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Learning Styles and the Perception of the Hybrid Learning

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Abstract. Learning style is a very important factor in student life. He play an essential role in the selection of the appropriate teaching methodology. The aim of the research is the study of the perception of the hybrid learning and learning styles. In addition, it analyzes the perception of the hybrid learning according to learning styles. This paper utilizes quantitative research and the descriptive and comparative methods. The study sample consists of 89 Albanian university students. SPSS 20 and JASP-0.8.1.2 were used to analyze the study data. The statistical analyses used in this study are distribution tables, cross tabulation tables, Pearson correlation coefficient, One-Way ANOVA. Data analyses shows that most of the students utilized the visual learning style to study. Students have a positive perception of the hybrid learning. Between learning styles and perceptions of the hybrid learning exists an insignificant statistical correlation.

Keywords: Learning style, visual learning style, auditory learning style, kinaesthetic learning style, perception of the hybrid learning, components of the hybrid learning.

Introduction

Students prefer learning in different ways. Everyone chooses the learning style which they think is easiest. So, in order for the student to be most efficient, he or she must use the learning style that fits them. This benefits them greatly as it allows them to achieve higher results. At the same time, being acquainted with their students' learning styles, also helps professors with applying the appropriate teaching method. The hybrid learning is the most suitable teaching method for the many types of students, because it combines both the traditional and online learning [1]. Moreover, this teaching method is viewed as the method of tomorrow by many researchers [1, 2, 3]. The benefits offered by such teaching method are abundant. The objective of this paper is the study of the perception of the hybrid learning and the learning style of the student. Another objective of the research is analyzing the perception of the hybrid learning according to the learning style. Learning style is a new research area fundamentally important for both universities and students.

Literature review

The hybrid learning has many advantages for the students and the professors. It has a positive impact on the student's academic achievement, student's satisfaction, it utilizes resources with effectiveness, and increases the student's communication abilities. Studies show that the hybrid learning has a positive impact on the academic performance of the student [2, 4, 5]. In addition, many researchers have claimed that the hybrid learning, will become the most used teaching method in the future in universities [6, 7]. Because it helps students in integrating their existing knowledge with the new knowledge they will receive during the course of their studies. According to this teaching method, the student will self-manage the study program [8]. In addition, the student will manage their study time [5, 9, 3]. Studies showed that students learning through the hybrid learning were better motivated and concentrated in the learning process [10, 11, 12, 13]. Professors argue that hybrid courses have an impact in developing critical thinking in students. This method also has an impact on the quality of teaching [14, 15, 16, 17]. Students have their way of learning new things. The manner in which they study, is called learning style [18]. Everyone learning is different, as a result there exist different learning styles. This paper will utilize VAK [19] in order to determine the learning style, which includes: the visual, auditory and kinaesthetic learning style. Students employing the visual learning style prefer using images, photographs, diagrams, films. They prefer graphic displays. On the other hand, students who favor the auditory learning style prefer receiving information through listening and discussing. For these students it is easier to recall everything that they have heard. Whereas, a student that employs the kinaesthetic learning style, has a preference to touching, experimenting, feeling and doing. These students follow their intuition and not instructions. The identification of a student's learning style helps the professor to teach accordingly. Its impact is immediately reflected on the students' motivation and performance [20]. The results of research on the correlation between learning styles and the perception of teaching methods are contradictory. Some show that there exists a strong correlation [21, 22], while others show that a correlation does not exist [23, 24, 25].

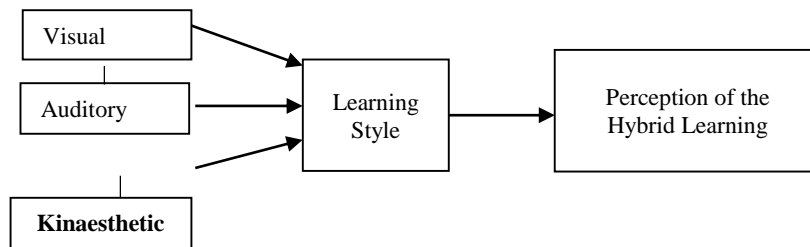
The research questions are:

1. What is the students' learning style?
2. What is the perception of students of the hybrid learning?
3. Does the learning style have an impact on the perception of students of the hybrid learning?

The research hypotheses are:

- ❖ H1a: Students with different learning styles have the same perception of the hybrid learning ($\alpha=0.05$).
- ❖ H1b: Students with different learning styles rate similarly the components of the hybrid learning ($\alpha=0.05$).

The conceptual model for this study is as follows:



Methodology

The methods used are the descriptive and comparative analyses [19]. The questionnaire covers two aspects: the student's learning style and the perception of the hybrid learning. The first portion is comprised of questions with multiple alternatives, whereas the second portion is comprised of evaluation survey questions 5-point Likert scale, ranging from "Strongly Agree" to "Strongly Disagree". The surveys were distributed online during the second semester of the 2016-2017 academic year. There were 89 Albanian university students who participated. There were 82 fully completed surveys. The rate of return for the response is 92.1%.

This study made use of SPSS 20 and JASP-0.8.1.2 to analyze data. Cronbach's α coefficient for the survey is 0.758 (Table 1). So the data are valid for analysis.

Table 1: Cronbach's α coefficient for the survey

	Cronbach's α
scale	0.758

Note. Scale consists of items Perceptions of the hybrid learning, Learning Style

Empirical Analysis

The perception of the hybrid learning has the highest average = 3.805 (Table 2). Standard deviation is in the lower values, respectively for learning style is 0.8084 and for the perception of the hybrid learning is 0.5760. There is not a great difference between values therefore the data are spread around the mean.

Table 2: Descriptive Statistics of the Variables

	Learning Style	Perception of the Hybrid Learning
Valid	82	82
Missing	0	0
Mean	1.841	3.805
Std. Deviation	0.8084	0.5760
Minimum	1.000	2.000
Maximum	3.000	5.000

What is the students' learning style?

Most surveyed students belong to the visual learning style. Of 82 students, 34 prefer learning through the visual learning style, 27 prefer the auditory learning style and 21 prefer the kinaesthetic learning style. All three learning styles are utilized by the students. The same collocation occurs when the preferences of males and females are studied. Table 3 provides a detailed overview of preferences according to gender.

Table 3: Learning Style and Gender

	Frequency	Valid			Cumulative		Gender:	
		Percent	Percent	Percent	Percent	Female	Male	
Visual learning style	34	41.5	41.5	41.5		21	13	
Auditory learning style	27	32.9	32.9	74.4		17	10	
Kinaesthetic learning style	21	25.6	25.6	100.0		13	8	
Total	82			100.0	100.0	51	31	

What is the perception of students of the hybrid learning?

Students rate positively the hybrid learning. Of the components of the hybrid learning user-friendliness has the highest value averaging 3.854. In second place is general output with average value 3.732, in third place course quality with average value 3.707 and last the purpose of use with average value 3.646. Overall rating of the hybrid learning by the students is 3.805 (table 4).

Table 4: Hybrid Learning

	N	Mean	SD	SE
User friendliness	82.00	3.854	0.669	0.074
Course quality	82.00	3.707	0.598	0.066
Purpose of Use	82.00	3.646	0.655	0.072
Total Output	82.00	3.732	0.754	0.083
Perception of the Hybrid Learning	82.00	3.805	0.576	0.064

Does the learning style have an impact on the perception of students of the hybrid learning?

Table 5 shows that the Pearson correlation coefficient is 0.092 and $p = 0.412$. Therefore, there is not an important statistical correlation between learning styles and the perception of the hybrid learning. There exists a weak and insignificant positive correlation between the two variables. As a result of this analysis it can be concluded that the learning style does not have an impact on the students' perception of the hybrid learning.

Table 5: Pearson Correlations

		Learning Style	Perception of the Hybrid Learning
Learning style	Pearson's r	—	0.092
	p-value	—	0.412
Perception of the hybrid learning	Pearson's r		—
	p-value		—

* $p < .05$, ** $p < .01$, *** $p < .001$

H1a: Students with different learning styles have the same perception of the hybrid learning ($\alpha = 0.05$).

Table 6 shows that Sig is .660. This means there are not significant differences, therefore students with different learning styles have the same perception of the hybrid learning. The analysis shows that students have the same perception of the hybrid learning therefore hypothesis H1a is accepted with confidence interval 95%.

Table 6: One – Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.282	2	.141	.418	.660
Within Groups	26.596	79	.337		

Total 26.878 81

H1b: Students with different learning styles rate similarly the components of the hybrid learning ($\alpha=0.05$).

Students who prefer the visual, auditory, kinaesthetic learning styles rate similarly the hybrid learning. There are not significant statistical differences between them. The perception of the components of the hybrid learning is the same between students therefore hypothesis H1b is accepted with a confidence interval 95%. Table 7 shows the values in more detail: One-Way Anova.

Table 7: One – Way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
User friendliness	Between Groups	.209	2	.104	.229	.796
	Within Groups	36.035	79	.456		
	Total	36.244	81			
Purpose of use	Between Groups	1.914	2	.957	2.302	.107
	Within Groups	32.830	79	.416		
	Total	34.744	81			
Course quality	Between Groups	.095	2	.048	.130	.878
	Within Groups	28.880	79	.366		
	Total	28.976	81			
Total output	Between Groups	.582	2	.291	.505	.605
	Within Groups	45.515	79	.576		
	Total	46.098	81			

Conclusions and Recommendations

Students make use of all three learning styles, however the visual learning style is preferred the most. Generally, students rate positively the hybrid learning. Between the learning styles and the perception of the hybrid learning does not exist a significant statistical correlation. Students are satisfied with the hybrid learning, so they are encouraged to recommend its use to friends and colleagues. Universities must conduct research into learning styles in order to adapt appropriate teaching methods to different students. Based on the conclusions of the study, it is recommended for the future that courses utilizing the hybrid learning are created.

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