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

PRINTeL
Promoting Innovative Teaching & Learning

ERASMUS+ CBHE PROJECT # 585760-EPP-1-2017-1-AM-EPPKA2-CBHE-JP

PRINTeL

"CHANGE IN CLASSROOM: PROMOTING INNOVATIVE TEACHING & LEARNING TO ENHANCE STUDENT LEARNING EXPERIENCE IN EASTERN PARTNERSHIP COUNTRIES"

QUALITY EVALUATION REPORT

WP 2 DELIVERABLES

Prepared by FH JOANNEUM

March 2021

PRINTeL – List of abbreviations commonly used in PRINTeL documents

AC Academic Council

DEV Development

DISS Dissemination

EPC European Partner Country

HEI Higher Education Institute

LP Lead Partners

OER Open Educational Resources

OP Operational Plan

PC Partner Country

PRP Peer Review Program

T&L Teaching and Learning

TEC Technology Enhanced Classrooms

TF Task Force

TOR Terms of Reference

TOT Training of Trainers

TSDC Teaching Strengthening Staff Development Centers

TT Teacher Training

QA Quality assurance

QC Quality Control

QC&M Quality Control and Monitoring

QEC Quality Evaluation Committee

VATL Virtual Academy of Teaching and Learning

WG Work Group

WP Work package

Yx Year x

Partner HEIs: Institutions' names and acronyms **Lead partner**

P1 YSU Yerevan State University – Yerevan, Armenia ……WP7

P2 NPUA National Polytechnic University of Armenia – Yerevan, Armenia ……..WP1

P3 VSU Vanadzor State University after H. Tumanyan – Vanadzor, Armenia

P4 ISU Ilya State University – Tbilisi, Georgia …….. WP2

P5 GTU Georgian– Tbilisi, Georgia ……..WP4

P6 TeSaU Iakob Gogebashvili Telavi State University – Telavi, Georgia

P7 BSU Belarusian State University – Minsk, Belarus …… WP3

P8 BrSTU Brest State Technical University – Brest, Belarus …… WP6

P9 YKSUG Yanka Kupala State University of Grodno – Grodno, Belarus

P10 NCSRHE National Center for Strategic Research in Higher Education – (YSU) Yerevan, Armenia

P11 KU Leuven Katholieke Universiteit Leuven – Leuven, Belgium ……..WP5

P12 UB Universitat de Barcelona – Barcelona, Spain

P13 UP Universidade do Porto – Porto, Portugal

P14 LiU Linköping Universitet – Linköping, Sweden

P15 FHJ FH Joanneum Gesellschaft mbH – Graz, Austria

INTRODUCTION

The QEC of PRINTEL was set-up to safeguard and guarantee the effective accomplishment of PRINTEL's objectives as well as exercise continue evaluation and provide recommendations so that all activities are implemented accordingly and to the agreed high standard. The main task of the Committee is to assure the quality of all products. As part of the QEC within the PRINTEL project, FH JOANNEUM has produced the present quality report to evaluate the outcomes of Workpackage 2. For this purpose, the indicators assigned to WP 2 deliverables in the project proposal have been applied. The quality report will not only reflect on the quality of the respective deliverables but will also highlight any gaps, along with recommendations for enhancement on how to address them and improve the results. Overall, the WP 2 processes and communicative mechanisms benefitted from the very high level of commitment of all partners.

The current quality report was focused on:

1) The analysis of the activities implementation of WP 2

2) The analysis of the main results achieved

3) Providing recommendations considering the main results of the deliverables

PLANNED ACTIVITES of Year 2: OVERVIEW & TIMEFRAME

WORKPLAN for project year 2

Activities		Total duration (number of weeks)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Ref.nr/ Sub-ref nr	Title													
WP.2	**(DEV): Capacity building of teaching staff**	**62**												
2.1	Organization of in-house teacher training (TT) courses	16	xxxx	xxxx	xxxx	xxxx								
2.2	Organization of workshop to fine-tune TT courses	6				xxxx	xx							
2.3	Adoption of the TT courses at TSDCs	8					xxxx	xxxx						
2.4	Piloting innovative T&L methods in PC HEIs curricula	16					xxxx	xxxx	xxxx	xxxx				
2.5	Evaluation of students' feedback & follow-up	16									xxxx	xxxx	xxxx	xxxx
WP.3	**(DEV): Creating Virtual Academy of T&L (VATL)**	**80**												
3.1	Defining functionalities and the design of the conceptual model for VATL portal	4	xxxx											
3.2	Development & testing of ICT solutions/software for VATL	28	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx					
3.3	Acquisition of software, hardware & studios for VATL support at PC HEIs	12			xxxx	xxxx	xxxx							
3.4	Development of procedures & guidelines for publishing OER content	12						xxxx	xxxx	xxxx				
3.5	Training of TSDC's trainers on preparation of OER materials	10							xx	====	====			
3.6	Operationalization of the VATL	14									xx	xxxx	xxxx	xxxx
WP.5	**(QPLN): Quality Control & Monitoring (QC&M)**	**6**												
5.2	Internal monitoring & evaluation of project activities	2						x						x
5.3	Evaluation of project WPs' quality	2	xx											
5.4	Annual external quality control activities	2												xx
WP.6	**(DISS): Dissemination & Exploitation**	**36**												
6.1	Creation & maintenance of the project website	2						x						x
6.2	Publication & dissemination of information materials and the teacher's handbook	20						xxxx	xxxx	xxxx	xxxx			xxxx
6.3	Organisation of press conferences & interviews	2	x						x					

Besides the permanently ongoing Project Management activities in WP7, the activities for Year 2 of the PRINTEL project are in WP2, 3 5 & 6. The activities scheduled for this evaluation period were adequate and challenging but possible to carry out. Considering the current circumstances, the consortium turned the threat of the pandemic into a great opportunity to solve the most pressing needs of the partner concerned. A retrospective look at the beginning of 2020 did not presage a pandemic situation like the one we are experiencing, no one really had a contingency plan for this type of risk that falls under the category of "black swan". However, it put to the test many capacities of the members of the consortium, with which they were able to achieve almost more than the planned results.

ANALYSIS BY ACTIVITY/PERFORMANCE INDICATOR OF WP 2

WP2 Capacity building of teaching staff: Activities and Outcomes

The activities of WP 2 started in January 2019 after the TOT courses in the EU partner universities were finished. WP 2 was lead by PC Partner ISU.

WP2.1 Trained teaching staff

Aims of WP 2.1– Adjustment of 5 TOT courses (from 5 EU partners) by trained trainers of Georgia, Armenia and Belarus to the local needs and organization of In-house teacher training courses (TT) in all 9 PC HEI partner home universities. The in-house trainings of the teaching staff (TT) were conducted between February and March 2019.

Expected outcomes – TOT course participants run Teacher-Training (TT) courses and 530 PC HEI's teaching staff were trained through these courses that aimed at developing their innovative & technology enhanced T&L skills

Expected deliverables - "5-day TT courses" in 9 PC partner universities & 9 TT course evaluation survey reports on TT Courses

Based on **predefined selection criteria** teaching staff have been selected to participate in the TT courses.

96 Trainers in 9 PC partner countries implemented the TT trainings for 1629 participant.

The total number of TT Course *participants* from all the universities	**1629**
The total number of TT Course *trainers* from all the universities	**96**

- P1. YEREVAN state university (YSU) **16 Trainers / 261** Staff trained
- P2. NATIONAL POLYTECHNIC UNIVERSITY of Armenia (NPUA) **11 Trainers / 125** Staff trained
- P3. Vanadzor State University after H. Tumanyan (VSU) **6 Trainers / 71** Staff trained
- P4. Ilia state university (ISU) 15 Trainers / **203** Staff trained
- P5. GEORGIAN TECHNICAL UNIVERSITY (GTU) **11 Trainers / 335** Staff trained
- P6. Iakob gogebashvili telavi state university (TeSaU) **6 Trainers / 162** Staff trained
- P7. BELARUSIAN state university (BSU) **15 Trainers / 278** Staff trained
- P8. BREST STATE TECHNICAL UNIVERSITY (BrSTU) **10 Trainers /134** Staff trained
- P9. Yanka Kupala State University of Grodno (YKSUG) **6 Trainers / 60** Staff trained

Each trainer, participated in the TOT courses, was supposed to run 1 TT in-house training.
Feedback Questionnaires have been developed in local languages and in English and have been structured as follows:

- Section-1. Objectives and content of the training
- Section-2. Quality of the instruction
- Section-3. Trainer/instructor
- Section-4. Benefits/results
- Section-5. Your opinion on the training

All supporting documents are uploaded on the Printel website containing

- TT Course Timetables
- TT Course Syllabi
- Participants Lists
- Evaluation Feedbacks

1. http://printel.am/category/trainings/in-house-teacher-training-course-at-ysu
2. http://printel.am/category/trainings/in-house-teacher-training-course-at-nati
3. http://printel.am/category/trainings/in-house-teacher-training-course-at-vana
4. http://printel.am/category/trainings/in-house-teacher-training-course-at
5. http://printel.am/category/trainings/in-house-teacher-training-course-at-geor
6. http://printel.am/category/trainings/in-house-teacher-training-course-at-iako
7. http://printel.am/category/trainings/in-house-teacher-training-course-at-bela
8. http://printel.am/category/trainings/in-house-teacher-training-course-at-bres
9. http://printel.am/category/trainings/in-house-teacher-training-course-at-yank

Notes & Remarks:
Supporting working documents for the implementation of the TT courses have been designed and provided by LP Armenia in a very professional way: templates for the Syllabus and common List of participant's templates. The Syllabus template has been designed specifically for a short-term training course intended for academic staff and included basic information about the TT course: Title of the course, workload, course purpose, learning outcomes, course methodology/instructional strategies and recommended texts, technical requirements and Quality Assurance.

PC partners were free to modify or amend the given templates according to their needs and in line with their context.

The TT courses have been conducted in local languages.

All individual TT course reports were outlined on the same report scheme and are available on the PRINTeL website (http://printel.am/page/pd-for-wp-2)

Organizational aspects concerning WP 2.1 & WP2.2 activities:

The original work-plan has foreseen 2 different mobilities (as for 2.1: 10 EU trainers (2 per EU partner) will visit PC HEIs to support and facilitate the implementation of the TT courses & as for 2.2 (1 person per EU partner) will travel to YSU to support the fine-tuning of the designed TT courses. However, since EU partners participation in the TT courses was very complicated due to the TTs' spread timetables and locations (February-March, in 7 cities) the Lead-Partner decided to merge the 2 mobility flows into one big event: a workshop in Yerevan that took place on 23 – 24th May 2019 to fine-tune the in-house TT courses implemented by PC partners (see activity 2.2). The combination of this two WP activities reduced the travel time for all EU project partners and the respective expenses without compromising the quality of

WP 2.2. Recommendations for improvement of teacher training (TT) courses

Aims of WP 2.2. Organization of a feedback Workshop (16 &17 May 2019 in YEREVAN) on the delivered in-house TT courses, to accommodate and fine-tune them for the further regular usage at PC HEIs TSDCs.

Expected outcomes: Recommendations for improvements of TT courses from partners from all PC and EU HEIs, as well as local teachers and student representatives

Expected deliverables:

- **1 Feedback Workshop on the in-house TT courses in Yerevan to fine-tune TT courses**
- **5 Reports on Recommendations**

Feedback Workshop:

The main purpose of this workshop was to optimize and refine the newly designed TT courses and to bring in a wider perspective of the EU partners for their further regular use. The local (Armenian) teachers and student representatives have been involved to provide feedback on the delivered TT courses. Based on the findings of the Workshop as well as post-training feedback survey/evaluation results the TT courses have been fine-tuned for the further adoption and usage in the PC HEIs TSDCs.

Key TOT trainers and local coordinators from the EU partners took part in the workshop. In the 1st half of the workshop, participants were engaged in five parallel sessions on innovative and technology-enhanced active teaching and learning methods and instructional technologies. The methods learned have been discussed in mixed groups of trainers under the lead of the EU partners. The final plenary sessions were scheduled with presentations of conclusions & recommendations where students also had the opportunity to actively give feedback on the delivered TT courses.

The recommendations and findings presented in the reports of Parallel Sessions Workgroups for fine-tuning of TT courses at PC universities are uploaded on the PRINTEL Website

Reports of Recommendations:

All findings and recommendations and results of the 5 working groups, representing the 5 T&L methods are summarized in the 5 reports:

1) "ACTIVE LEARNING WITH SPECIAL FOCUS ON TECHNOLOGY ENHANCED LEARNING"
   http://printel.am/uploads/page/pdfs/Report%20of%20Discussion%20Group-1.pdf
2) "ACTIVE LEARNING & ICT-ENHANCED LEARNING: M-LEARNING & GAMIFICATION"
   http://printel.am/uploads/page/pdfs/Report%20of%20Discussion%20Group-2.pdf
3) "VIDEO AS A LEARNING TOOL FOR TEACHERS AND STUDENTS"
   http://printel.am/uploads/page/pdfs/Report%20of%20Discussion%20Group-3.pdf
4) "ACTIVE LEARNING IN THE FLIPPED CLASSROOM"
   http://printel.am/uploads/page/pdfs/Report%20of%20Discussion%20Group-4.pdf
5) HYBRID/BLENDED TEACHING & LEARNING"
   http://printel.am/uploads/page/pdfs/Report%20of%20Discussion%20Group-5.pdf

Main findings of the working groups of the teachers of the TT courses in PC HEIs on how to adapt the TT courses into the TSDCs can be summarized as follows:
Poor computer skills among both teachers and students and the poor technological infrastructure, equipment are major challenges followed by a lack of motivation on behalf of teachers to change their traditional teaching in class. Students do not want to spend more time for self-directed work.
The enhancement of communication with students in class should therefore be increased as well as the number of teacher trainings in a more frequent conduction. The working groups also emphasized the establishment of "support groups" consisting of methodologists, psychologists, experts in the particular field. The support could also include professional help, for example by peer trainers or trainings and student's

assessments. As to raise the motivation for students, the use of Facebook as a learning tool could also be helpful.

Almost all groups agreed on the fact, that new trainings must be continuous and cross-linked to each other. But finally it is important to convince the management as well to invest into new and innovative teaching and learning methods and to be open for innovation and something new.

Main requirements for success of implementing new methodologies at the PC HEIs has been mentioned: 1. attitude change, 2. logistics & technologies & classroom infrastructure 3. time for piloting 4 involvement of quality control units 5 Teachers' support from the institution to motivate them to change their methodology 6. student's assessments in order to enable teachers to measure the effectiveness of their teaching. 7. developing activities for following up and continuous communication among teachers & students 8. community of practice.

2.3. Regular TT courses in TSDCs

Aims of WP 2.3 Adoption of TT courses at TSDCs: Based on post-TT training evaluations and feedback from the workshop in May 2019, 5 new courses have to be organized in Teaching Staff Development Centres for regular usage. According to the universities TSDC plans and organizational peculiarities, the planned adapted TT trainings should be implemented.

All regular trainings of the 1st stage at PC HEIs TSDCs should have been completed by December, 2019. But this deadline was prolonged to End of February 2020. Finally, regular TT courses were conducted until End of 2020.

Expected outcomes: Revision and modification of regular teaching staff development programs at TSDCs in order to integrate the newly designed TT courses

Expected deliverables:

- **Conducting TT trainings at TSDC's in 9 PC HEIs (recruitment of trainers, preparation of timetables of regular teacher trainings. & enrolment of teachers in TT courses)**
- **Training evaluation surveys & follow up report**

For implementation of this activity the following tasks were envisaged:

2.3.1. Recruitment of trainers from amongst 5 TOT course participants by TSDC staff

2.3.2. Fine-tuning of the teacher training (TT) courses by selected trainers for adaptation and regular usage at TSDC

2.3.3. Approval of the newly designed TT courses and trainers by university administration

2.3.4 Preparation of timetables of the regular TT courses to be delivered at TSDC by TSDC staff

2.3.5 Organization of enrolment of teachers in the TT course

2.3.6 Conducting the TT trainings and post training feedback surveys, production of the follow up reports

TT- trainings at TSDC

The training courses have been adopted in TSDCs by PC HEIs as regular courses. TSDC regular teacher training (TT) courses carried out within the PRINTeL project from Spring 2019 to End of 2020 (due to Corona).

The purpose of the teacher training courses at PC HEIs was not only to develop the lecturers' professional skills but also to enhance their ability to use innovative teaching technologies in their class. For the reporting, the LP provided the PC HEIs partner with information on how to produce the post-training feedback reports. The following common structure was given:

- 1 page narrative description of the trainings (how many, by whom, name of the courses, etc.)
- 1 list of the regular TT trainings carried out

The results have been uploaded on the Printel website: http://printel.am/page/pd-for-wp-2

The detailed results are summarized as follows:

1) P1 YEREVAN state university (YSU)
   - 29 regular trainings were carried out by 9 TSDC trainers in 5 innovative T&L methods during October 2019 – July 2020
   - 499 YSU teachers have been trained

2) P2. NATIONAL POLYTECHNIC UNIVERSITY of Armenia (NPUA
   - 10 regular trainings were carried out by 5 TSDC trainers in 5 innovative T&L methods during October 2019 – December 2020
   - 137 NPUA teachers have been trained

3) P3. Vanadzor State University after H. Tumanyan (VSU)
   - 5 regular trainings were carried out by 6 TSDC trainers in 5 innovative T&L methods during October 2019 – December 2019
   - 11 VSU teachers have been trained

Note: the number of trained teachers per course was 11; the total number of 5 courses was the same: 11If the teachers have been the same, then it is correct. If not, it should be changed

4) P4. Ilia state university (ISU)
   - 5 regular trainings were carried out by 6 TSDC trainers in 5 innovative T&L methods during October 2019 – December 2019
   - 53 ISU teachers have been trained

5) P5. GEORGIAN TECHNICAL UNIVERSITY (GTU)
   - 11 regular trainings were carried out by 11 TSDC trainers in 5 innovative T&L methods during February 2020 – June 2020
   - 264 GTU teachers have been trained

***Note**: it is mentioned in the report, that GTU has trained 385**.in Spring 2019 & therefore in total 649; but there is no evidence given in the report on the name of the trainers, the date of the courses and the topic and number of trainees in each course.*

6) P6. Iakob gogebashvili telavi state university (TeSaU)
    - ❖ 5 regular trainings were carried out by 4 TSDC trainers in 5 innovative T&L methods during May 2020
    - ❖ 44 TeSaU teachers have been trained

7) P7. BELARUSIAN state university (BSU)
    - ❖ 27 regular trainings were carried out by 11 TSDC trainers in 5 innovative T&L methods during September 2019 – December 2020
    - ❖ 182 BSU teachers have been trained

8) P8. BREST STATE TECHNICAL UNIVERSITY (BrSTU)
    - ❖ 10 regular trainings were carried out by 6 TSDC trainers in 5 innovative T&L methods during November 2019 – February 2020
    - ❖ 62 BrSTU teachers have been trained

9) P9. Yanka Kupala State University of Grodno (YKSUG)
    - ❖ 5 regular trainings were carried out by 5 TSDC trainers in 5 innovative T&L methods during September 2019 – October 2019
    - ❖ 63 YKSUG teachers have been trained

To sum up:

The total number of trainers that have been trained are **1700.**

The number of trained teachers varied from one PC HEI to the others.

In total, **107 trainings have been carried out by 63 trainers.**

The numbers of trainees that have been retrained after in house trainings are impressive and reflects the level of quality of trainers, their engagement and motivation.

2.4 Adopted innovative T&L practices

Aims of WP 2.4: Piloting innovative T&L methods in PC HEIs curricula. Trained trainers and teachers will be piloting acquired innovative and technology enhanced T&L methods in their regular classes with students.

Expected outcomes: Revision of syllabi, new student assessment criteria and procedures and development of a survey questionnaires

Expected deliverables: Delivery of Revised courses & feedback evaluation surveys

For implementation of this activity the following tasks were envisaged:

2.4.1. Revision of the course teaching, learning and assessment activities/methods by all the TT trainers and some trained teachers in their respective subject areas to introduce the innovative and technology-enhanced T&L methods/concepts learned

2.4.2. Delivery of the revised courses in regular student classes by the abovementioned teaching staff

2.4.3. Conducting feedback evaluation surveys by the teachers and producing reports

2.4.4 Providing the list of the teachers and subject courses delivered with application of new T&L by the local coordinators

The revised courses on innovative T&L methods in PC HEI's Curricula have been conducted and piloted in regular student classes and the reports are uploaded on the PRINTEL website*:* *http://printel.am/page/pd-for-wp-2*

For these activities, the LP has provided a common reporting framework: a list containing name of teachers, department, position, subject course delivered in Fall 2019 or Spring 2020, innovative and technology enhanced T&L method applied and number of students involved (in English).

2	Arine Danielyan	Faculty of Philology/Chair of Foreign Languages, Associate Professor	Business English, Skills of Oral Communication, Practical and Theoretical phonetics	Blended learning-E-learning,Moodle, Easy Generator, Trello, Flipped Classroom, Gamification	80
3	Kristine Ghazaryan	Faculty of History and Geography/ Chair of Philosophy and Politology, Associate Professor	Labor Law Labor disputes Constitutional Law	Mentimetre, Polleverywhere, Google Drive, Kahoot, Canva, Adobespark	24
4	Vanane Mirzoyan	Faculty of Pedagogy /Chair of Psychology and Sociology, Associate Professor	Psychosomatic Experimental Psychology Psychodiagnostic Course works, diploma works and thesis	Blended Learning-videolessons, e-Portfolio, Trello	110

Example by VSU

The detailed results of the feedback evaluation surveys by teachers are summarized as follows:

1) P1 YEREVAN state university (YSU)

❖ 29 subject courses were delivered to 85 students by 9 trainers of YSU

2) P2. NATIONAL POLYTECHNIC UNIVERSITY of Armenia (NPUA

❖ 16 subject courses were delivered to 836 students by 11 trainers of NPUA

Notes: in the report, 1 course is listed in local language; this should be changed

3) P3. Vanadzor State University after H. Tumanyan (VSU)

❖ 6 subject courses were delivered to 372 students by 6 trainers of VSU

4) P4. Ilia state university (ISU)

- 9 subject courses were delivered to 703 students by 9 trainers of ISU

5) P5. GEORGIAN TECHNICAL UNIVERSITY (GTU)

- 11 subject courses were delivered to 199 students by 11 trainers of GTU

6) P6. Iakob gogebashvili telavi state university (TeSaU)

- 5 subject courses were delivered to 109 students by 5 trainers of TeSaU

7) P7. BELARUSIAN state university (BSU)

- 6 subject courses were delivered to 479 students by 6 trainers of BSU

8) P8. BREST STATE TECHNICAL UNIVERSITY (BrSTU)

- 31subject courses were delivered to 838 students by 31trainers of VSU

9) P9. Yanka Kupala State University of Grodno (YKSUG)

- 15 subject courses were delivered to 306 students by 6 trainers of VSU

Notes: the total number of students is not reported.

To sum up:

117 revised courses on innovative T&L methods in PC HEI's Curricula have been conducted and piloted with 3927 students in regular classes by **93 teachers**

Some courses out of this pool are noted here: Internet Systems Design / Soil mechanics, foundations and foundations/ Intellectual Property Management Fundamentals/ History of Belarus, Politology, Religion Studies, Sociology/ History of culture/ Accounting and analysis/ History of the English Language / Scientific and Technical Literature: Translation Problems, Workshop on Writing Linguistic Scientific Work/ Basics of Business Analysis in the field of Software Development/ Government and Political Processes in Georgia/ Viticulture winemaking management and vine making marketing / Verbal and written communication/ Basics of toxicology/ Macroeconomics/ Corporate Law/

The courses cover a wide range of topics. This demonstrates that the new T&L methods can be implemented easily in the syllabi of the regular classes.

2.5. Follow-up report

Aims of WP 2.5 Evaluation of students' feedback and follow-up: The activities of the TSDCs should be significantly enhanced by introducing new teacher training programs to students

Expected outcomes: 9 Institutional Task Forces (TFs) will collect all student feedbacks on the new T&L practices at PC HEIs

Expected deliverables*:* 9 Follow-up reports on student's feedback on the impact & drawbacks with recommendations for improvement (in English)

For implementation of this activity the following tasks were envisaged:

2.5.1. Collection of student feedbacks on new T&L practices at respective departments by PC HEIs institutional Task Force

2.5.2. Preparation of follow-up reports on the impact & drawbacks with recommendations for improvement by the Task Force

2.5.3. Dissemination of the reports amongst the internal stakeholders concerned by the Task Force

The main output of WP 2.5 was an **aggregated institutional report** on the Students' Feedback revealing the impact and drawbacks of the innovative T&L methods applied followed by appropriate recommendations for improvements. **8 individual Students** feedback reports were outlined in the same way and were structured as follows:

- Introduction & General Information
- The Analysis of Survey Results
- Conclusion
- Guidelines for Future Undertakings

Only BREST STATE TECHNICAL UNIVERSITY (BrSTU) has been structured the report individually as follows:

- Importance of feedback in assessment.
- The purpose and objectives of the survey
- Methodology and criteria of the survey
- Number of respondents and selection of participants
- Analysis of the results
- Strengths of the implementation of innovative forms of education
- Weaknesses of the implementation of innovative forms of education

All 9 reports have been finished and delivered (in English & local language) and are available on the PRINTEL website*: http://printel.am/page/pd-for-wp-2.* The surveys have been delivered in spring 2020.

The purpose of the survey: to analyze the effectiveness of innovative forms of training implementation in the framework of the PRINTeL project at the PC HEI's to identify strengths and weaknesses of the contents and teaching methods.

The questionnaires have been developed individually.

1) P1 P1 YEREVAN state university (YSU)

- A feedback questionnaires was filled in by **362 students**

The Survey contains the following questions:

- How was the process of the course going in general?
- Please mark to what extent you agree with the following statement. "Students' participation and involvement/engagement in the course was encouraged" (5 – absolutely agree, 1 – absolutely disagree)

- Please mark to what extent you agree with the following statement. “The teaching and learning methods applied during the course evoked interest towards the topic and encouraged my learning” (5 – absolutely agree, 1
- How would you rate on a 5-point scale the efficiency of communication between the lecturer and the audience (5 – the highest point, 1 – the lowest point)?
- Please rate on a 5-point scale the lecturer’s application of active and innovative approaches to the course delivery (5 – the highest point, 1 – the lowest point)
- How often were active and innovative methods of teaching and learning applied during the course?
- In your opinion, which of the active and innovative methods of learning mentioned above are useful for the acquisition of material (please, mark all the relevant options)?
- Please mark to what extent you agree with the following statement. “As a result of the course I have gained team working and cooperation skills which I will be able to use in the future” (5 – absolutely agree, 1 – absolutely disagree)
- Would you like your other courses to be held in the same way, with the application of the similar methods and approaches?
- How was the course useful for you in general?

Based on the results it can be summarized that the majority of the students emphasized positive attitude and enthusiasm towards the fact of active and innovative methods application. Moreover, the students considered the used innovative and teaching methods as useful, applicable, interesting, engaging, motivating, necessary.

2) P2. NATIONAL POLYTECHNIC UNIVERSITY of Armenia (NPUA

❖ **192 undergraduate** and master students studying in the educational programs of NPUA took part in the survey

The following questions have been asked:

- Which innovative teaching methods have been used throughout the course?
- Which Learning methods have sparked interest in the subject and promoted my studying?
- Active participation and interactive discussions in the learning process were encouraged.
- Student lecturer interaction was not limited to classroom discussions but online communication and electronic correspondence were used.
- A number of teaching methods were used during the course (e.g. teacher and participant’s presentations, group discussions and teamwork, etc.)
- The time allocated for the learning process was effectively used by the lecturer.
- The provided training materials and electronic literature during the course were helpful.
- The use of innovative technologies contributed to the full mastering of the course.
- As a tutorial, materials, audio/video lectures were given that helped to prepare for the exams and doing work yourself?

Based on the results of the assessment surveys, it can be assumed that the use of innovative technologies to support teaching efficiency and quality of trained lecturers has had a positive impact on the level of student satisfaction.

3) P3. Vanadzor State University after H. Tumanyan (VSU)

❖ **99 students** (86 bachelors, 13 masters) from 5 operating faculties took part in the surveys, w

Questions of the questionnaire to be answered:

- How interesting does the topic provided become while using innovative T&L methods and IT tools in comparison with a traditional lesson?
- To what extent the topic provided becomes understandable/accessible while using innovative T&L methods and IT tools in comparison with a traditional lesson?
- To what extent is the applicability of the topic provided obvious while using innovative T&L methods and IT tools in comparison with a traditional lesson?
- To what extent is creativity stimulated while using innovative T&L methods and IT tools in comparison with a traditional lesson?
- To what extent is independence promoted, while using innovative T&L methods and IT tools, compared to the traditional way of teaching?
- To what extent is concentration promoted, while using innovative T&L methods and IT tools, compared to the traditional way of teaching?
- To what extent is imagination promoted by the use of innovative T&L methods and IT tools in comparison with traditional lessons?
- To what extent is the general activity of the audience stimulated by the use of the latest information technologies in comparison with the traditional lesson?
- To what extent is the cooperation between the fellow students promoted while using innovative T&L methods and IT tools compared to the traditional way of teaching?
- To what extent is the cooperation with the lecturer stimulated by the use of innovative T&L methods and IT tools in comparison with a traditional lesson?
- Evaluate the possibilities of the management time while using innovative T&L methods and IT tools compared to the traditional way of teaching.
- Do you want to conduct more lessons using innovative T&L methods and IT tools?"

Based on the survey results it can be stated, that the new methods in the classroom has a good effect on the learning process of students. New T&L methods and tools enables students to stay focused for longer which brings them academic success, sustain the interest of students through graphics, videos etc.

4) P4. Ilia state university (ISU)

❖ **277 students** took part in the survey

The questionnaire was set up as follows:

- My expectations were met at the end of the course
- The lecturer was using innovative teaching methods while teaching (e.g Moodle, Feedback)
- Methods and activities the teacher was using while lecturing was interesting and stimulating
- During the seminars I had opportunity to work on practical activities.
- I could ask questions and express my opinions freely during the lectures.
- I will be able to use theoretical and practical knowledge gained during the lectures and seminar s in the future.
- Would you recommend this subject to your friends?
- My overall attitude to this subject
- In your opinion, how useful is application of electronic tools in teaching together with classical meth ods?
- Do electronic platforms/tools increase students' motivation?

- Video-lectures lead to better results (than lectures in the auditorium, since it is possible to re-watch them later)
- Platforms for online teaching and learning (Padlet, Trello, Kahoot, etc.) are convenient and easy to a pply13. I wish all lecturers would apply electronic tools/methods in all courses

Based on the results 77% of students emphasized that their expectations have been met at the end of the course. Moreover, for most of the students, distance learning and online teaching using innovative methods is comfortable and acceptable.

5) P5. GEORGIAN TECHNICAL UNIVERSITY (GTU)

❖ **In total 188 students** gave feedback to 12 courses

The questionnaire was set up as follows:

- General Information (The name of the course; The name, surname of the lecturer; The name of the educational program; Academic degree (bachelor, master).
- Please mark how the process of the course was going in general.
- Please mark to what extent you agree with the following statement. “The teaching and learning methods applied during the course evoked interest towards the topic and encouraged my learning”.
- Please mark to what extent you agree with the following statement. “Students’ participation and involvement/engagement in the course was encouraged”.
- How often were active and innovative methods of teaching and learning applied during the course.
- Please rate on a 5-point scale the lecturer’s application of active and innovative approaches to the course delivery.
- Please rate on a 5-point scale the efficiency of communication between the lecturer and the audience.
- Please mark to what extent you agree with the following statement. “As a result of the course I have gained team working and cooperation skills which I will be able to use in the future”. 3 ERASMUS+ CBHE PROJECT # 585760-EPP-1-2017-1-AM-EPPKA2-CBHE-JP
- In your opinion, which of the active and innovative methods of learning mentioned below are useful for the acquisition of material.
- Please, evaluate how the course was useful for you in general.
- Would you like your other courses to be held in the same way, with the application of similar methods and approaches.
- Please, mention what changes you would like to see within the frame of the course in the respect of making it more efficient, active and interesting.

Based on the results of the surveys provided at GTU it can be mentioned that there is a quite high percentage of traditional teaching methods and at the same time a clearly identified tendency of using innovative and technology enhanced T&L methods. Especially in regard to COVID 19 and its consequences. More than 60% of students rated the efficiency of communication between the lecturer and the audience as most important.

6) P6. Iakob gogebashvili telavi state university (TeSaU)

❖ **56 students** took part in the survey and filled in the questionnaire

The questionnaire contained 11 questions:

- Please mark how the process of the course was going in general.
- The teaching and learning methods applied during the course evoked interest towards the topic and encouraged my learning
- Students' participation and involvement/engagement in the course was encouraged.
- How often were active and innovative methods of teaching and learning applied during the courses?
- How do you rate the efficiency of communication between the lecturer and the audience?
- Rate the efficiency of communication between the lecturer and the audience
- As a result of the course I have gained team working and cooperation skills which I will be able to use in the future
- Students were asked to mark all the options of the active and innovative methods of learning which they thought was useful for the acquisition of material.
- Would you like your other courses to be held in the same way, with the application of the similar methods and approaches?
- Open-ended question: What changes would you like to see within the frame of the course in the respect of making it more efficient, active and interesting.

As a conclusion, the majority of the students have been enthusiastic and keen on Innovative teaching and learning methods and claimed that the newly courses were delivered successfully and effectively.

7) P7. BELARUSIAN state university (BSU)

- First stage: **202** survey feedbacks, 189 students and 17 undergraduates
- Second stage: **206** students took part in

The following objectives within the first stage of the survey were set:

- to determine students' participation in the courses, the issue of active engagement in the learning process fostered by the teaching staff;
- to reveal the frequency of teaching staff's active and innovative methods application in the teaching process, as well as students' level of satisfaction concerning that issue;
- to figure out students' preferences in terms of active and innovative methods usefulness from the perspective of course material acquisition;
- to find out students' attitude to the trained lecturers' teaching with active and innovative methods and approaches, as well as their willingness of the mentioned methods and approaches to be applied by other lecturers;
- to collect students' suggestions related to making the courses more efficient, active and exciting

The questionnaire of the surveys covered the objectives mentioned above.

A second stage of the survey tried to find out the student's perspective regarding active and innovative teaching and learning methods that has been used individually for each teacher: here they were asked to evaluate the effectiveness of communication between the teacher and the audience and to find out recommendations for improving the educational process. These questions have been added to the second stage questionnaire.

8) P8. BREST STATE TECHNICAL UNIVERSITY (BrSTU)

❖ **838 students** have been asked for given feedback through the following questions:

- "Please note how the education process as a whole was organized
- "Please indicate to what extent do you agree with the following statement. "
- "How often have active and innovative teaching and learning methods been used during the course?"
- "What innovative teaching methods and interactive platforms were used during the training:
- "In your opinion, which of the active and innovative teaching methods mentioned below are useful for acquiring material:
- "Evaluate on a scale of 1 – 5, the lecturer's use of active and innovative approaches to the course"
- "Evaluate on a scale of 1-5 the effectiveness of the lecturer's communication with the audience"
- "Please rate how useful the course was for you as a whole: Useful. Applicable in the future. Interesting. Motivating. Necessary.
- "Would you like your other courses to be taught in the same way using similar methods and approaches?
- "Due to the use of active and innovative teaching methods by teachers: My motivation has increased. The digestibility of educational material has increased. My productivity has improved. It has become more convenient for me to work. Control over my teaching activities has increased on the part of the teacher.

Based on the results of the survey it can be stated, that most students liked innovative teaching methods and would like to see such forms of training in other disciplines. Most students (80%) rated 4 and 5 when it comes to the use of innovative forms of teacher training on a five-point scale, where 5 is great. Finally, the majority of the students stated that innovative methods of teaching have caused their interest and increased their motivation. The analysis at BrSTU also revealed weaknesses in the implementation of innovative teaching and learning methods. Among others, there is a need for practical orientation of innovative learning. By using the experiences of experts in the field this would be achieved through the implementation of real projects, for example.

9) P9. Yanka Kupala State University of Grodno (YKSUG)

❖ **98 students** participated in the survey

In order to achieve the mentioned aims, the following objectives were set:

The questionnaire of the survey covered the **same questions than P1 YSU.** The same applies to the conclusions & recommendations. See also CONCLUSIONS 2.5.

In total, 2063 students in 9 PS HEI's have been participated in the courses and feedback surveys.

CONCLUSIONS

There were no major difficulties regarding the development of this work package despite the pandemic. The flexibility of the project has been a key point for the proper development of WP2, this has allowed the deadlines to be adapted Additionally, coordination is effective between the Lead-partner and co-leaders and goes very hand in hand with the commitment to the project.

Additionally, it can be highlighted that major parts of WP 2 could be completed successfully before COVID-19 pandemic. The experience and competences of the partners involved in the WP and the convincing division of labor and co-operation between European and partners from Georgia, Armenia & Belarus can be seen as a major strength. Second strength to be highlighted is the quality of planning, beginning with the project proposal that is regarded as excellent especially the linkages between WPs and corresponding timelines. To sum up, WP 2 had significant strengths in terms of execution, distribution of work among all partners and planning. Especially the task sequences as well as the linkages of WP2 to other WP have been planned very good. Regarding the time-schedule it would be interesting to have an indicator that allows the comparison between what was planned with what was actually executed. (Actual progress - Gap closure). This kind of indicator is not only interesting in this project but also it could be used as a real measure for future projects.

As for WP 2.1

The expectations in terms of numbers of participants in the TT trainings have been more than met: The number of enrolled participants has been higher than the success indicator defined in the proposal (530). Also, the participants' feedback can be regarded as widely positive. The good feedback from the course participants supports the assumption that also important qualitative indicators could be met. In summary, more than 1600 teachers were trained in PC HEIs between February 2019 and December 2020 considering that the project indicator was 530 teachers. The TT courses have been a success, even taking into account the intensity of the modules and workload. Participants made practical experiences and gained knowledge and competences concerning innovative teaching and learning methods. The feedback reports give very good insight into the training contents and expectations met with widely positive assessments. During the TT courses participants learned a lot about theoretical and practical best practices of the European universities colleagues. Besides, the participants also had the opportunity to share their personal experiences of using new teaching and learning methods in their teaching practice while teaching different courses.

Two minor remarks can be given: *most of the feedback reports available on the PRINTEL homepage are in local languages, some om them are mixed (local & English) and therefore not really helpful from the quality evaluation point of view. Further learnings could be achieved if there would also have been an assessment from the trainers' / instructors' points of view. E.g.: their evaluation of workloads and quality of results.*

As for WP 2.2

The evaluation of the fine-tuning workshop in Yerevan reflects, that 66,1% of the participants have been very satisfied with the conference and the outcomes, almost 30,6% of them were satisfied and only 3,2% have been quite satisfied. The average evaluation of the responses rated the overall organization highly positive and most of the topics have been covered by the program. ***Some minor suggestions of improvements can be given****: presentations should be sent beforehand and the number of the presentations within the plenary sessions should be more aim-specific. In order to get better comparable outcomes of all 5 sessions, the*

structure of the working groups should have been defined slightly more precisely. The common goal to define innovative recommendations has not been met in all working group presentations.

As for WP 2.3

In general, the restructuring of some parts of the WP2.3 activities to online-interaction has worked very well. Due to the COVID-19 pandemic, trainings, that have been planned as face-to-face activities with the target group had to be transformed into online formats. ***Nevertheless, some minor issues have been recognized concerning the quality of the post training feedback report****s: Although the LP has provided the PC HEI partners with a standardized specification on how to report, the range of reporting was very wide and varies greatly between the 9 partners: from short, keyword-like statements to detailed descriptions of the individual courses carried out. The feedback is very subjective (from the trainer's perspectives), as there was no common questionnaire to achieve comparable results. A syllabus of each training was not available on the website.*

As for WP 2.4

The revised courses on innovative T&L methods in PC HEI's Curricula have been successfully conducted and piloted in regular student classes. ***As a short note****: It would have been interesting to know to what extent the syllabus had been adapted or changed.*
Additionally, ***Student survey reports by each individual trainer/teacher*** *in PDF format should have been elaborated according to the survey questionnaire prepared by YSU. The reports provided did not meet these requirements as they only summarized the numbers of subject courses, teachers and students.*

As for 2.5

All partners delivered the students evaluation reports in time and the final results are uploaded on the Printel website. Nevertheless, some minor concerns have been spotted: the required student feedback reports differ widely in the way it was set up. On the one hand, there are no standardised formats; each partner has created its own questionnaire individually. Therefore, it is more difficult to compare the results. Moreover, different approaches have been taken in the implementation of the survey as well. P7 BSU, for example, started with an assessment of the trainer and asked the students to give feedback in two stages. Others reported the individual feedback results consecutively (P5 GTU) rather than the required cumulative report. The final conclusions and Guidelines for Future Undertakings are very much similar to those from YSU