

Analysis of sports management students' opinions on project-based learning

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Abstract

The purpose of this study is to analyze Sports Management Students' Opinions on Project-Based Learning. A great majority of the sports management students who participated in the study do sports regularly and only a little portion of 3.3 % stated that they do not do sports at all. In order to determine the attitudes of students towards the method of Project-Based Learning, an attitude scale -originally called Project-Based Learning Attitude Scale (PBLAS), which consisted of a total of 26 items (13 positive and 13 negative) was prepared after receiving the expert opinion of Sezgin in 2008. The ratio of female sports management students who read books is higher than the ratio of male students. On the other hand, the frequency of visiting entertainment venues is higher for male students compared to female students. When the average scores of the answers given to the Project-Based Learning scale are observed, it can be concluded that the students who participated in the study were eager to make use of the benefits of project-based learning, however because they were also affected from negative cases, they were often undecided. When the opinions of the project-based learning study participants are analyzed according to gender, it can be claimed that for the 4 items that were available in the scale, male students had more positive opinions compared to female students. It can be also seen that more female students expressed positive opinions for item first.

Keywords: Sports Management, Students, Project-Based Learning.

INTRODUCTION

A project involves the activities of developing a design or designing, imagining, and planning (9, 17). Project management, which emerged in the fields of architecture and engineering towards the end of the 16th century, was first applied in art schools that were established in Rome in 1577, in the days of Pope Gregory XIII. Project management applications in Europe were initiated before 1830 in Moscow, where project management was applied for the education of engineers and craftsmen (2,11,13). In the US, project management was brought into practice in 1920 by Bennet (11). Project management in education was first applied in agriculture and home economics courses during the 1900's and quickly became widespread (8). Projects allow students to learn through experience and to acquire skills in carrying out scientific research (19). Project-Based Learning is a project centered approach (22). It is described as a long-termed work carried out by students, either individually by themselves or collectively in small groups, with the purpose of obtaining a given product. The basic purpose of projects is to help students become responsible for their own learning and motivate them to work in

collaboration with others (18). Projects support interdisciplinary studies and genuine learning products by allowing the establishment of student-focused classrooms (5). Project-based learning finds its roots in the progressivist philosophical trend and takes inspiration from Dewey's constructivism, Kilpatrick's concept of project management, Bruner's approach of learning through discovery, and finally Thelen's group investigation model (1, 14). Project-based learning helps students to make connections with real life, learn beneficial information, and realize persistent learning. It is also a model that shapes learning into a more functional form (21).

In our country, project-based learning is mostly applied in primary and intermediary education institutions and research carried out on this subject is mostly on applications in primary and intermediary level education (3, 4, 7, 10, 12, 23). There are new studies in the foreign literature on project-based learning applications in higher education as well (15, 16).

MATERIAL & METHOD

Research design and analysis

The results that were obtained in the study were evaluated using the statistical methods available in the SPSS 14.0 Software Package. In the study results and evaluation section the following were presented: the frequency distribution of the demographic characteristics of the study participants; the means and the standard deviation values of the questions concerning opinions on project-based learning, and the reliability analysis used to determine the suitability of the data for statistical analysis.

Since it was observed that the data had a normal distribution after performing a normality test, parametric tests were applied in order to determine significant differences among groups for selected independent variables. In order to determine whether there were differences between two groups for the independent variables gender and the status of doing sports, an Independent Sample T test was used. In order to determine whether there were significant differences between more than two groups, One-Way ANOVA test was applied.

Sample and sampling

The sample consisted of a total of 150 sports management students 44 female and 106 male students, who were enrolled in the 2015-2016 Fall semester in the Usak University Faculty of Sports Sciences located in the Usak Province. The students were subjected to a questionnaire using the random method.

Reliability analysis

RESULTS

The results obtained in this study were shown in tables.

Table 1. One-Way ANOVA test results showing whether there is a difference in the opinions of Sports Management students on project-based learning according to the self-description variable

	Sum of Squares	Mean Squares	F	P
16. PBL Applications increase anxiety levels towards the lesson.	10.822	3.607	4.924	0.003
19. There is no need for teachers who carry out the PBL Applications to be experienced."	6.187	2.062	2.472	0.044
22. PBL Applications have no effect on motivation.	9.199	3.066	3.570	0.016

P<0.05

When the opinions of sports management students on Project-Based Learning (PBL) according to their description of themselves were evaluated, significant differences were found between groups for the "PBL Applications increase anxiety levels towards lessons." statement in the 16th item; the

The reliability analysis of the 26-question scale gave an internal consistency value of 0.69 Cronbach's alpha.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	
	N of Items	
0.694	0.695	26

Data collection

In order to determine the attitudes of students towards the method of Project-Based Learning, an attitude scale -originally called Project-Based Learning Attitude Scale (PBLAS), which consisted of a total of 26 items (13 positive and 13 negative) was prepared after receiving the expert opinion of Sezgin (20).

In this study, an attitude scale consisting of a total of 26 items (13 positive and 13 negative) was prepared in order to determine the attitudes of students towards project-based learning method. The scale was a Likert-type scale and the grading of the items was carried out using a grading system with 5 points (strongly agree, agree, indecisive, disagree, and strongly disagree). The answers given for the positive items were graded as Strongly Agree=5, Agree=4, Undecided=3, Disagree=2, Strongly Disagree=1, while the answers given for the negative items were graded as Strongly Agree=1, Agree=2, Undecided=3, Disagree=4, Strongly Disagree=5. The total attainable score in the attitude scale used in the study was 130 and the score attainable by marking only the "undecided" answer was 78.

"There is no need for teachers who carry out the PBL Applications to be experienced." statement in the 19th item and the "PBL Applications have no effect on motivation" statement in the 22nd item (Table 1).

Table 2. Tukey test results showing the differences in the opinions of Sports Management students on project-based learning according to the self-description variable

Variables	(I) Self-Description	(J) Self-Description	Difference Between Means (I-J)	P
16. PBL Applications increase anxiety levels towards the lesson.	Hyperactive, active	Quiet and calm	0.367	0.224
		Social, extrovert	0.628	0.010
		Nervous, "hot-blooded"	0.777	0.005
19. There is no need for teachers who carry out the PBL Applications to be experienced."	Quiet and calm	Social, extrovert	0.284	0.444
		Hyperactive, active	0.542	0.043
		Nervous, "hot-blooded"	0.326	0.476
22. PBL Applications have no effect on motivation.	Quiet and calm	Social, extrovert	0.494	0.045
		Hyperactive, active	0.531	0.044
		Nervous, "hot-blooded"	0.554	0.079

For the "PBL Applications increase anxiety levels towards lessons." statement, significant difference was observed between those who defined themselves as active, those who defined themselves as social and extroverts, and those who defined themselves as nervous. According to this, it can be concluded that regarding this item, the opinions of those who consider themselves as active are more positive compared to those who consider themselves as extroverts and those who consider themselves as nervous. There were no significant differences between those who defined themselves as quiet and calm and those who defined themselves as active for the "There is no need for teachers who carry out the PBL Applications to be experienced." statement. According to this, it can be concluded that regarding

this statement, the opinions of those who define themselves as quiet and calm are significantly more positive compared to those who define themselves as active. For the "PBL Applications have no effect on motivation." statement, significant differences were observed between those who defined themselves as quiet and calm, those who defined themselves as extroverts, and those who defined themselves as active. According to this, it can be concluded that regarding this statement, the opinions of those who define themselves as quiet and calm are significantly more positive compared to those who define themselves as extroverts (Table 2).

Table 3. Tukey test results showing the differences in the opinions of Sports Management students on project-based learning according to the book reading frequency variable

Variables	(I) Book Reading Frequency	(J) Book Reading Frequency	Difference Between Means (I-J)	P
14. PBL Applications are complex and difficult because they require the use of a wide variety of teaching materials.	Once per 2 weeks	Once per week	-0.452	0.269
		I rarely read books	-0.587	0.044
		I never read books	-0.799	0.045
17. There is no need to share information during PBL Applications.	I rarely read books	Once per week	-0.208	0.688
		Once per 2 weeks	-0.202	0.799
		I never read books	-0.743	0.022

P<0.05 means a significant difference.

For the "PBL Applications are complex and difficult because they require the use of a wide variety of teaching materials." statement, significant differences were observed for those who read books once in two weeks, those who rarely read books, and those who never read books. According to this, it can be concluded that regarding this statement, the opinions of those who read books once in two weeks are significantly more negative compared to those who rarely read books, and those who never read books.

For the "There is no need to share information during PBL Applications." statement, a significant difference was observed for those who rarely read books and those who never read books. According to this, it can be concluded that regarding this statement, the opinions of those who rarely read books are significantly more negative compared to those who never read books (Table 3).

Table 4. Tukey test results showing the differences in the opinions of Sports Management students on project-based learning according to the variable of Weekly time spent for sports

Variables	(I) Weekly time spent for sports	(J) Weekly time spent for sports	Difference Between Means (I-J)	P
13. PBL Applications are important as they include various teaching instruments.	3-4 hours	1-2 hours	0.680	0.013
		5-8 hours	0.591	0.010
		9 hours and more	0.469	0.104
14. PBL Applications are complex and difficult because they require the use of a wide variety of teaching materials.	3-4 hours	1-2 hours	0.251	0.695
		5-8 hours	0.167	0.825
		9 hours and more	0.593	0.030

P<0.05 means a significant difference.

For the “PBL Applications are important as they include various teaching instruments.” statement, significant differences were observed for those who spent 3-4 hours weekly for sports, those who spent 1-2 hours weekly for sports, and those who spent 5-8 hours weekly for sports. According to this, it can be concluded that regarding this statement, the opinions of those whose weekly time spent on sports is 3-4 hours are significantly more positive compared to those whose weekly time spent on sports is either 1-2 hours or 5-8 hours. For the “PBL

Applications are complex and difficult because they require the use of a wide variety of teaching materials.” statement, a significant difference was observed for those who spent 3-4 hours weekly for sports and those who spent 9 hours or more weekly for sports. According to this, it can be concluded that regarding this statement, the opinions of those whose weekly time spent on sports is 3-4 hours is significantly more positive compared to those whose weekly time spent on sports is 9 hours or more (Table 4).

Table 5. Tukey test results showing the differences in the opinions of Sports Management students on project-based learning according to age groups

Variables	(I) Age	(J) Age	Difference Between Means (I-J)	P
4. PBL Applications are highly beneficial in the education process of students.	22-23	18-19	0.321	0.424
		20-21	0.304	0.415
		24-25	0.966	0.013
23. PBL Applications have no beneficial effect on the education process of students.	18-19	20-21	0.475	0.035
		22-23	0.513	0.081
		24-25	0.081	0.993

P<0.05 means a significant difference.

For the “PBL Applications are highly beneficial in the education process of students.” statement, a significant difference was found between students in the age group of 22-23 and the students in the age group of 24-25. According to this, it can be concluded that regarding this statement, the opinions of students in the 22-23 age group are significantly more positive compared to those in the 24-25 age group. For the “PBL Applications have no beneficial effect on the education process of students.” statement, a significant difference was found between students in the age group of 18-19 and the students in the age group of 20-21. According to this, it can be concluded that regarding this statement, the opinions of students in the 18-19 age group were significantly more positive compared to those in the 20-21 age group (Table 5).

DISCUSSION

A great majority of the sports management students who attended the study do sports regularly and only a little portion of 3.3 % stated that they do not do sports at all.

The ratio of female sports management students who read books is higher than the ratio of male students. On the other hand, the frequency of visiting entertainment venues is higher for male students compared to female students. When the average points of the answers given to the Project-Based Learning scale are observed, it can be concluded that the students who attended the study are eager to make use of the benefits of project-based learning, however because they are also affected from negative cases, they are often uncertain.

It was observed that, as expected, people who had to make decisions regarding Project-Based Learning had improved metacognition skills (6). In his study, Kalaycı (12) concluded that students should decide freely as this is an important

experience with respect to acquiring a decision making skill. When the opinions of the project-based learning study participants are analyzed according to gender, it can be claimed that for the 4 items that were available in the scale, male students had more positive opinions compared to female students. It can be also seen that more female students expressed positive opinion for item (1).

When the differences among groups were observed according to the age independent variable, significant differences were found for two items and it was observed that the opinions of younger participants on project-based learning were more positive compared to higher-age groups.

When the differences among groups were observed according to the time spent on sports, significant differences were found -although not too high- for two items, between those who spent 3-4 hours on sports and those who spent more time on sports. In his study, Acar (2) concluded that project-based learning had a significant effect on professional athletes and this result supports the results obtained in our study.

Although the differences between groups according to the book reading frequency independent variable were not very big, significant differences were observed for 2 items used in the study between those who rarely read books and those who read books once in two weeks. For the self-description variable, differences were obtained between the groups for 3 items.

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