

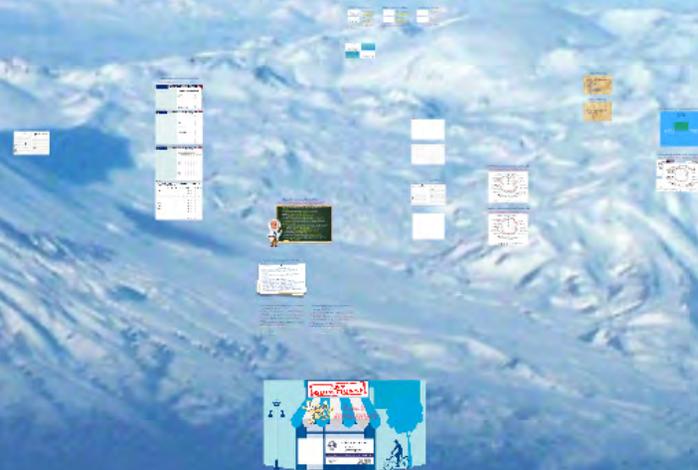


Co-funded by the  
Erasmus+ Programme of  
the European Union

Change in Classroom: Promoting  
Innovative Teaching & Learning to  
Enhance Student Learning Experience in  
Eastern Partnership Countries



# Work Group-2. Activity 1.2. Need Analysis Report on Training and Equipment

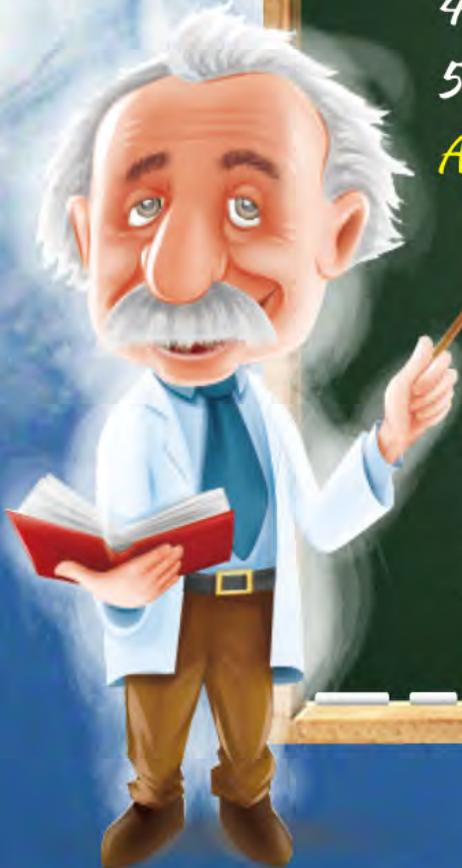


*Ruben.V. AGHGASHYAN - WG2 Leader,  
NPUA Vice-Rector*

# Timetable of Carried Out Activities

## WP1: 1.2. “Conducting Local Need Analysis”

1. Development of questionnaires for teaching staff and students, *March 01 – 31, 2018*
2. Sharing questionnaires with partners and getting their feedbacks, *March 31 – April 08, 2018*
3. Reviewing questionnaires, *April 08 – 16, 2018*
4. Provision of questionnaires to the universities, *April 16, 2018*
5. Translation of the questionnaires to native language (if desired), *April 17-24, 2018*
6. Dissemination of questionnaires among the teaching staff and students, *April 25- May 02, 2018*
7. Collecting of the surveys' results, *May 03-10, 2018*
8. Data processing, *May 11-18 2018*
9. Preparation of the local Reports' draft, *May 19-31, 2018*
10. Submission of the Report to WG2 and the Project coordinator, *June 01, 2018*



## *List of Universities Participating in the Survey*

- *Yerevan State University (YSU), Armenia*
- *National Polytechnic University of Armenia (NPUA), Armenia*
- *Vanadzor State University after H. Tumanyan (VSU), Armenia*
- *Ilia State University (ISU), Georgia*
- *Georgian Technical University (GTU), Georgia*
- *Iakob Gogebashvili Telavi State University (TeSaU), Georgia*
- *Belarusian State University (BSU), Belarus*
- *Brest State Technical University (BrSTU), Belarus*
- *Yanka Kupala State University of Grodno (YKSUG), Belarus*

# *Content of the Questionnaire for Student Learning Needs Assessment*

Section 1: General Information (3 questions)

Section 2: Teaching Styles and Approaches in Class (2 questions with 20 options)

Section 3: Learning styles and approaches (2 questions with 16 options)

Section 4: Assessment methods and approaches (1 question with 14 options)

Section 5: Use of technology, e-learning & social media for supporting learning (2 questions with 10 options)

Section 6: Facilities to support student learning (2 questions with 12 options)

Section 7: Learning materials (2 questions with 11 options)

Section 8: What I still need to say (optional)

# *Content of the Questionnaire for Teaching Staff Professional Development Needs Assessment*

Section 1: General Information (5 questions)

Section 2: Teaching styles and pedagogical approaches used in class (2 questions with 20 options)

Section 3: Learning styles and approaches (2 questions with 16 options)

Section 4: Assessment methods and approaches (1 question with 14 options)

Section 5: Use of technology, e-teaching & social media for teaching and support of learning (2 questions with 10 options)

Section 6: Facilities to support teaching (2 questions with 12 options)

Section 7: Teaching materials (2 questions with 11 options)

Section 8: What I still need to say (optional)

# Examples of Correct Answers to Questions

QUESTIONS

RESPONSES

42

2.2. Please, rate your level of need for training in the teaching styles/approaches listed below from "No need" to "High need": \*

	No need	Low need	Medium need	High need
Traditional lecturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Seminars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Laboratory works	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Workshops	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tutorials	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Fieldworks	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem based learning	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Case based teaching	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Experience based learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Project based learning (project work)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Game- simulation based learning/Role playing	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individual learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Flipped classroom (learning at your own time and using classes to interact, like asking questions, discussing, receiving feedback and	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

QUESTIONS

RESPONSES

42

4.1. How you assess your students? Please select the assessment methods/approaches listed below which you have used and those you would like to use:

	Have been experienced	Would like to experience
Assessment rubrics	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Standardized tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Instructor-assessed projects	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Classroom assessment techniques	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Review of student projects	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Essay examinations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Written reflections by teacher	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Self-evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Formative (interim) assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Summative (end-of-module) assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Written exam	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oral exam	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Portfolios (collections of student work)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Student-to-student (peer) evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>

# Some Formal Approches to the Questionneirs' Answering

## Students

QUESTIONS	RESPONSES	98		
<b>Others (if any)</b>				
<hr/>				
5.2. Please rate the forms of technology listed below which would support your learning best from "Not effective" to "Highly effective": *				
	Not effective	Less effective	Partially effective	Highly effective
Learning management systems (Google for education/ Microsoft Office 365/Moodle/Blackboard etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Chat sessions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Interactive whiteboards/smartboards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Classroom response systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Multimedia tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Communities of e-learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Digital games and simulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Online discussion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Social Media/Web 2.0 & Web 3.0 technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
E-portfolios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

QUESTIONS	RESPONSES	98
The facilities provided to students, so that they can use every opportunity to develop full potential. They include media, equipment, networks, etc. necessary for the effective and efficient learning process.		
6.1. Please select the facilities listed below, which are used to support your learning:		
Please, put your marks - X		
High speed internet/Wi-Fi	<input type="checkbox"/>	
Conventional projectors	<input type="checkbox"/>	
Interactive projectors	<input type="checkbox"/>	
Mobile (portable) projectors	<input type="checkbox"/>	
Interactive whiteboards/blackboards	<input type="checkbox"/>	
Laptop computers	<input type="checkbox"/>	
Tablet computers	<input type="checkbox"/>	
Desktop computers	<input type="checkbox"/>	
Printers	<input type="checkbox"/>	
Copiers	<input type="checkbox"/>	
Scanners	<input type="checkbox"/>	
Smartphones	<input type="checkbox"/>	

## 7.1. What kind of learning materials listed below are current for you:

Please, put your

- |  |                          |
|--|--------------------------|
| Text books                               | <input type="checkbox"/> |
| E-books                                  | <input type="checkbox"/> |
| Multimedia books                         | <input type="checkbox"/> |
| Course/lecture notes                     | <input type="checkbox"/> |
| Presentations (PP, Prezi, etc.)          | <input type="checkbox"/> |
| Presentations (narrated)                 | <input type="checkbox"/> |
| Video presentations                      | <input type="checkbox"/> |
| Video lectures                           | <input type="checkbox"/> |
| Audio/Podcasts                           | <input type="checkbox"/> |
| Open educational resources (OERs, MOOCs) | <input type="checkbox"/> |
| Instructor recorded videos & lectures    | <input type="checkbox"/> |

Assessment is the process of collecting and examining data to determine students' learning. It involves using methods and tools to identify what students know and are able to do.

## 4.1. How are you assessed? Please select the assessment methods/approaches listed below which you have been experienced and those you would like to experience:

	Have been experienced	Would like to experience
Assessment rubrics	<input type="checkbox"/>	<input type="checkbox"/>
Standardized tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Instructor-assessed projects	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Classroom assessment techniques	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Review of student projects	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Essay examinations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Written reflections by teacher	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Self-evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Formative (interim) assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Summative (end-of-module) assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Written exam	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oral exam	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Portfolios (collections of student work)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Student-to-student (peer) evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

# Some Formal Approches to the Questionneirs' Answering

## Teachers

QUESTIONS RESPONSES 67

5.2. Please rate your level of need for training in the technology-enhanced approaches used for teaching and support of learning listed below from "No need" to "High need": \*

	No need	Low need	Medium need	High need
Learning management systems (Google for education/ Microsoft Office 365/Moodle/Blackboard etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Chat sessions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Interactive whiteboards/smartboards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Classroom response systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Multimedia tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Communities of e-learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Digital games and simulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Online discussion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Social Media/Web 2.0 & Web 3.0 technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
E-portfolios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

QUESTIONS RESPONSES 67

6.1. Please select the facilities listed below, which are used to support your teaching:

Please, put your marks - X

High speed internet/Wi-Fi	<input type="checkbox"/>
Conventional projectors	<input type="checkbox"/>
Interactive projectors	<input checked="" type="checkbox"/>
Mobile (portable) projectors	<input type="checkbox"/>
Interactive whiteboards/blackboards	<input type="checkbox"/>
Laptop computers	<input type="checkbox"/>
Tablet computers	<input type="checkbox"/>
Desktop computers	<input type="checkbox"/>
Printers	<input type="checkbox"/>
Copiers	<input type="checkbox"/>
Scanners	<input type="checkbox"/>
Smartphones	<input type="checkbox"/>

Others (if any)

A process in which teachers apply a variety of instructional strategies to communicate and interact with students around academic content, and to support student engagement. The manner in which teachers deliver their knowledge and skills while interacting with the students in their classrooms.

## 2.1. How do you teach? Please select teaching styles and pedagogical approaches listed below currently used by you in class:

Please, put your marks - X

Traditional lecturing	<input checked="" type="checkbox"/>
Seminars	<input type="checkbox"/>
Laboratory works	<input type="checkbox"/>
Workshops	<input type="checkbox"/>
Tutorials	<input type="checkbox"/>
Fieldworks	<input type="checkbox"/>
Problem based learning	<input type="checkbox"/>
Case based teaching	<input type="checkbox"/>
Experience based learning	<input type="checkbox"/>
Project based learning (project work)	<input type="checkbox"/>
Game - simulation based learning/Role playing	<input type="checkbox"/>
Individual learning	<input type="checkbox"/>
Flipped classroom (learning at your own time and using classes to interact, like asking questions, discussing, receiving feedback and working in groups)	<input type="checkbox"/>
Discussions/debates	<input type="checkbox"/>
E-teaching/Web- or Multimedia enhanced teaching	<input type="checkbox"/>
Focus group teaching	<input type="checkbox"/>
Active learning	<input type="checkbox"/>
Teaching in small groups (team learning)	<input type="checkbox"/>
Research based teaching	<input type="checkbox"/>
Hybrid/blended teaching (a combination of face-to-face classes and online learning methods)	<input type="checkbox"/>

## 2.2. Please, rate your level of need for training in the teaching styles/approaches listed below from "No need" to "High need": \*

	No need	Low need	Medium need	High need
Traditional lecturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Seminars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Laboratory works	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Workshops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Tutorials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Fieldworks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Problem based learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Case based teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Experience based learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Project based learning (project work)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Game- simulation based learning/Role playing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Individual learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Flipped classroom (learning at your own time and using classes to interact, like asking questions, discussing, receiving feedback and working in groups)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Discussions/debates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
E-teaching/Web- or Multimedia enhanced teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Focus group teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Active learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Teaching in small groups (team learning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Research based teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Hybrid/blended teaching (a combination of face-to-face classes and online learning methods)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

# Technical Problems Found Out During the Surveys

## Damaged questionnaire

Erasmus+ Programme

QUESTIONS RESPONSES 39

academic content, and to support student engagement. The manner in which teachers deliver their knowledge and skills while interacting with the students in their classrooms.

2.1. How do you teach? Please select teaching styles and pedagogical approaches listed below currently used by you in class:

Laboratory works

Workshops

Tutorials

Fieldworks

Problem based learning

Case based teaching

Experience based learning

Project based learning (project work)

Game - simulation based learning/Role playing

Erasmus+ Programme

QUESTIONS RESPONSES 35





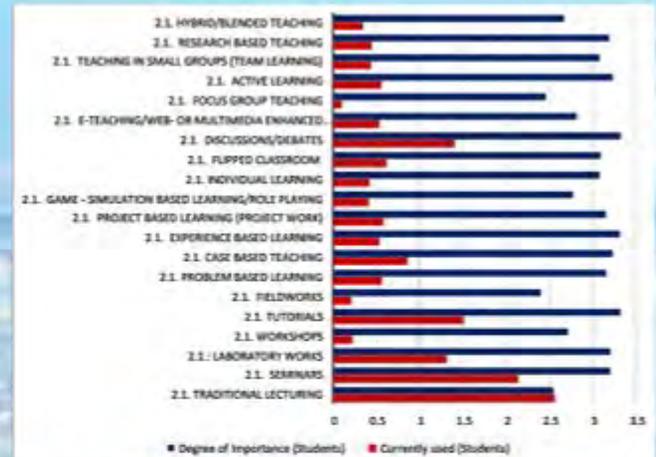
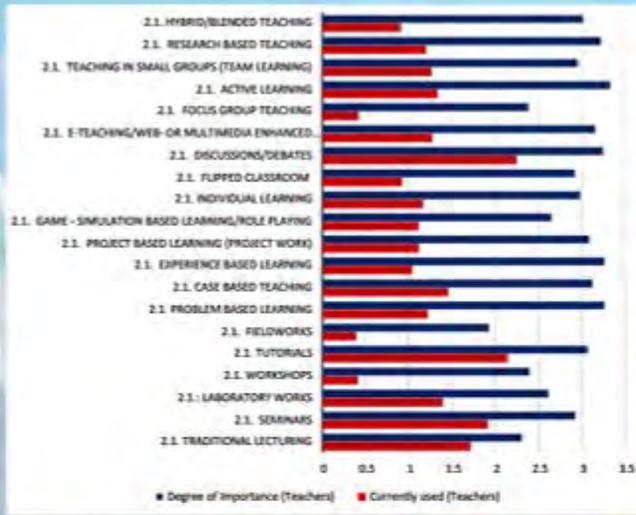


*Some Integral Rezults of Armenian Universities' Surveys*

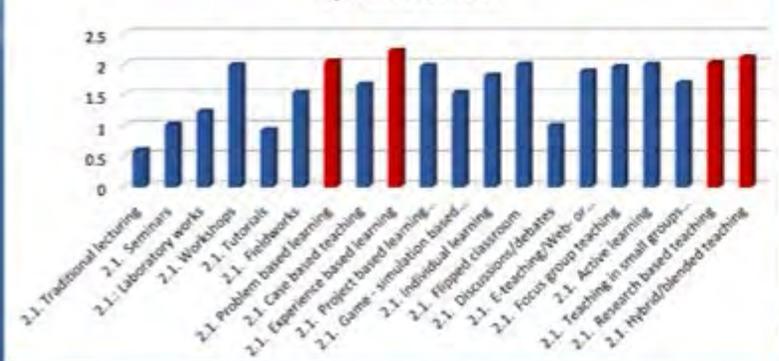


# Sumerazed Rezults of Teaching Staff and Students Surveys

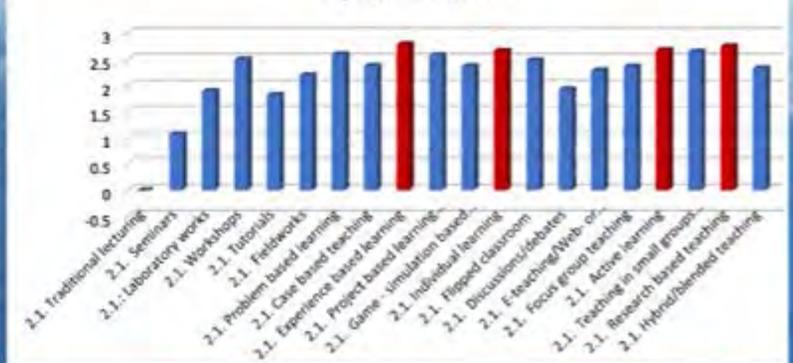
## Section 2: Teaching Styles and Pedagogical Approaches



Top 20% Teachers



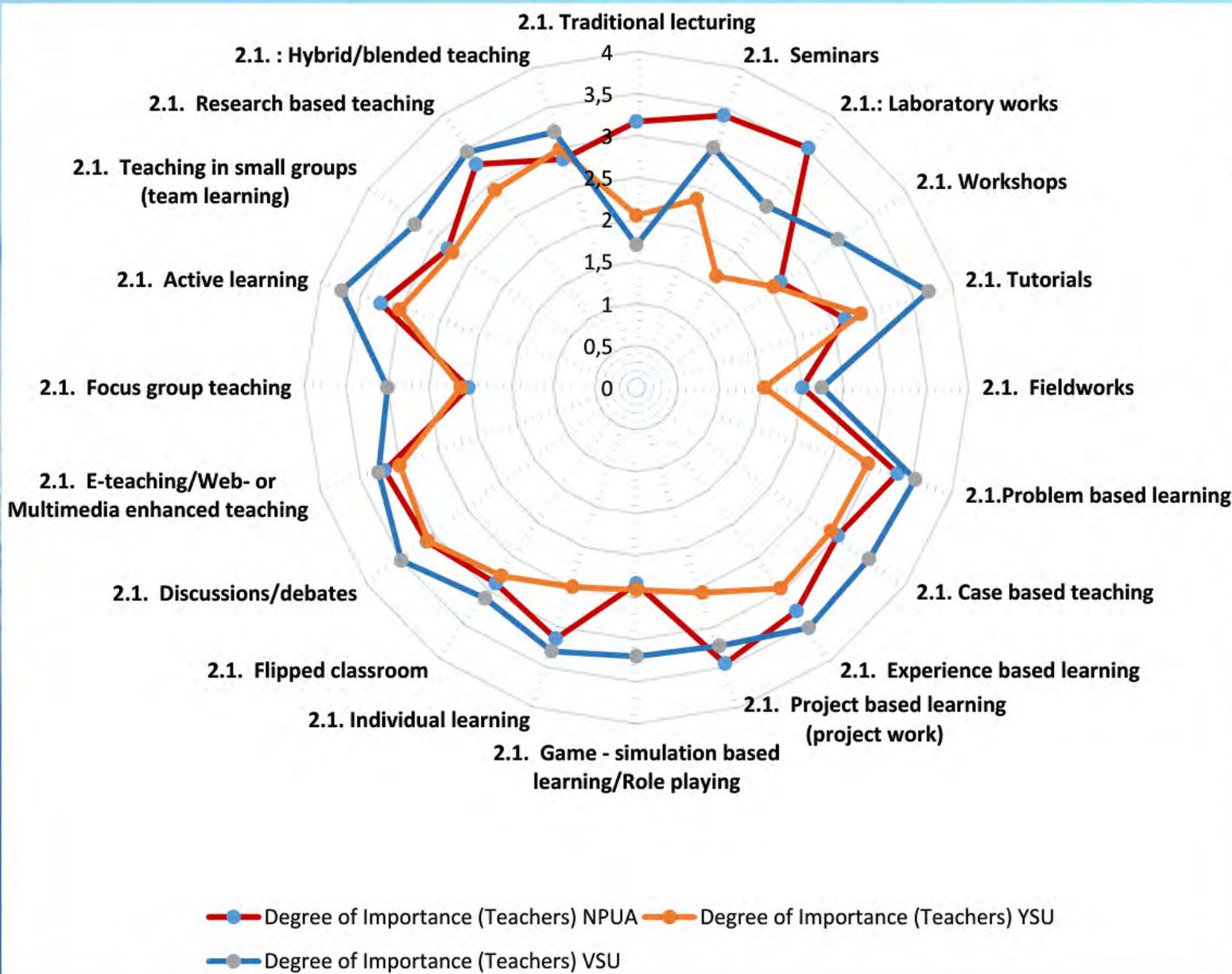
Top 20% Students





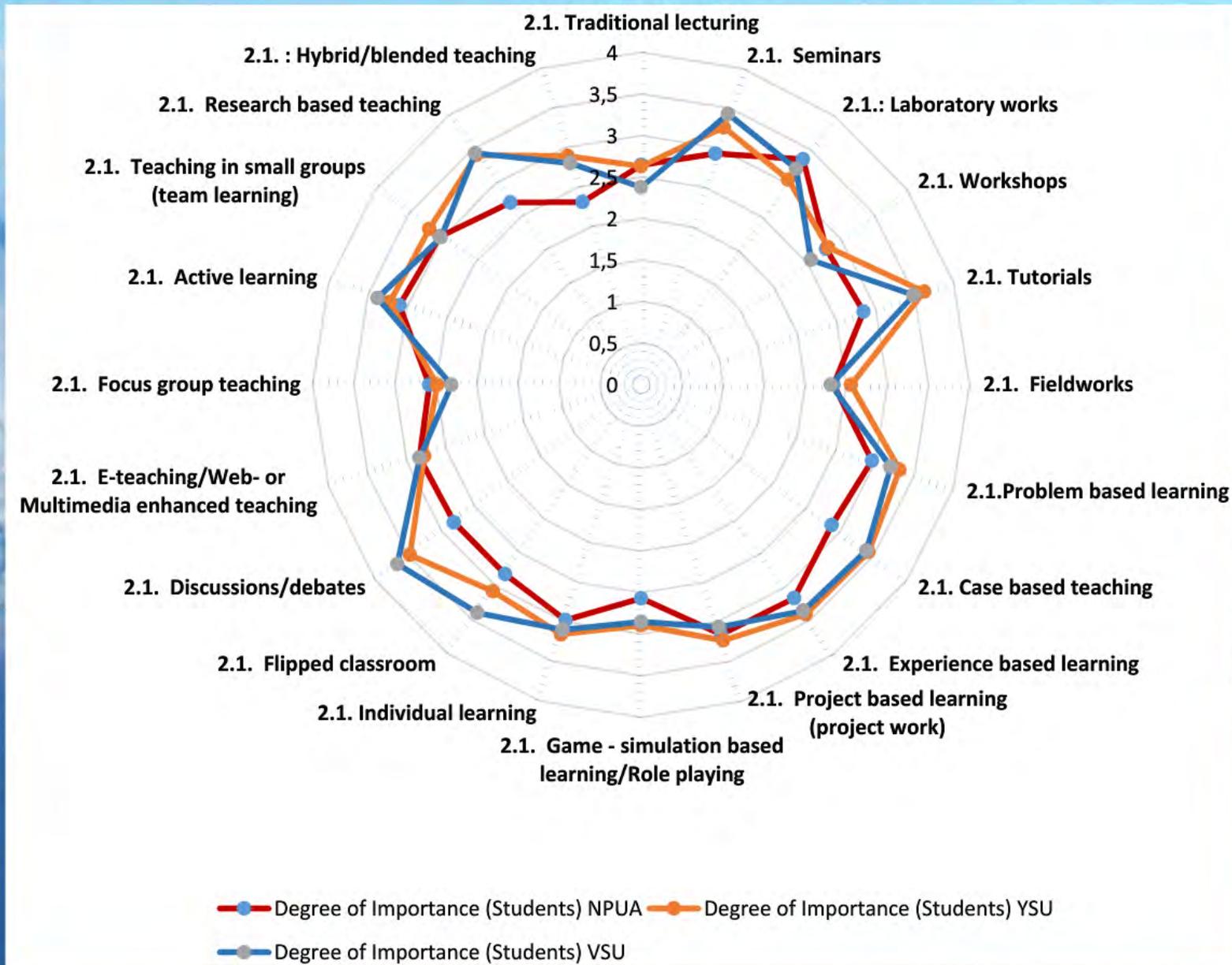
# Comparison of Teachers Surveys' Results of the Universities

## Section 2: Teaching Styles and Pedagogical Approaches

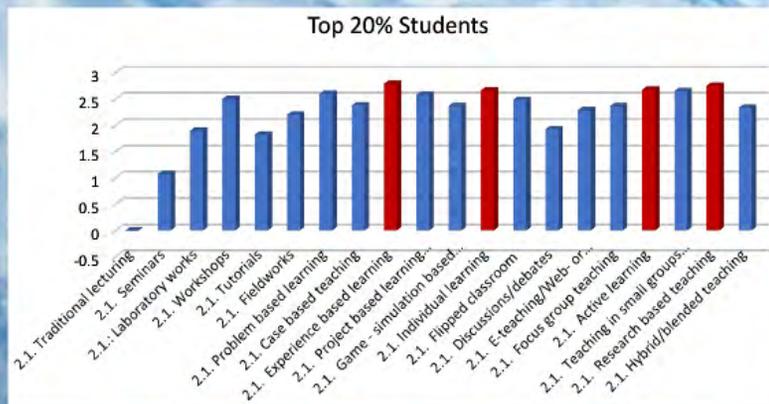
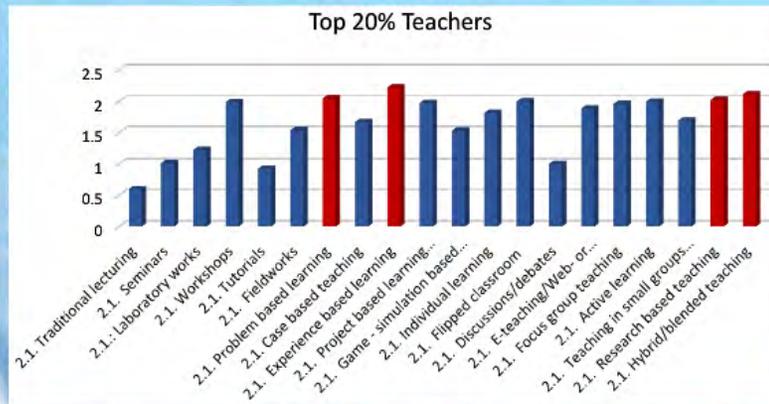


# Comparison of Students Surveys' Results of the Universities

## Section 2: Teaching Styles and Pedagogical Approaches



# Section 2: Teaching Styles Approaches



## Teachers

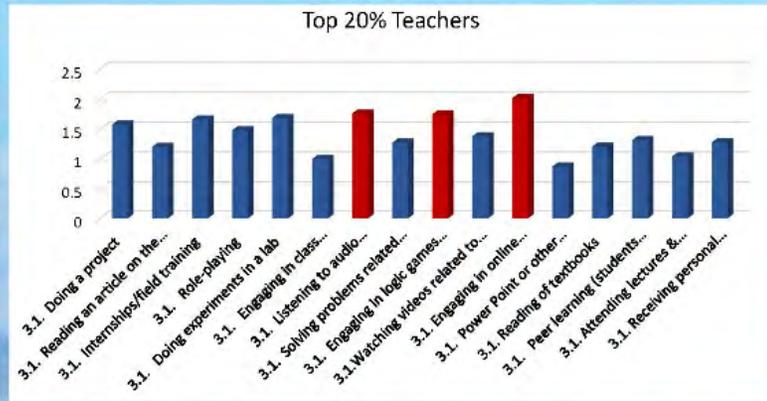
- 2.1. *Problem based learning*
- 2.1. *Experience based learning*
- 2.1. *Research based teaching*
- 2.1. *Hybrid/blended teaching*

## Students

- 2.1. *Experience based learning*
- 2.1. *Individual learning*
- 2.1. *Active learning*
- 2.1. *Research based teaching*

В этой секции все три армянских вуза выделяют важность технологий **Experience based learning** и **Research based teaching**. Причем аналогичного мнения придерживаются преподаватели и студенты. Преподаватели отдают предпочтение также технологиям **Problem based learning** и **Hybrid/blended teaching**, о которых говорилось в презентационной части докладов в Университете Барселоны и которые обсуждались также в ходе дискуссии. Выделенное студентами трех вузов **Active learning and Individual learning** имеет более низкий приоритет по позиции need of training.

# Section 3: Learning Styles Approaches

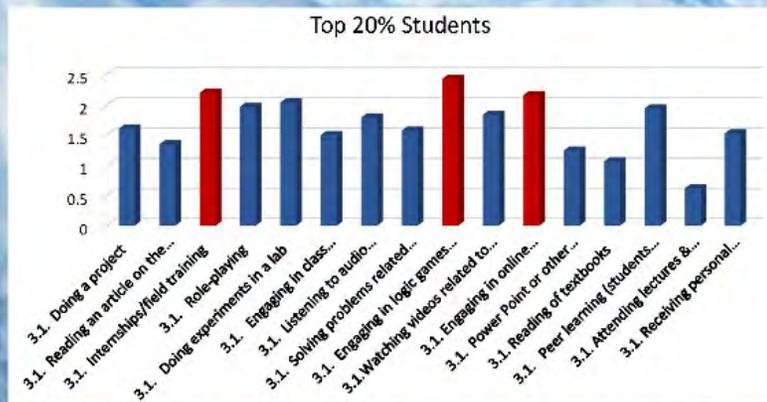


Teachers

Listening to audio recorded lecturers or podcast

Engaging in online discussion questions

Engaging in logic games and brainteasers



Students

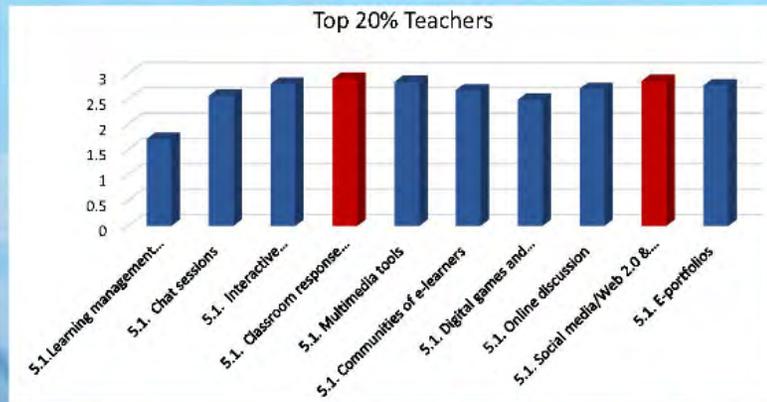
Internships/field training

Engaging in logic games and brainteasers

Engaging in online discussion questions

В этой секции по части преподавателей и студентов трех вузов Армении стопроцентное совпадение по технологиям **Engaging in logic games and brainteasers** и **Engaging in online discussion questions**, что не требует дополнительных комментариев.

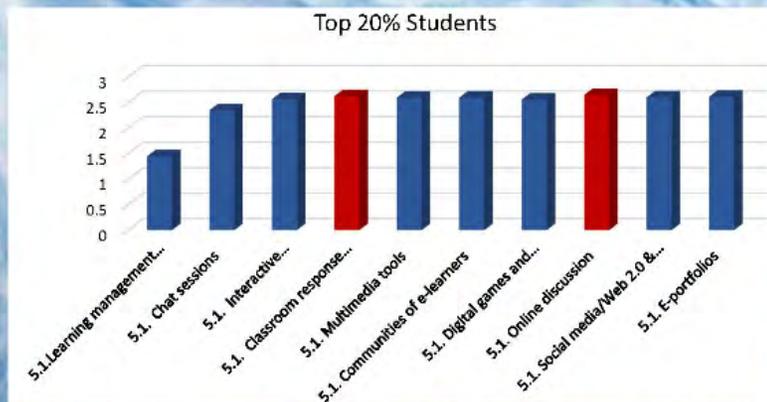
# Section 5: Use of technology



Teachers

Classroom response systems

Social media / Web 2.0 & Web 3.0 technologies



Students

Classroom response systems

Online discussion

В этой секции общим выбором является **Classroom response systems**. Выбор близких по смыслу **Social media / Web 2.0 & Web 3.0 technologies** и более узкой но практически идентичной **Online discussion**, также является свидетельством продуманного и обоснованного выбора представителями преподавательского состава и студенчества армянских вузов.

# Summing up Remarks on Armenian Training Needs

## Innovative and Technology-Enhanced Teaching and Learning

### First Priority

- *Problem based learning*
- *Hybrid/blended teaching*
- *Research based teaching*

### Second Priority

- *Experience based learning*
- *Internships/field training*
- *Listening to audio recorded lecturers or podcast*
- *Engaging in online discussion questions*
- *Engaging in logic games and brainteasers*

# Summing up Remarks on Armenian Training Needs

## **New Forms of Teaching and Learning Materials**

- *Social media / Web 2.0 & Web 3.0 technologies*
- *Classroom response systems*
- *Online discussion*

**ANY  
QUESTIONS?**

*Thank  
you*

*Ruben.V.  
AGHGASHYAN*



**Dr. RUBEN AGHGASHYAN**

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