DRIVE DEVELOPING RESEARCH
AND INNOVATION CAPACITIES IN ALBANIA AND KOSOVO

Validation of new methodologies by students' evaluation

June 2021

DRIVE DEVELOPING RESEARCH
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Project Acronym:	DRIVE
Project full title:	Developing Research and Innovation Capacities in Albania and Kosovo
Project No:	610307-EPP-1-2019-1-AL-EPPKA2-CBHE-JP
Funding Scheme:	Erasmus+ KA2 Capacity Building in the field of Higher Education
Coordinator:	Polis University
Work Package:	WP. 2 - Develop new teaching and mentoring methodologies that enhance students' research skills
WP Leader:	Polytechnic University of Tirana & Aalborg University
Task:	D.2.4 Validation of new methodologies by students' evaluation
Task Leader:	U_POLIS
Last Version date:	25.06.2021
Author(s):	Flora Krasniqi & all partners support
Status:	Final
Dissemination Level:	Public

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Abbreviations

WP- Work packages

Del- Deliverables

Introduction

In the framework of the Drive project, as part of WP2. Development; Del 2.4. "Validation of new methodologies by students' evaluation" a questionnaire was developed which had to do with the evaluation of teaching courses delivered during the academic year 2020-2021.

Teaching courses were part of piloting of the new teaching methodologies; after the conduction of "2.1. Training workshop on teaching methodologies" in September 2020

Each university piloted their own courses which were in different fields such as: technical, informatics, programming, mechatronics, scientific research methodology, engineering etc.

These course evaluations have enabled the partner universities in this project to receive productive feedback regarding courses on whether they are qualitative in achieving the skills (abilities) of students in the labor market. Each course is evaluated with respective grades. Here in these mentions are involved the universities, the courses and their grades.

Participants in the Questionnaire

Participating in this questionnaire were students from partner Universities (Albania and Kosovo):

- ❖ **Polytechnic University of Tirana,**

- ❖ **University of Polis,**

- ❖ **Universum College,**

- ❖ **University of Prishtina,**

- ❖ **European University of Tirana and**

- ❖ **University "Fehmi Agani" in Gjakova**

THE LIST OF SUBJECTS WHERE NEW METHODOLOGIES ARE PILOTED

Polis University

Name of the Institution	**POLIS University**
Name of Teaching Methodology	**Problem Based Learning**
Faculty to which is designed	**Faculty of Architecture and Design**
Department	**Architecture and Engineering**
Course Name	**Studio and Theory of Architecture II / SaimirKristo Ph.D.**

Name of the Institution	POLIS University
Name of Teaching Methodology	A Phenomenology of the Architectonic Space Through a Deconstructed Design Process
Faculty to which is designed	Faculty of Architecture and Design
Department	Department of Architecture and Engineering
Course Name	Architecture Studio 1

Name of the Institution	POLIS University
Name of Teaching Methodology	Simulation and Agent Based Modelling as a tool for managing complexity in architecture
Faculty to which is designed	Faculty of Architecture and Design
Department	Department of Architecture and Engineering
Course Name	Advanced Studio in Architecture and IT

Polytechnic University of Tirana

Name of the Institution	Polytechnic University of Tirana
Name of Teaching Methodology	Problem Based Learning (PBL)
Faculty to which is designed	Faculty of Mathematical Engineering and Physical Engineering
Department	Department of Mathematical Engineering

Course Name	**Mathematical Engineering**
Name of the Institution	**Polytechnic University of Tirana**
Name of Teaching Methodology	**PBL, E-Learning**
Faculty to which is designed	**Mathematics engineering and Physics Engineering**
Department	**Engineering Physics Department**
Course Name	**Professional Master in Medical Physics**
Name of the Institution	**Polytechnic University of Tirana**
Name of Teaching Methodology	**PBL (Problem-Based Learning)**
Faculty to which is designed	**Faculty of Information Technology**
Department	**Department of Computer Engineering**
Course Name	**Algorithms**
Name of the Institution	**Polytechnic University of Tirana**
Name of Teaching Methodology	**Online learning**
Faculty to which is designed	**Faculty of Information Technology**

Department	Department of Computer Engineering
Course Name	Programming languages and techniques

Name of the Institution	Polytechnic University of Tirana
Name of Teaching Methodology	Flipped Classroom
Faculty to which is designed	Faculty of Information Technology
Department	Department of Computer Engineering
Course Name	Network Security

European University of Tirana

Name of the Institution	European University of Tirana
Name of Teaching Methodology	Problem-Based Learning (Brainstorming, Flowcharts, Cause-effect Diagrams)
Faculty to which is designed	Faculty of Economics, Business and Development
Department	Department of Management and Marketing
Course Name	Marketing Research

Name of the Institution	European University of Tirana

Name of Teaching Methodology	Case Study
Faculty to which is designed	Faculty of Economics, Business and Development
Department	Department of Management and Marketing
Course Name	Services Marketing

Name of the Institution	European University of Tirana
Name of Teaching Methodology	Small group discussion and peer instruction
Faculty to which is designed	Faculty of Economics, Business and Development
Department	Department of Management and Marketing
Course Name	Project design and management

University of Gjakova "Fehmi Agani"

Name of the Institution	University of Gjakova "Fehmi Agani"
Name of Teaching Methodology	Problem Based Learning
Faculty to which is designed	Faculty of Philology
Department	English Language and Literature
Course Name	Modern Trends of Teaching
	Second Year

	Third semester
Name of the Institution	**University of Gjakova "Fehmi Agani"**
Name of Teaching Methodology	**Blended learning**
Faculty to which is designed	**Faculty of Medicine**
Department	**Nursery and Midwifery**
Course Name	**Nursery care in Surgery and Oncology**
	Second Year
	Third semester

Name of the Institution	University of Gjakova "Fehmi Agani"
Name of Teaching Methodology	**E-learning**
Faculty to which is designed	**Faculty of Medicine**
Department	**Nursery and Midwifery**
Course Name	
	Nursing care in the Internal Medicine Second Year Third semester

Universum College

Name of the Institution	**Universum College**

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Name of Teaching Methodology	Design Thinking
Faculty to which is designed	Computer Science Department
Department	Computer Science Department
Course Name	Entrepreneurship

Name of the Institution	Universum College

Name of Teaching Methodology	Problem Based Learning
Faculty to which is designed	Political Science Department and Business Department
Department	Political Science Department and Business Department
Course Name	Research Methodology

Name of the Institution	Universum College

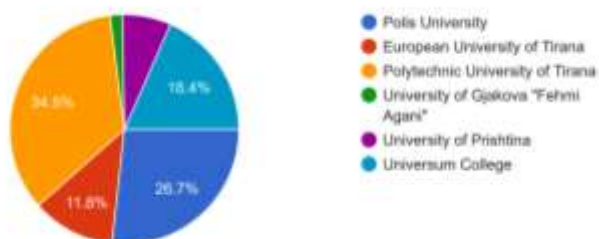| Name of Teaching Methodology	Personalized Learning
Faculty to which is designed	Business and Management
Department	Business and Management
Course Name	Internship and Career Orientation

University of Prishtina "Hasan Prishtina"

Name of the Institution	**University of Prishtina "Hasan Prishtina"**
Name of Teaching Methodology	**Project-based learning**
Faculty to which is designed	**Faculty of Electrical and Computer Engineering**
Department	**Telecommunications**
Course Name	**Coding theory and techniques (MSc)**

Name of the Institution	**University of Prishtina "Hasan Prishtina"**
Name of Teaching Methodology	**Project-based learning**
Faculty to which is designed	**Faculty of Electrical and Computer Engineering**
Department	**Telecommunications**
Course Name	**Internship course (BSc)**

Name of the Institution	**University of Prishtina "Hasan Prishtina"**
Name of Teaching Methodology	**Problem-based learning**
Faculty to which is designed	**Faculty of Electrical and Computer Engineering**
Department	**Telecommunications**
Course Name	**Information Theory (BSc)**

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STUDENT'S EVALUATION

1. Please do enter the name of your university

Participating in this questionnaire students of the universities below:

- *Polytechnic University of Tirana,*
- *Polis University,*
- *Universum College,*
- *University of Prishtina,*
- *European University of Tirana and*
- *University "Fehmi Agani" in Gjakova*

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2. Please enter the course title and course number of the class being surveyed

As we can see from the table, the classes being surveyed were:

The course title	The course number
Studio dhe Teori Arkitekture	2
Architecture	
Making Research	
Metodologjia Research	
Metodologjia e hulumtimeve shkencore	
Marketing Research	
Mjedis B Seminar fizik	2
Arkitekture dhe Dizajn Urban	1

Studio dhe Teori Arkitekture 2

Studio dhe teori arkitekture 2

.

Architecture

Marketing research

Metodologjia e hulumtimeve shkencore

Marketing Research

Mjedis B Seminar fizik 2

Arkitekture dhe Dizajn Urban 1

3. Age:
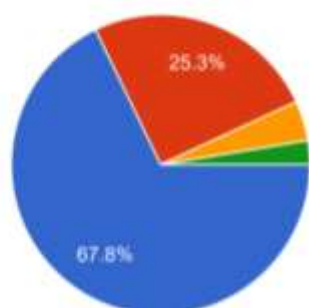
Age of students	Percentage
18-20	67.8%
21-25	25.3%
More than 30	

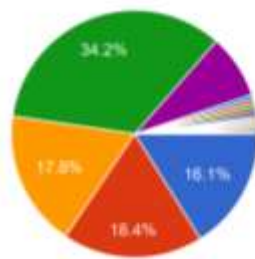Based on the age of the student's, 67.8% of the students are 18-20 years, 25.3% of them are 21-25.
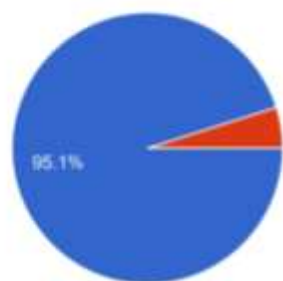
In a value of 95.1% of the students of the questionnaire have answered that they had developed new skills as a result of taking the classes, which is a very important point of the course.

4. As a result of taking this class, do you think you have developed new skills?

Student's answer	Percentage
Yes	67.8%
No	25.3%

4. Which new skills have you developed?

- critical thinking;
- problem solving;
- team working;
- deeper knowledge;
- working in the field;
- Te gjitha me siper pervec pun...
- All of above options
- All of the above

1/3

Skills developed	Percentage
Deeper knowledge	34.2%
Problem solving	18.4%
Team working	17.8%
Critical thinking	16.1%

According to the fact that the skills that were the point to be developed are in the different fields of studies, also the skills that have been developed are in some different points so with a sum of 16.1% of the students thought that they have developed critical thinking, then the 18.4 % expressed that they have developed the problem solving like a skill, 17.8% of them expressed that team working was developed, then 34.2% of the students answered with the option of the answer all of the skills needed to continue further with the course, and agreed that the course are very helpful and valuated.


- retain your job;
- obtain new employment;
- get a better job than before
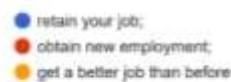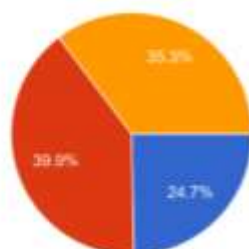
5. As a result of taking THIS CLASS, do you think you are more likely to:

The result of taking the class	Percentage
Obtain new employment	39.9%
Get a better job than before	24.7%
Retain your job	24.7%

The result of taking this class is expressed in three way of options, so the students have had the right to choose in three of them: retain your job, in which have answered 24,7%, obtain new employment, which is chosen by 39.9% of the students, and the final option is get a better job than before, which consist 35.5% of the student's opinion

6. Please select from the list below the item that most closely reflects your goal for taking this course:
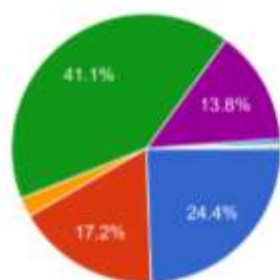
Goals for taking this course	Percentage
Fulfilling a graduation requirement;	24.4%
Personal interest or curiosity;	17.2%
Avoid working in field;	9.2%
Be able to Work in the field and seeking to improve skills;	41.1%
Not working in the field immediately but gaining skills to work in the field in the future;	13.8%

As it belongs to the items that push the students to take this course, from the answers that we got from this questionnaire, we can notice that with the 41.1% of the students did it about being able to work in the field and seeking to improve skills, then 24,4% did it about fulfilling the graduation requirement, 17,2% for personal interests or curiosity, and 13.8% did this option about the not working in the field immediately.

7. During THIS CLASS did you:

Goals for taking this course	Frequently	Only occasionally	Seldom or Never
Have the opportunity to work on assignments in teams?	200	100	25
2.If yes, seek help from team members to complete the tasks?	140	150	60
3.If yes, Coordinate with other classmates to make a group presentation?	160	130	60
4.Communicate with others to coordinate and complete tasks?	180	140	30
5.Manage problems so as to meet deadlines and complete tasks?	200	110	30
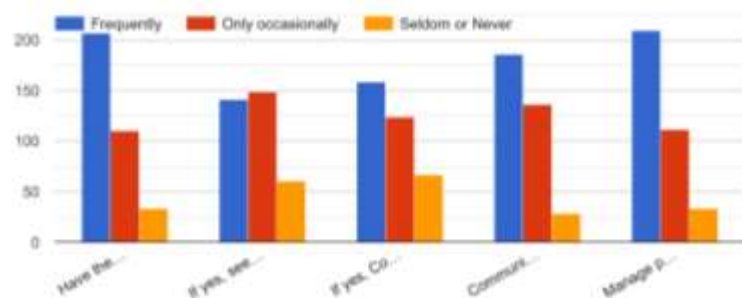
On the questions:

1. Have the opportunity to work on assignments in teams? the *Frequently* option dominates in the highest level with the 200 option of the answer, which is followed by the *Only occasionally* option with a little bit more than 100 option and *Seldom or Never* is the option under the value of 50 option of the answer.

2. If yes, seek help from team members to complete the tasks? the *Only occasionally* dominates which is immediately followed by the *Frequently* option and the *Seldom or Never* is the lowest answer in this case.

3. If yes, Coordinate with other classmates to make a group presentation? most of the students defined that they are *Frequently coordinated* with the classmates, the option *Only occasionally* includes

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approximately 150 of the students have chosen this answer, then followed by the *Seldom or Never* with approximately a level of 60 of the answer.

4. Communicate with others to coordinate and complete tasks? in this case, the students answered that they Frequently and when they need, only occasionally can freely communicate and coordinate to complete tasks.

5. Manage problems so as to meet deadlines and complete tasks? also in this question, students expressed that they are free to Frequently and when they feel they need to manage problems for example meeting deadlines and also complete the given tasks.
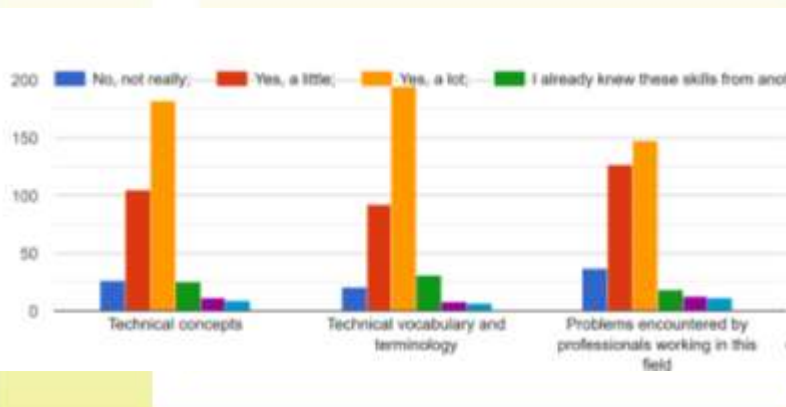
8. In the course, the scenario-based learning approach was used?
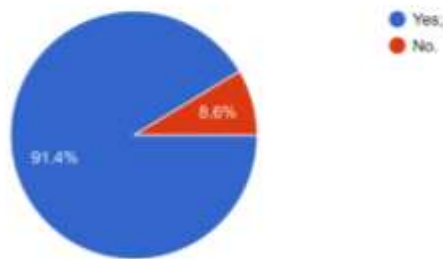
Student's answer	Percentage
Yes	91.4
No	8.6%

For a good and very impressive point the scenario-based learning approach was used, and 91,4% of the students truly defined it, but a little work should be done for the part of 8.6% that thought the other way of answering.

9. If yes, do you think the scenario-based learning approach used in this class have enhanced your learning of:

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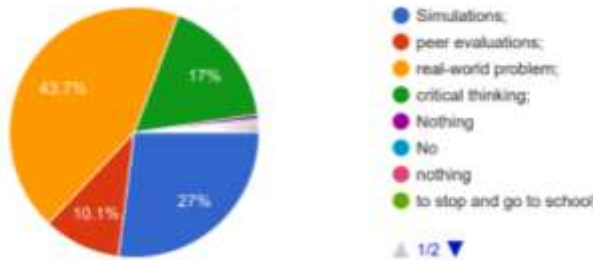| The enhance of the class	No, not really	Yes a little	Yes a lot	I already knew these skills from another class
Technical concepts	30	110	180	30
Technical vocabulary and terminology	20	90	190	25
Problems encountered by professionals working in this field	30	130	140	20

Based on the Technical concepts of the classes, then Technical vocabulary and terminology and the Problems encountered by professionals working in this field, as we can notice from the graphic view, we can see clearly that Yes a lot, is the answer that dominates, which means that the scenario-based learning approach used in this class have enhanced your learning of the pre-mentioned branches, but a little work should focus on that part of the students, so to really persuade them to totally agree.

10. What did you like the most in the new teaching methodologies used during your course?

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The description

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From the answers that this questionnaire could get as answers, we can notice that The description is a very important point that the students liked the most in the new teaching methodologies used during your course.

11. What would you like to add to the methodologies used

Add to the course	Percentage
Simulations;	27%
Peer evaluations;	10.1%
Real-world problem;	43.7%
Critical thinking;	17%

during your course?

The students had the right to answer that what would they like to add to the methodologies used during their course, so 43.7% of them wanted to add real-world problem, then 27% of them wanted to add simulations, then the 17% of them thought to add the critical thinking, and 10.1% of them wanted and thought to add peer evaluations.

12. If two sessions of a course were offered, one taught the way this course was taught and another using only traditional lecture, which one would you choose?
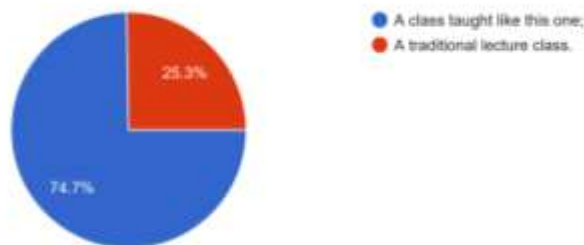
The class retention	Percentage
A class taught like this one	74.7%
A traditional lecture class	25.3%

In the question that if two sessions of a course were offered, one taught the way this course was taught and another using only traditional lecture, which one would they (the students) choose, 74.7% of them answered with the desire to have a class taught like this one, so it means that they are contended with these classes, and 25.3% are still used with the old version of having classes, so it looks from the answers that the new version has its one place, not only in practice but also in desires for the future learning.

13. How would you recommend this course to your peers?
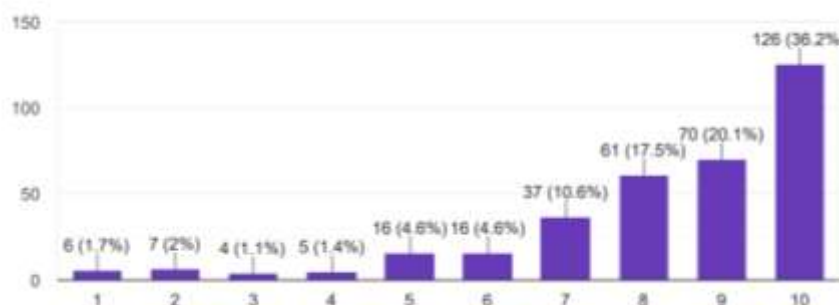
Evaluate number	Percentage
10	126 (36.2%)
9	70(20.1%)
8	61(17.5%)
7	37(10.6%)
6	16(4.6%)
5	16(4.6%)
4	5(1.4%)
3	4(1.1%)
2	7(2%)
1	6(1.7%)

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As long as this questionnaire is based on the real student's wants, desires and needs, we can see that 36.2% from the 348 questionnaires given to them gave the biggest grade of being contented and will recommend to their peers, the 20.1% have not been persuaded at the maximum to peer the class to their peers, 17.5% or 61 of the students still are in the middle of managing the situation so we still need to work with them, and the rest part has maybe to take extra course and to innovate them to agree to the maximum of being in the same level with the majority.

CONCLUSIONS

❖ About 95.1% of students answered that during this pilot courses with new methodologies they developed a new skill.
❖ Scenario based- learning was most voted methodology among students with 91.4% from the students in the Universities where questionnaire was conducted.
❖ Students intends to add "Real world problems" as a methodology in the new courses.
❖ The most important was question 12, and students voted for the courses with the new methodology than the traditional one with 74.4%.
❖ These courses where recommended to the peers from 36.6% of students.
❖ The new teaching methodology were valued as very important in some of the partner Institutions, during the accreditation process.