 2.70). "Lack of proximity to colleagues' work areas" affects the informal activity "observe others" ($\bar{x}$= 3.42) most whereas it has the least effect on "reflect on your actions" ($\bar{x}$= 2.11). "Lack of access to computer technology" affects the informal activity "search the internet" ($\bar{x}$= 3.81) most whereas it has the least effect on the informal activity "reflect on your actions" ($\bar{x}$= 2.10). "Lack of monetary rewards" affects the informal activity "scan the professional magazines and journals" ($\bar{x}$= 1.51) most whereas it has the least effect on the informal activity "collaborate with others" ($\bar{x}$= 1.30). "Lack of recognition" affects the informal activity "collaborate with others" ($\bar{x}$= 3.11) most whereas it has the least effect on the informal activity "reflect on your actions" ($\bar{x}$= 1.54).

**Results Regarding Preschool Teachers' Environmental Inhibitors to Informal Learning**

**Table 4**

*Preschool teachers' environmental inhibitors to informal learning*

| Environmental Inhibitors | N | Min | Max | Mean x̄ | Mod | Standard Deviation |
|---|---|---|---|---|---|---|
| Lack of free time | 117 | 9 | 45 | 26.65 | 27 | 7.338 |
| Lack of proximity to colleagues' work areas | 117 | 9 | 43 | 24.18 | 25 | 8.106 |
| Lack of access to computer technology | 117 | 9 | 45 | 24.92 | 25 | 9.130 |
| Lack of monetary rewards | 117 | 9 | 45 | 12.53 | 9 | 7.522 |
| Lack of recognition | 117 | 9 | 45 | 20.05 | 9 | 7.485 |

The total mean scores regarding environmental inhibitors to informal learning, as seen in Table 4, show that the preschool teachers are mostly inhibited by "lack of free time" (x̄= 26.65). It is followed respectively by "lack of access to computer technology" (x̄=24.92), "lack of proximity to colleagues' work areas" (x̄= 24.18), "lack of recognition" (x̄=20.05), and "lack of monetary rewards" (x̄= 12.53). Results regarding preschool teachers' personal characteristics enhancing ınformal learning are shown in table 5.

**Table 5**

*Results regarding preschool teachers' personal characteristics enhancing informal learning*

| | | Talk to others (friends, colleagues, etc.) | Collaborate with others (friends, colleagues, etc.) | Observe others (friends, colleagues, etc.) | Share materials and resources with others (friends, colleagues, etc.) | Search the Internet | Scan professional magazines and journals | Trial and error | Reflect on your actions | Consult to an online community that you are a member of |
|---|---|---|---|---|---|---|---|---|---|---|
| Initiative | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 4,32 | 4,30 | 4,22 | 4,29 | **4,40** | 4,29 | 4,30 | 4,27 | **3,85** |
| | Mod | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ss | ,988 | ,998 | ,984 | ,938 | ,956 | 1,034 | 1,069 | 1,047 | 1,324 |
| Self-efficacy | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | **4,50** | 4,47 | 4,49 | 4,49 | 4,44 | 4,39 | 4,45 | 4,39 | **4,03** |
| | Mod | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ss | ,761 | ,783 | ,727 | ,738 | ,894 | ,880 | ,836 | ,973 | 1,245 |
| Love of Learning | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 4,59 | 4,59 | 4,52 | 4,48 | **4,67** | 4,52 | 4,64 | 4,61 | **4,32** |
| | Mod | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ss | ,811 | ,811 | ,847 | ,906 | ,695 | ,887 | ,714 | ,798 | 1,142 |
| Interest in Professional Field/Subject Area | N | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| | Min | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Mak | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ort | 4,57 | 4,46 | 4,56 | 4,48 | **4,62** | 4,49 | 4,56 | 4,60 | **4,29** |
| | Mod | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | Ss | ,791 | ,846 | ,793 | ,826 | ,717 | ,837 | ,803 | ,788 | 1,145 |

As shown in Table 4, "initiative" affects the activity "search the internet" most ($\bar{x}$= 4.40) while it has the least effect on the activity "consult to an online community that you are a member of" ($\bar{x}$= 3.85). "Self-efficacy" affects the activity "talk to others" ($\bar{x}$= 4.50) most whereas it has the least effect on "consult to an online community that you are a member of" ($\bar{x}$= 4.03). "Love of learning" affects the activity "search the internet" most ($\bar{x}$= 4.67) while it has the least effect on "consult to an online community that you are a member of" ($\bar{x}$= 4.32). "Interest in professional field/subject area" affects the activity "search the internet" most whereas it has the least effect on "consult to an online community that you are a member of" ($\bar{x}$= 4.29).

**Results Regarding Preschool Teachers' Personal Characteristics Enhancing Informal Learning**

**Table 6**

*The preschool teachers' personal characteristics enhancing informal learning*

| **Personal characteristics** | **N** | **Min** | **Max** | **Mean** $\bar{x}$ | **Mod** | **Standard Deviation** |
|---|---|---|---|---|---|---|
| Initiative | 117 | 9 | 45 | 38.19 | 45 | 7.745 |
| Self-efficacy | 117 | 9 | 45 | 39.64 | 45 | 6.070 |
| Love of Learning | 117 | 9 | 45 | 40.93 | 45 | 6.148 |
| Interest in Professional Field/Subject Area | 117 | 9 | 45 | 40.61 | 45 | 6.160 |

The total mean scores regarding personal characteristics that enhance informal learning, as shown in Table 6, show that it is "love of learning" ($\bar{x}$= 40.93) that enhances the preschool teachers' informal learning most. Other characteristics that enhance informal learning are "interest in professional field/subject area" ($\bar{x}$= 40.61), "self-efficacy" ($\bar{x}$= 39.64), and "initiative" ($\bar{x}$= 38.19), respectively.

## Discussion, Conclusion and Recommendations

The results of this study revealing preschool teachers' informal learning activities are similar to the results of previous studies in the literature.

The study showed that the most frequently employed informal learning activity by preschool teachers is "search the internet" while the least employed one is "consult to an online community that you are a member of". Focusing on informal learning activities of information technologies teachers in their workplaces, Alakurt (2015) similarly revealed that the most frequently employed informal learning activity is "search the internet". In the study of teachers examining informal learning activities, Lohman (2006) concluded that teachers prefer to talk with their other friends the most, and at least they search for resources related to their field. In the study, in which they examined the informal learning activities used in the workplaces, Berg & Chyung (2008) found that one of the most frequently used ways by the participants was conversations among themselves. In the research conducted by Richter (2011), it was found that while teachers applied to the more professional literature in the following years, cooperation with their colleagues decreased. In her study, Güvercin (2014) found that teachers try to develop their professional competencies by trying new methods, socializing by observing more experienced teachers, and also associating being a good teacher with personal characteristics.

In relation to environmental inhibitors to informal learning, it was seen that "lack of free time" and "lack of proximity to colleagues' work areas" affect the activity "observe others" most while they have the least effect on "reflect on your actions". The inhibitor "lack of access to computer technology" affects the activity "search the internet" most while it has the least effect on "reflect on your actions". The inhibitor "lack of monetary rewards" affects the activity "scan the professional magazines and journals" most while it has the least effect on "collaborate with others". The inhibitor "lack of recognition" affects the activity "collaborate with others" most while it has the least effect on "reflect on your actions".

An overall evaluation of environmental inhibitors to informal learning of preschool teachers shows that "lack of free time" affects the teachers most while "lack of monetary rewards" affects them least. Alakurt (2015) reached a similar result as well. In a similar study, in a research on teachers and preservice teachers about learning out of school conducted by Karademir (2013), it was stated that teachers are reluctant to plan out-of-school learning environment activities, in which the situation of creating out-of-school activities differs in terms of time and cost. In the research conducted by Dağ (2016), it was concluded that informal learning of science teachers was influenced by some factors such as the jobs they worked for, teachers they had when they were students, visits to institutions and organizations such as museums, aquariums and science centres, groups they participate as volunteers or members, their experiences in school and reading articles and essays and also using the internet and watching TV before starting their teaching profession.

In relation to personal characteristics that enhance informal learning, it was seen that "initiative" affects the activity "search the internet" most whereas it has the least effect on "consult to an online community that you are a member of". "Self-efficacy" affects the activity "talk to others" most whereas it has the least effect on "consult to an online community that you are a member of". "Interest in professional field/subject area" affects the activity "search the internet" most whereas it has the least effect on "consult to an online community that you are a member of". An overall evaluation of personal characteristics that enhance informal learning for preschool teachers shows that "love of learning" affects teachers' involvement in informal learning activities most while "initiative" has the least effect on informal learning activities. In the study carried out by Kwakman (2003), it was concluded that professional attitudes, evaluating the appropriateness of learning activities, the significance of learning activities affect informal learning. In the study conducted by Yaşar (2013), it was concluded that smartphones are used in informal learning and that these activities are mostly conducted in the form of research for their search engines, media files or documents, and social networks. Efe (2014) stated that mobile devices are used for instant learning and they carry out informal learning in this way.

Some recommendations can be made based on the research results. The teachers were seen to be using the internet most. Therefore, qualitative studies may be conducted to see what their searches are about in detail. The effects of other variables on informal learning may be analyzed. Teachers may be trained about ways of informal learning as part of lifelong learning. Teachers' awareness regarding the publications in their fields/subject areas may be raised, and they may be helped to access these publications.

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