

Efficiency of Online Learning and Difficulties Encountered. Case of Albanian Students

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Abstract

The end of last century and the beginning of 21st century marked a significant evolution in information technology and virtual world as a whole, which influenced and dictated the way of living and working around the world, especially in the most developed countries. Thanks to this development, it was possible to cope successfully and continuously during Covid 19 pandemic. Education as one of the strategic and most sensitive sectors, due to Covid 19 pandemic, faced the online learning platform around the globe. In the US and in some developed EU countries, the online learning platform has been a practice applied in the past. However, for many other countries, including Albania, the online learning platform was something new that students and faculty had to face at any rate. Yet, are stakeholders ready to face the online learning platform? This study has analyzed some of the obstacles faced by students, upon the implementation of the online platform. It will be observed whether the efficiency of online learning will have the same efficiency as classical learning. These many other questions will be answered through an empirical and theoretical analysis that was made possible through an online survey, which surveyed 1672 students from all private and public universities operating in the Albanian territory. Multi-factor analysis will be performed through SPSS program, ANOVA test, and Chi-square (χ^2). Finally, some conclusions finalize this scientific study.

Keywords: *online learning, efficiency, satisfaction, performance, difficulty*

Introduction

Apart from the fact that information technology has largely boosted the development of society in all its spheres, the online learning platform has also taken great advantage. As this teaching model provides flexibility and high-level participation of students to attend studies, as well as to share ideas between them (Swan et al., 2000).

Online or distance learning is a phenomenon started over the last decades of the last century in the developed EU&US countries. According to Dykman & Davis, (2008), this phenomenon has had an exponential growth at the beginning of new century. According to an analysis by Seaman, Allen & Seaman, (2018), students who follow online learning platform in the US, represent over 31.6% of all higher education students, including postgraduate students. An obvious fact is that students with disabilities prefer learning on the online platform rather than the traditional learning model (Mike & Harrington, 2013).

However, because of Covid 19, the development of online learning has become a normal process in all universities around the globe. Both in the countries that had already built the culture of online teaching platform, but also the countries that normally had never thought of this teaching platform at all, in conditions of the pandemic, although unprepared, many countries, including Albania, were forced to implement this platform, to successfully close the academic year that had just begun.

Using the online platform was a challenge for all stakeholders, including students, professors and universities, not to mention society as a whole. Yet, how will the above stakeholders deal with online platform? Will Albanian students be able to receive and disseminate knowledge online? What about educators, will they be able to transmit knowledge through this platform? Do Albanian universities have the adequate capacities to deal with this phenomenon? Meanwhile, do Albanian families have the adequate conditions and infrastructure to support their student children, to successfully overcome this new innovation? These and many other questions will be answered in this paper through the study hypotheses listed below.

H1: Infrastructure (electricity, computer and internet) affects the online learning platform.

H2: Online learning platform increases students' satisfaction to attend online classes

H3: The online learning platform increases the learning efficiency of Albanian students.

Literature review

According to some researches, online learning is a good opportunity to expand the audience with students, while significantly reducing their expenses (Carruth & Carruth, 2013). This target group of students may also benefit students from low-income families, students living in suburban or isolated areas, but especially students with disabilities, who prefer online learning to traditional teaching formats "(Verdinelli & Kutner, 2016, p.353). As student interaction increases, it encourages wider student participation and produces broader discussion in relation to the traditional teaching platform (D. Smith & Hardaker, 2000). Dykman & Davis, (2008) believe that learning on the online platform is the most effective and efficient way to disseminate knowledge and increase cooperation between stakeholders. Even other researchers think that virtual interaction is less intimidating and more comfortable

for students than the traditional teaching model (Warschauer, 1997), may encourage students to participate more in discussions (Citera, 1988).

On the other hand, there are perspectives against online learning platform, because according to them, today's students have the ability to absorb technology, but do not have the experience and academic skills to come up with high results in the online learning platform (Christ, 2007). Further, they worry as many students who follow online learning platform may feel isolated (Brown, 1996), confused and frustrated (Hara & Kling, 2000) and that student interest and learning effectiveness may fall significantly.

Thus, the transition from the traditional model of teaching to online platform, per se constitutes change and adoption with a new approach to teaching and learning of the three stakeholders, students, faculty and universities. That can often lead to conflicts while adopting new roles. The transition to the online platform requires, first of all, restructuring, profound change in the nature of teaching and learning (Zohar, Degani, & Vaaknin, 2001; Palloff and Pratt, 2000). In addition to roles, switching to the online platform vests the educators and students with different responsibilities from the traditional platform (Coppola et al., 2002; Crichton, 1999), without underestimating the cultural and personal sensitivity of stakeholders (Bruyn, 2004; Kleinman, 2005), which play a crucial role in the effectiveness of this platform.

Based on the findings of some researchers, the online learning platform is attractive for a variety of reasons. First of all, the flexibility of being able to follow a course in real time and in any kind of location. Therefore, the student is not limited to be present in the classroom at any rate. Secondly, according to them, the online teaching platform tends to cost less in general, compared to traditional teaching. All you need is a computer and internet access. Thirdly, the online learning platform is very attractive to students who are proficient in technology and enjoy virtual interaction (Carruth & Carruth, 2013).

Although the younger generation is called the digital generation or the age of internet, they have the ability and readiness to absorb technology but do not have the experience and academic skill to excel in online classes (Christ, 2007).

Research methodology

The research is based on the positivist approach with an objectivist ontological attitude and independent from us as researchers. The focus of this study has highlighted key components that affect online teaching. Therefore, a questionnaire was built, divided into 4 sections, for a total of 42 questions. The first section includes demographic data of the students, followed by other sections of the questionnaire, which support the analysis of study hypotheses.

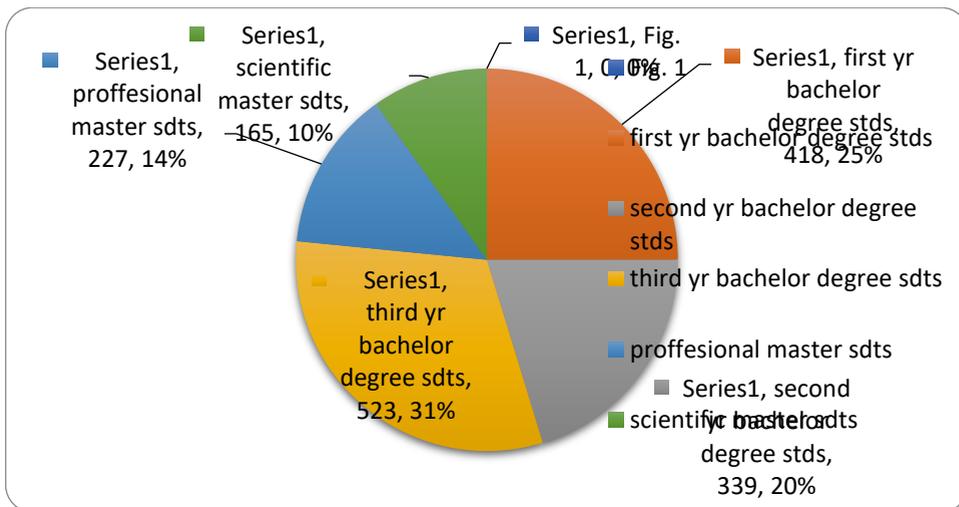
The factual data obtained from the survey of 1672 students were used to confirm hypotheses. Through this quantitative study, the questionnaires were attributed values according to the Likert scale from 1-5, which corresponds to (1-not at all; 2 a

little; 3-somewhat; 4- good / sufficient; and 5-very good / excellent). Data were analyzed through the statistical program SPSS (Statistical Package for Social Sciences, version 20). Mean, standard deviation, frequency and other statistical data have described the characteristics of sample population. The hypothesis testing was performed through the Chi-square test (χ^2), where the true statistical level is accepted at the quota of $p < .05$.

The sample population is represented by all students in Albania, including private and public universities, Bachelor level and Master level. While the sample of the study are 1672 students, of whom 1334 are female students, or expressed in percentage, about 79.8%, while the other ones are 338 male students or 20.2% of respondents. Data show that 1356 students or about 81.1%, are students in public universities and 316 students or about 18.9%, are students in private universities. QuestionPro format was used for the survey, in google, which was sent to the students' emails.

Data analysis

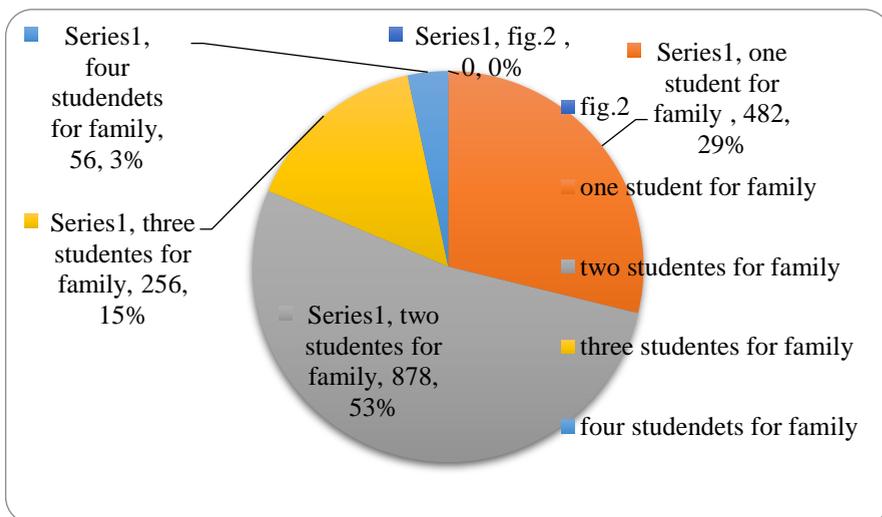
As mentioned above, 1672 students from all Albanian universities, public and private ones, were surveyed in total. The distribution of surveyed students is as follows: in the first year 418 Bachelor students were surveyed; in the second year 339 Bachelor students were surveyed; in the third year 523 Bachelor students were surveyed; while at the professional master level 227 students were surveyed; and recently, 165 students were surveyed at the scientific master level. It transpires that 1239 students (74.1%) are students coming from urban areas and 433 students (25.9%) are students from rural areas. Figure no.1 shows the stratification of the sample administered in the study.



In the meantime, we have attempted to explore the financial possibilities of students and their families to afford the online learning platform. In the course of data analysis, it follows that 578 students (34.57%) attend online computer learning, while the rest

of 1094 students (65.43%) attend online learning via phones /tablets. This is because 59.09% of the total students have in their families another student /pupil brother /sister who attends studies at the same time. Obviously, the Albanian families are not capable to equip all their children (students) with a personal computer, thus making most students attend online education via mobile phone. Further, only 487 students (29,127%) of the respondents have a personal computer in their family, and the rest of 1185 students (70,873%) either do not have a computer in their family at all, or if they do, they should share it with other family members. Therefore, a serious problem encountered in this research is the lack of infrastructure needed to attend online learning.

In some families there are even more than one student/pupil. Therefore, according to the data, 482 students or about 28.8% of the total are the only students in the family. 878 families or about 52.5% of the total number of respondents have two students/pupils at home. 256 families or about 15.3% of the total have three students/pupils attending studies and 56 students or about 3.4% of the total are four students attending studies in one family. Figure no.2 shows students according to other family members studying at the same time.



Another issue encountered during data analysis is the persistent lack of internet and electricity. According to the study, 1225 students (73.27%) have encountered problems with Internet or electricity more than once during online learning. Further, only 447 students (26.73%) confirm there have been no shortages of internet supply or electricity during online learning, thus causing a negative impact on the attendance of online courses. Lack of internet or electricity has often affected the loss of interest and motivation of students to attend classes online.

Another component addressed in this survey is the comfort and convenience of students to be active part while learning on the online platform. Therefore,

according to the data it follows that 347 students (20.8%) surveyed did not feel at all comfortable to be active during online learning, in relation to classical (face-to-face) teaching. Further, 321 students (19.2%) believe that they are a little comfortable to be active in online learning, while 405 students (24.2%) are somewhat comfortable. 354 students (21.2%) feel good in this type of teaching and only 242 students (14.5%), feel very comfortable in online teaching, compared to classical teaching. Hence, as it appears from the survey data, it is clear that only 14.5% of respondents feel very comfortable in the online learning platform.

As regards the difficulty of understanding hard concepts during online learning, it transpires that only 423 students or about 25.3% of students could understand everything online, the rest, 1249 students or about 74.7% thereof have encountered difficulties in understanding difficult terms or concepts while learning online. Therefore, as it appears from the data, $\frac{3}{4}$ of the students have encountered difficulties in obtaining information through online learning platform. Further, the pleasure/desire that students have to follow online learning platform shows that 498 students or about 29.8% thereof are not satisfied at all, 349 students or about 20.9% thereof are very dissatisfied and 669 students or about 40% thereof are somewhat satisfied and only 156 students or about 9.3% thereof are fully satisfied, while 48.2% of the surveyed students would not recommend it at all, or would barely recommend the online platform to be followed by other students.

Furthermore, as regards the question of whether they are ready to face challenges with online learning, we see that there is a sort of hesitation on the part of students, as 20.5% of them are not at all ready to face challenges on the online learning platform, while 22.1%, are a little ready; 29.5% are somewhat ready; 18.4% are ready and only 9.5% are very ready to face challenges on the online learning platform. Hence, as data shows, it follows that most students are not ready to deal with the online learning platform. Even most of them consider attending online learning a waste of time. The survey shows that 42.1% of students believe it is worth little or nothing at all to attend online. Only 14.5% of them believe it is worth attending online education, while the rest are unbiased. Below, figure 4 reflects situation more clearly.

Pearson's correlation analysis for the main study variables

- H1: Infrastructure (electricity, computer and internet) affects the online learning platform.

Based on Pearson's bivariate correlation analysis for the main variables of the first hypothesis, it follows there is a positive relationship between the two dependent and independent variables. Independent variables (electricity, computer, and internet) positively / negatively affect the online learning platform. Specifically, the value of correlation coefficient between the two variables is 0.174 and the confidence level (observed alpha) is 0.0012 less than 5%, which means there is a positive statistically stable relationship between the two study variables.

H2: Online learning platform increases students' satisfaction to attend online courses

Following the Pearson bivariate analysis of correlation, in the second hypothesis of study, it was found negative relationship between the two variables. The correlation coefficient in this case is -0.089 , which means that continuing to learn on the online platform reduces students' satisfaction in learning. Accordingly, there is a negative, statistically stable relationship between these two variables, where the confidence level is 0.023 , which is less than 5% (*observed alpha < 5% or p < .05*).

H3: Online learning platform increases the learning efficiency of Albanian students

Again, through the Pearson bivariate analysis of correlation, for the third hypothesis of study, it transpired that there is a negative relationship between the two variables of online learning and learning efficiency of Albanian students. The correlation coefficient in this case is -0.93 . This analysis confirmed that there is a negative, statistically stable relationship between these two variables, where the level of confidence is 0.041 , which is less than 5% (*observed alpha < 5% or p < .05*). Therefore, from the data it followed that online learning platform negatively affects the learning efficiency of Albanian students.

Chi-Square Test Analysis

H1: Infrastructure (electricity, computer and internet) affects the online learning platform

From the analysis of the Chi-Square Test it follows that the observed statistic with a value of $42,143$, with a degree of freedom 16 , and a security level of 0.021 that is less than 0.05 ($0.021 < 0.05$), confirms that hypothesis is applicable. What we understand is that electricity, computers and internet are key factors for the online learning platform. Therefore, the first hypothesis is proven.

• **H2:** Online learning increases students' satisfaction to attend online classes

Further, the analysis of Chi-Square Test, for the second hypothesis of study, showed that online learning platform does not increase the students' satisfaction to attend online classes. The observed statistics of Chi-Square Test assumes value at $37,204$, with a degree of freedom 16 , and a security level of 0.086 that is higher than 0.05 ($0.086 > 0.005$), showing that hypothesis is not applicable. Therefore, from the above data we understand that second hypothesis is not proven. Learning on the online platform does not increase the satisfaction of Albanian students to attend online classes.

H3: Online learning platform increases the learning efficiency of Albanian students.

Further, regarding the third hypothesis of study, the Chi-Square Test analysis does not prove it. Specifically, **H3** shows that it assumes value at the quota of 39.004 , with a degree of freedom 16 , and a security level of 0.164 that is higher than 0.05 ($0.164 > 0.005$), so the hypothesis is not applicable. What we understand is that the third

hypothesis of the study is not proven. According to the data, learning on the online platform does not increase the learning efficiency of Albanian students.

Conclusions

During data analysis it follows that 578 students (34.57%), attend online learning on the computer, while the remaining 1094 students attend online learning via mobile phones /tablets. Meanwhile, only 487 students (29,127%) of the respondents have a personal computer in their family and the rest of 1185 students (70,873%) either do not have a computer in their family at all, or if they do, they should share it with other family members. In some families there are even more than one student. So according to the data, 482 students or about 28.8% of the total are single students in the family. 878 families or about 52.5% of the total surveyed have two students / pupils at home and 256 families or about 15.3%, of the total have three students/pupils attending studies and 56 families have 4 children students/pupils attending studies simultaneously.

Apparently, a serious problem encountered in this research is the lack of infrastructure needed to attend online learning. Thus, the inability of Albanian families to supply all their children (students) with a personal computer, makes most of the students attend online education via mobile phone.

The lack of internet or electricity has often affected the non-attendance of lectures / seminars, which has also influenced the loss of interest and motivation of students to attend classes online. Hence, as it appears from the data, most of the students are dissatisfied with their results through the online learning platform.

Therefore, as observed from the data, it follows that most of the students are not ready to deal with the online learning platform. Even a vast majority thereof consider attending online learning a waste of time, as a large number of students encounter serious problems in understanding difficult concepts during lectures on the online platform.

In the meantime, the research results showed that pursuing studies online adversely affects the satisfaction of students and the efficiency of learning of Albanian students. Thus, the above components have turned out to be essential components for achieving high results in studies for Albanian students.

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