



DAAD 2023 - Workshop

"The impact of pandemic years to informatics education: review and next steps"

"THE RELATIONSHIP BETWEEN STUDENT ATTITUDES TOWARD ONLINE LEARNING AND ENVIRONMENTAL FACTORS DURING COVID-19 PANDEMIC: THE CASE OF THE UNIVERSITY OF TETOVA"

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Outline

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Aim & Objectives

- *Verifying the relationship between the attitudes towards online teaching and environmental factors:*
 - equipment
 - noise and
 - distraction from other peoples
- Methodology: non-experimental correlational with quantitative data
 - Sample of 801 - most frequented age was 18-22 years.
- Results: The multiple regression analysis shows a statistically significant model for predicting the level of students' attitudes towards online learning by environmental factors such as: teaching conditions, noise and distractions from other people &
- Negative attitudes towards online learning are more associated with increasing difficulties of the environmental factors where online learning takes place.

Introduction

- *University of Tetova - Online lectures*
 - *13 faculties*
 - *92 study programmes*
- *Google Platform and Exam.net*
- Massive change regarding the online teaching/learning process, which evoked numerous debates within the institutions, teachers and students.
- The purpose - providing a scientific verification to the relationship between the attitudes towards online teaching and the factors of the environment, equipment, noise and distraction from other people.
- The study offers higher education institutions data on the environmental factors' significance in relation to student attitudes towards online learning and their assessment of this form of learning during the pandemic.

Methodology

- Non-experimental correlational
- A total of 801 students according to the standard methodological procedures with a margin of error +/- 5 and 95% confidence level

		N	%
What is your age group?	18-22	464	57.93%
	23-25	304	37.95%
	26-38	17	2.12%
	29-31	10	1.25%
	32-36	6	.75%
Which is your gender?	Female	581	72.53%
	Male	220	27.47%
	Total	798	100.00%

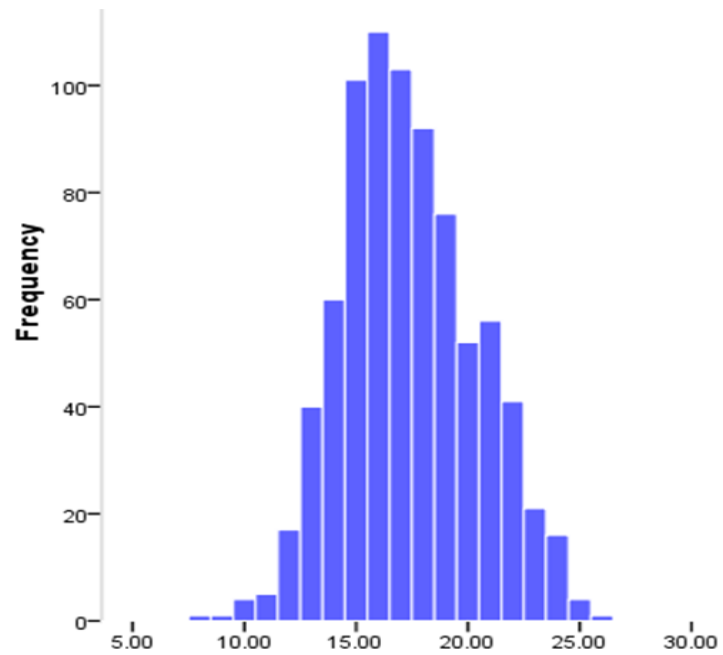
Instruments

- Created by the authors of the paper, going through the stages of face validity and finding a good internal statistical construct, adapted to the study population through factor reduction analysis.
- Bartlett's Sphericity Test:
 - Statistically significant data that the data matrix resulted in an identity and KMO value sufficient for the sample.
 - The internal intercorrelation analysis resulted in Cronbach's Alpha $\alpha = .71$ in 9 questions measuring attitudes.
 - The attitudes level at this measurement scale is operationalized by the value of the score obtained from 1 (Never) to 3 (Very often).

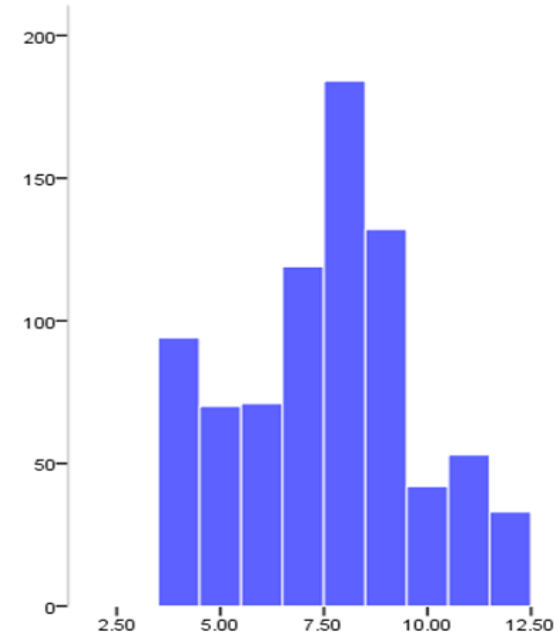
Data collection and ethics criteria

- Office for evaluation and quality - Online survey through official emails of University of Tetova students enrolled in the summer semester 2019/20.
- Ethical criteria of anonymity was respected, as well as the right to withdraw from the study.
- Due to the side effects, participants were not informed about the purpose of this study.

Results



Graph 1. Distribution of student attitudes toward online learning



Graph 2. Environmental factors

Results (II)

Table 2. Correlation between student attitudes toward online learning during pandemic Covid-19 with environmental factors

	Environmental factors	Dist ract	Learning environment conditions	N oise	Equip ment
Attitudes towards online learning	-.465**	.357**	-.391**	.381**	-.289**

** Correlation is significant at the 0.01 level

/ N=801

- Statistically significant moderately negative relationship (r=-.465, p=.00).

Results (III)

Table 3. Regression model for predicting students' attitude towards online learning by environmental factors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.479 ^a	.229	.225	2.62717	1.964

a. Predictors: (Constant), Distract, Equipment, Learning environment conditions Noise

b. Dependent Variable: Students attitude
($R^2=.225$, $F(4,792)=58.85$, $p<0.01$).

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.479 ^a	.229	.225	2.62717	1.964

- Terms of use were met by the Durbin-Watson value for autocorrelation 1.96 and the value of VIF within the limits of

Conclusion

- Negative role or significance of the online learning environmental factors in students' beliefs, experiences, respectively attitudes towards the online learning process.
- The results showed that negative attitudes related to the difficulties created by environmental conditions are statistically valid.
- The negative direction of the relationship between environmental factors and student attitudes towards online learning, explains that the increase in difficulties related to environmental factors where online learning takes place, is associated by a more negative tendency of attitudes towards this form of teaching.
- The study findings recommend that higher education institutions consider these environmental factors during online teaching, since they represent a part with significant effects on the students' approach to this form of the teaching/learning process.

(1) The relationship between student attitudes toward online learning and environmental factors during Covid-19 pandemic: The case of the University of Tetova

- 23rd HCI International Conference
- [Communications in Computer and Information Science](#) book series (CCIS, volume 1421)
- [03 July 2021](#)

(2) Evaluation of the online learning process during the covid-19 pandemic period towards better future approaches of higher education perspectives on the Balkans

- International Marmara Social Sciences Congress (Imascon 2020 Autumn)
- Aims, Objectives & Results:
 - Evaluate the perceptions regarding remote teaching and the interaction between professors and students in some of the Balkans universities during the COVID-19 pandemic period.
 - The study found a significant relationship between professors and their students during online classes and their preferences for the ongoing online teaching approach.

THANK YOU?
