

*Full Length Research Paper*

# Mutual investigation about study process approach of Physical Education and Sports Faculty and students of Faculty of Education

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**This study was conducted to examine the differences between the study approach of students studying in Physical Education and Faculties of Education. For the study, Dumlupınar University School of Physical Education and Sports and Faculty of Education students were voluntarily participated to the study. As a data collection tool, conducted with the Turkish adaptation by Yilmaz and Orhan (2011), the studying process approach scale (SPQ) was used in the study. In the study, frequency and percentage descriptive statistical methods were used to determine the distribution of the personal information of the participants in the analysis of data obtained in the study. To determine the distribution of data, the sample Kolmogorov-Smirnov normality test and, for the identification of significant differences, the t test analysis and two way MANOVA analyses were used ( $p = 0.05$ ). As a result, in the participants' study approach, in the deep approach subdimension, a significant difference was found between school of Physical Education and Sport students and Faculty of Education students. Physical Education students ( $3,09 \pm 0,69$ ) have a higher average than education students ( $2,92 \pm 0,65$ ). Also, it was determined that there was a significant difference in the study approach of participants based on gender ( $p < 0.05$ ).**

**Key words:** Physical education and sport, education, study approach.

## INTRODUCTION

Education, is intended to access information, organise information, assess knowledge, offer information and to be equipped with communication skills. In order to implement these basic aims, the teaching-learning process should be effective and long lasting in terms of learners (Yilmaz et al., 2010).

Our age is the age of information and increasing knowledge, skills, attitudes and behaviours to be gained

in learning day by day requires individuals to know effective learning (Kaya and Akçin, 2002). Students who do not know learning strategies and how to use them cannot be successful even if they afford too much and the reason of their failure might be about their capabilities or their teachers for them and they feel hard done (Açıköz, 2003). Researches related to the use of learning strategies and academic achievement show the

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existence of a strong relationship between the use of the strategy and academic achievement and these show that students who are taught learning strategies are affected positively (Yılmaz, 2013). Gieve and Clark (2005) reveals evidence that lends support to the notion that the learning approach is likely to be influenced by many factors other than the curriculum style, including teaching quality, type of assessment and learner characteristics such as personality type, age and previous work or academic experience.

Psychologists, educators and researchers have debated for many years about the definition of learning and how it occurs. In a changing and improving world, many definitions and arguments are presented for learning concepts as many subjects. A variety of learning approaches have seen more interest and acceptance in some time and with different topics (Temizöz and Özgün Koca, 2008).

The researchers stated that one of the factors affecting the learning of individuals is a proper and effective way of studying (Yılmaz and Orhan, 2011), and they argue that students' approaches to learning and studying are indicators of how they approach academic tasks (Topkaya et al., 2011). It is thought that students thinking of themselves as more successful have more positive studying attitudes and use more effective study strategies. Also the teacher encouraging the students to be successful individuals is thought to be effective in determining studying lesson strategies (Yılmaz, 2013).

Making arrangements for control groups within a school or university can be difficult. Cohorts of students are commonly taught within one class, so splitting them into two or more groups requires special arrangements and extra resources. There are likely to be ethical issues as one or more groups accorded different treatments may feel disadvantaged. Taught courses normally last for extended periods such as a school year or a semester. Designing different teaching programs, arranging for the separation of groups and holding extraneous variables constant becomes more difficult to longer the trial (Kember et al. 1997).

The students approaches to learning is a research that originated in Europe and Australia with the aim of understanding how students set about the task of learning. Students approaches to learning comprise both a motive (why they learn) and a related learning strategy (what they do) are sensitive to contextual and personological factors (e.g. course perceptions, conceptions of learning) and generally influence learning outcomes (Justicia et al., 2008).

Weinstein and Mayer (1986) emphasise that the skills of learning, remembering, thinking and autonomus teaching are a necessity for students. So students may become more efficient in ordering a constantly increasing fund of knowledge, processing and making it a part of their thinking aspects. For this, students 'must learn to

learn' at first. Learning how to learn requires them to learn learning strategies (Tasdemir and Tay, 2007).

Information acquired by students during school learning may remain insufficient for many reasons, particularly in rapid improvement in technology. We need to reach instantly the new information whether in working life or in daily activities. Therefore one of the most important goals of educational institutions has become to 'teach to learn' and to 'raise autonomus learners' (Altınok, 2004).

Students have to develop ways of learning appropriate to the particular subject areas they are studying and even to the purposes of specific teaching methods. Saljo (1982) also believed that conceptions were contextually specific social setting; students try to interpret what is required of them in a particular situation on the basis of past events. Traditional schooling may thus socialise youngsters into a way of thinking that is immediately challenged by university work, although often not in a sufficiently explicit manner for student to see how and when they need to change (Entwistle and Peterson, 2004).

In the study done by Abraham, Vinod, Kamath, Asha and Ramnarayan (2008), by benefiting from the studies done by Darts and Clarke (1991), Newble and Entwistle (1986), Shreemathi (2001) and Svensson (1977) and many researchers stated that defining students' learning approaches is important in terms of helping make better learners, monitoring and developing the effectiveness of the teaching of instructors, identifying students who are at risk due to ineffective strategies and observing the learning experience and outcomes (Dural, 2008; Olpak and Korucu, 2014).

Biggs (1987) claims that the identification of learning profiles based on assessment of approaches to learning are useful for identifying students styles and their compatibility with a particular learning environment. He goes on to suggest that such a profile would also be useful for identifying students with study strategies that are not congruent with academic success (Snellgrove and Slater, 2003).

Researchers have argued that in order to promote more conceptual deeper forms of learning, educators need to understand how students approach learning (Ballantine et al., 2008). Students' learning approaches are not fixed and they can exhibit different learning approaches in different situations (Önder and Beşoluk, 2010; Yılmaz & Orhan, 2011). In this context, it was aimed to investigate the study process approach of Physical Education and Sports faculty students and Faculty of Education students with different variables.

## METHOD

### Study group

Two-hundred and fourteen students leading their student lives

actively in the 2013 to 2014 academic year, spring term, and studying in the Physical Education and Sports and Faculty of Education departments, participated voluntarily. Before the study, participants were informed about the content of the study and said that it was not a time limit to answer the questionnaire. Participants were assured of the results beyond the aim of the research will be used for any other purpose. Totaly 214 university student participated to the study (Male:105, Female:109, Mean of age:  $21 \pm 1.61$ ). In the study two different department were chosen because of the differences between theoretical and practical lesson numbers of students of school of Physical Education and Sport and faculty of education were enrolled in this study. These two different departments as well as students lessons and also course numbers include some differences. The study was determined that these differences affect or not their learning levels.

### Data collection tool

In the study as a data collection tool, a personal information form was prepared for determining participants' personal information distribution and study approach scale which validity and reliability were tested by Yilmaz and Orhan (2011) and developed by Biggs et al (2001) was used.

The study approach scale consists of two subscales, including a total of 22 questions and a superficial and deep approach. Cronbach's alpha internal consistency coefficient calculated for scale is 0.79 for the deep approach sub-dimension, and 0.73 for the surface approach sub-dimension.

**The characteristics of a deep approach to learning:** Students who take a deep approach have the intention of understanding, engaging with, operating in and valuing a subject. Such students:

- Actively seek to understand the material / subject
- Interact vigorously with the content
- Make use of evidence, inquiry and evaluation
- Take a broad view and relate ideas to one another
- Are motivated by interest
- Relate new ideas to previous knowledge
- Relate concepts to everyday experience
- Tend to read and study beyond the course requirements

### What are the characteristics of a surface approach to learning?:

Students who take a surface approach tend to not have the primary intention of becoming interested in and understanding the subject, but rather their motivation tends to be that of jumping through the necessary hoops in order to acquire the mark, the grade or the qualification. When asked, staff deplore this approach but they frequently acknowledge that the majority of their students tend to take this approach. Students who take a surface approach:

- Try to learn in order to repeat what they have learned
- Memorise information needed for assessments
- Make use of rote learning
- Take a narrow view and concentrate on detail
- Fail to distinguish principles from examples
- Tend to stick closely to the course requirements
- Are motivated by fear of failure

### Data collection

After making appointments with the students situated in the sample

group data was obtained between courses in block lessons and at the beginning of the non-block lessons by using the paper and pen method. The researcher did not give any information about the approach for each group during the academic course.

### Data analysis

First, the reliability of the data collection tool for the research group and Cronbach's alpha internal consistency coefficient was calculated as 0.74 for the total scale. It stayed in the original scale due to the fact that questions on the scale did not cause an increase in Cronbach's alpha internal consistency coefficient. Then, in order to define the distribution of data, the One Sample Kolmogorov-Smirnov test was applied. Histogram graphics has also been drawn by looking at kurtosis and skewness values. Accordingly, the data shows a normal distribution in both subgroups (Deep Approach: .97, Surface Approach: .92). Percent and frequency methods are used to determine the distribution of the personal information of the participants in the study. In addition, the  $\alpha = 0.05$  in the significance level independent sample t test and two way Manova tests were used to determine the existing significant differences between the studying approaches of the participants. For the two way Manova analyzes made about assumption; Levene homogeneity of variance in the dimensions of the test provided that the epistemological concepts and a linear relationship between the dependent variable and each made of a pair combination of the simple correlation analysis found that among the dependent variable and showed the highest correlation (0.7) coefficients (Pallant, 2001). The considerable size of the well test value 0,001 (Pallant, 2001) shows that the scores on the dependent variable homogeneous variance-covariance matrix. In this case, the dependent variable is equal to that of covariance for equality and dependent variables of all possible binary combinations of variance for each of the groups assumed (Groves et al., 2004).

## FINDINGS

### Descriptive analysis

Table 1 shows the distribution of personal details of students included in the study. Accordingly, it is seen that 50.9% of the sample group were from the age group of "21 and below" ( $n = 109$ ), 50.9% were "Female" ( $n = 109$ ) and 50.5% (108) were from the department of "Education.". Also, it is seen that 59.3% of the students were "3rd Class".

### Results of scale reliability

Table 2 presents the calculation of Cronbach's alpha for testing the reliability of the sample for the data collection method used in the study group. According to the sample group, the data collection tool was reliable.

### The impact of gender and age on studying process approach

According to two-way MANOVA results; the impact of

**Table 1.** Distribution of the Respondents' Personal Details.

Variables		F	%
Age	21 and below	109	50,9
	22 and over	105	49,1
	Total	214	100,0
Gender	Male	105	49,1
	Female	109	50,9
	Total	214	100,0
Department	Department Of Physical Education	106	49,5
	Education	108	50,5
	Total	214	100,0
Class	1.class	23	10,7
	2.class	26	12,1
	3.class	127	59,4
	4th or extended	38	17,8
	Total	214	100,0

**Table 2.** Data collection tool reliability results for the sample group.

Study Process Approach Scale	
Cronbach's Alpha	Number of question
0,74	20

gender significant on studying lesson approach's two sub-dimensions ( $\lambda=0,36$ ,  $F_{(2)}=4783$ ,  $p<0,05$ ). Also, the effect of age significantly on studying lesson approach's ( $\lambda=0,36$ ,  $F_{(2)}=3,867$ ,  $p<0,05$ ). When we examine partial eta squared as Wilk's lambda test results gender values effect is middle ( $\eta^2 =0,36$ ), as for age also middle but slightly stronger than gender ( $\eta^2 =0,44$ ). However; independent variables' of joint effect is found weak ( $\eta^2 =0,02$ ). According to the results of the analysis carried out in dimensions; While deep approach shows significant differences not only in age ( $F_{(1,209)}=6,505$ ;  $p<0,05$ ;  $X_{(21\text{andbelow})}=2,85\pm,64 < X_{(22\text{andover})}=3,12\pm,69$ ) but gender ( $F_{(1,209)}=4,563$ ;  $p<0,05$ ;  $X_{\text{male}}=3,09\pm,68 > X_{\text{female}}=2,89\pm,66$ ); surface approach shows significant differences only in gender ( $F_{(1,209)}=7,669$ ;  $p<0,05$ ;  $X_{\text{male}}=3,00\pm,70 > X_{\text{female}}=2,76\pm,65$ ).

#### **Differences of study process approach according to department**

The study process approaches the dimensions of Physical Education and Sport shows a significant

difference in favour of the students ( $p < 0.05$ ). As can be seen from the Table 4, Physical Education students ( $3,09 \pm 0,69$ ) have higher average than faculty of education students ( $2,92 \pm 0,65$ ) for the deep approach.

## **DISCUSSION AND CONCLUSION**

In this study, Physical Education and Faculties of Education college students conducted to examine the differences between their study approaches. The study participants according to the analysis results of the gender based approach, also showed significant differences in both the deep and shallow sub-dimension approaches, based on experience and their profound approach to the school in which they studied showed significant differences in the dimensions. Due to the diverse student population entering universities, age and gender have become important factors in researching students' approaches to learning (Duff et al., 2004).

The research explain that issues rather than get high grades were announced as the main objectives to absorb learners using deep approach (Yılmaz and Orhan, 2011). In his study Şen (2006) found that the higher the overall increase in the use of learning and study strategies. The findings of the present research are parallel to each other. Richardson's (1995) study supports this observation. Also our study is parallel to these results. Older students have higher average than younger students. This situation may stem from experience. Students learn how to study lessons day after day.

Unlike the relationship between approaches to learning

**Table 3.** Two way MANOVA test results.

Multiple comparisons	Value	F	sd	Error df	p	$\eta^2$
Intercept	0,02	3589,38	2	209	0,00	0,97*
Gender	0,95	4,783	2	209	0,02	0,36*
Age	0,96	3,867	2	209	0,00	0,44*
Gender*Age	0,97	2,304	2	209	0,10	0,02

**Table 4.** Study process approach by department.

		N	Average	Standard deviation	t	p
Deep approach	Department of Physical P Education	106	3,09	0,69	2,25	0,02
	Education	108	2,88	0,65		
Surface approach	Department of Physical Education	106	2,92	0,65	0,98	0,32
	Education	108	2,83	0,72		

and maturity, the relationship between approaches to learning and gender differences is less established (Duff et al., 2004). However, two studies carried out by Sadler-Smith and Tsang (1998) and Duff (2002) have found that male students scored higher than female students on the deep approach to learning. In this study, also, we found significant differences between males and females. Males know both approaches more than females. Dural (2008) found a meaningful way the teacher candidates at the .001 level and academic success in college differ by gender. Accordingly, the female appear to be more successful than male students. In this case, females may be successful due to the higher level of learning motivation. Adverse to our study, various studies (Aries et al., 2004; Bay et al., 2004; Özay et al., 2003; Saracaloğlu et al., 2004) found that female students were more successful than male students. In this spectrum, research are available with the results to support each findings.

According to the results of the study, the school of Physical Education and Sport's' Variable is caused mainly by the practical lessons done by the students offering the course. These movements are important for practical courses, without which they are less likely to accurately use and assimilate the skillsassimilation. Gieve and Clark (2005) urge that it is important to recognise that different students may perceive a learning environment and learning method differently, based on their learning preferences and approaches. Our study shows that sports faculty students use more deep approaches than surface approaches; also, sports faculty students have higher averages than educator students. These results may be due to sport features. Because improving sport skills depends on more effort, patience and perseverance and takes a long time, like deep approaches. As a result, regarded as the future studies, it

is important to investigate the university students' study approach (Topkaya et al., 2011). According to results of gender and age, the study found that the faculty attended variables were predictors of the student study approach. The quality of the teaching-learning process in higher education planning, assessing learning and changing students' behaviour and learning lessons, should be trying to change perceptions about work in a positive direction. Understanding of the learning processes of university students is important in the context of ongoing changes especially educational (physical education and teacher education) curriculum.

### Conflict of Interests

The authors have not declared any conflict of interests.

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