

The study of teaching methods from the student's point of view

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Abstract

Students are the focus of extensive scientific research. Educational institutions conduct regularly studies on students and ways to engage them. Student engagement in the learning process is vital to universities. Hence, universities need to know the best methods through which students prefer to learn, in order to provide the most efficient ways of teaching. The objective of the research is the study of the impact that teaching methods have on students' academic achievement. The research was conducted during the second semester of the 2016-2017 academic year. Online platforms were utilized to distribute the questionnaire. This study utilizes quantitative research in the collection of data. The study sample consists of 186 Albanian university students. In order to analyze the data SPSS 20 and JASP.0.8.0.1 were utilized. The study applied statistical analyses, such as: linear regression, Pearson correlation coefficient, comparison of means, frequency distribution, crossed tabulation. To prove the hypotheses a confidence interval 95% was utilized. The study concluded that the teaching style has an impact on students' academic achievements. All three teaching methods are used by students. Students prefer to pursue their program of study though the hybrid learning. The same conclusion developed when students were asked about specific elements. Students who take all three types of courses perform better academically.

Keywords: traditional learning, online learning, hybrid learning, academic achievement.

Introduction

Students are the focus of extensive scientific research. Educational institutions conduct regularly studies on students and ways to engage them. Student engagement in the learning process is vital to universities. Hence, universities need to know the best methods through which students prefer to learn, in order to provide the most efficient ways of teaching.

Today, there exist three teaching methods: traditional, online, and the hybrid learning. According to researchers the online and hybrid learning will be used in the future (Cerf & Schutz, 2002; Dziuban, Graham, & Picciano, 2014; Anderson, Boyles, & Rainie, 2012; Güzera & Canera, 2014; Bonk & Graham, 2006). These two teaching methods, are better preferred in comparison to the traditional learning. But which method is most effective according to students in Albania? The research paper's objective is the study of the impact of teaching methods on academic achievements. The other objective is the analysis of the correlation between the two.

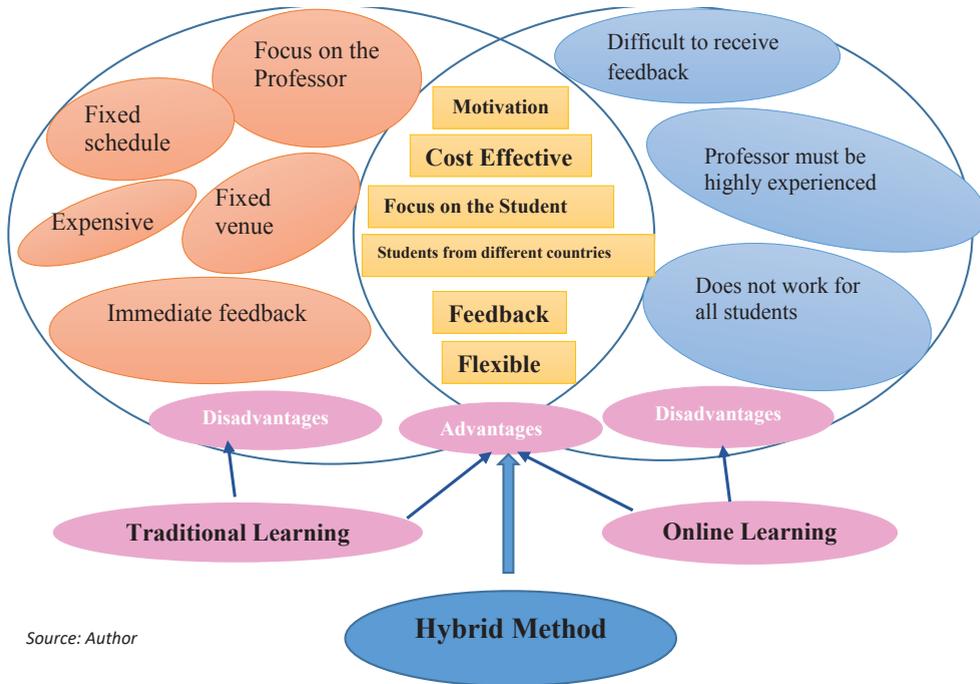
1. Literature Review

Several researchers are focusing on the study of teaching methods. This is an important area as it impacts directly the education of youth. The traditional learning has been defined as the teaching method in which the professor and the students are located in the same environment, at the same time. The online learning has been defined as the teaching method in which the lesson occurs on the internet (Curran, 2008). The hybrid learning has been defined as the teaching method which combines the traditional and the online learning (Bonk & Graham, 2006; Mayadas & Picciano, 2007). From the studies carried on the three methods of teaching it ensued that the hybrid learning and the online learning are more effective than the traditional learning (Stockwell, Stockwell, Cennamo, & Elise, 2015; Jasim, Sherbiny, & Guirguis, 2015). Studies conducted on the impact that teaching methods have on students' academic achievements, have shown that the hybrid learning by far has the largest impact on academic achievement (Al-Qahtani & Higgins, 2013). Hattie (2003) argues that the professors' performance explains 30% of the variance of the students' academic achievement. According to Morris (2010) the hybrid learning has an impact improving the academic performance of students in the university system. Online courses are favored by students more and more (Sertsu & Chacon, 2012). Researchers have also focused on the analysis of the impact of the online and traditional learning have on students' achievements. However, the results are contradictory (Bray, Harris, & Major, 2007; Figlio, Rush, & Yin, 2010; Gratton-Lavoie & Stanley, 2009; Harmon & Lambrinos, 2006; Brown & Leidholm, 2002; Parsons-Pollard, Lacks, & Grant, 2008; Russell, 1999; Means, Toyama, Murphy, Bakia, & Jones, 2010; Shachar & Neumann, 2010). Concretely, some research papers argue that students who attend traditional courses perform better academically than students who use online courses (Brown & Leidholm, 2002; Figlio, Rush, & Yin, 2010; Parsons-Pollard, Lacks, & Grant, 2008). Meanwhile, other researchers argue that the academic performance of students who use the online learning is better (Gratton-Lavoie & Stanley, 2009; Harmon & Lambrinos, 2006; Means, Toyama, Murphy, Bakia, & Jones, 2010; Fedynich, Bradley, & Bradley, 2015; Shotwell & Apigian, 2015). At the same time, there are researchers who state that there are not significant statistical differences between the academic achievement of students who use traditional courses and students who use online courses (Russell, 1999). Steven Stack (2015) arrived at a similar conclusion. Students who use the online learning demonstrate the same level of academic performance with students who use the traditional learning (Stack, 2015; Brown & Park, 2016; Neuhauser, 2010; Murdock, William, Becker, Bruce, & Young, 2012; Pai, 2013). Studies on the impact of the three teaching methods (traditional, hybrid, and online) on students' academic performance and achievements in Albania are yet to be conducted. One study conducted by researchers from the European Commission on the university system and the labor market in the Western Balkans, pointed up the discrepancy between university programs and the current labor demand in Albania. One of the recommendations of this study was modernizing and improving study programs, making instruction methods more interactive, and increasing focus on the student (Bartlett, Uvalic, Durazzi, Monastiriotis, & Sene, 2016). The conclusions of the

research paper concur with those of other international research, which emphasize the importance of using new technology in the teaching process.

Graph 1 represents the advantages and the disadvantages of teaching methods. The hybrid learning implements the best from the traditional and online learning.

Graph 1: Traditional, online and hybrid learning



Source: Author

Main research question is:

1. Do teaching methods have an impact on students' academic achievement?

Other research questions related to the study are:

1. Do students use all three teaching methods?
2. Which teaching method is preferred by students to conduct their study program?

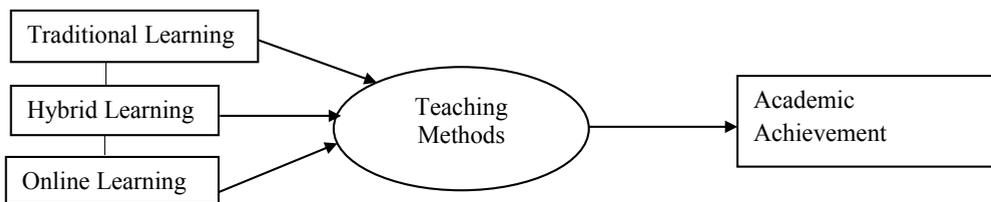
The study hypotheses are:

- H1a: The academic results of students who use courses through the online learning and courses through the traditional learning are the same with the academic results of students who use courses through the traditional learning. ($\alpha=0.05$)
- H1b: The academic results of students who use courses through the hybrid learning and courses through the traditional learning are the same with the academic results of students who use courses through the traditional learning. ($\alpha=0.05$)
- H1c: The academic results of students who use courses through the online learning,

courses through the hybrid learning, and courses through the traditional learning are the same with the academic results of students who use courses through the traditional learning. ($\alpha=0.05$)

- H1d: There exists a correlation between the traditional learning and the academic results of students. ($\alpha=0.05$)
- H1e: There exists a correlation between the online learning and the academic results of students. ($\alpha=0.05$)
- H1f: There exists a correlation between the hybrid learning and the academic results of students. ($\alpha=0.05$)

Conceptual model used in this study:



2. Methodology

This study uses quantitative research and the research method is descriptive analysis and comparative analysis. The instrument employed in this research is the questionnaire. The questionnaire utilized is a combination of questionnaires used in scientific research (Brooks, 2016; O'Malley & McCraw, 2001). The questionnaire consists of 22 closed ended questions, and is divided onto 3 parts, including demographic data. The first part consists of 9 questions with alternatives. Concretely, this part includes questions surrounding the teaching methods used by students. Also, it provides information regarding students' preferences about teaching methods. The second part consists of 3 questions about students' perceptions on teaching methods. The last part consists of questions regarding demographic data.

The study sample are 186 Albanian university students. Valid questionnaires

Graph 2: Students according to study levels

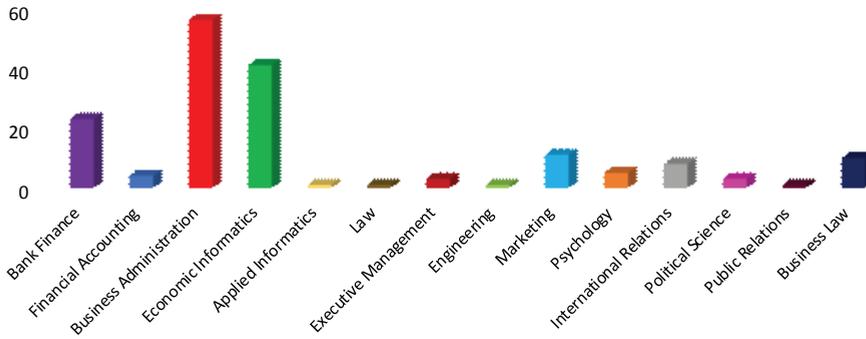


Graph 3: Gender

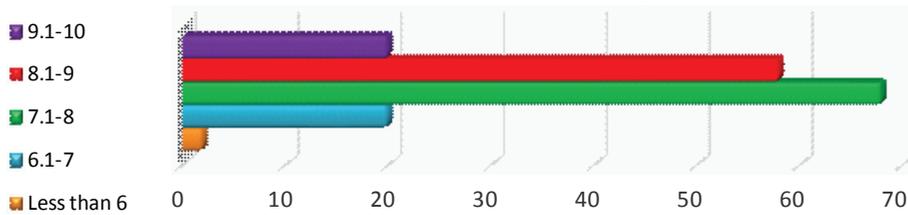


concerning this study are 168, whereas 18 questionnaires are incomplete. The rate of return is 90%. The graphs below are representations of students according to study cycles, gender, study area, and Grade Average.

Graph 4: Student Distribution According to Area of Study



Graph 5: Grade Average



In order to analyze the data SPSS 20 and JASP.0.8.0.1 were applied. The reliability coefficient Cronbach's Alpha was used to measure the validity of the research instrument. Reliability coefficient Cronbach's α for the questionnaire is 0.811 (table 1). The data from Table 2 shows that the value of Cronbach's Alpha coefficient for each variable varies from 0.777 to 0.810.

Table 1: Reliability Coefficient Cronbach's Alpha

scale	Cronbach's α
	0.811

Note. Scale consists of items online learning, traditional learning, hybrid learning, academic results.

Table 2: Reliability Coefficient Cronbach's Alpha for each variable

	If item dropped Cronbach's α
Online learning	0.786
Traditional learning	0.810
Hybrid learning	0.789

Table 2: Reliability Coefficient Cronbach's Alpha for each variable

	If item dropped Cronbach's α
Academic Results	0.795

3. Empirical Analysis

Tables 3 provide the Pearson correlation coefficient between the independent variables (traditional learning, online learning, and the hybrid learning) and the dependent variable (academic achievement). Values of the variables on Table 3 show that the most significant correlation exists between the independent variables, the online learning and the hybrid learning with $p < 0.001$ (0.373). The strongest correlation between independent variables and the dependent variable exists between the online learning and academic results with $p < 0.001$ (0.318). There exists also a significant positive correlation between the hybrid learning and academic results $p < 0.001$ (0.308) and the traditional learning and academic results $p = 0.041$ (0.158). The traditional learning has a significant negative correlation with the online learning $p = 0.003$ (-0.225). Table 3 answers the main research question.

Table 3: Pearson Correlations

		Traditional learning	Online learning	Hybrid learning	Academic Results
Traditional learning	Pearson's r	—	-0.225 **	-0.102	0.158 *
	p-value	—	0.003	0.190	0.041
	Upper 95% CI	—	-0.076	0.050	0.302
	Lower 95% CI	—	-0.364	-0.249	0.006
Online learning	Pearson's r		—	0.373 ***	0.318 ***
	p-value		—	< .001	< .001
	Upper 95% CI		—	0.496	0.448
	Lower 95% CI		—	0.234	0.175
Hybrid learning	Pearson's r			—	0.308 ***
	p-value			—	< .001
	Upper 95% CI			—	0.439
	Lower 95% CI			—	0.164
Academic Results	Pearson's r				—
	p-value				—
	Upper 95% CI				—
	Lower 95% CI				—

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

Do students use all three teaching methods?

In order to answer this question, Tables 4, 5, and 6 must be utilized. Table 4 provides the distribution of values for the online learning. The data shows that 69 students have not used the online learning, whereas 99 students have taken at least 1 course through the online learning.

Table 4: Online learning

	Frequency	Percent	Cumulative Percent
None	69	41.1	41.1
1-2	52	31.0	72.0
3-4	31	18.5	90.5
5-6	7	4.2	94.6
5	9	5.4	100.0
Total	168	100.0	

Data from Table 5 shows that 50 students have not used the hybrid learning, whereas 118 students have used it at least once. Table 5 provides a detailed outline.

Table 5: Hybrid learning

	Frequency	Percent	Cumulative Percent
None	50	29.8	29.8
1-2	51	30.4	60.1
3-4	26	15.5	75.6
4-5	13	7.7	83.3
More than 6	20	11.9	95.2
All of them	8	4.8	100.0
Total	168	100.0	

Table 6 shows that the traditional learning is most used by students. The detailed distribution is given in Table 6.

Table 6: Traditional learning

	Frequency	Percent	Cumulative Percent
None	10	6.0	6.0
1-2	16	9.5	15.5
3-4	14	8.3	23.8
4-5	27	16.1	39.9
More than 6	50	29.8	69.6
All of them	51	30.4	100.0
Total	168	100.0	

It ensues from the analysis that students use all three methods of teaching. Of these methods, the mostly used is the hybrid learning.

Which method is preferred by students to conduct their study program?

In order to answer this question Table 7 must be analyzed. It results that 54.2% of students prefer conducting their study program through the hybrid learning. The traditional learning is second preferred and the online learning third. The greatest

part of students belonging to business administration and economic informatics choose the hybrid learning (Table 7). Similar choices are made by students from other departments.

Table 7: Preferences for teaching methods

	Frequency	Percent	Valid Percent	Cumulative Percent
Traditional learnings	43	25.6	25.6	25.6
Hybrid learnings	91	54.2	54.2	79.8
Online learnings	34	20.2	20.2	100.0
Total	168	100.0	100.0	

In order to prove hypotheses H1a, H1b, H1c, the Comparison of Means analysis will be conducted.

H1a: The academic results of students who use courses through the online learning and courses through the traditional learning are the same with the academic results of students who use courses through the traditional learning. ($\alpha=0.05$)

Table 8: Grade Average for students taking courses through the traditional learning and students taking traditional courses and online courses.

Variable	Mean	Std. Deviation
Traditional learning	3.45	.895
Traditional learning and Online learning	3.55	.857

Data from Table 8 shows that the grade average of students taking courses through the traditional learning is 3.45. Whereas the grade average of students taking traditional and online courses is 3.55. It can be said that the academic performance of students who take both types of courses is highest. The analysis conducted shows that grade average changes. H1a is rejected.

H1b: The academic results of students who use courses through the hybrid learning and courses through the traditional learning are the same with the academic results of students who use courses through the traditional learning. ($\alpha=0.05$)

Table 9: Grade Average of students taking courses through the traditional learning and the students taking traditional and hybrid courses.

Variable	Mean	Std. Deviation
Traditional learning	3.45	.895
Traditional learning and Hybrid learning	3.58	.912

Students who take courses through the traditional learning and courses through the hybrid learning have a grade average of 3.58, while students who take courses through the traditional learning have a grade average of 3.45 (table 9). Mean values show that there exist differences between the two groups. The hypothesis H1b is not supported.

H1c: The academic results of students who use courses through the online learning, courses through the hybrid learning, and courses through the traditional learning are the same with

the academic results of students who use courses through the traditional learning. ($\alpha=0.05$)

Table 10: Grade Average of students taking courses through the traditional learning and students taking traditional courses, hybrid courses and online courses.

Variable	Mean	Std. Deviation
Traditional learning	3.45	.895
Traditional learning, Hybrid learning, Online learning	3.61	.836

Values from Table 10 show that students who take courses through all three methods have a higher grade average than students who take traditional courses. Between the two groups' grade averages there exist differences. Hypothesis H1c is rejected.

Table 11 studies the correlation between teaching methods and students' results. Adjusted $R^2=0.185$. It follows from the regression's values that the methodology of teaching explains 18.5% of the variance, where Adjusted $R^2=0.185$, $F=13.66$ and $p<.001$. Analysis shows that the method of teaching is correlated positively to the students' results. Table 12 provides in detail the impact of each variable on the students' results.

Table 11: Regression's results between teaching methods and students' results

Model	R	R ²	Adjusted R ²	RMSE	R ² Change	F Change	df1	df2	p
Teaching Methods	0.447	0.200	0.185	0.627	0.200	13.66	3	164	<.001

Table 12: Regression's results between each teaching method and students' results

Model	Unstandardized		Standard	Standardized	t	p
	β	Error	β			
(Constant)	1.638	0.402			4.078	<.001
1 Traditional learning	0.173	0.051	0.246		3.427	<.001
Online learning	0.221	0.059	0.289		3.762	<.001
Hybrid learning	0.182	0.061	0.225		2.991	0.003

H1d: There exists a correlation between the traditional learning and the academic results of students. ($\alpha=0.05$)

Table 12 shows that the traditional learning has a positive correlation to students' results, with coefficient Beta= 0.246, $t=3.427$ and $p<0.001$. The traditional learning has a direct impact on students' results. This means that both variables move in the same direction. Hypothesis H1d is supported with a confidence interval 95%.

H1e: There exists a correlation between the online learning and the academic results of students. ($\alpha=0.05$)

The most significant correlation exists between the online learning and students' results with coefficient Beta=0.289, $t=3.762$ and $p<0.001$ (table 12). The online learning makes a large impact on students' results. Data analysis concludes that hypothesis H1e is supported by a confidence interval 95%.

H1f: There exists a correlation between the hybrid learning and the academic results of students. ($\alpha=0.05$)

The hybrid learning is positively correlated to students' results with a coefficient Beta=0.225, $t=2.991$ and $p=0.003$ (table 12). Both variables move in the same direction,

the increase in value of the independent variable influences an increase of the dependent variable. Hypothesis H1f is supported with a confidence interval 95%.

Conclusions and Recommendations

This research paper focuses on analyzing the impact of teaching methods on academic results of students. All three teaching methods are used by students. Students prefer to pursue their program of study through the hybrid learning. The literature review concurs with such conclusion. The hybrid learning is being visited by students in greater numbers. Students who take all three types of courses perform better academically. The most significant correlation exists between the online learning and student academic achievement, with coefficient $\text{Beta}=0.289$, $t=3.762$, $p<0.001$. Based on the research findings, Albanian universities need to plan the application of courses through the hybrid learning. The application of the hybrid learning in study programs in the future, would indirectly greatly contribute to a higher quality education in Albania.

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