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LEARNING APPROACHES OF PROSPECTIVE TEACHERS

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Abstract

One of the factors ensuring an individual's educational growth is proper and effective study. When we review the literature, we find that the students classify their readings into the categories of deep and surface reading, respectively. The purpose of this research is to determine the level of learning approaches of senior students of faculty of education and to expose the differences that derive from gender, school/division and the effectiveness of housing facilities. A survey model was used in this study. The research sample consisted of 2012-2013 academic year senior students from the Faculty of Education at Ahi Evran University in Turkey. The Study Process Questionnaire created by Biggs, Kember and Leung (2001) was used as the data collecting tool for this research. The deep approach of the Cronbach Alpha coefficient of scale was calculated as 0,79 and surface approach as 0,74. According to the results, the students prefer a surface approach to a deep one; and while there isn't any significant difference in terms of gender in choosing deep approach, it is seen that there is significant difference amongst the male applicants in choosing surface approach.

Key Words: Deep Learning, Surface Learning, Learning Approaches, Pre-Service Teacher, Faculty of Education

Özet

Bireyin öğrenmesini sağlayan faktörler içinde ilk sırada sayabileceğimizden birisi, doğru ve etkili şekilde ders çalışmadır. İlgili alan yazın incelendiğinde, öğrencilerin okuduklarını derin veya yüzeysel olmak üzere iki ayrı düzeyde işledikleri görülmektedir. Bu araştırmanın amacı, Ahi Evran Üniversitesi Eğitim Fakültesinin son sınıfında okuyan öğretmen adaylarının öğrenme yaklaşımlarının ne düzeyde olduğunu ve cinsiyet, okudukları bölüm, barınma olanakları değişkenleri açısından farklılaşma durumlarını belirlemektir. Araştırmada tarama modeli kullanılmıştır.

Araştırmanın örneklemini Ahi Evran Üniversitesi'nde 2012-2013 öğretim yılında son sınıfta öğrenim görmekte olan 267 eğitim fakültesi öğrencisi oluşturmaktadır. Biggs, Kember ve Leung (2001) tarafından geliştirilen Yılmaz ve Orhan (2011) tarafından Türkçe formunun dilsel eşdeğerliği, geçerlik ve güvenilirlik çalışmaları yapılan "Ders Çalışma Yaklaşımı Ölçeği" veri toplama aracı olarak kullanılmıştır. Ölçeğin derin yaklaşım faktörünün Cronbach Alfa katsayısı 0,79 yüzeysel yaklaşım faktörünün Cronbach Alfa katsayısı 0,74 olarak hesaplanmıştır. Verilerin çözümlenmesinde alt problemlerin gerektirdiği şekilde ortalama, standart sapma değerleri hesaplanmış, Mann-Whitney U ve Kruskal Wallis testleri kullanılmıştır. Araştırma sonuçlarına göre Ahi Evran Üniversitesi Eğitim Fakültesi'nde okuyan öğretmen adaylarının, yüzeysel yaklaşımı, derin öğrenme yaklaşımından daha çok tercih ettikleri; derin öğrenme yaklaşımlarını tercih etmede cinsiyet açısından anlamlı fark bulunmazken, yüzeysel öğrenme yaklaşımını tercih etmede erkek adaylar lehine anlamlı fark olduğu görülmüştür.

Anahtar Kelimeler: Derin Öğrenme, Yüzeysel Öğrenme, Öğrenme Yaklaşımları, Öğretmen Adayı, Eğitim Fakültesi

INTRODUCTION

One of the factors ensuring an individual's educational growth is proper and effective study. Entwistle (1997, p. 3) has defined learning outcomes as the rise of information acquired as a result of experiences at school and showing the changes in comprehension. Trigwell and Prosser (1991) state that the biggest aim of higher education is to make students have high grade learning outcomes. That's why research on the way in which the students learn are showed tendency in order to increase the quality of the students' learning (as cited in, Byrne, Flood and Willis, 2002).

Marton and Saljö (1976) conducted a qualitative study presenting the way in which a group of university students study a given text. The study found that students process the texts at two different levels, namely at a surface and at a deep level. While the learning efforts given by the students processing the text at deep level are associated with comprehending, the students processing at surface level aim only to have enough performance in the examination. This study constitutes the starting point of the learning approaches studies in the literature (as cited in, Biggs, 1999, p. 59; Yılmaz and Orhan, 2011, p. 71). Svensson (1976: p. 93) has made a similar differentiation using different terminology. He titled the cognitive approach with two divisions as holistic and atomistic, respectively. In the holistic approach, while reading the text, the student follows a path including the aim of the writer, isolating the main parts of the text. The atomistic approach focuses on significant findings without focusing on certain comparisons, parts disconnected from the main parts, remembrance of the details, and the message given in the whole text. Both Svensson and Marton describe these two different processes of understanding as "approach", but assign different binaries (deep/surface, holistic/atomistic) (as cited in, Marton and Saljö, 1997). A student with a deep learning approach can be defined as a student who is able to deal with studying and has a desire to do their best. Such a student has

specific academic or career plans, and when taking a lesson, contributes pre-learning and questions to be answered related to the lesson. Such a student finds the answers to his questions in the lesson and uses these answers to construct the information in his mind. Such students are generally those who are able to learn independently. These students are similar to those with a deep learning approach. Here, the definition of “deep” is not about the characteristics of an individual, but about his learning (Biggs, 2011, p. 5). They try to form an individual meaning relating to the studied topic. For example, they try to discern the connections intended by the author of a given text. They attempt to solve the underlying thought in the text. They try to establish a mutual relation between what they read, and daily life, or the information they already know (Ramsden, 2004, p. 42). Certain studies indicate that deep learning approaches are linked to higher learning outcomes (Marton and Saljö, 1997; Van Rossum and Schenk, 1984; Trigwell and Prosser, 1991; Ramsden, 1992; Prosser and Millar, 1989; as cited in, Trigwell, Prosser and Waterhouse, 1999).

A student with a surface approach lacks curiosity; however, such a student may still need the skills to take on a job. The student may not possess enough pre-learning in regard to the given topic, and may not have any questions in his mind about the lesson at the time. Such a student may only harbor the anxiety of passing, where overcoming the exam is the only goal (Biggs, 2011, s. 5). Instead of making sense of what he has learnt in the lesson, such a student considers it as a memorial clue to remember the other information. These kinds of students don’t get involved in the topic. Such a student focuses on memorization. When such a student is asked about what has been read the student focuses only on the details they need to remember. Such a student cannot distinguish between principles and examples; between evidences and results; or between gist and an auxiliary idea (Ramsden, 2004, p. 42).

Ramsden (1988) has explained surface and deep learning approaches simply by associating a surface approach to remembrance and by associating a deep approach to comprehension (As cited in Hamm and Robertson, 2010, p. 952).

It is possible to summarize the characteristics of surface and deep learning as follows (Hamm and Robertson, 2010, p. 953):

Table 1: Characteristic of Deep and Surface Learning

	Deep Learners Tend To	Surface Learners Tend To
Time and Effort	Go beyond the level required for assessment; Spend time and effort on learning	Do just enough to complete the assessment; Spend only required minimum time to meet the requirements
Asking Questions	Ask “why” not just “how”	Ask “how” rather than “why”

Level of Research	Research the task thoroughly	Uses information available
Impact of Assess Ability	Spend time and effort on topics even though they are not assessed	Focus only on accessible tasks
Cognitive Effort	Aim at understanding	Aim at memorization, rote learning
Effect of Personal Interest	Aim to satisfy curiosity and personal interest but will pursue topics attracting less personal interest	Spend a greater amount of time on topics of personal interest

In his study, Saljö (1979, p. 19) asked 90 participants between the ages of 15-73 to define learning, and five different learning concepts resulted. Van Rossum and Taylor (1987) conducted a study with 91 university students studying in art department. At the end of the study, by affirming Saljö's five learning concepts, he put forward a sixth concept. Marton, Dall' Alba and Beaty (1993) studied with 10 students during 6 years periodically, and they confirmed Van Rossum and Taylors' six concepts regarding learning (as cited in, Richardson, 2005, p. 675). These learning concepts are:

1. Learning as the increase of knowledge
2. Learning as memorizing
3. Learning as the acquisition of facts or procedures
4. Learning as the abstraction of meaning
5. Learning as an interpretative process aimed at the understanding of reality
6. A conscious process, fuelled by personal interests and directed at obtaining harmony and happiness or change in society

At the end of the study conducted by Van Rossum and Schenk (1974) and studied with 60 psychology students in the Netherlands, a relationship was observed between the concepts put forward by Saljö, and students' learning approaches. The authors found that the students who defined learning using items 1-3 have a surface approach, while the others, defining the learning with items 4-5, have a deep learning approach (as cited in, Richardson, 2005, p. 675).

By adding the third dimension to surface and deep learning approaches, Ramsden (1979) defined this dimension as a strategic approach. This approach builds on the goal of reaching the highest level of success and time management by organized studying methods (Entwistle and Ramsden, 1983; As cited in, Entwistle, 2000, p. 3). Students with a strategic approach focus on scientific content and evaluation system demands. They pay attention to the content in the same way as students with a deep learning approach, but they also care strategically about the needs of the evaluation process (Entwistle, 2000, p. 3). An individual using a strategic learning approach also uses the deep and surface approaches (As cited in, Byrne, Flood and Willis, 2002, p. 28). Richardson (1994, p. 73) states that the characteristics of the strategic approach are:

- Having intention to get the highest possible grades

- Organizing time and distributing effort for the greatest effect
- Ensuring conditions and materials to study appropriately
- Using previous exam papers to predict questions
- Being alert to cues about marking schemes

Maybe we can describe the students with a surface learning approach as lacking motivation; however, were the case, we ought to support these kinds of students as teachers. Entwistle (2000, p.6) notes that the teaching approaches used by teachers have a great impact on the students' studying approaches, and as a result, also have an impact on learning outcomes. In learning paradigms, rather than merely in cognitive or behavioral processes, student experiences a learning state are also considered as influential (Martoon and Booth, 1997, p. 13; as cited in Byrne, Flood and Willis, 2002, p. 27). Biggs (1999, p. 58) presents students having surface learning approach can carry out as high level learning as the students having deep learning approach in the active learning classes. Therefore, it shows that mentors can affect the level of the students' learning to a great extent by using appropriate teaching methods. Quantitative research conducted by Trigwell, Prosser and Waterhouse (1999) argues for teacher-centered teaching, which they note is based on the transfer of information linked to surface learning, while a student-centered teaching approach based on conceptual change is linked to a deep learning approach.

According to the results of Beattie, Collins and McInness (1997, p.10), a student's learning approach is partly a function of his own characteristics. In the higher education system, it is possible to state those things, which should be provided to all of the students (Andreou, Vlachos and Andreou, 2006, p. 309):

- Take the initiative in learning
- Move away from an over-reliance on lecturers
- Accept that a student centered approach to learning is active as opposed to passive
- Accept that they should learn not just for the purposes of assessment, but for their own intellectual growth, pleasure and fulfilment

Biggs (1999) generally points out that the educational institutions are based on the following three assumptions: Learning:

1. Learning is a direct result of individual differences between students.
2. Learning is primarily the result of appropriate teaching.
3. Learning is the result of students' learning-focused activities, which are engaged by students as a result of both their own perceptions as well as by the inputs and of the overall teaching context.

Learning approach is one of the basic factors that plays a role in meaningful learning for students. It is vital that teachers are aware of which learning approaches students prefer, and that they plan teaching activities according to students characteristics, with respect to the quality of education. The results of this study contribute to the literature and can be generalised. Also, the study contributes to

educators and researchers opinions about learning approaches of graduate students. Based on this, educators may implement alternative teaching strategies.

Aim of the Study

The purpose of this research is to determine the level of the respective learning approaches of senior students of faculty of education, and to expose the differences in terms of particular variables. In accordance with this purpose, the sub-problems of this study are indicated as below:

- What is the level of the prospective teachers' learning approach?
- Do the learning approaches of the prospective teachers show any significant difference based on gender?
- Do the learning approaches of the prospective teachers show any significant difference based on department?
- Do the learning approaches of the prospective teachers show any significant difference based on housing facilities in which the students live?

METHOD

Population and Sample

In this study, which is aimed at determining the level of learning approaches of senior students of faculty of education from Ahi Evran University and to expose the differences that derive from some variables, a survey model has been used. In survey models, an attempt is made to define an event, individual or object, in their own conditions and as they are. There is not any attempt to change or affect them at any way (Karasar, 2012, p. 75).

The population of the study consists of 2012-2013 academic year senior students in the Faculty of Education at Ahi Evran University. The sample is formed by 267 prospective teachers chosen from among the study population, with a simple random sampling method. Simple random sampling is a method in which each population selection has a chance to be chosen (Büyüköztürk and friends, 2009, p. 84). Demographical characteristics of the students are given in Table 2.

Table 2: Characteristic of Prospective Teachers

Gender	f	%
Women	170	63,7
Men	97	36,3
Total	267	100,0
Department		
Guidance and Psychological Counselor	41	15,4
Primary School Teacher	58	21,7
Turkish Language Teacher	34	12,7
Pre-school Teacher	31	11,6
Science Teacher	54	20,2
Social Sciences Teacher	49	18,4

Total	267	100,0
Accommodation		
With Parents	42	15,7
State Dormitory	73	27,3
Private Dormitory	35	13,1
House-Student's Hostel	117	43,8
Total	267	100,0

As seen in Table 2, 63,7% of prospective teachers are women and 36,3% are men. Fifteen percent or 4 (n=41) of the prospective teachers study to become guidance and psychological counselors; 21,7% (n=58) of the prospective teachers were studying to become primary school teacher, 12,7% (n=34) of the prospective teachers were studying to teach Turkish, 11,6% (n=31) of the prospective teachers were studying to become pre-school teachers, 20,2% (n=54) of the prospective teachers were studying to become science teachers; and 18,4% (n=49) of the prospective teachers studied at the Social Sciences Department.

Fifteen point seven percent (n= 42) of the prospective teachers lived at home with their families, 27,3% (n=73) of the prospective teachers stayed at a state dormitory, 13,1% (n=35) of teachers lived in a private dormitory and 43,8% (n=117) of the prospective teachers stay alone in a house or a student's hostel.

Data Collection and Measures

Richardson (1994) suggests to researchers and practitioners the usage of quantitative instruments, such as the inventory and the questionnaire, in order to evaluate the students' study approaches and put them forth.

In this study, the Study Process Questionnaire developed by Biggs, Kember and Leung (2001) and researched further in terms of linguistic equivalence, validity and reliability by Yılmaz and Orhan (2011), was used in order to define the prospective teachers' learning approaches. Yılmaz and Orhan (2011) administered the scale to 400 undergraduate students, and the results of these analyses show that the 20 item-scale reflected two approaches amongst participant students, namely a deep approach, and a surface approach. In this study, carried out amongst 267 senior university students, Cronbach Alpha ratio of scale's deep approach factor was calculated as 0,79, and Cronbach Alpha ratio of scale's surface approach factor was calculated as 0,74. According to Kayış (2010, s. 405), if the values of a study are found to be among $0,60 \leq \alpha \leq 0,80$, the scale can be taken as reliable.

In the process of answering the questionnaire, five different options are offered by using a 5 point Likert-type scale: (1) this item is never or only rarely true of me, (2) this item is sometimes true of me; (3) this item is true of me about half the time; (4) this item is frequently true of me, (5) this item is always or almost always true of me (Biggs, Kember and Leung, 2001). The marks it is possible to acquire in each of the deep and surface approaches change between 10 and 50. The learning approach of the student is

then determined by considering the higher point the student gets out of the approaches (Yılmaz and Orhan, 2011, p. 74).

Demographic characteristics of the students were gathered through a personal information form developed by the researchers.

Data Analysis Techniques

A Study Process Questionnaire (SPQ) was administered to 267 prospective teachers. The state of the learning approach preference by the prospective teachers was described via mean and standard deviation. In the presentation and evaluation of the findings, the criterion used are the lowest point ($10 \times 1,00 = 10,00$), mid-point ($10 \times 3,00 = 30,00$) and the highest point ($10 \times 5,00 = 50,00$) that it is possible to acquire at the end of SPQ.

In order to define the statistical techniques used to analyze the data, the data ranges—namely skewness and kurtosis values, histogram graphics and Kolmogorov Smirnov test – were tested for normality. When this was done, the respective factors of gender, department, and housing facilities, the data did not show a normal distribution, with a significance level of below 5% ($p = 0,000$). Under these circumstances, nonparametric statistical methods – also called as ‘distribution free statistics’—are used, which are free of assumptions about the structures of the distribution of the data (Baştürk, 2010, p. 5). In this regard, both Mann-Whitney U and Kruskal Wallis tests are used in the analysis of the data, by considering the sub-problems.

FINDINGS

Findings regarding the 1st Sub- problem

In order to define the level of the prospective teachers’ learning approaches, average points are calculated in the deep and surface learning approach sub-dimensions, and are given in Table 3.

Table 3: Level of Learning Approach Preference of Prospective Teachers

Learning Approaches	\bar{x}	ss	n
Deep	29,36	6,50	267
Surface	35,64	9,20	

When Table 3 is examined, showing results from the 267 participants in this study, the average for the two approaches is found to have been 29,36 for the deep approach and 35,64 for the surface approach, respectively. It can be stated that students evidence surface learning more than they do deep learning. Moreover, when the averages of deep and surface learning approaches are analyzed, it is seen that the average value ($\bar{x} = 29,36$) of the deep learning approach is below the mid-point (30,00), while the average value ($\bar{x} = 35,64$) relating to the surface learning approach is above the midpoint.

Findings regarding the 2nd sub-problem

In order to examine the learning approaches of the prospective teachers regarding to gender variables, the Mann-Whitney U test is applied and the obtained results are given in Table 4.

Table 4: Mann-Whitney U Test Results of Prospective Teachers' Learning Approaches Regarding to Gender

Learning Approach	Gender	N	Mean Rank	Mann-Whitney U	Z	p
Deep	Woman	170	134,99	8076	-,279	,780
	Man	97	132,26			
Surface	Woman	170	119,37	5758,5	-4,100	,000
	Man	97	159,63			

As seen in Table 4, there isn't any significant difference between the deep learning approach preference state of male and female prospective teachers ($,780$, $p > 0,05$). Besides, when the values on the surface learning approach are examined, a significant difference was observed, showing male applicants to prefer the surface learning approach ($0,000$, $p < 0,01$). In light of the findings, it appears that male prospective teachers prefer the surface learning approach more than do the female prospective teachers.

Findings relating the 3rd Sub- problem

Table 5 shows the results of the Kruskal-Wallis test, which was applied in order to define the differentiation state of prospective teachers' learning approaches according to department.

Table 5: Kruskal Wallis Test Results for the Comparison of Prospective Teachers' Learning Approaches Relating to the Departments Studied

Learning Approaches	Department	N	Mean Rank	Chi-Square	df	p
Deep	Guidance and Psychological Counselor	41	149,01	2,675	5	,750
	Primary School Teacher	58	128,89			
	Turkish Language Teacher	34	131,72			
	Pre- school Teacher	31	127,29			
	Science Teacher	54	139,29			
	Social Science Teacher	49	127,49			
Surface	Guidance and Psychological Counselor	41	137,05	2,610	5	,760

Primary School Teacher	58	127,76
Turkish Language Teacher	34	130,44
Pre-school Teacher	31	121,82
Science Teacher	54	136,33
Social Science Teacher	49	146,44

When the Kruskal Wallis test results given in Table 5 were examined, no significant difference between departments was found when it came to opting for either a deep or a surface learning approach ($,750, p>0,05$; $,760, p>0,05$). While the students studying to be guidance and psychological counselors choose a deep learning approach more frequently, pre-school teachers prefer the deep learning approach less. When it comes to surface learning approaches, pre-school teachers prefer the surface learning approach less, while the social science teachers opt more often for a surface learning approach.

Findings relating the 4th Sub- problem

Table 6 shows the results relating the Kruskal-Wallis test, which is applied in order to define the differentiation state of prospective teachers' learning approaches according to their housing facilities.

Table 6: Kruskal Wallis Test Results for the Comparison of Prospective Teachers' Learning Approaches Relating to the Housing Facilities

Learning Approaches	Accommodation	N	Mean Rank	Chi-Square	df	p
Deep	With family	42	131,13	5,395	3	,145
	State Dormitory	73	150,86			
	Private Dormitory	35	118,74			
	House-Student's Hostel	117	129,07			
	With Family	42	129,98			
Surface	State Dormitory	73	128,42	,931	3	,818
	Private Dormitory	35	134,79			
	House-Student's Hostel	117	138,69			
	With Family	42	129,98			
	State Dormitory	73	128,42			

When the Kruskal Wallis test results given in Table 6 are examined, no significant difference in the opting deep and surface learning approaches by the prospective teachers can be observed when it comes to comparing their housing facilities ($,145, p>0,05$; $,818, p>0,05$). However, it can be observed that those preferring a primarily deep learning approach stay at a state dormitory, while those opting primarily for surface learning tend to stay in a house or a student's hostel.

RESULTS

This research is conducted to determine the level of learning approaches of senior students in the faculty of education from Ahi Evran University, and to expose the differences that may be derived from certain variables. The results acquired in the light of the findings can be summarized as follows:

1. Prospective teachers studying at Ahi Evran University prefer the surface learning approach to the deep learning approach.
2. Amongst prospective teachers opting for the deep learning approaches, there isn't any significant difference between women and men.
3. Amongst the prospective teachers opting for surface learning approaches, there is a significant difference, with male applicants.
4. Department of study does not impact the learning approach chosen by a student. However, while those preferring the deep learning approach are primarily the Guidance and Psychological Counselors, those less frequently opting for a deep learning approach are the prospective teachers studying in a pre-service department. The prospective teachers preferring surface learning approaches were social science teachers, while those opting for less are the prospective pre-school teachers.
5. Housing facilities likewise have no clear effect on choice of learning approach. However, the students preferring mainly the deep learning approach in this study stayed at a state dormitory, while the students having mainly surface learning approaches stayed at a house or a student's hostel.

DISCUSSION

In this study, the learning approach's level of the prospective teachers studying at Ahi Evran University is defined, and the differentiation state of learning approaches regarding gender, department and housing facilities are evaluated.

The findings can be used internationally by those researches who deal with learning approaches. This is due, as Marton and Saljö (1997, p. 46) have argued, to the fact that there is a close relationship between the deepness of the learning process and learning outcomes.

Prospective teachers could be expected to be those learning thoroughly and making sense of the information they learn in order to be a qualified instructor. Good teaching can affect the usage of the deep learning approach by the students, while weak teaching affects the usage of a surface learning approach by the students (Lublin, 2003, s. 3). In this context, also the academicians have a great responsibility to making prospective teachers prefer a deep learning approach. Studies have been conducted and show that teachers can change the students' learning approaches with the help of the instructional methods used (Entwistle, 2000; Marton & Booth, 1997 as cited in Byrne, Flood & Willis, 2002; Biggs, 1999; Trigwell, Prosser & Waterhouse, 1999; Beattie, Collins & Mcinnes, 1997). With regards to the first aim stated in this study, the deep

learning average was recorded to be 29,36, while the average surface learning approach was recorded to be 35,64. This shows prospective teachers to prefer a surface approach more than the deep one. According to the studies of Ekinci (2009) which support the current research's findings, although university students tend to utilize a deep learning approach while dealing with a learning subject more than the others, it is presented that they use strategic and surface learning approaches at a considerable extend.

One of the findings of the study is that there isn't any significant difference in preference between approaches amongst men and women. Besides, when the values relating to a surface learning approach are examined, there is a difference seen amongst the male participants in the preference of the surface learning approach between male and female prospective teachers. When the literature is analyzed, Entwistle (1981, p. 75) states that all of the participants are female in Marton's first study. As a consequence of that, the question is raised as to whether the learning approaches change according to gender (As cited in, Richardson, 1994). As a result, a large number of studies have been conducted which seek to determine the effect of gender as a variable.

In the studies conducted by Ozan, Köse & Gündoğdu (2012) and Özgür & Tosun (2012), male students are seen to prefer surface learning. This finding supports the current study's findings.

Also, there are studies in which there isn't any significant difference shown in this regard. According to the results of Andreou, Vlachos and Andreou (2006)'s study conducted with 452 university students, no significant difference between genders was recorded. Similarly, in results of the studies conducted by Byrne, Flood and Willis (2002), Ellez and Sezgin (2002), Sezgin, Çalışkan & Erol (2007), Ozan and Çiftçi (2013), there isn't any significant difference recorded between participants of different genders.

According to the research findings, preference for either deep or surface learning doesn't vary based on department. Although this is the case, those preferring primarily deep learning approach study in the Guidance and Counseling department, while those preferring deep learning approach are prospective pre-school teachers. It can be thought that this situation takes its source from its being the department having the students getting the highest points at university entrance exam. The Social Science teaching department appears to prefer the surface learning approach, while those preferring surface learning as an approach study at a pre-school teacher department. Similar to the current study findings, there isn't however a *significant* difference to be found between department and the preferred learning approaches, as can be seen for example in the results of the study conducted by Ozan ve Çiftçi (2013). Ozan, Köse and Gündoğdu (2012) likewise didn't find any significant difference in preferred learning approaches in their study applied to prospective teachers of pre-service and primary school teacher departments.

Data acquired in accordance with the last six problems posed by the study also shows no relation between choice of learning approach and housing facilities.

However it is notable that the students preferring mostly deep learning approaches stay at a state dormitory, while the ones that prefer surface learning stay at a home or in a student's hostel. It is thought that this situation is the result of the regular and organized structures state dormitories usually impose.

SUGGESTIONS

According to the findings, the following suggestions are made:

- A learning environment where deep learning is possible ought to be arranged.
- It is thought that academicians have a great impact on some issues such as increasing the quality of education, as well as increasing the interest of students in learning. Academicians should provide a place to search, questioning and reading activities, increasing the prospective teachers' interest in learning, and stimulating a lasting desire to learn.
- One of the limitations of this study is that the research is conducted with senior students studying at a single university. It is thought that the application of a similar study at other universities and different faculties might contribute to the field.

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